

Thurgood Marshall Academy 2026 Renovations

2427 Martin Luther King Jr Ave SE
Washington DC 20020

Construction Documents

February 20, 2026 (FOR BID)

ARCHITECTURAL

A-0 Cover Sheet
A-0.1 Code Analysis Sheet
AD-1 Demo Plan
AD-2 Demo RCP
A-1 Floor Plan
A-2 Reflected Ceiling Plan
A-3 Furniture Plan
A-4 Detail Plans and Elevations
A-5 Detail Plans and Elevations
A-6 Partition Types, Door Schedule, Details

MECHANICAL

M-1 Mechanical Cover Sheet
M-2 Third Floor Mechanical Demo Plan
M-3 Third Floor Mechanical Plan
M-4 Mechanical Schedules & Details

ELECTRICAL

E-1 Electrical Cover Sheet
E-2 Third Floor Lighting Demo Plan
E-3 Third Floor Electrical Demo Plan
E-4 Third Floor Lighting Plan
E-5 Third Floor Electrical Plan
E-6 Third Floor Fire Alarm Plan
E-7 Electrical Schedules and Details
E-8 Electrical Schedules and Details

PLUMBING

P-1 Plumbing Cover Sheet
P-2 Third Floor Plumbing Demo Plan
P-3 Third Floor Plumbing Plan

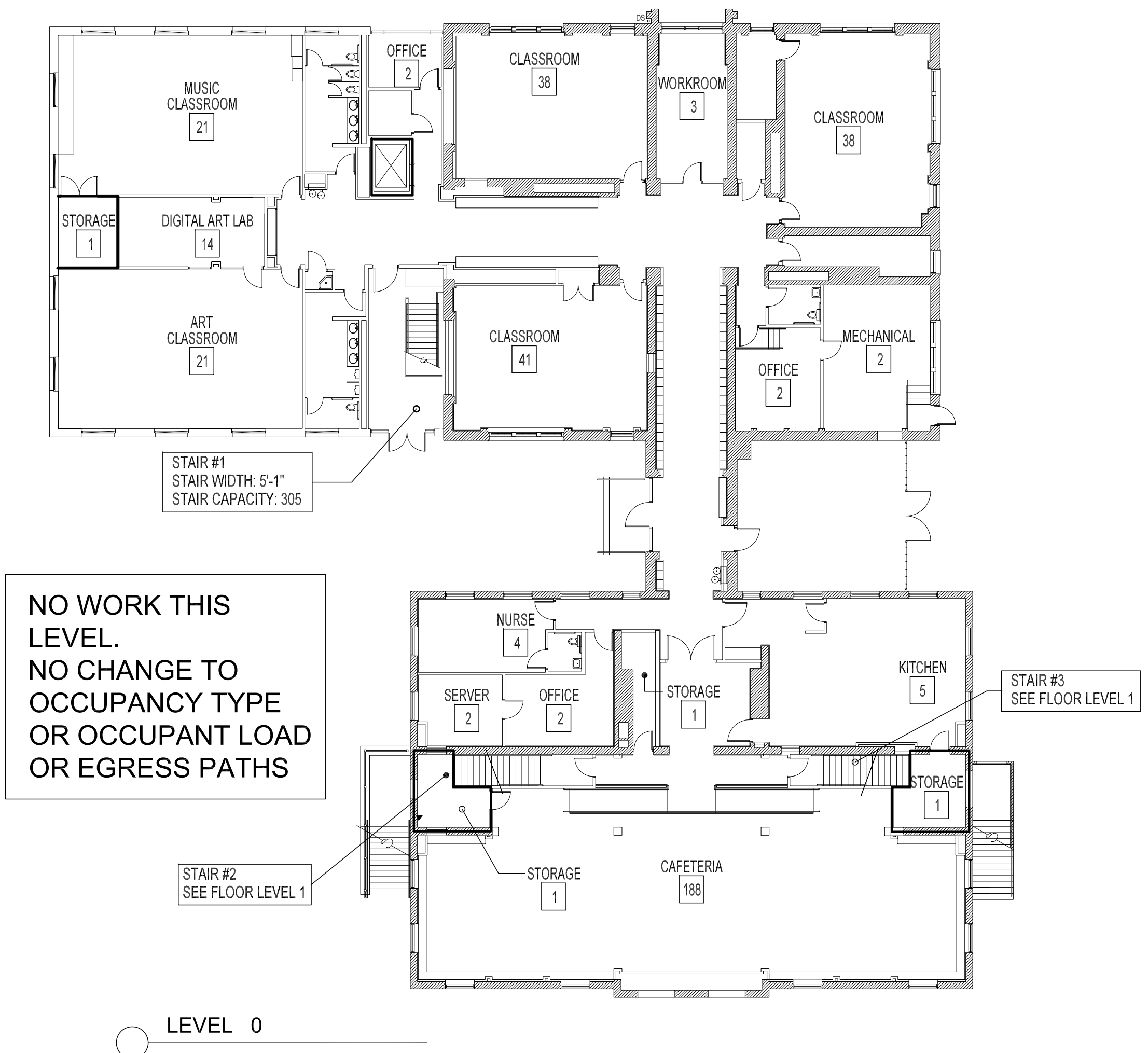
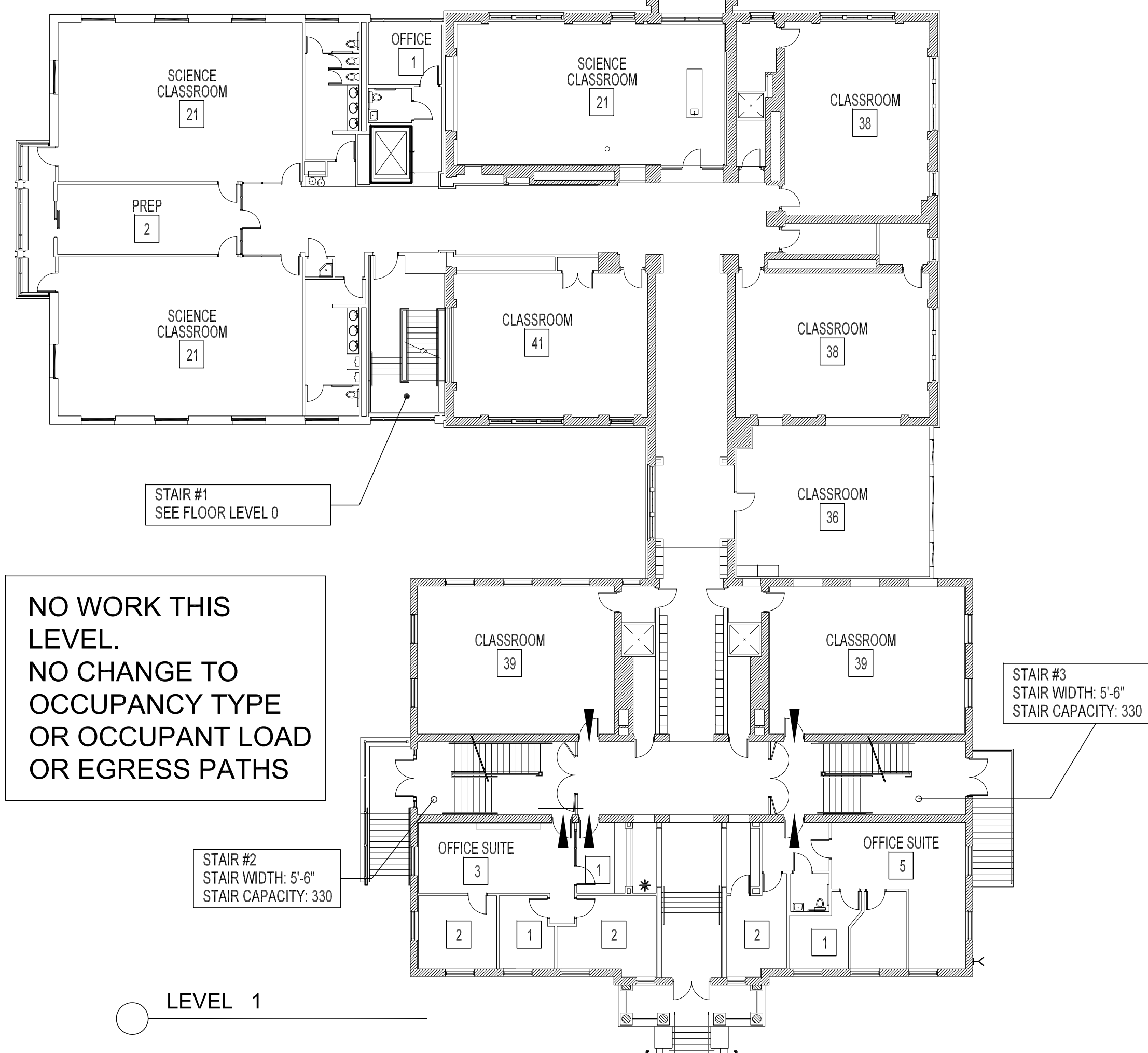
Construction Documents

Project Issue Date
CDS 2 / 20 / 2026

Project Number:
55-25105-00

COVER SHEET

A-0



APPLICABLE CODES AND STANDARDS

2017 DISTRICT OF COLUMBIA BUILDING CODE (2015 IBC AMENDED)

2017 DISTRICT OF COLUMBIA GREEN CONSTRUCTION CODE (2012 IGCC AMENDED)

2017 DISTRICT OF COLUMBIA ENERGY CONSERVATION CODE (2015 IECC AMENDED)

2015 INTERNATIONAL PLUMBING CODE

2015 INTERNATIONAL MECHANICAL CODE

2015 INTERNATIONAL EXISTING BUILDING CODE

CONSTRUCTION TYPE AND HEIGHT AND AREA

USE AND OCCUPANCY TYPE: E EDUCATIONAL (EXISTING, NO CHANGE)

CONSTRUCTION TYPE CLASSIFICATION: TYPE IIB (EXISTING, NO CHANGE)

FIRE RESISTANCE RATINGS	STRUCTURAL FRAME	0HR
	EXTERIOR WALLS	0HR
	INTERIOR WALLS	0HR
	NON BEARING WALLS	0HR
	FLOOR CONSTRUCTION	0HR
	ROOF CONSTRUCTION	0HR

SPRINKLERED: YES (EXISTING, NO CHANGE)

HEIGHT AND AREA:
TABULAR FOR NEW CONSTRUCTION
HEIGHT (TABLE 504.3) 75 FEET (EXISTING 44 FEET)
STORIES (TABLE 504.4) 3 STORIES (EXISTING 3 STORIES)
AREA (TABLE 506.2) 56,000 SF PER FLOOR (EXISTING 17,205 SF)

MEANS OF EGRESS

NO CHANGE TO:

- MAXIMUM PATH OF TRAVEL
- DEAD ENDS
- CORRIDOR RATING
- STAIR ENCLOSURE RATING
- EGRESS WIDTHS OF DOORS AND STAIRS
- DOOR RATINGS, PANIC HARDWARE, CLOSERS

CODE NARRATIVE

This is an alteration of an existing building, and is being analyzed under the 2015 Existing Building Code. The existing building is a 51,615 GSF building on three stories, housing an E Educational Occupancy. This project involves the alteration of 4 rooms within Level 2:

- Division of one existing classroom, and existing storage room, into two smaller classrooms
- Alteration of an existing staff lounge/ kitchenette with no change in size, use or occupant load
- Division of the existing Library to change part of the existing stacks area into a small classroom space (Resource Room).
- Change of the existing Librarian workroom into a small classroom space

This is a Level 2 Alteration. The existing building is Fully Sprinklered. There are no changes to any elements of the building outside the specific spaces being altered. They increase the occupant load of the top floor, but this occupant load does not exceed the capacity of the existing egress elements (Corridors, Egress Doors, Egress Stairs), nor the Fire Protection Rating of existing egress elements (Rating of doors, stair enclosures, building Construction Type Classification).

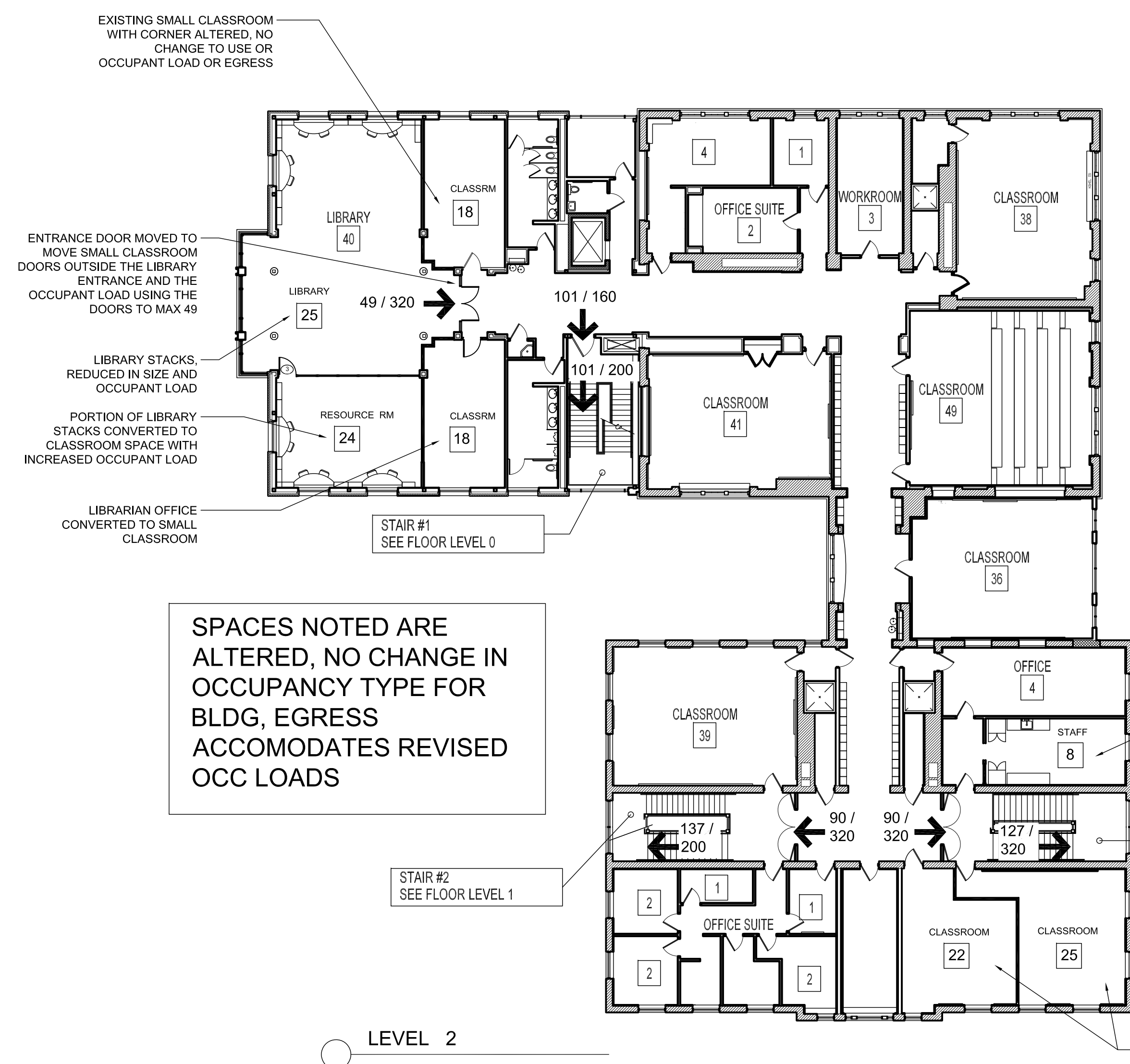
OCCUPANT LOAD -EXISTING VS PROPOSED

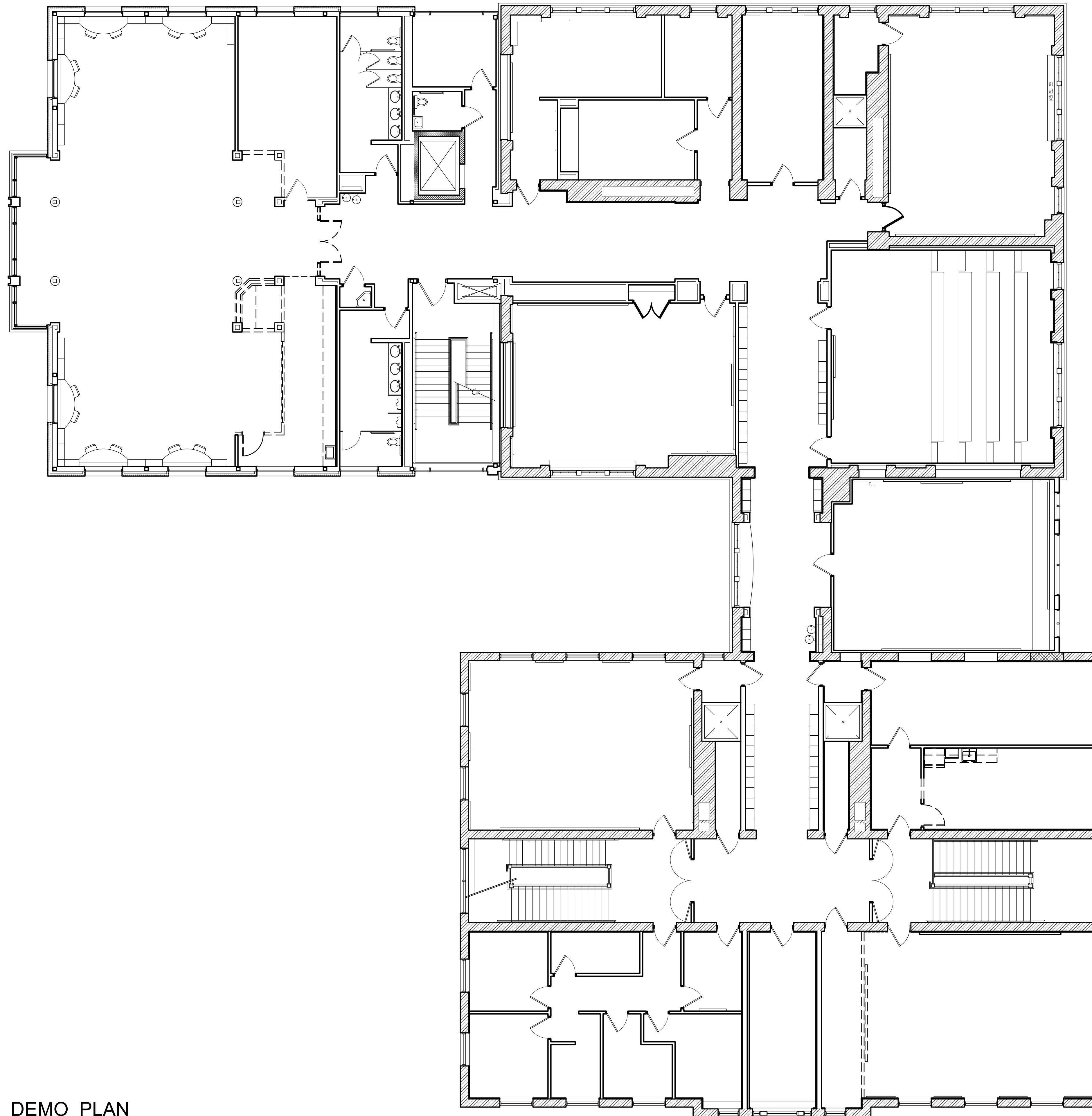
LIBRARY + STORAGE + LIBRARIAN DESK AND OFFICE (EXISTING)	- 44 OCCUPANTS
LIBRARY + RESOURCE RM + CLASSROOM + CLASSROOM (PROPOSED)	-85 OCCUPANTS (41 OCCUPANTS ADDED)
CLASSROOM + STORAGE (EXISTING)	-42 OCCUPANTS
TWO SMALL CLASSROOMS (PROPOSED)	- 47 OCCUPANTS (5 OCCUPANTS ADDED)
LOUNGE / KITCHENETTE (EXISTING)	- 8 OCCUPANTS
LOUNGE/ KITCHENETTE (PROPOSED)	- 8 OCCUPANTS (0 OCCUPANTS ADDED)
TOTAL OCCUPANTS ADDED TO BUILDING	+ 46 OCCUPANTS
TOTAL EXISTING OCCUPANT LOAD OF STORY OF WORK AREAS (LEVEL 2)	297 OCCUPANTS
TOTAL OCCUPANTS ADDED TO STORY OF WORK (LEVEL 2)	343 OCCUPANTS
% INCREASE OF OCCUPANTS ON FLOOR	15.5%

PLUMBING COUNT AND PROPOSED OCCUPANT LOAD

WATER CLOSETS (TABLE 209.1, for NEW CONSTRUCTION, 1 PER 50)
EXISTING NUMBER WC: 18

REQUIREMENTS OF IEBC FOR LEVEL 2 ALTERATION:
Where the occupant load of the story is increased by more than 20%, plumbing fixtures for the story shall be provided (per New Building)
PERCENT INCREASE OCCUPANT LOAD OF STORY: 15.5% - **NO NEW PLUMBING FIXTURES REQUIRED**





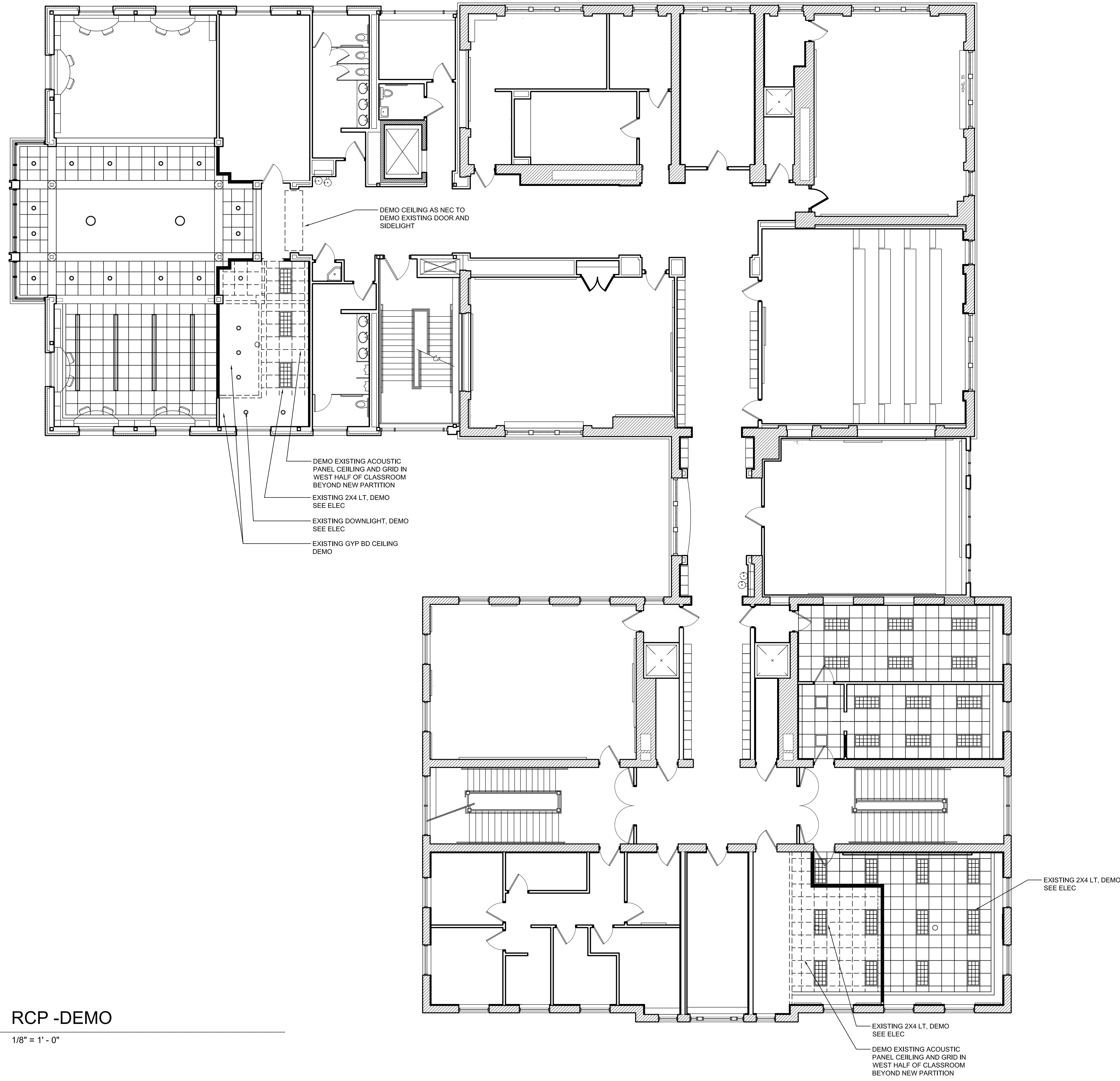
DEMOLITION NOTES

- A. COORDINATE ALL DEMOLITION WITH THE ARCHITECT AND OWNER. EVERY EFFORT SHALL BE MADE TO MINIMIZE DISRUPTION OF OWNER'S OPERATIONS. NOISE OR VIBRATION SHALL BE PRE-APPROVED AND COORDINATED WITH THE OWNER'S REPRESENTATIVE. MAKE PROVISIONS FOR USER'S SAFETY.
- B. COORDINATE ANY DISRUPTION OF UTILITY SERVICES WITH THE OWNER AND AS SPECIFIED.
- C. CONSTRUCT TEMPORARY CONSTRUCTION PARTITIONS WITHIN THE EXISTING BUILDING WHICH OFFER A ONE HOUR ENCLOSURE TO ISOLATE ANY DEMOLITION/ CONSTRUCTION WORK FROM THE GENERAL PUBLIC AND AS DEEMED NECESSARY BY THE OWNER AND CODE OFFICIAL HAVING JURISDICTION. COORD LOCATIONS WITH THE OWNER AND MAINTAIN MEANS OF EGRESS THROUGHOUT THE WORK.
- D. MAINTAIN A SECURE, WEATHER-TIGHT ENCLOSURE AT ALL TIMES
- E. VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS AND NOTIFY THE ARCHITECT OF ANY DISCREPANCIES
- F. REMOVE IN THEIR ENTIRETY ALL EXISTING WALLS, DOORS, MILLWORK, PLUMBING FITURES, CEILINGS, SOFFITS, MARKERBOARDS, AND OTHER ITEMS, AS REQUIRED TO EXECUTE THE DEMOLITION/ CONSTRUCTION WORK DESCRIBED BY THE DRAWINGS.
- G. THE OWNER SHALL RESERVE THE RIGHT TO SALVAGE ANY MATERIALS.
- H. PROVIDE PROTECTION FOR ALL EXISTING BUILDING MATERIALS AND EQUIPMENT FROM DAMAGE DUE TO ANY DEMOLITION OR CONSTRUCTION-RELATED INCIDENT PERFORMED.
- I. REPAIR OR REPLACE ITEMS THAT ARE DAMAGED AS A RESULT OF DEMOLITION OR CONSTRUCTING TO MATCH EXISTING FINISH AND/ OR CONDITION.
- J. EXISTING MATERIALS SHALL NOT BE REUSED UNLESS NOTED OTHERWISE OR AS AUTHORIZED BY THE ARCHITECT.
- K. VERIFY AND MAINTAIN THE LOCATION OF EXISTING POWER, COMMUNICATION AND DATA CABLES TO PREVENT INTERRUPTION OF SERVICE.
- L. PATCH FLOOR, WALL AND CEILING PENETRATIONS RESULTING FROM REMOVAL OR RE-ROUTING OF NEW OR EXISTING PIPING, DUCTWORK, CONDUIT, AND OTHER ITEMS, AS REQUIRED TO MAINTAIN FIRE RESISTANCE RATED SEPARATIONS. FINISH AS REQUIRED FOR NEW OR EXISTING ADJACENT SURFACES.
- M. CAP ALL DISCONNECTED MECHANICAL OR PLUMBING LINES WITHIN THE WALL OR FLOOR, PATCH AND FINISH AS REQUIRED TO MATCH NEW OR EXISTING ADJACENT SURFACES.
- N. SEE MECH AND ELEC DRAWINGS AND NOTES FOR FURTHER SEQUENCING AND SCOPE OF WORK.
- O. WHERE PLASTER/ STUD WALLS ARE INDICATED TO BE REMOVED, PREPARE ADJACENT WALLS TO RECEIVE NEW PATCH/ FINISH BY SAWCUTTING ADJACENT PLASTER FINISH A MINIMUM OF 6" BEYOND DEMOLITION.
- P. REMOVE ALL TRASH
- Q. REMOVE ALL EXISTING FLOOR FINISHES IN AREAS OF NEW WORK, EXCEPT EXISTING WOOD FLOORING

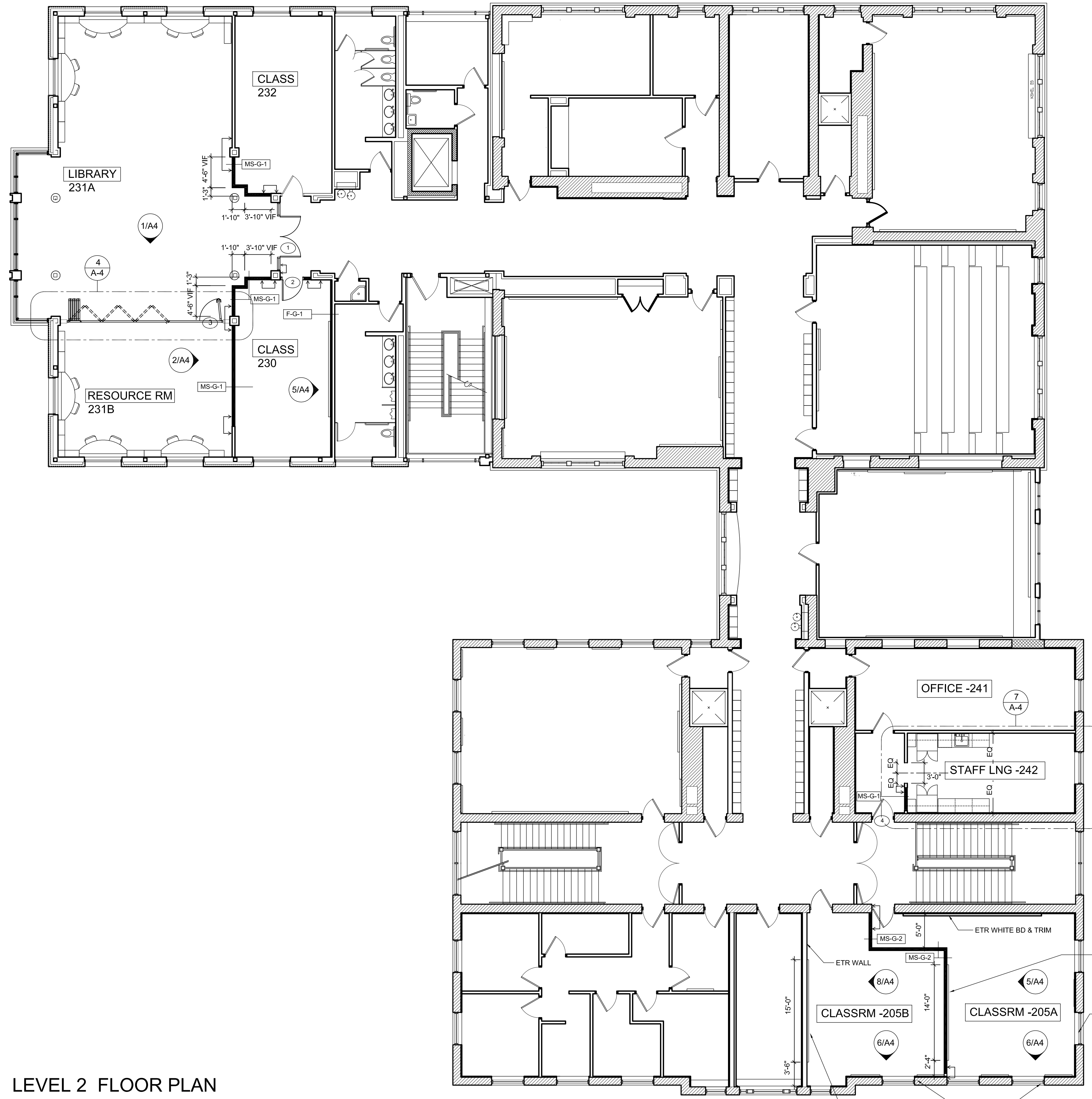
1 DEMO PLAN
1/8" = 1' - 0"

Construction Documents	
Project Issue	Date
CD'S	2 / 20 / 2026

Project Number:
55-25105-00
DEMOLITION PLAN



1 RCP -DEMO
1/8" = 1' - 0"



1 LEVEL 2 FLOOR PLAN
1/8" = 1' - 0"

ETR WALL

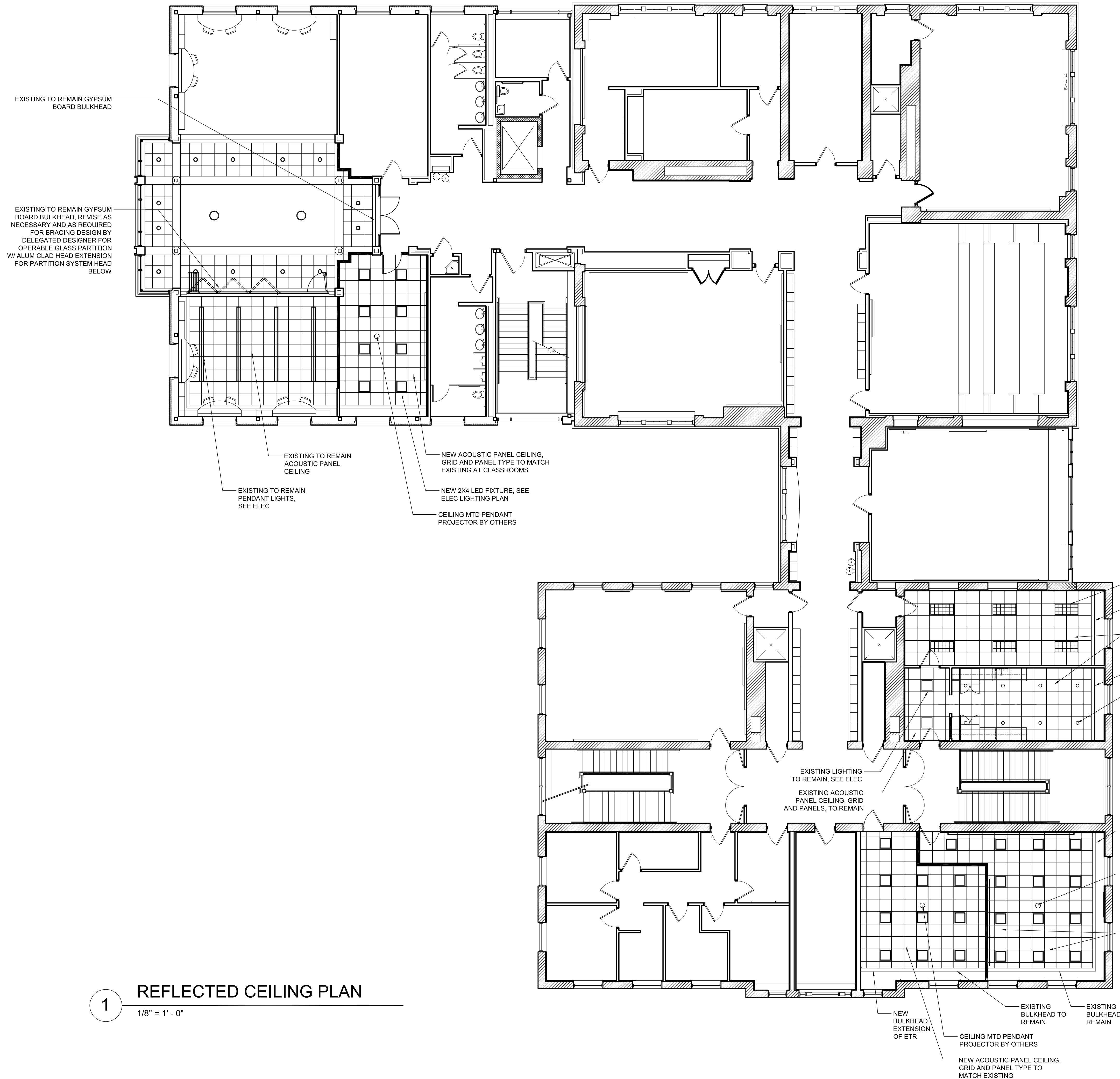
ETR WINDOW & PTD WD TRIM -TYP

NEW WHT BD W/ PTD WD TRIM. TOP & BOTTOM ALIGN W/ ADJ ETR BDS TRIM TO MATCH ETR TRIM AT ETR WHT BDS

ETR TACK BD & PTD WD TRIM -TYP

ETR WHITE BD & TRIM

NEW WHT BD W/ PTD WD TRIM. TOP & BOTTOM ALIGN W/ ADJ ETR BDS TRIM TO MATCH ETR TRIM AT ETR WHT BDS



- REFLECTED CEILING PLAN GENERAL NOTES**
- A. REFLECTED CEILING PLAN GENERAL NOTES APPLY TO ALL REFLECTED CEILING PLAN SHEETS.
 - B. ALL CEILING GRIDS/ PANELS SHALL BE CENTERED IN EACH ROOM UNLESS NOTED OTHERWISE.
 - C. CEILING HEIGHTS ARE NOTED ON THE REFLECTED CEILING PLANS ARE MEASURED FROM THE FINISH FLOOR OF THE ROOM.
 - D. ALL ELEC FIXTURES IN ACOUSTICAL CEILING PANELS WITH SCORE IN THE CENTER. SPEAKERS, SMOKE AND THERMAL DETECTORS, MECH GRILLES, SPRINKLER HEADS, AND OTHER CEILING MOUNTED DEVICES, SHALL BE CENTERED BETWEEN CEILING GRIDS UNLESS NOTED OTHERWISE. SPRINKLER HEADS SHALL BE WITHIN A 3 INCH RADIUS CENTERED BETWEEN CEILING GRIDS.
 - E. PROVIDE SUSPENSION SYSTEM AROUND ELEC FIXTURES, MECH GRILLES, DIFFUSERS, AND OTHER CEILING MOUNTED DEVICES AT ACOUSTICAL PANEL CEILINGS.
 - F. ALL WALLS EXTEND TO THE UNDERSIDE OF DECK.
 - G. REFER TO ELEC DRAWINGS FOR ANY EXIT LIGHT LOCATIONS
 - H. REFER TO MEP DRAWINGS FOR ITEMS NOT SHOWN
 - I. CENTER ALL FIXTURES AND EQUIP ON CENTER OF ACOUSTIC PANELS U.N.O.

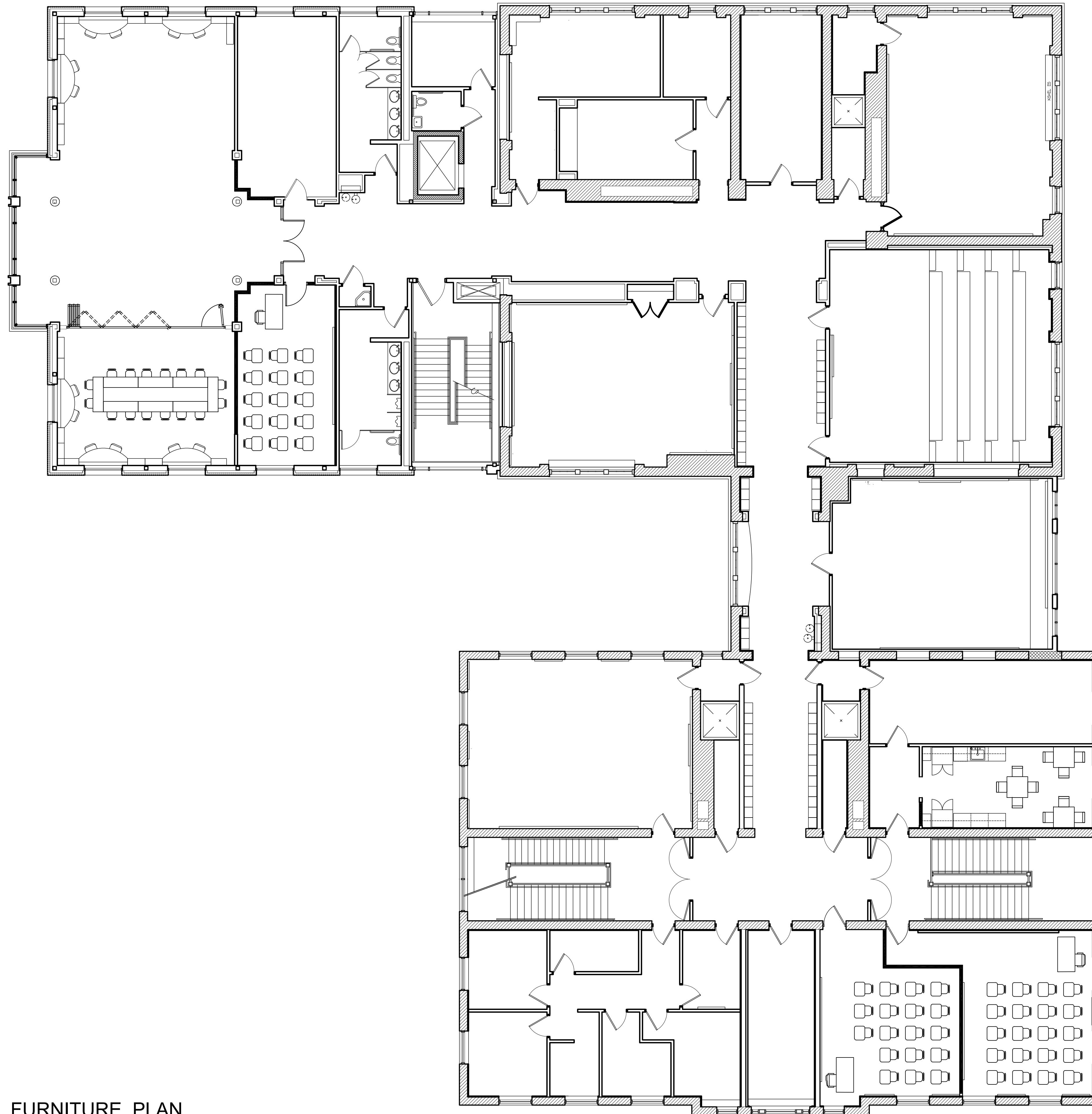
1 REFLECTED CEILING PLAN
1/8" = 1' - 0"

Construction Documents

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REFLECTED CEILING PLAN



1 FURNITURE PLAN
1/8" = 1' - 0"

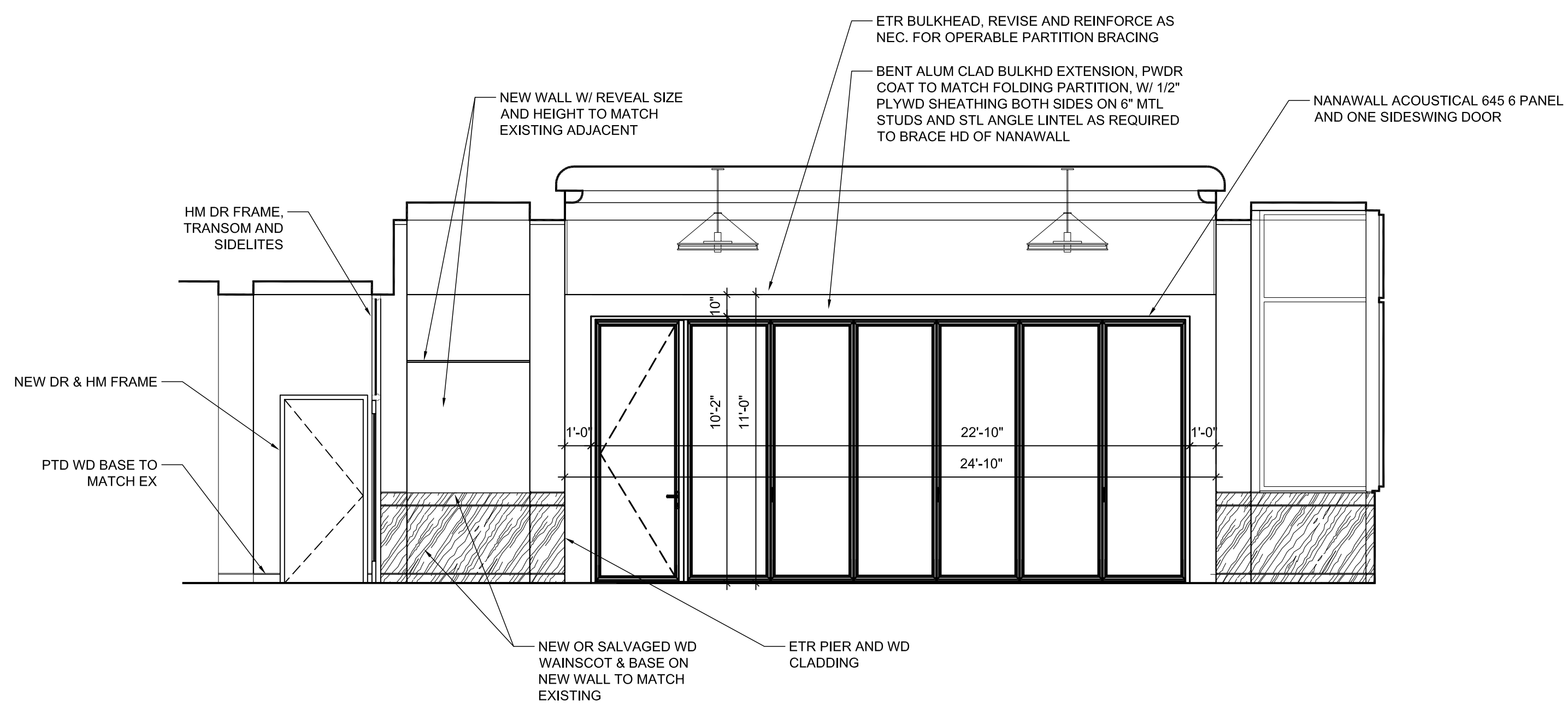
NOTE: FURNITURE PLAN
SHOWN FOR REFERENCE ONLY
FURNITURE TO BE FURNISHED
AND INSTALLED BY OWNER

Construction Documents

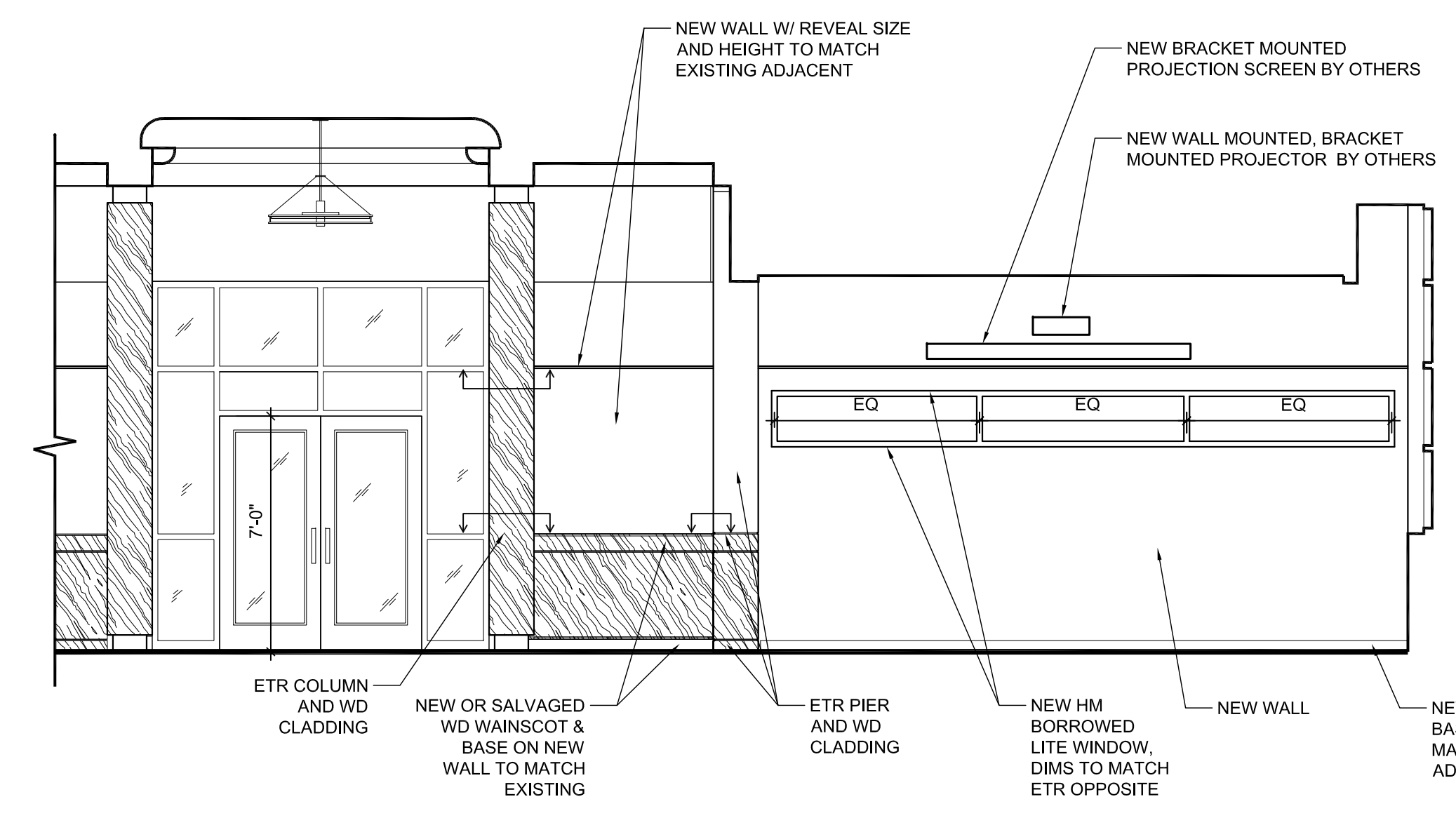
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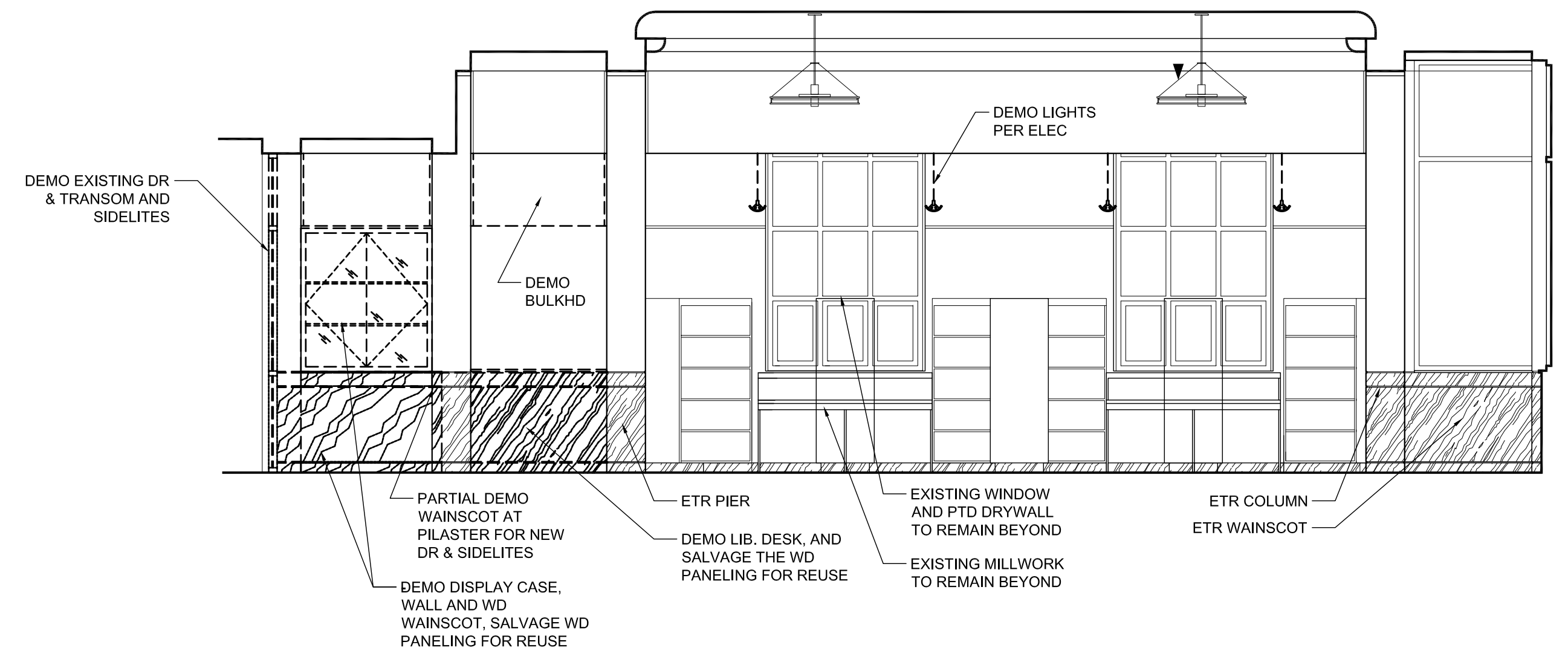
FURNITURE PLAN



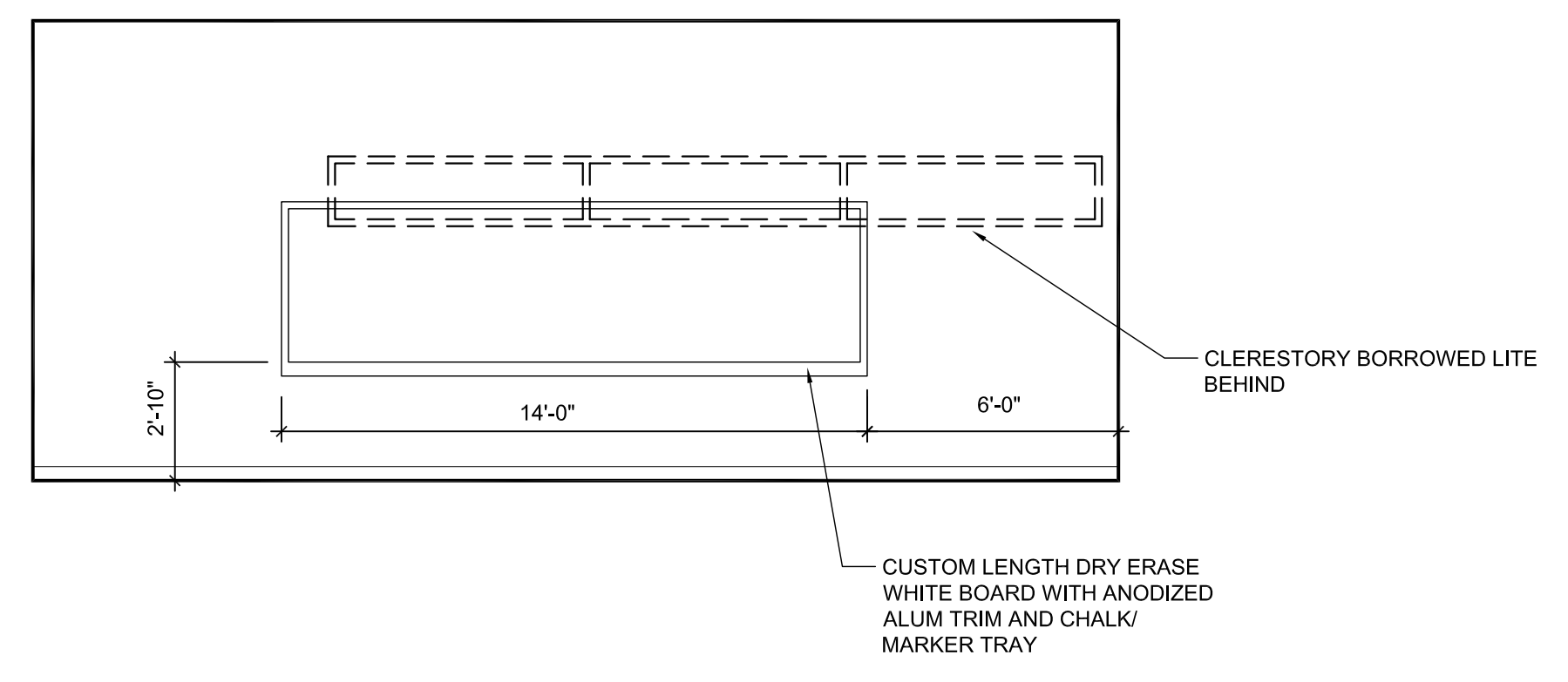
1 SOUTH ELEV- MEDIA CENTER & RESOURCE RM
 1/4" = 1' - 0"



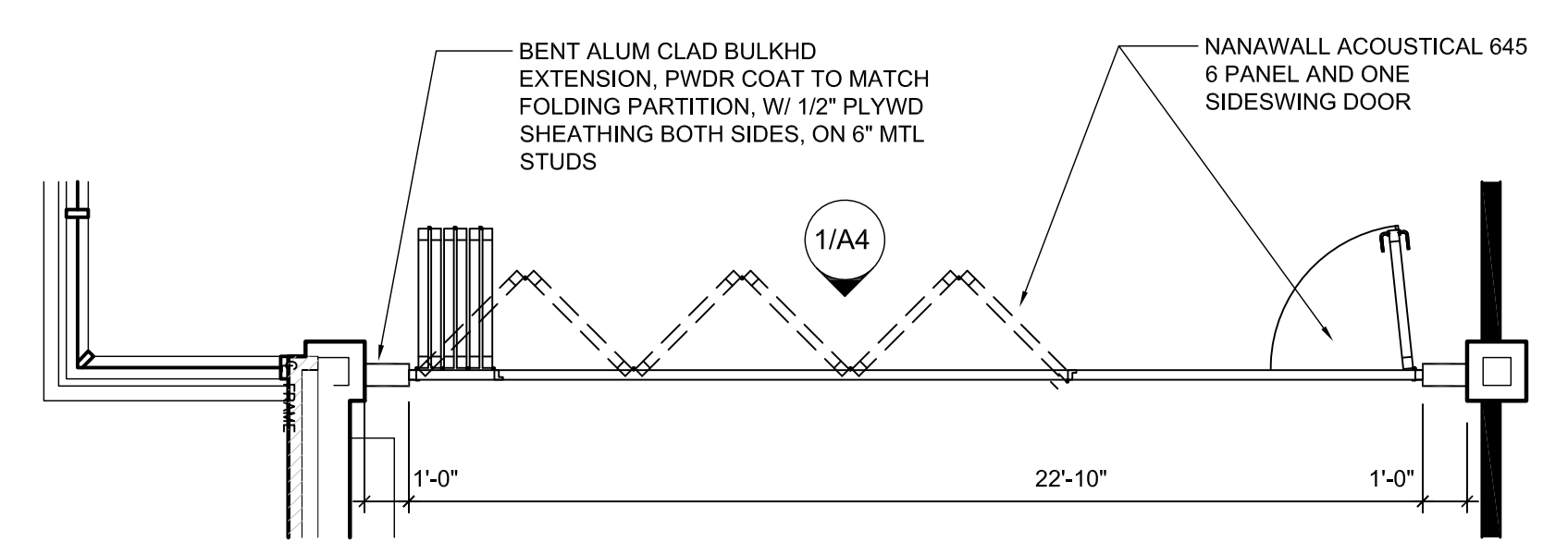
2 EAST ELEV - RESOURCE RM
 1/4" = 1' - 0"



3 DEMO ELEV - MEDIA CENTER & RESOURCE RM
 1/4" = 1' - 0"



5 EAST ELEV - CLASSROOM 230
 1/4" = 1' - 0"



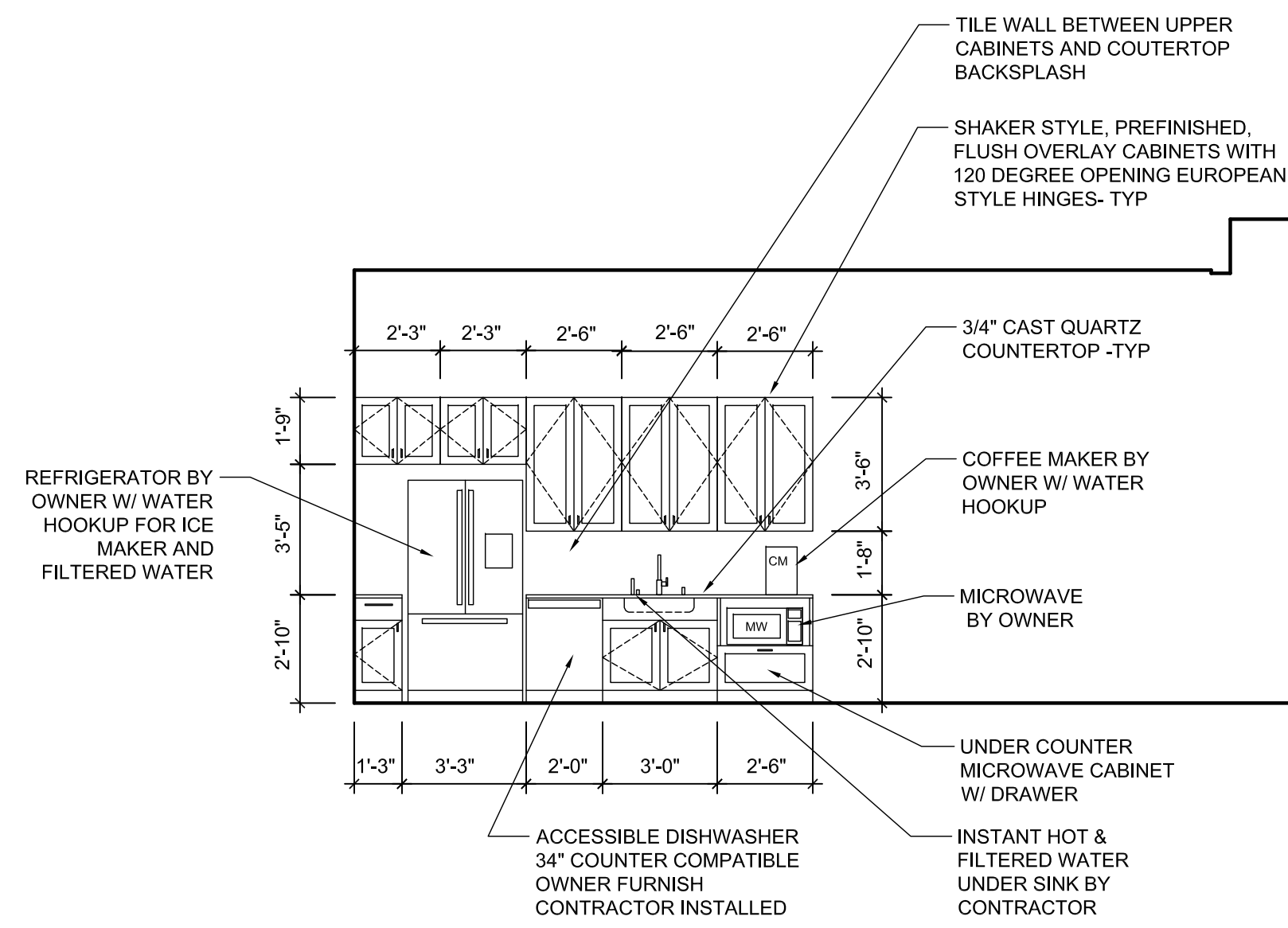
4 RESOURCE RM -DETAIL PLAN
 1/4" = 1' - 0"

Construction Documents

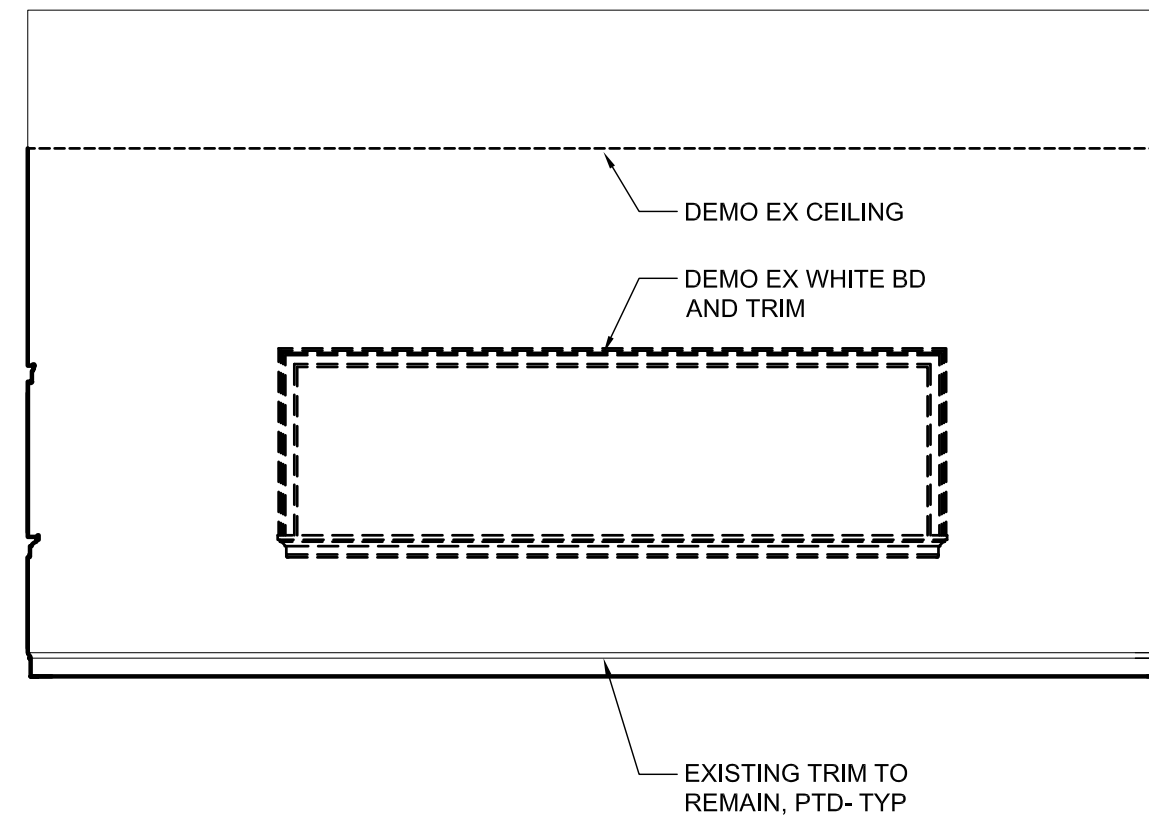
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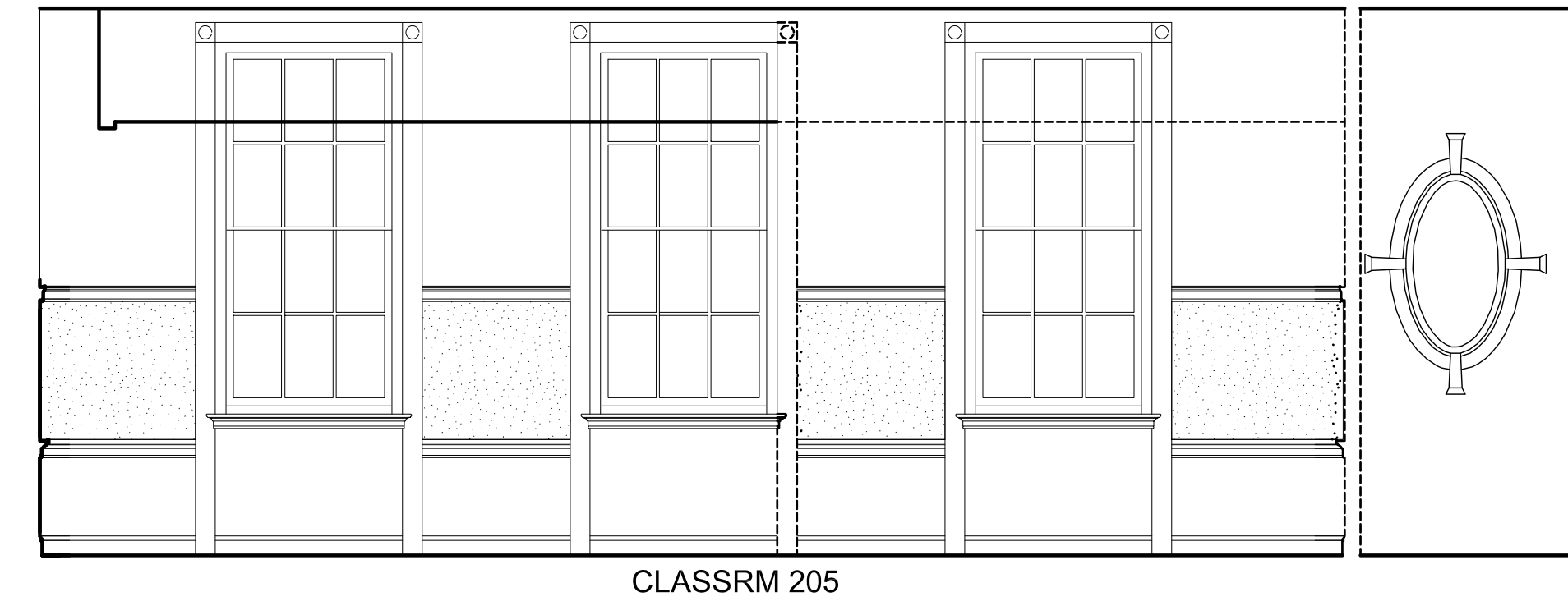
DETAIL PLANS & ELEVATIONS



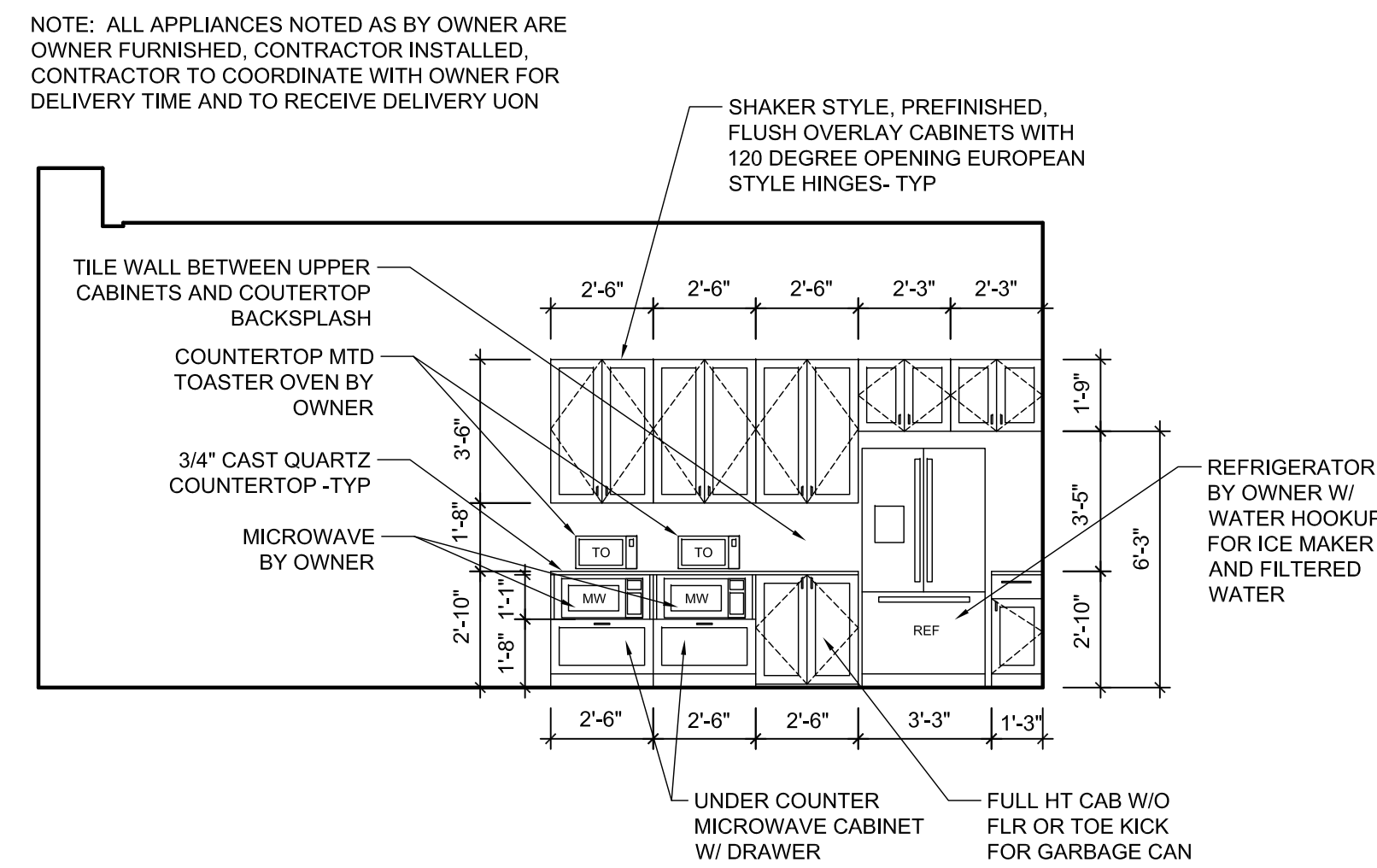
1 STAFF 242 -KITCH ELEV -NORTH
1/4" = 1' - 0"



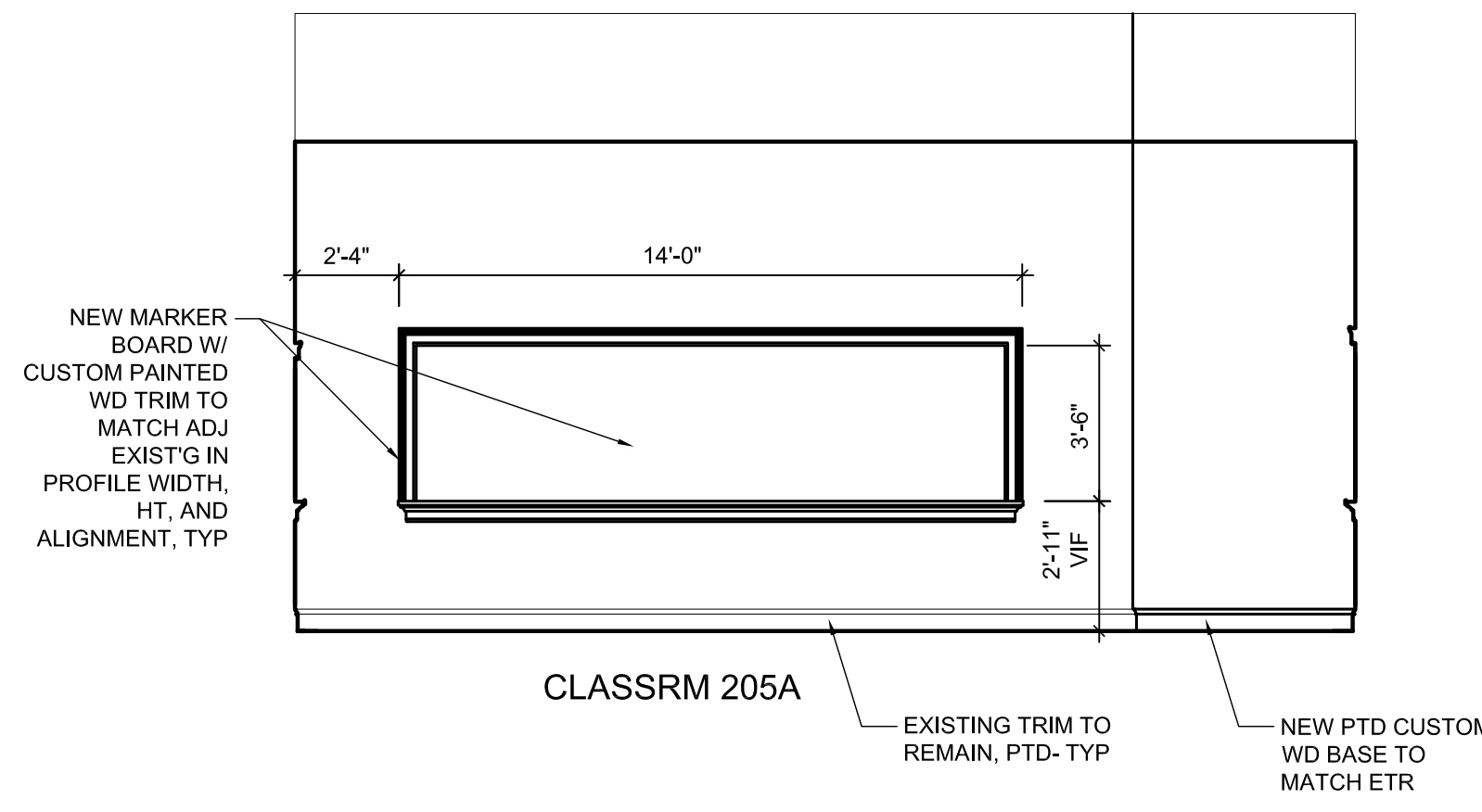
2 CLASSRM DEMO ELEV -WEST
1/4" = 1' - 0"



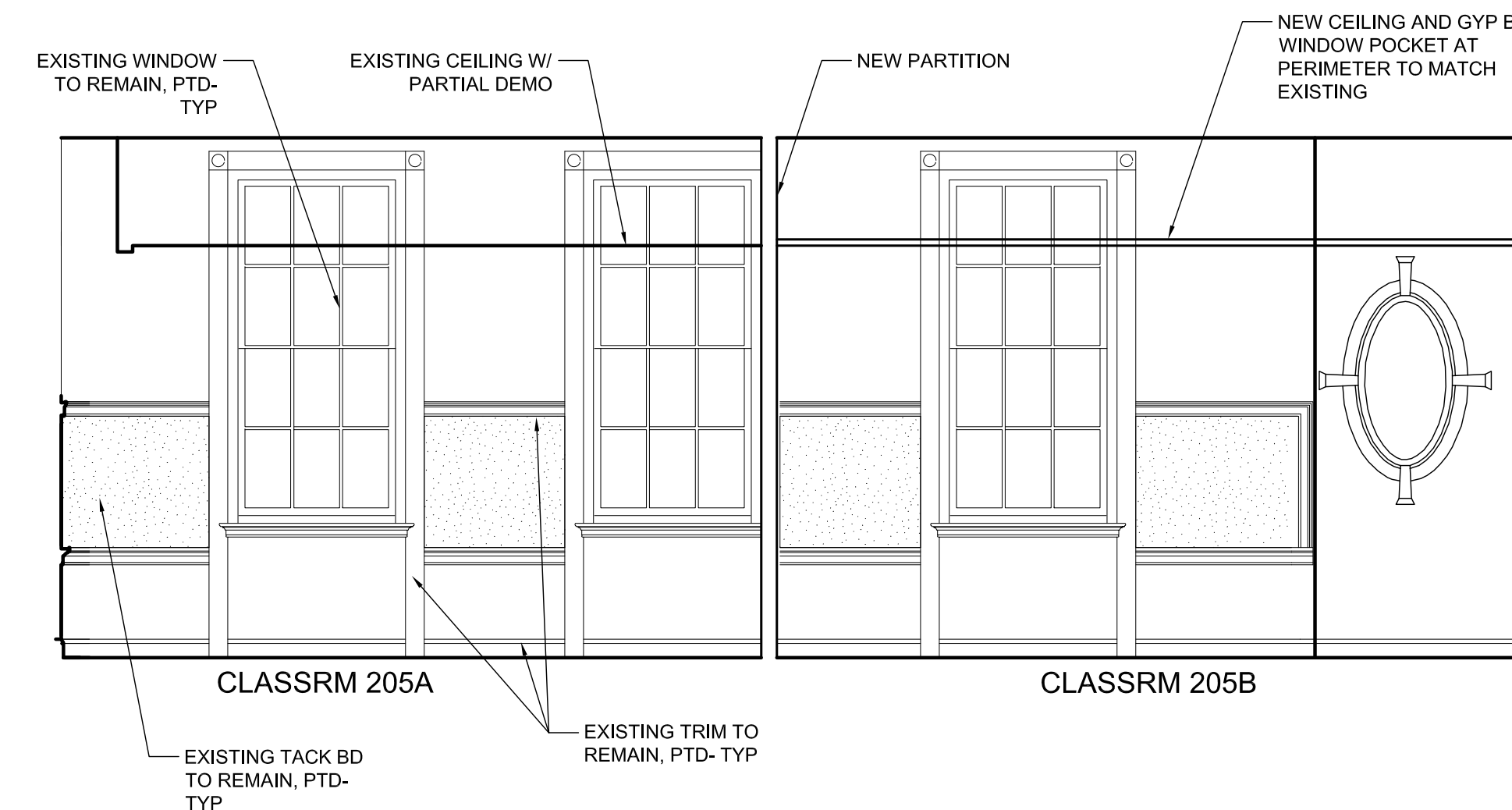
3 CLASSRM DEMO ELEV -SOUTH
1/4" = 1' - 0"



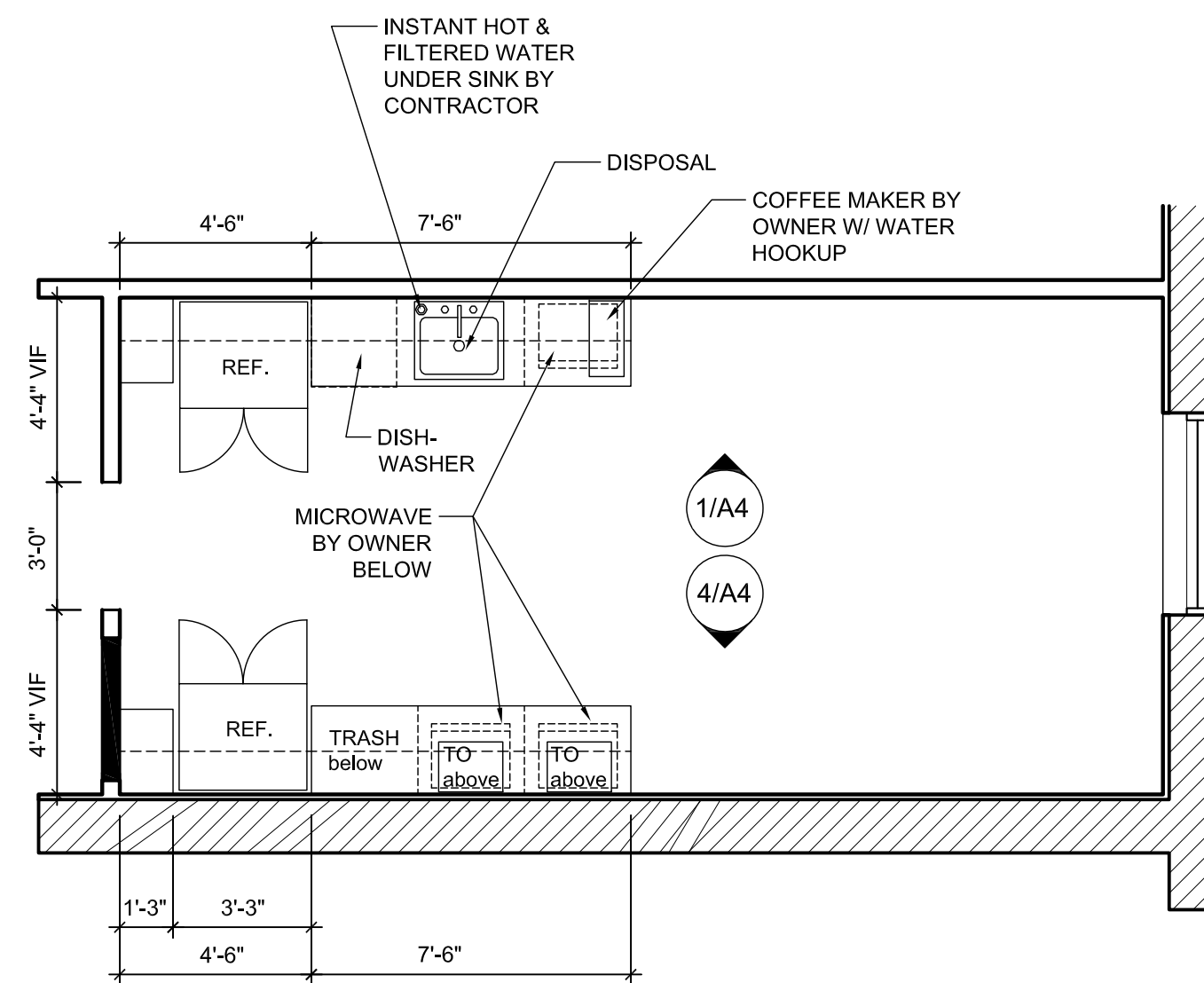
4 STAFF 242 -KITCH ELEV -SOUTH
1/4" = 1' - 0"



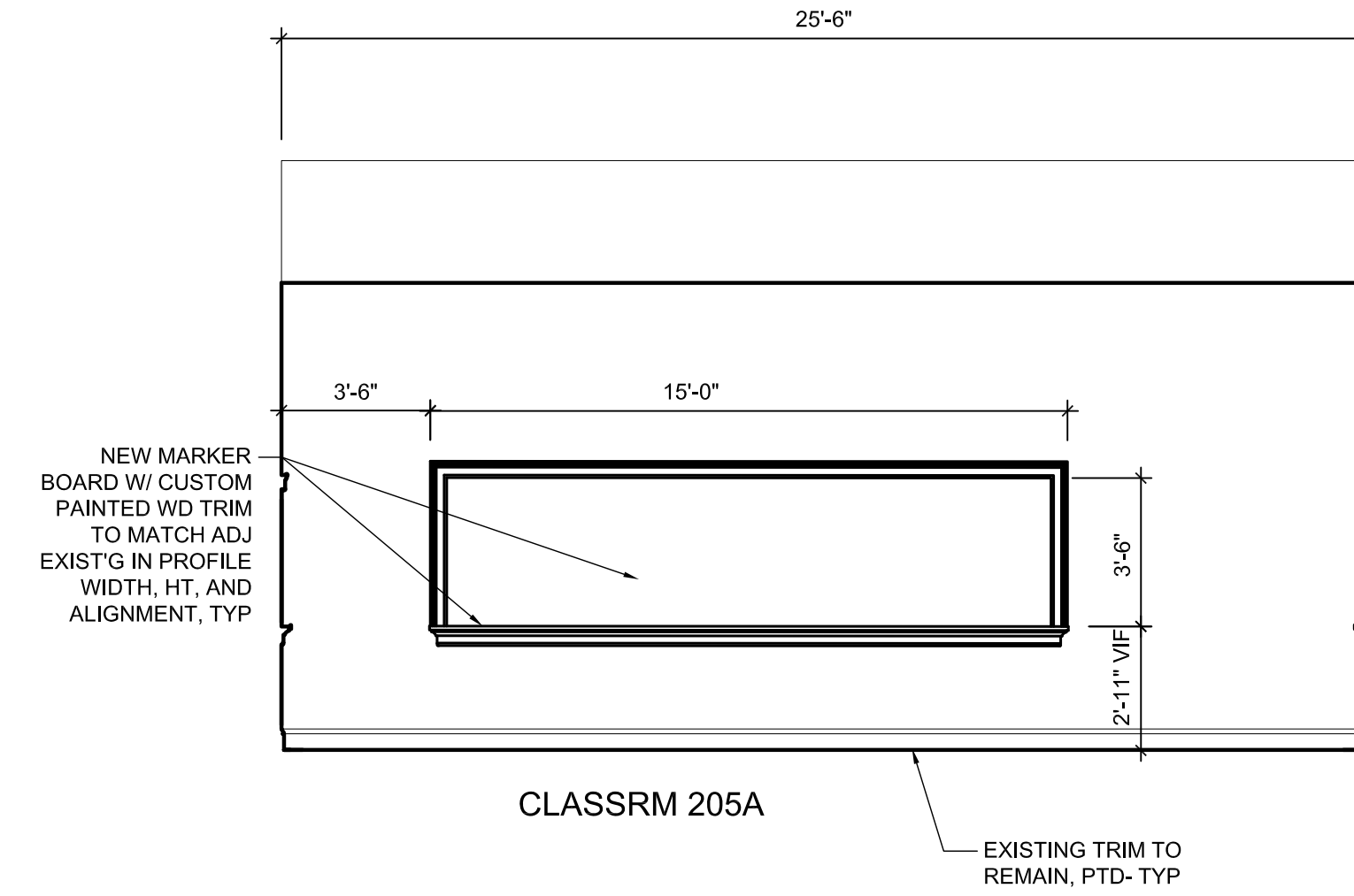
5 CLASSRM ELEV -WEST
1/4" = 1' - 0"



6 CLASSRM ELEV -SOUTH
1/4" = 1' - 0"



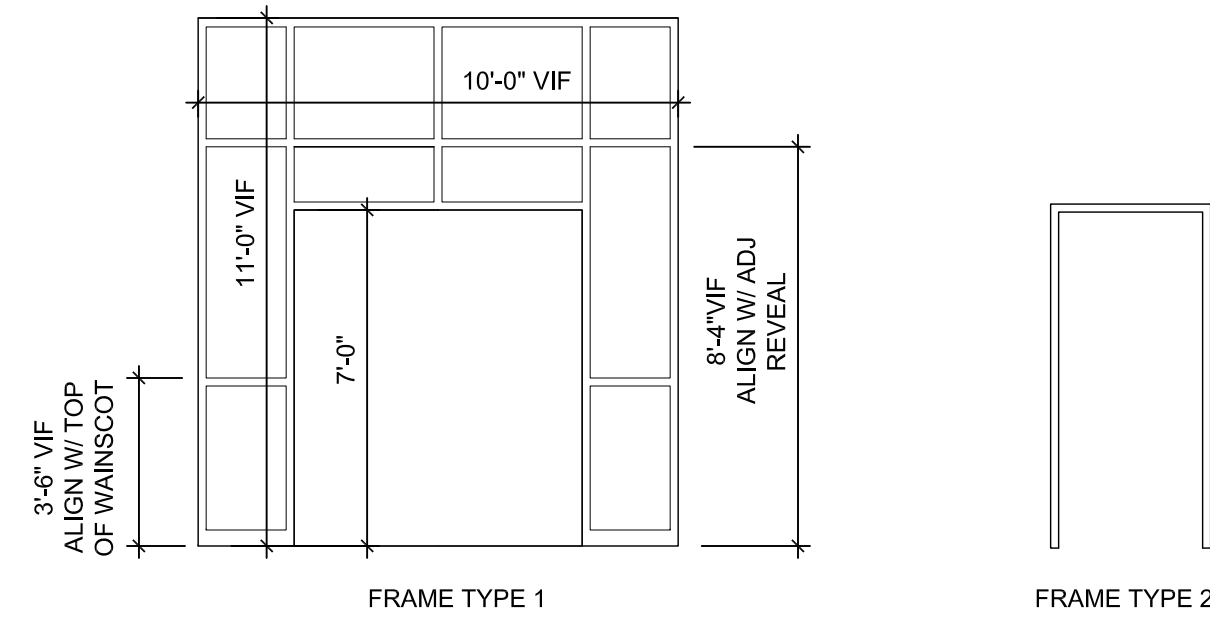
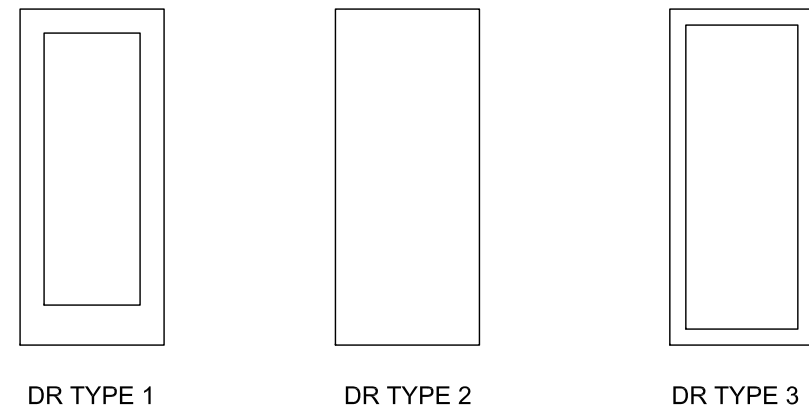
7 DETAIL PLAN - ROOM 242
1/4" = 1' - 0"



8 CLASSRM ELEV -WEST
1/4" = 1' - 0"

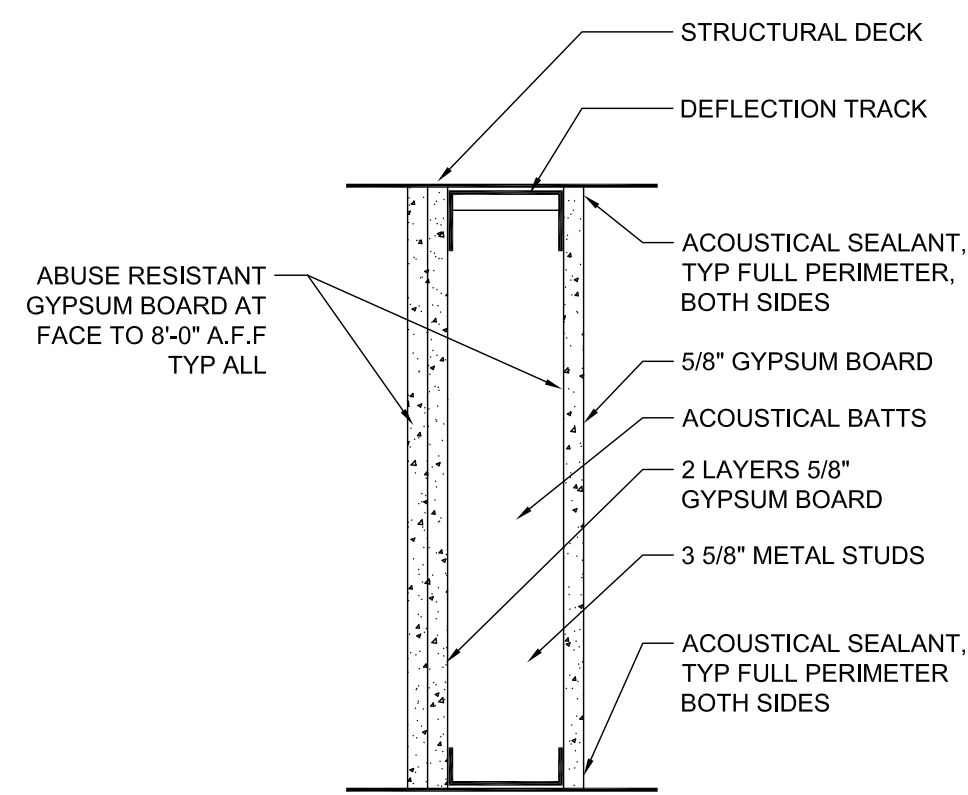
DOOR AND FRAME SCHEDULE

NUMBER	NO. OF PANELS	DOOR			FRAME		FIRE RATING	CLOSER	PANIC HARDWARE	COMMENTS		
		WIDTH	HEIGHT	THICKNESS	MATERIAL	TYPE						
1	2	72"	84"	1 3/4"	WD *	1	HM	1	0 HR	—	—	* TRANSPERANT FINISH WOOD, COLOR SPECIES & GRAIN TO MATCH ETR WD PANELING
2	1	36"	84"	1 3/4"	WD *	2	HM	2	0 HR	—	—	* TRANSPERANT FINISH WOOD, COLOR SPECIES & GRAIN TO MATCH ETR WD PANELING
3	1	38"	9'-11"	**	ALUM *	3	ALUM **	**	0 HR	—	—	** NANAWALL 645 STANDARD DETAILS
4	ETR	ETR	ETR	ETR	ETR	ETR	ETR	ETR	0 HR	—	—	RELOCATED ACCESS CONTROL FROM DEMO STAFF LOUNGE DOOR- 'BY OTHERS' - DOOR TO REMAIN OPERABLE FROM EGRESS SIDE WITHOUT KEY AND TO HAVE FAIL SAFE OPERATION



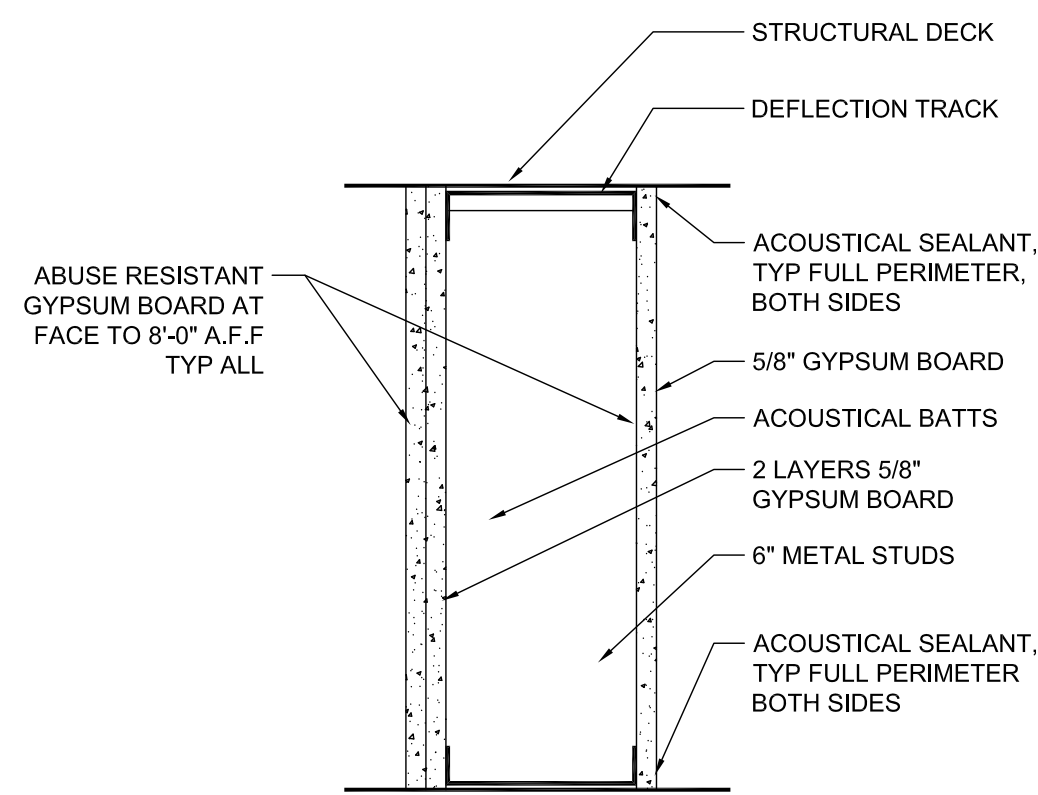
FINISH SCHEDULE							
ROOM NUMBER	ROOM NAME	WALLS	WAINSCOT/ CHAIRRAIL	BASE	CEILING	FLOOR	COMMENTS
205A	CLASS ROOM	PAINT P-1	NA	PTD WD **	ETR *****	ETR-REFINISHED **	**CUSTOM WD BASE AND SHOE *****INFILL AT PERIMETER FROM OWNER ATTIC STOCK OR NEW TO MATCH ** FLOOR REFINISH- LIGHT SANDING/ DISKING W/ BONA FINISH, DO NOT FULL SAND, EPOXY PATCH ANY DAMAGE - PROVIDE ALTERNATE PRICE FOR NEW STRIP WOOD TO MATCH 205B
205B	CLASS ROOM	PAINT P-1	NA	PTD WD **	APC ****	NEW STRIP WD	**** WHITE OAK STRIP SOLID HARDWD FLOORING, 3/4" X 3 1/4", CLEAR/ PRIME GRADE, BONA FINISH TO MATCH EXISTING TO REMAIN PINE STRIP FLOORING ADJACENT, OVER FELT UNDERLAYMENT. PROVIDE TRANSITION THRESHOLD AT DOOR
230	CLASS ROOM	PAINT P-1	NA	VINYL BASE	APC ****	CARPET	**** MATCH EXISTING APC GRID AND PANEL TYPE
231A	LIBRARY	PAINT P-1	WOOD-ETR	NAT FIN WD ***	ETR	ETR	*** CUSTOM NATURAL FINISH WOOD PANELING AND RUNNING TRIM TO MATCH ETR ADJACENT IN PROFILE, COLOR, GRAIN, WD SPECIES, AND FINISH TYPE AND GLOSS
231B	RESOURCE ROOM	PAINT P-1	WOOD-ETR	NAT FIN WD ***	ETR	ETR*****	*** CUSTOM NATURAL FINISH WOOD PANELING AND RUNNING TRIM TO MATCH ETR ADJACENT IN PROFILE, COLOR, GRAIN, WD SPECIES, AND FINISH TYPE AND GLOSS ETR***** USE OWNER ATTIC STOCK CARPET TILE TO INFILL AND REPAIR FLOOR FINISH AS REQUIRED
232	CLASS ROOM	PAINT P-1	PTD WD CR**	VINYL BASE	ETR	ETR & MATCH *****	**CUSTOM WD BASE AND SHOE TO MATCH ETR ADJACENT ***** INFILL AT NEW AREA WITH CARPET TILE FROM OWNER ATTIC STOCK TO MATCH ETR ADJACENT IN CLASSROOM
241	OFFICE	PAINT P-1	NA	ETR	ETR	ETR	
242	STAFF LOUNGE	PAINT P-1	NA	VINYL BASE	ETR*****	LVT	***** INFILL CEILING W/ OWNER ATTIC STOCK OR NEW TO MATCH ***** DEMO FLOOR FINISH, PROVIDE

FINISH KEY	
ETR	EXISTING TO REMAIN FINISH
PAINT P-1	BEHR PREMIUM PLUS ULTRA, EGGSHELL AT WALL AND SEMIGLOSS AT TRIM, COLOR AS SELECTED BY OWNER
PTD WD CR	PAINTED WOOD CHAIR RAIL, PROFILE TO MATCH EXISTING IN ROOM 232
NAT FIN WD	NATURAL FINISH WOOD PANELING AND RUNNING TRIM AND REVEALS, TO MATCH EXISTING. CONTRACTOR TO MEASURE EXISTING AND SUBMIT SHOP DRAWINGS AND SAMPLES FOR APPROVAL.
VINYL BASE	VINYL BASE: ROPPE VINYL COVE BASE, COLOR AS SELECTED BY OWNER
CARPET	CARPET TILE FROM ATTIC STOCK PROVIDED BY OWNER
LVT	LUXURY VINYL TILE: ARMSTRONG BIOME COLLECTION- BASIS OF DESIGN ASTM F 1700, Class III, Type B embossed surface, Install over 1/2" Luan or Poplar Plywood, sanded face, Type 1/ Exterior grade underlayment, installed per manuf recommendations



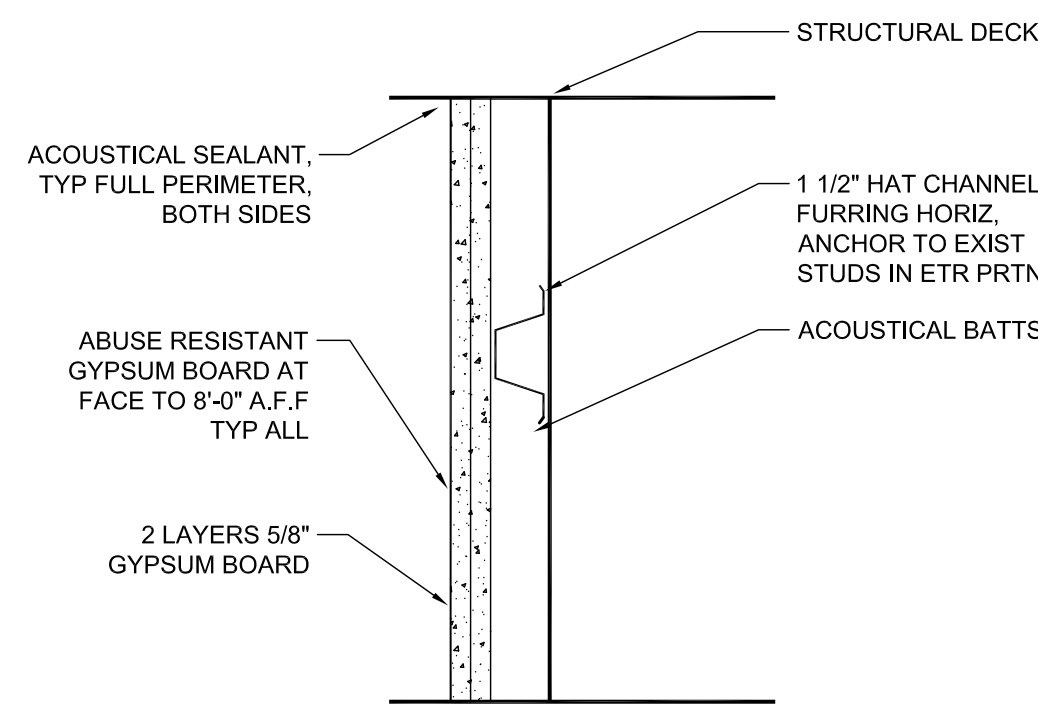
MS-G-1 Partition Type

RATING: 0 HOUR RATING
 METAL STUDS: 22 GA, G90 COATED, 3 5/8" WIDTH
 FULL HT PARTITION SPANNING FROM DECK TO UNDERSIDE OF DECK/ STRUCTURE, COPE AND SEAL AROUND STRUCTURE



MS-G-2 Partition Type

RATING: 0 HOUR RATING
 METAL STUDS: 22 GA, G90 COATED, 6" WIDTH
 FULL HT PARTITION SPANNING FROM DECK TO UNDERSIDE OF DECK/ STRUCTURE, COPE AND SEAL AROUND STRUCTURE



F-G-1 Partition Type

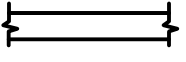
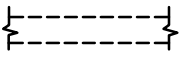
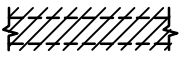






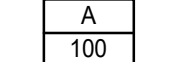

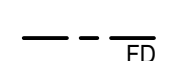
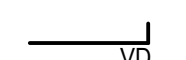
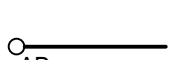
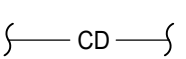

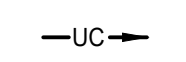
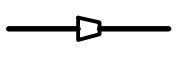


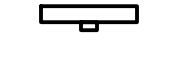

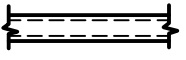

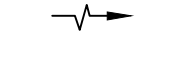
RATING: 0 HOUR RATING
 METAL FURRING HAT CHANNELS: 22 GA, G90 COATED, 1 1/2" DEPTH
 FULL HT PARTITION SPANNING FROM DECK TO UNDERSIDE OF DECK/ STRUCTURE, COPE AND SEAL AROUND STRUCTURE

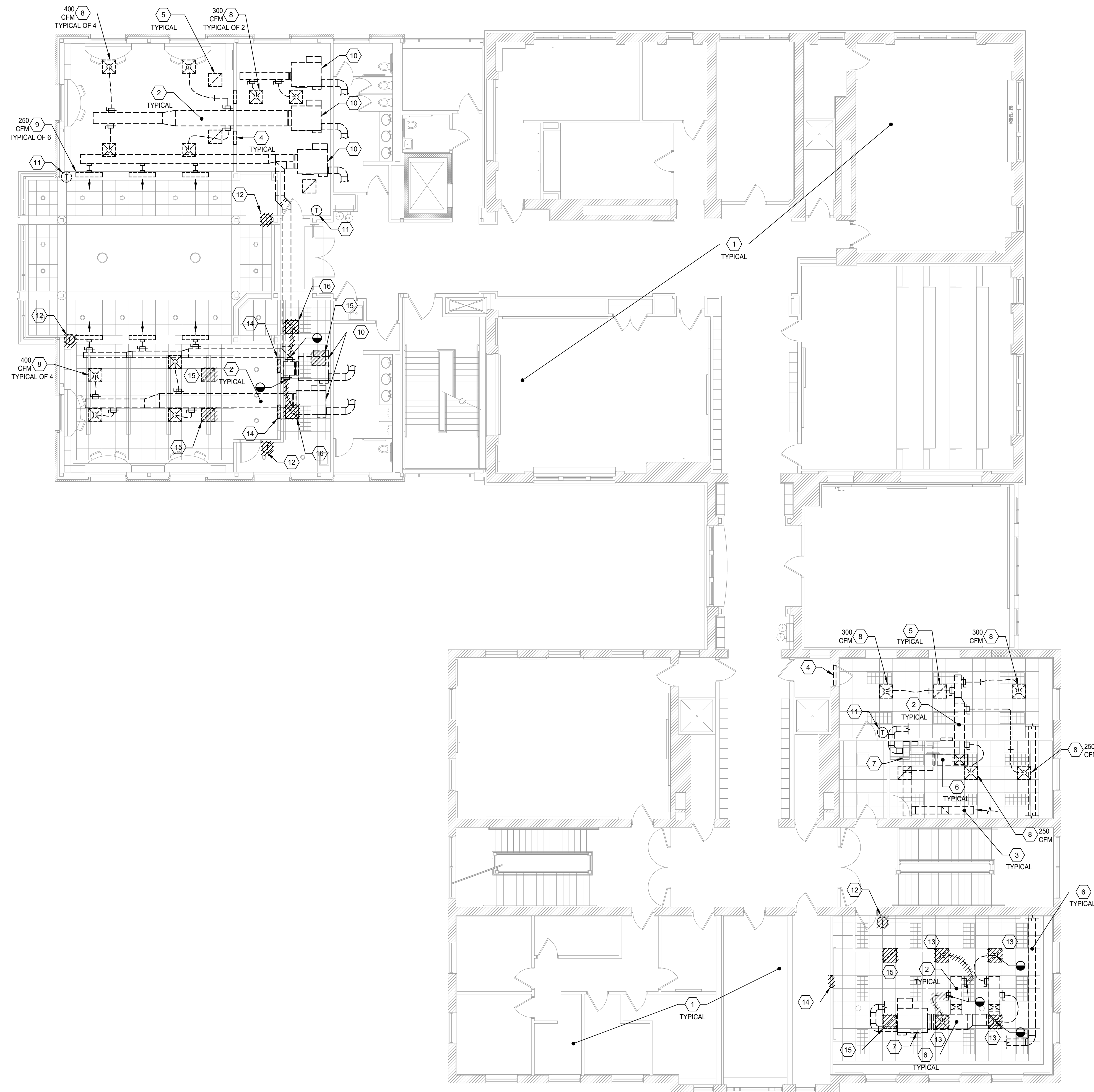
Construction Documents

Project Issue Date
 CD'S 2 / 20 / 2026

Project Number:
 55-25105-00

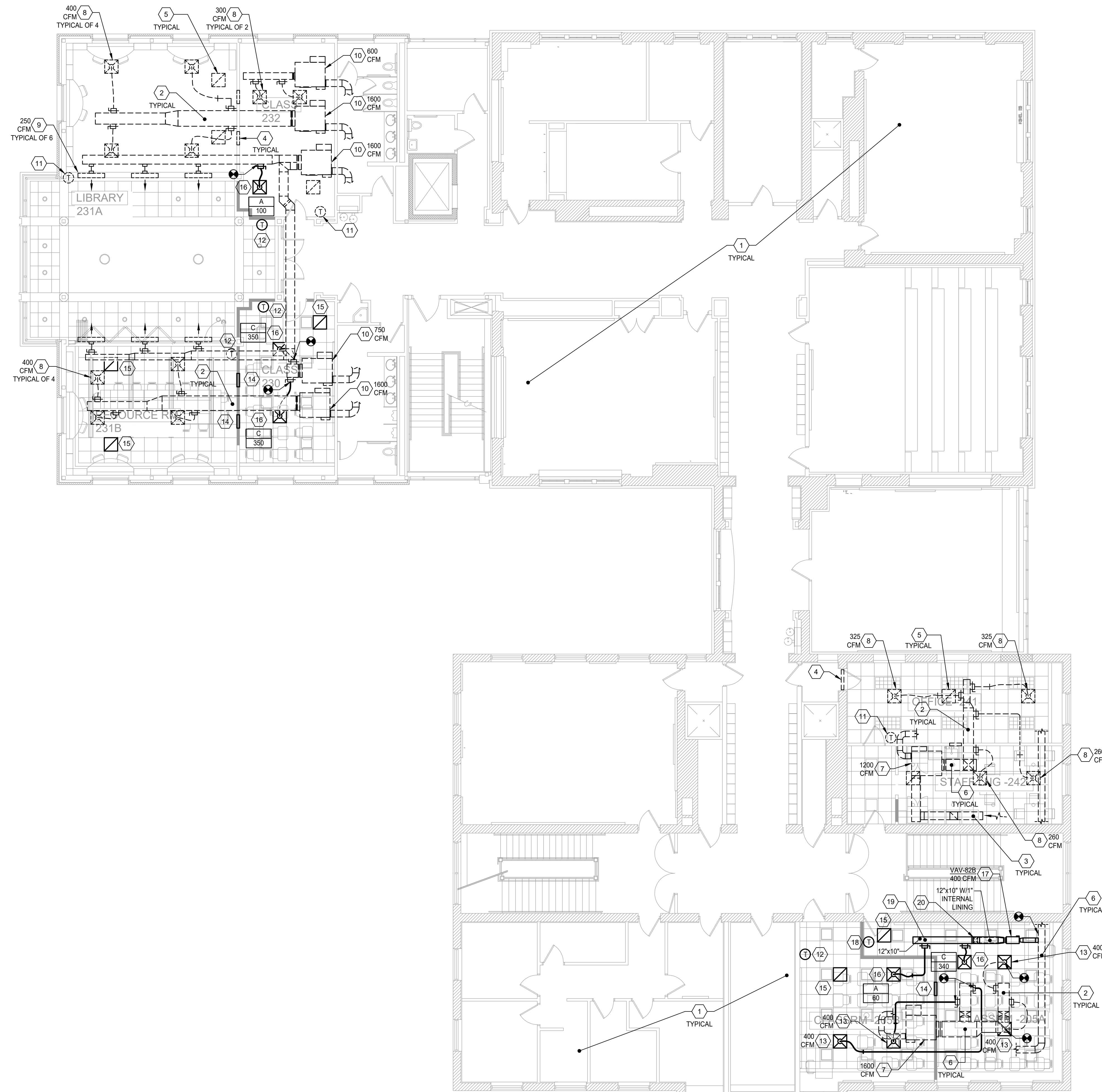
Partition Types
 Door Schedule
 Details

MECHANICAL ABBREVIATIONS	MECHANICAL SYMBOLS	MECHANICAL SPECIFICATION NOTES	MECHANICAL GENERAL NOTES
<p>AC AIR CONDITIONING AD AUTOMATIC DAMPER AFF ABOVE FINISHED FLOOR AHU AIR HANDLING UNIT BAS BUILDING AUTOMATION SYSTEM BDD BACK DRAFT DAMPER BTU BRITISH THERMAL UNIT CFM CUBIC FEET PER MINUTE CLG CEILING DB, db DRY BULB DEG DEGREES DIA DIAMETER DN DOWN EA EACH EAT ENTERING AIR TEMPERATURE EDH ELECTRIC DUCT HEATER EF EXHAUST FAN EH ELECTRIC HEATER EMCS ENERGY MANAGEMENT CONTROL SYSTEM ENT ENTERING ESP EXTERNAL STATIC PRESSURE ETR EXISTING TO REMAIN EXH EXHAUST EX, E EXISTING F FAHRENHEIT FD FIRE DAMPER FLA FULL LOAD AMPS FPM FEET PER MINUTE FT2 SQUARE FEET GPM GALLONS PER MINUTE HP HORSEPOWER HZ HERTZ IN WG INCH WATER GAUGE KW KILOWATT LAT LEAVING AIR TEMPERATURE LBS POUNDS LF LINEAR FOOT LV LEAVING MAX MAXIMUM MBH 1000 BTUS MCA MINIMUM CIRCUIT AMPACITY MIN MINIMUM MOCP MAXIMUM OVER CURRENT PROTECTION N/A NOT APPLICABLE NIC NOT IN CONTRACT OBD OPPOSED BLADE DAMPER PD PRESSURE DROP PH PHASE RPM REVOLUTIONS PER MINUTE SD SMOKE DETECTOR SENS SENSIBLE SF SUPPLY FAN SP STATIC PRESSURE TEMP TEMPERATURE TYP TYPICAL UON UNLESS OTHERWISE NOTED V VOLTAGE WB, wb WET BULB VD VOLUME DAMPER VEL VELOCITY VFD VARIABLE FREQUENCY DRIVE WG WATER GAUGE W WITH Ø ROUND</p>	<p> DUCTWORK OR EQUIPMENT</p> <p> EXISTING DUCTWORK OR ITEMS TO REMAIN</p> <p> REMOVE EXISTING DUCTWORK OR ITEM</p> <p> FLEXIBLE DUCTWORK</p> <p> SQUARE SUPPLY AIR CEILING DIFFUSER</p> <p> SQUARE RETURN AIR CEILING GRILLE</p> <p> ROUND SUPPLY AIR DIFFUSER</p> <p> THERMOSTAT</p> <p> FLEXIBLE CONNECTION</p> <p> DIFFUSER/GRILLE TYPE DESIGNATION WITH CFM INDICATED</p> <p> KEYNOTE DESIGNATION</p> <p> FIRE DAMPER</p> <p> VOLUME DAMPER</p> <p> AUTOMATIC DAMPER</p> <p> CONDENSATE DRAIN PIPING</p> <p> DUCT SMOKE DETECTOR</p> <p> DOOR UNDERCUT (3/4" UNLESS NOTED OTHERWISE)</p> <p> POINT OF DUCT TRANSITION</p> <p> NEW TO EXISTING POINT OF CONNECTION</p> <p> LIMIT OF DEMOLITION POINT OF REMOVAL</p> <p> PERIMETER SLOT DIFFUSER</p> <p> DUCTWORK WITH TURNING VANES</p> <p> ACOUSTICALLY LINED DUCTWORK (1" UNLESS OTHERWISE NOTED)</p> <p> ROUND RIGID DUCT RUNOUT</p> <p> AIR FLOW ARROW</p>	<ol style="list-style-type: none"> ALL NEW DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE MOST RECENT SMACNA STANDARDS. RIGIDITY CLASS, DIMENSIONS OF TRANSVERSE JOINTS AND INTERMEDIATE REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE PHYSICAL SPACE LIMITATIONS OF PROJECT. ALL DUCTWORK SHALL BE SEAL CLASS A AND 2" WATER GAUGE PRESSURE CLASSIFICATION. THE ENTIRE AIR DISTRIBUTION SYSTEM SHALL BE SEALED AS REQUIRED TO PREVENT AIR LEAKAGE IN EXCESS OF SMACNA LEAKAGE CLASS 12 VALUE FOR THE OPERATING PRESSURE. IF THIS IS EXCEEDED, DUCT SYSTEM SHALL BE DISASSEMBLED AND REPAIRED UNTIL PROVEN TO COMPLY WITH CLASS 12 BY TESTING AT 125% OF THE OPERATING PRESSURE. THE ENTIRE AIR DISTRIBUTION SYSTEM INCLUDING ALL BRANCH DUCTWORK AND DIFFUSER CONNECTIONS SHALL BE SEALED AS REQUIRED TO PREVENT AIR LEAKAGE IN EXCESS OF 5%. DUCT SEALANT HAVE A FIRE HAZARD RATING NOT TO EXCEED 25 FLAME SPREAD AND 50 SMOKE DEVELOPED. ALL SQUARE THROAT 90 ELBOWS SHALL HAVE TURNING VANES. FIBERGLASS DUCTWORK WILL NOT BE ACCEPTABLE. ALL DUCTWORK DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS. DUCTWORK SIZES SHOWN DO NOT ACCOUNT FOR DUCTWORK LINER OR INSULATION WRAP THICKNESS. ALL DUCTWORK INCLUDING ROUND AND RECTANGULAR DUCTWORK SHALL BE EXTERNALLY INSULATED WITH A FIBERGLASS FLEXIBLE BLANKET TYPE OF INSULATION 0.6 LB DENSITY, 1-1/2" THICK WITH VAPOR BARRIER FACING, UNLESS NOTED TO BE INTERNALLY LINED. WHERE SHOWN OR WHERE NOTED ON THE DRAWINGS TO BE INTERNALLY LINED, SUPPLY AND RETURN AIR DUCTWORK SHALL BE INTERNALLY INSULATED WITH 1" THICK FIBERGLASS DUCT LINER WITH FIRE-RESISTANT COATING ON THE SURFACE FACING THE AIR STREAM. DUCT LINER SHALL BE 2-LB DENSITY WITH A MAXIMUM THERMAL CONDUCTIVITY (K) OF 0.26 AT 75 DEGREES F. INSULATION SHALL HAVE A MINIMUM R VALUE OF R=6.0. ALL NEW FLEXIBLE DUCT SHALL BE INSULATED WITH FIBERGLASS VAPOR JACKET HAVING A MAXIMUM THERMAL CONDUCTIVITY (K) OF 0.23 AT 75 DEGREES F. NEW FLEXIBLE DUCT SHALL BE WOUND SPIRAL ALUMINUM HELIX OR REINFORCED ALUMINUM FOIL FABRIC LOCKED INTO A SPIRAL ALUMINUM HELIX SUITABLE FOR A POSITIVE WORKING PRESSURE OF AT LEAST 3" W.C. NEW FLEXIBLE DUCT SHALL BE FLEXMASTER TYPE 3, TYPE 5, TYPE 8 OR APPROVED EQUAL. ALL LINER AND INSULATION SHALL HAVE A COMPOSITE (INSULATION, JACKET OR FACING, AND ADHESIVE) FIRE HAZARD RATING NOT TO EXCEED 25 FLAME SPREAD AND 50 SMOKE DEVELOPED AS DETERMINED BY THE APPLICABLE UL OR ASTM STANDARD. ACCESSORIES SUCH AS COATINGS, TAPES, AND ADHESIVES SHALL HAVE THE SAME COMPONENT RATINGS. INSULATION SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN RECOMMENDATIONS. THE MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL NOT EXCEED 8'-0". WHERE A LENGTH GREATER THAN 8'-0" OCCURS, CONTRACTOR SHALL EXTEND THE DUCTWORK WITH EXTERNALLY INSULATED ROUND SHEET METAL OF THE SAME SIZE AS THE FLEXIBLE DUCT. FLEXIBLE DUCTWORK SHALL NOT EXTEND THROUGH FULL HEIGHT PARTITIONS. CONTRACTOR SHALL EXTEND RIGID ROUND DUCTWORK THROUGH FULL HEIGHT PARTITIONS BEFORE CONNECTING FLEXIBLE DUCTWORK. PROVIDE SPIN COLLAR BRANCH FITTINGS, CONSTRUCTED OF GALVANIZED STEEL, WITH VOLUME DAMPER AT ALL NEW ROUND BRANCH TAPS SERVING ALL SUPPLY AIR CEILING DIFFUSERS AND EXHAUST AIR CEILING GRILLES OR REGISTERS. WHERE THE DEPTH OF THE DUCTWORK WILL NOT PERMIT A SPIN COLLAR FITTING, PROVIDE AN EQUIVALENT FLAT OVAL CONNECTION WITH MANUAL VOLUME DAMPER AND AN OVAL TO ROUND TRANSITION FOR EACH DIFFUSER TAP. PROVIDE VENTLOCK CONCEALED DAMPER REGULATOR MODEL NO. 677 WITH EXTENSION ROD AND MOUNTING HARDWARE FOR VOLUME DAMPERS LOCATED ABOVE NON-ACCESSIBLE CEILINGS, WITHIN FURRINGS AND AS INDICATED ON THE DRAWINGS. UNLESS OTHERWISE NOTED ON THE DRAWINGS, DUCTWORK SHALL BE INSTALLED TIGHT TO UNDERSIDE OF THE STRUCTURE. DUCTWORK SHALL BE CONFIGURED, POSITIONED, AND INSTALLED TO PERMIT THE INSTALLATION OF LIGHT FIXTURES. PROVIDE ALL NECESSARY RISES, DROPS, OFFSETS, AND OTHER FITTINGS AS REQUIRED TO ACCOMMODATE THIS CRITERIA. ANY DUCTWORK WHICH MUST TRANSITION AND DROP BELOW PIPING OR OTHER DUCTWORK SHALL TRANSITION BACK TO THE BOTTOM OF THE STRUCTURE IMMEDIATELY. THE CONTRACTOR SHALL COORDINATE ALL NEW DUCTWORK INCLUDING DUCTWORK INSULATION AND REINFORCING WITH EXISTING DUCTWORK AND DUCTWORK ANGLE BRACING SUCH THAT THE NEW DUCTWORK WILL FIT WITHIN THE SPACE LIMITATIONS OF THE PROJECT. PROVIDE FLEXIBLE CONNECTION AT INLETS AND OUTLETS OF ALL AIR HANDLING UNITS, AND FANS. PROVIDE U.L. LISTED OUT OF THE AIR STREAM TYPE FIRE DAMPERS WITHIN NEW OR EXISTING DUCTWORK AT LOCATIONS WHERE DUCTWORK PENETRATES FIRE-RATED WALL AND FLOOR ASSEMBLIES, AS REQUIRED BY APPLICABLE CODES, AND AS INDICATED ON THE DRAWINGS. PROVIDE U.L. LISTED SMOKE DAMPERS WITHIN NEW OR EXISTING DUCTWORK AT LOCATIONS WHERE DUCTWORK PENETRATES SMOKE RATED PARTITIONS AS REQUIRED BY APPLICABLE CODES AND AS INDICATED ON THE DRAWINGS. ALL NEW SUPPLY AIR DIFFUSERS AND EXHAUST OR RETURN AIR GRILLES AND REGISTERS SHALL BE AS INDICATED ON THE DIFFUSER SCHEDULE OR ON THE DRAWINGS. DIFFUSERS SHALL BE SUITABLE FOR INSTALLATION IN THE CEILING TYPE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. NECK SIZE OF DIFFUSER SHALL BE THE SAME AS THE FLEXIBLE SUPPLY DUCT UNLESS OTHERWISE INDICATED. AIR VOLUME SHALL BE AS INDICATED ON THE DRAWINGS. PROVIDE AIR THROW WITH 4-WAY ADJUSTABLE DISCHARGE PATTERN UNLESS INDICATED OTHERWISE WITH THROW ARROWS ON DRAWINGS. PROVIDE COMPLETE ACCESS TO ALL NEW OR RELOCATED AIR HANDLING UNITS, TERMINAL DEVICES, HEATING COILS, AND FANS AND NOTIFY ENGINEER OF ANY CONFLICTS PRIOR TO INSTALLATION. ALL RETURN AIR OPENINGS INDICATED ON DRAWINGS ARE LOCATED ABOVE THE CEILING UNLESS NOTED OTHERWISE. COORDINATE WITH ARCHITECTURAL DOCUMENTS FOR THE EXACT LOCATION OF ALL WALL MOUNTED THERMOSTATS. THERMOSTATS ARE SHOWN ON THE MECHANICAL DRAWINGS FOR ROOM AND GENERAL WALL LOCATION ONLY. ARCHITECT AND ENGINEER SHALL HAVE FINAL APPROVAL OF EXACT THERMOSTAT LOCATIONS. ALL THERMOSTATS SHALL BE MOUNTED AT 48" AFF MAXIMUM PER ADA REQUIREMENTS. WHERE EXISTING EQUIPMENT IS TO BE RELOCATED, EXTREME CARE SHALL BE TAKEN TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE OWNER, AT NO ADDITIONAL COST. THE CONTRACTOR SHALL SEAL ALL LEAKS IN NEW DUCTWORK AND EXISTING DUCTWORK TO REMAIN. THE CONTRACTOR SHALL CAP AND SEAL ALL UNUSED TAPS AND OPENINGS IN THE EXISTING DUCTWORK. EXISTING WATER SOURCE HEAT PUMP UNITS TO REMAIN SHALL BE CHECKED AND REPAIRED IF NECESSARY FOR PROPER OPERATION. REPLACE ALL UNIT FILTERS AND THOROUGHLY CLEAN THE COMPLETE UNIT ASSEMBLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND/OR DISPOSING OF ALL ITEMS THAT ARE NOT NECESSARY IN THE COMPLETION OF THE PROJECT AND SHALL CLEAN THE AREA OF CONSTRUCTION AFTER THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR BALANCING AND ADJUSTING THE AIR DISTRIBUTION SYSTEM. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR RE-BALANCING AND ADJUSTING OTHER AREAS OUTSIDE OF THE AREAS OF WORK THAT ARE AFFECTED BY THIS CONTRACT. CONTRACTOR SHALL BE NEBB OR AABC. ALL DUCTWORK MOUNTED INSULATED AND GASKETED HINGED ACCESS DOORS SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE APPLICABLE SMACNA GUIDELINES. ACCESS DOORS SHALL BE PROVIDED AT LOCATIONS REQUIRED FOR ACCESS TO FIRE OR SMOKE DAMPERS, DAMPER ACTUATORS, AND AS INDICATED ON THE DRAWINGS. UNLESS NOTED OTHERWISE ON THE DRAWINGS OR RESTRICTED BY DUCTWORK DIMENSIONS, SIZE OF ACCESS DOORS SHALL BE 15"x15". POSITION OF ACCESS DOOR SHALL PROVIDE ADEQUATE ACCESS FOR SERVICE AND MAINTENANCE OF ITEM SERVED. ALL DIFFUSER TAPS SHALL BE AT LEAST 4'-0" DOWN STREAM OF THE TERMINAL DEVICE WHENEVER POSSIBLE. 	<ol style="list-style-type: none"> ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL JURISDICTION HAVING AUTHORITY, ALL APPLICABLE DISTRICT OF COLUMBIA CODE REQUIREMENTS, AND NFPA 90. PRIOR TO BID, THE CONTRACTOR SHALL EXAMINE ALL PROJECT DOCUMENTS TO DEVELOP A COMPLETE UNDERSTANDING OF THE PROJECT SCOPE. FAILURE TO REVIEW ALL CONTRACT DRAWINGS AND EXISTING CONDITIONS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM ALL WORK REQUIRED. THE CONTRACTOR SHALL, UPON REVIEW OF THE DRAWINGS AND EXISTING CONDITIONS, ADVISE THE OWNER OF ANY DISCREPANCIES WHICH WILL AFFECT THE WORK REQUIRED. IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INDICATE FINISHED WORK THAT IS FULLY ADJUSTED, TESTED, AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE", UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL FURNISH AND INSTALL THE COMPLETE AND FUNCTIONAL SYSTEMS REQUIRED, INCLUDING EQUIPMENT, CONTROLS, DUCTWORK, PIPING, WIRING, VALVES, AND ALL OTHER APPURTENANCES AND HARDWARE FOR A COMPLETE SYSTEM. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS NECESSARY FOR THE COMPLETE INSTALLATION OF THE EQUIPMENT AS REQUIRED BY CODE WITHOUT ADDITIONAL COST TO THE OWNER, REGARDLESS WHETHER THE ITEMS ARE INDICATED IN THE CONTRACT DRAWINGS OR SPECIFICATIONS. SUCH ITEMS COULD BE, BUT ARE NOT LIMITED TO, SUPPORTS, INSULATION, WIRING, LUBRICATION, MOTOR CONTROLLERS, REFRIGERANTS, START-UP AND SERVICE, ETC. THE CONTRACTOR SHALL FURNISH AND INSTALL A FIRST CLASS SYSTEM AND SHALL COMPLETELY COORDINATE WITH ALL OTHER TRADES. ALL CONFLICTS WHICH MAY PREVENT THE COMPLETION OF WORK SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL NOT PROCEED WITH RELATED WORK UNTIL THE CONFLICT IS RESOLVED. THE CONTRACTOR SHALL INSTALL ALL MECHANICAL AND ELECTRICAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE ALL COMPONENTS AND ACCESSORIES REQUIRED FOR THE COMPLETE INSTALLATION. THE CONTRACTOR SHALL PROVIDE SUCH ITEMS TO COMPLETE THE ENTIRE SYSTEM AND PLACE IN PROPER OPERATION IN ACCORDANCE WITH APPLICABLE CODES, INDUSTRY STANDARDS, AND EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. LOCATIONS OF EQUIPMENT, PIPING, VALVES, ETC. ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN EXACT LOCATIONS AND ESTABLISH EXACT DIMENSIONS ON THE JOB SITE AFTER STUDYING THE CONDITIONS. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND ARRANGE FOR ALL INSPECTIONS BY LOCAL AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ADDITIONAL FITTINGS AND REROUTING OF PIPING AS REQUIRED TO ASSURE THE PIPING SYSTEMS ARE INSTALLED PROPERLY AND IN ACCORDANCE WITH CODE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ADDITIONAL FITTINGS AND REROUTING OF DUCTWORK AS REQUIRED TO ASSURE THE AIR DISTRIBUTION SYSTEMS ARE INSTALLED PROPERLY AND IN ACCORDANCE WITH SMACNA STANDARDS. THE CONTRACTOR SHALL INSTALL ALL AIR DISTRIBUTION SYSTEMS SO AS TO NOT INTERFERE WITH THE PLUMBING, STRUCTURAL, ELECTRICAL, AND ARCHITECTURAL SYSTEMS. THE CONTRACTOR SHALL COORDINATE THIS PROJECT REQUIREMENT. ALL AIR AND WATER SYSTEMS SHALL BE BALANCED AND TESTED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT. IT SHALL BE ESTABLISHED THAT ALL EQUIPMENT IS CAPABLE OF OPERATING AT THE DESIGN CAPACITY AND ALL CONTROLS ARE OPERATING TO THE SATISFACTION OF THE OWNER. ALL SYSTEMS SHALL BE CHECKED FOR EXCESSIVE NOISE OR VIBRATION AND ALL SUCH CONDITIONS BE CORRECTED BY THE CONTRACTOR. BALANCING CONTRACTOR SHALL BE NEBB OR AABC. THE CONTRACTOR SHALL SUBMIT A CERTIFIED BALANCING REPORT TO THE OWNER UPON COMPLETION OF THE PROJECT. ANY EQUIPMENT LOCATED WITHIN A RETURN AIR PLENUM SHALL BE RATED FOR SUCH APPLICATION IN ACCORDANCE WITH APPLICABLE REGULATIONS. STRUCTURAL COMPONENTS SHALL BE X-RAYED PRIOR TO CUTTING OR DRILLING, AND SHALL NOT BE CUT, DRILLED, OR MODIFIED IN ANY WAY WITHOUT REVIEW AND WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER. THE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA (SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION) DUCT STANDARDS AND ASHRAE (AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS) RECOMMENDATIONS. IN CASE SIZE OF DUCTWORK IS NOT SHOWN ON THE DRAWINGS, THE CONTRACTOR MAY REQUEST THE SIZE FROM THE OWNER'S REPRESENTATIVE. THE SHAPE OF THE DUCT MAY BE CHANGED WHEN APPROVED BY THE OWNER'S REPRESENTATIVE AND THAT THE STATIC LOSS WITHIN THE DUCT IS NOT CHANGED. ALL DUCT SIZES SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS. PROVIDE NFPA APPROVED FIRE STOPPING AT ALL PIPING AND CONDUIT PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND COMPONENTS. THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL MOTOR STARTERS FOR MECHANICAL EQUIPMENT AND THE EQUIPMENT SHALL BE WIRED BY THE ELECTRICAL CONTRACTOR. THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP, MATERIALS, EQUIPMENT, AND RELATED ITEMS FOR A PERIOD AFTER COMPLETION OF THE PROJECT AND REPLACE ANY DEFECTIVE MATERIALS, EQUIPMENT, AND RELATED ITEMS WITHIN THE GUARANTEE PERIOD. THE PERIOD SHALL BE TWELVE MONTHS FROM THE COMPLETION OF THE PROJECT UNLESS SPECIFIED OTHERWISE IN THE SPECIFICATIONS OR CONTRACT DOCUMENTS. ALL CONTRACT DOCUMENTS INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, AND PLUMBING ARE COMPLEMENTARY AND MUST BE USED IN COMBINATION BY THE CONTRACTOR TO OBTAIN COMPLETE CONSTRUCTION INFORMATION AND PROVIDE A COMPLETE OPERABLE SYSTEM. REFER TO THE SPECIFICATION NOTES FOR ADDITIONAL INFORMATION. OUTSIDE AIR VENTILATION IS PROVIDED TO THIS SPACE IS FROM EXISTING TO REMAIN AIR HANDLING UNITS. EXISTING TO REMAIN AIR HANDLING UNITS SERVING THE AREA OF WORK DELIVERS 21520 CFM OF SUPPLY AIR AND HAS AN OUTSIDE AIR SETTING OF 23% OF THE TOTAL SUPPLY AIR VOLUME. THIS EXCEEDS THE MINIMUM REQUIRED IN ACCORDANCE WITH THE OUTSIDE AIR COMPLIANCE CHART. CONTRACTOR SHALL BALANCE ACCORDINGLY TO CONFIRM THESE MINIMUM SETTINGS. RETURN AIR FROM THIS SPACE SHALL BE THROUGH RETURN AIR GRILLES FIXTURES TO A COMMON RETURN AIR PLENUM. CONTRACTOR SHALL PROVIDE SHOP DRAWING SUBMITTALS FOR APPROVAL BY THE OWNER/ARCHITECT/ENGINEER ALL EQUIPMENT IN ACCORDANCE WITH THE GENERAL CONDITIONS FOR THE PROJECT. SUBMITTALS SHALL INCLUDE: DIFFUSERS, GRILLES, TERMINAL DEVICES, DUCTWORK, AND AIR BALANCE REPORT.
<p align="center">MECHANICAL DEMOLITION NOTES</p>			
<ol style="list-style-type: none"> THE EXACT SIZES AND LOCATIONS OF ALL EXISTING DUCTWORK AND PIPING SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO DEMOLITION OF ANY EXISTING WORK. THE DEMOLITION WORK SHALL BE COORDINATED WITH THE NEW WORK TO ASSURE PROPER LIMITS OF DEMOLITION. WHETHER SPECIFICALLY INDICATED OR NOT, THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT AND ASSOCIATED PIPING AND DUCTWORK THAT IS NO LONGER REQUIRED TO REMAIN AS A PART OF AN ACTIVE SYSTEM. THE CONTRACTOR SHALL REMOVE AND CAP EXISTING BRANCH PIPING AND DUCTWORK THAT NO LONGER REQUIRED TO REMAIN AS PART OF AN ACTIVE SYSTEM, AT THE APPROPRIATE MAIN. ALL EXISTING DIFFUSERS, EQUIPMENT AND PIPING REMOVED DURING CONSTRUCTION SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STORED, REMOVED FROM THE JOB SITE, OR DISPOSED OF AS DIRECTED BY THE OWNER'S REPRESENTATIVE. ALL OPENINGS REMAINING IN DUCTWORK AS A RESULT OF DEMOLITION SHALL BE SEALED WITH AN AIRTIGHT SHEET METAL CAP, UNLESS OTHERWISE NOTED ON THE DRAWINGS. WHERE EXISTING EQUIPMENT IS RELOCATED, EXTREME CARE SHALL BE TAKEN TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE OWNER, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL COORDINATE ANY PIPING AND DUCTWORK WHICH MUST REMAIN AS PART OF AN ACTIVE SYSTEM AND IS IN CONFLICT WITH THE NEW LAYOUT. CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND ENGINEER IMMEDIATELY. ALL EXISTING CEILING DIFFUSERS THAT ARE RELOCATED SHALL BE INSPECTED FOR DAMAGE, CLEANED, REPAIRED OR REPLACED AT NO ADDITIONAL COST AND INSTALLED AS SHOWN ON THE MECHANICAL DRAWINGS. ALL EXISTING EQUIPMENT TO REMAIN OR THAT IS RELOCATED SHALL BE INSPECTED FOR DAMAGE, CLEANED, REPAIRED OR REPLACED AT NO ADDITIONAL COST AND INSTALLED AS SHOWN ON THE MECHANICAL DRAWINGS. IN THE AREA OF RENOVATIONS, EXISTING TO REMAIN DUCTWORK THAT IS NOT INTERNALLY OR EXTERNALLY INSULATED AND PIPING THAT IS NOT INSULATED SHALL BE EXTERNALLY INSULATED TO THE SAME SPECIFICATION OF THE INSULATION SPECIFIED FOR THIS PROJECT. REFER TO THE GENERAL NOTES, MECHANICAL NOTES, AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. 			



- KEYNOTES
- 1 EXISTING SYSTEMS AND EQUIPMENT SERVING AREA TO REMAIN. TYPICAL UNLESS NOTED OTHERWISE.
 - 2 EXISTING SECONDARY SUPPLY AIR DUCTWORK WITHIN CEILING SPACE TO REMAIN. TYPICAL UNLESS NOTED OTHERWISE.
 - 3 EXISTING RETURN AIR DUCTWORK TO REMAIN. TYPICAL UNLESS NOTED OTHERWISE.
 - 4 EXISTING RETURN AIR TRANSFER OPENING/S TO REMAIN WITHIN FULL HEIGHT WALLS. TYPICAL UNLESS NOTED OTHERWISE.
 - 5 EXISTING RETURN AIR GRILLE IN SPACE TO REMAIN. TYPICAL UNLESS NOTED OTHERWISE.
 - 6 EXISTING DUCTWORK IN ATTIC TO REMAIN. TYPICAL UNLESS NOTED OTHERWISE.
 - 7 EXISTING FAN POWERED TERMINAL DEVICE (FPTD) IN ATTIC SPACE TO REMAIN. CONFIRM PROPER OPERATION.
 - 8 EXISTING 24"x24" SUPPLY AIR DIFFUSER TO REMAIN. PRE-BALANCE DIFFUSER WITHIN AREA TO CFM INDICATED OF WORK PRIOR TO START OF WORK TO CONFIRM EXISTING SUPPLY AIR SUPPLIED TO AREA OF WORK. TYPICAL UNLESS NOTED OTHERWISE.
 - 9 EXISTING SUPPLY AIR SLOT DIFFUSER TO REMAIN. PRE-BALANCE DIFFUSER WITHIN AREA OF WORK PRIOR TO START OF WORK TO CONFIRM EXISTING SUPPLY AIR SUPPLIED TO AREA OF WORK. TYPICAL UNLESS NOTED OTHERWISE.
 - 10 EXISTING FAN POWERED TERMINAL DEVICE (FPTD) IN CEILING SPACE TO REMAIN. CONFIRM PROPER OPERATION. MAINTAIN CLEARANCES AND ACCESS SPACE AT DEVICE. TYPICAL UNLESS NOTED OTHERWISE.
 - 11 EXISTING THERMOSTAT TO REMAIN IN EXISTING LOCATION.
 - 12 REMOVE EXISTING THERMOSTAT FOR RELOCATION.
 - 13 REMOVE EXISTING 24"x24" SUPPLY AIR DIFFUSER AND SALVAGE FOR RELOCATION AND REUSE. AS NECESSARY, REMOVE FLEXIBLE DUCTWORK BACK TO SECONDARY DUCTWORK. REUSE OPENINGS WHERE POSSIBLE, AND CAP AND SEAL ANY UNUSED OPENINGS AIR TIGHT.
 - 14 REMOVE EXISTING RETURN AIR TRANSFER OPENING.
 - 15 REMOVE EXISTING 24"x24" RETURN AIR GRILLE. SALVAGE FOR RELOCATION AND REUSE.
 - 16 REMOVE EXISTING 24"x24" SUPPLY AIR DIFFUSER. AS NECESSARY, REMOVE FLEXIBLE DUCTWORK BACK TO SECONDARY DUCTWORK. CAP AND SEAL ANY UNUSED OPENINGS AIR TIGHT.

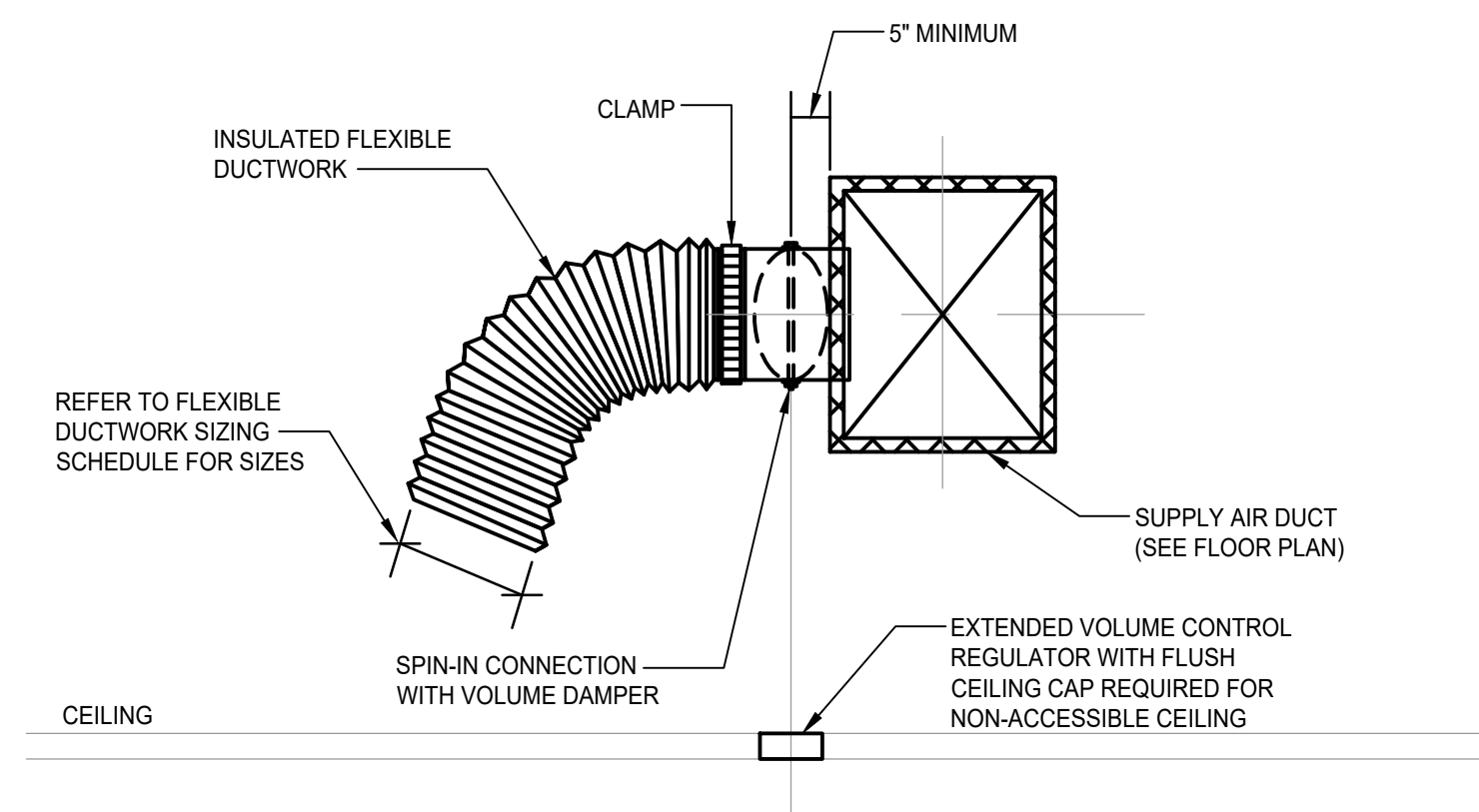
1 THIRD FLOOR MECHANICAL DEMOLITION PLAN
M-2 1/8" = 1'-0"



KEYNOTES

- 1 EXISTING SYSTEMS AND EQUIPMENT SERVING AREA TO REMAIN. TYPICAL UNLESS NOTED OTHERWISE.
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- 8 EXISTING 24"x24" SUPPLY AIR DIFFUSER TO REMAIN. RE-BALANCE DIFFUSER WITHIN AREA TO CFM INDICATED. TYPICAL UNLESS NOTED OTHERWISE.
- 9 EXISTING SUPPLY AIR SLOT DIFFUSER TO REMAIN. RE-BALANCE DIFFUSER WITHIN AREA TO CFM INDICATED. TYPICAL UNLESS NOTED OTHERWISE.
- 10 EXISTING FAN POWERED TERMINAL DEVICE (FPTD) IN CEILING SPACE TO REMAIN. CONFIRM PROPER OPERATION. MAINTAIN CLEARANCES AND ACCESS SPACE AT DEVICE. RE-BALANCE TO CFM INDICATED. TYPICAL UNLESS NOTED OTHERWISE.
- 11 EXISTING THERMOSTAT TO REMAIN IN EXISTING LOCATION.
- 12 NEW LOCATION OF EXISTING THERMOSTAT FOR FAN POWERED TERMINAL DEVICE. RE-CALIBRATE OPERATION OF THERMOSTAT.
- 13 NEW LOCATION OF EXISTING 24"x24" SUPPLY AIR DIFFUSER. PROVIDE NEW FLEXIBLE DUCTWORK AS NECESSARY. REUSE OPENINGS WHERE POSSIBLE, AND CAP AND SEAL ANY UNUSED OPENINGS AIR TIGHT.
- 14 PROVIDE RETURN AIR TRANSFER OPENING.
- 15 NEW LOCATION OF EXISTING 24"x24" RETURN AIR GRILLE.
- 16 PROVIDE 24"x24" SUPPLY AIR DIFFUSER. PROVIDE ASSOCIATED FLEXIBLE AND/OR RIGID DUCTWORK AS NECESSARY. COORDINATE LOCATION WITH ARCHITECT PRIOR TO INSTALLATION. REFER TO FLEXIBLE DUCT SIZING CHART ON M-4. REFER TO DIFFUSER AND GRILLE SCHEDULE ON M-4. BALANCE TO CFM INDICATED.
- 17 PROVIDE COOLING ONLY VARIABLE AIR VOLUME (VAV) TERMINAL DEVICE IN ATTIC SPACE. CONNECT TO MAIN SUPPLY DUCTWORK WITH DUCT RUNOUT ONE SIZE LARGER THAN DEVICE INLET. CONTRACTOR TO CONFIRM MAIN SUPPLY DUCTWORK LOCATION IN ATTIC SPACE. PROVIDE SECONDARY SUPPLY AIR DUCTWORK. MAINTAIN ALL CLEARANCES AND ACCESS TO DEVICE AND ALL EXISTING ITEMS. INTEGRATE INTO EXISTING BUILDING AUTOMATION SYSTEM (BAS). REFER TO DETAIL AND SCHEDULE ON DRAWING M-4. BALANCE TO CFM INDICATED.
- 18 PROVIDE VARIABLE AIR VOLUME TERMINAL DEVICE THERMOSTAT EQUAL TO EXISTING AND SUITABLE FOR THE EXISTING CONTROL SYSTEM. COORDINATE LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- 19 PROVIDE SECONDARY SUPPLY AIR DUCTWORK WITHIN CEILING SPACE. REFER TO PLAN FOR SIZING.
- 20 DROP DUCTWORK THROUGH ATTIC FLOOR INTO CEILING SPACE OF THIS FLOOR. COORDINATE LOCATION IN FIELD.

1 THIRD FLOOR MECHANICAL PLAN
M-3 1/8" = 1'-0"



4
M-4 NOT TO SCALE
SPIN-IN COLLAR BRANCH FITTING DETAIL

FLEXIBLE DUCT SIZING SCHEDULE	
CFM RANGE	FLEXIBLE DUCT DIAMETER
0 TO 100	6"
101 TO 200	8"
201 TO 350	10"
351 TO 550	12"

NOTES:

- SCHEDULE SHALL APPLY TO ALL FLEXIBLE DUCT SERVING DIFFUSERS UNLESS OTHERWISE INDICATED.
- ROUND RIGID RUNOUTS FROM TRUNK DUCTS TO DIFFUSERS SHALL BE SAME SIZE AS FLEXIBLE DUCT FOR THE APPROPRIATE CFM IDENTIFIED.
- PROVIDE VOLUME DAMPER WITH SPIN-IN COLLAR OR FLAT OVAL CONNECTOR FOR EACH BRANCH CONNECTION.
- WHERE DUCTWORK DEPTH DOES NOT PERMIT A SPIN-IN COLLAR FITTING, EQUAL FLAT OVAL CONNECTION WITH MANUAL DAMPER SHALL BE PROVIDED WITH OVAL TO ROUND TRANSITION.

DIFFUSER AND GRILLE SCHEDULE									
UNIT DESIGNATION	CFM RANGE	THROW (FEET)	NECK SIZE (INCHES)	MAXIMUM NC LEVEL	DIRECTION OF FLOW	MAXIMUM PRESSURE DROP (IN WG)	MANUFACTURER AND MODEL NUMBER	DESCRIPTION	
A	0-100	X	6	35	X	X	TITUS PAS SERIES	24x24 PERFORATED FACE LAY-IN SUPPLY DIFFUSER	
B	101-200	X	8	35	X	X	TITUS PAS SERIES	24x24 PERFORATED FACE LAY-IN SUPPLY DIFFUSER	
C	201-350	X	10	35	X	X	TITUS PAS SERIES	24x24 PERFORATED FACE LAY-IN SUPPLY DIFFUSER	
D	351-500	X	12	35	X	X	TITUS PAS SERIES	24x24 PERFORATED FACE LAY-IN SUPPLY DIFFUSER	
E	0-1000	X	18x18	35	X	X	TITUS PAR SERIES	24x24 PERFORATED FACE LAY-IN SUPPLY GRILLE	
F	0-500	X	10x10	35	X	X	TITUS PAR SERIES	12x12 PERFORATED FACE LAY-IN RETURN GRILLE	

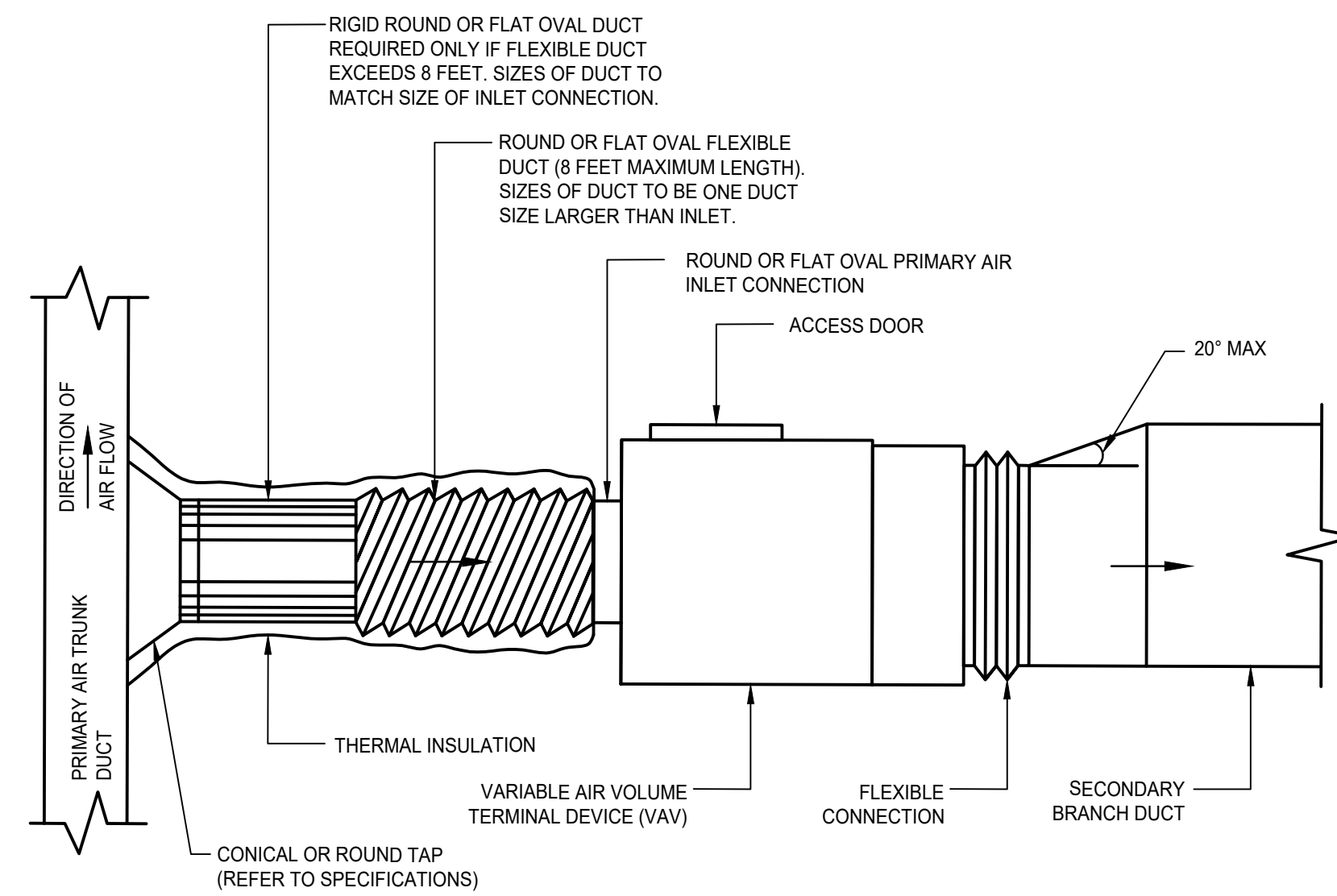
NOTES:

- FRAME AND BORDER TYPE SHALL MATCH THAT SPECIFIED ON THE ARCHITECTURAL DOCUMENTS.
- COORDINATE FINISH AND COLOR WITH ARCHITECT.
- SQUARE CEILING DIFFUSERS SHALL BE PROVIDED WITH 4-WAY PATTERN DEFLECTORS AND SHALL BE 4-WAY BLOW UNLESS OTHERWISE NOTED.

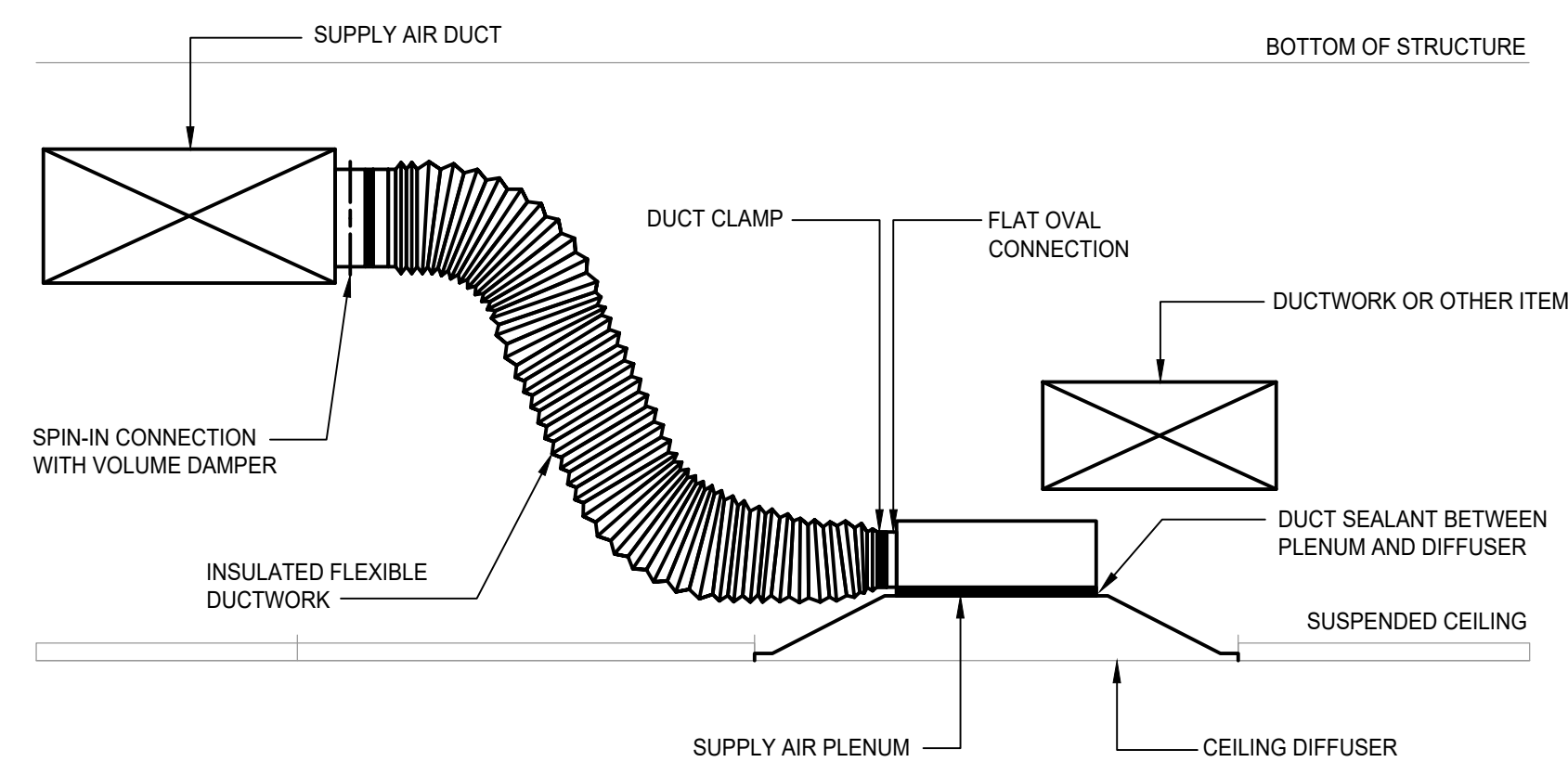
VARIABLE AIR VOLUME TERMINAL DEVICE SCHEDULE									
UNIT DESIGNATION	MAXIMUM AIR CFM	MINIMUM AIR CFM	ESP (W.G.)	INLET DIAMETER (IN)	MAXIMUM DEPTH (IN)	HEATING COIL (KW)	MANUFACTURER AND MODEL NUMBER	DESCRIPTION	
VAV-82B	400	0	0.3	6	8	N/A	TITUS DESV SERIES	SHUT-OFF COOLING ONLY TERMINAL UNIT	

NOTES:

- INLET SIZE INDICATED IS FOR ROUND OR FLAT OVAL CONNECTION. DUCT RUNOUT FROM TRUNK DUCT TO BE ONE DUCT SIZE 2" LARGER THAN INLET.
- REFER TO DRAWINGS FOR CFM SET POINT FOR PRIMARY COOLING CFM. VAV DEVICES WILL BE COOLING ONLY.
- PROVIDE WITH FACTORY INSTALLED DOC CONTROLLER TO BE FULLY COMPATIBLE WITH BUILDING AUTOMATION SYSTEM (BAS) SO THAT THIS DEVICE CAN BE MONITORED AND CONTROLLED FROM BAS SIMILAR TO OTHER DEVICES IN THE BUILDING. THE CONTRACTOR SHALL COORDINATE THE INTEGRATION OF THE DEVICE WITH THE SYSTEM AND SHALL COORDINATE WITH THE BUILDING ENGINEERS. PROVIDE NECESSARY CONTROLS, WIRING, TRANSFORMER, AND ASSOCIATED COMPONENTS.
- VAV DEVICES SHALL BE COMPATIBLE WITH EXISTING AIR HANDLING UNIT/ROOF TOP UNIT.



3
M-4 NOT TO SCALE
VARIABLE AIR VOLUME TERMINAL DEVICE DETAIL



2
M-4 NOT TO SCALE
CEILING DIFFUSER DETAIL


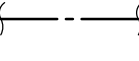
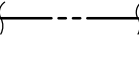
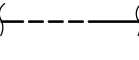
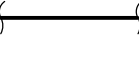
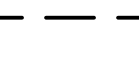

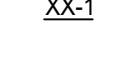
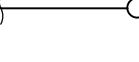

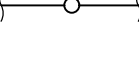
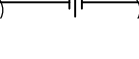

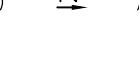


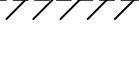






NOTES:	ROUND DUCT (IN)	EQUAL FLAT OVAL (H" x W")
	1. SUPPLY PLENUM AND FLAT OVAL CONNECTION SHALL APPLY TO SQUARE CEILING DIFFUSERS THAT ARE LOCATED BELOW DUCTWORK OR OTHER ITEMS, OR WHERE CLEARANCES ARE MINIMAL.	6
2. THE SIZE OF THE SUPPLY AIR PLENUM SHALL BE A MINIMUM OF 1" LARGER IN HEIGHT AND WIDTH THAN THE FLAT OVAL DUCTWORK CONNECTION.	8	4x15, 5x12, 6x11
3. THE SUPPLY AIR PLENUM IS NOT REQUIRED TO BE INSULATED. THE PLENUM/DIFFUSER CONNECTION SHALL BE SEALED WITH AN APPROVED DUCTWORK SEALANT.	10	6x15, 7x13, 8x11, 9x12
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A ROUND TO FLAT OVAL TRANSITION SECTION OF DUCTWORK AS REQUIRED.	12	7x20, 8x17, 9x15, 10x13
5. THE ADJACENT SCHEDULE SHALL BE USED BY THE CONTRACTOR FOR ROUND TO FLAT OVAL DUCTWORK SIZE EQUIVALENTS.	14	9x20, 10x18, 11x17, 12x15

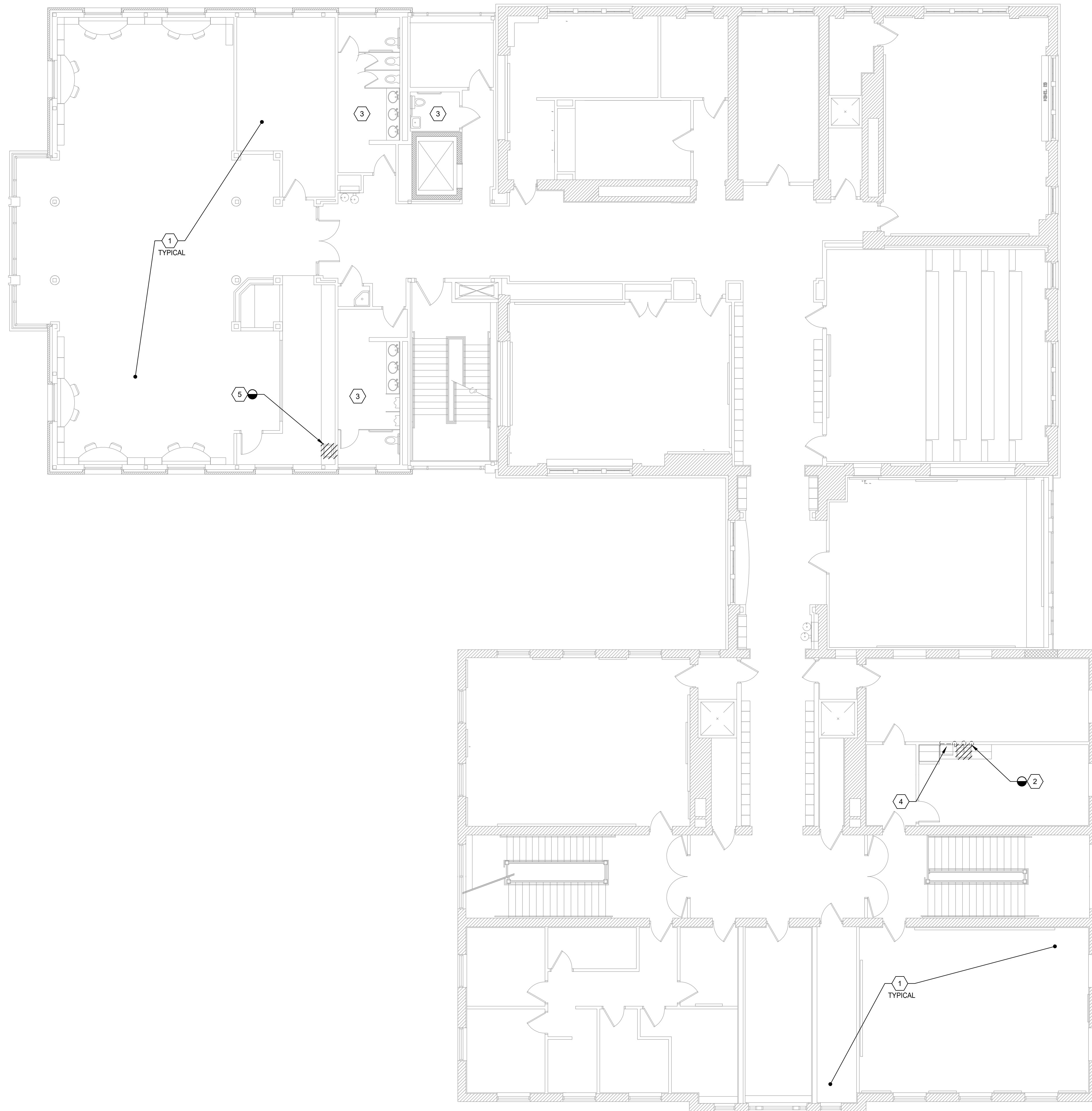
Project Name: Thurgood Marshall Academy	CFM of Unit Supplying Area = 21520
Date: 2/2026	Min. Outside Air CFM to Area = 5045
Unit Designation: Existing AHU	OSA is 23%

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Room	Description	Area (R) (Aa)	Area Outdoor Air Rate (RaAz)	Area Outdoor Air (RaAz)	Occupant Load Rate (People/1000 Ft ²)	Occupancy C x Ft/1000 (Pz)	Occupant Outdoor Air Rate (Rp)	Occupant Outdoor Air (RpPz)	Breathing Zone Outdoor Air (Vbz = RpPz + RaAz)	Zone Air Distribution Effectiveness (Ez)	Zone Outdoor Air (Voz = Vbz / Ez)	Supply Air Design (Vpz)	Transfer Air	Outdoor Air Fraction (Zp = Voz / Vpz)
231B	Resource Room	500	0.12	60	35	18	10	180	240	0.8	300	1600	0	0.188
230	Classroom	365	0.12	44	35	13	10	130	174	0.8	218	700	0	0.311
231A	Library	1360	0.12	163	25	34	10	340	503	0.8	629	3100	0	0.203
232	Classroom	366	0.12	44	35	13	10	130	174	0.8	218	700	0	0.311
242	Staff Lounge	370	0.06	22	20	8	5	40	62	0.8	78	520	0	0.150
205A	Classroom	505	0.12	61	35	18	10	180	241	0.8	302	1140	0	0.265
205B	Classroom	430	0.12	52	35	16	10	160	212	0.8	265	860	0	0.308
Existing	Conference Rooms	490	0.06	29	50	25	5	125	154	0.8	193	1200	0	0.161
Existing	Corridors	2424	0.06	145	0	0	0	0	145	0.8	182	900	0	0.202
Existing	Classrooms	4318	0.12	518	35	152	10	1520	2038	0.8	2548	8650	0	0.295
Existing	Offices	1625	0.06	98	5	9	5	45	143	0.8	179	2150	0	0.083
Totals		12753		1236		306		2850	4086		5112	21520	0	0.311

Do not utilize Occupant Diversity without specific approval from the Authority Having Jurisdiction	Occupant Diversity D = Ps / all zones Pz	Total Required Outdoor Air	Ev
	1	4885	0.84
System Population (Ps)	Uncorrected O.A. Vou = D * all zones RpPz + all zones RaAz	Percentage of Outdoor Air	
Diversity → 306	4886	23%	

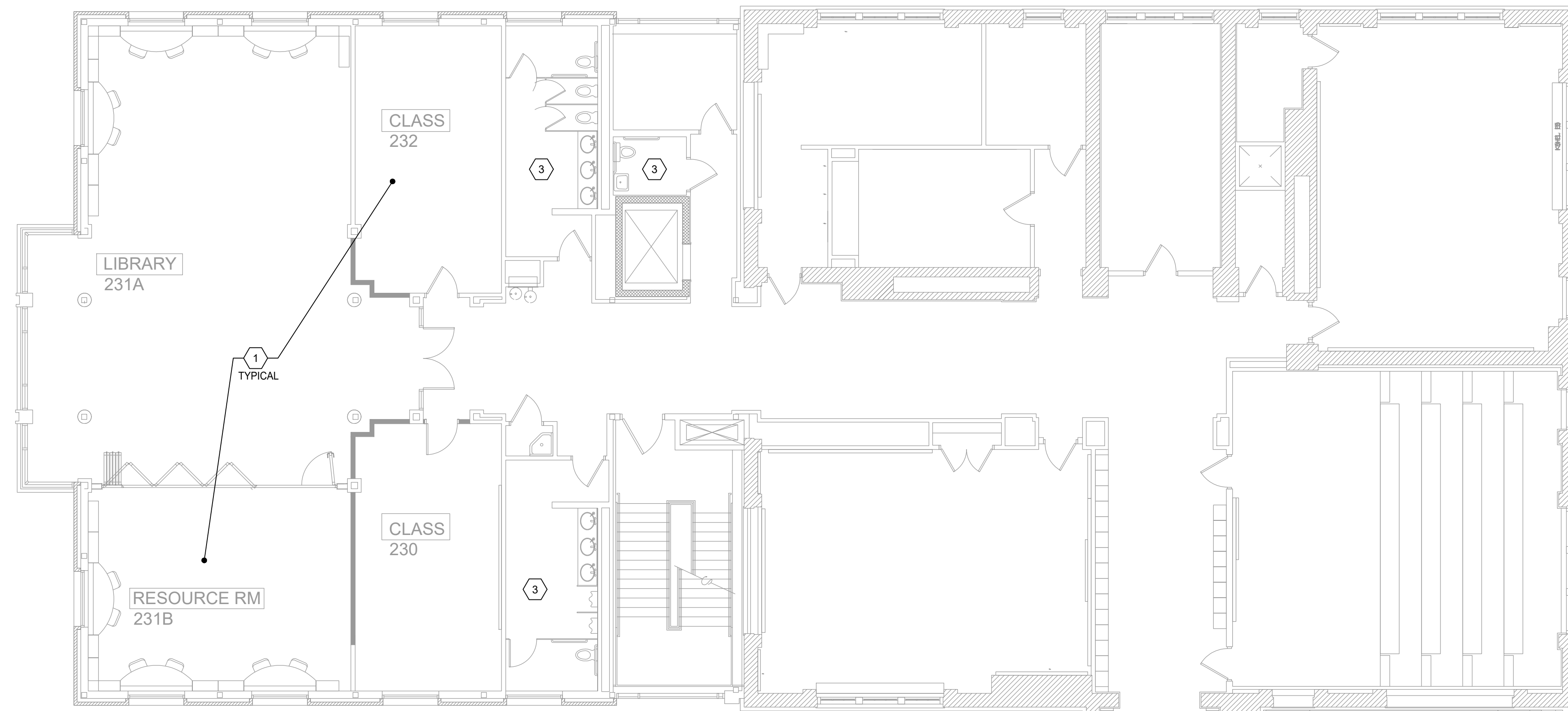
1
M-4 NOT TO SCALE
OUTSIDE AIR COMPLIANCE CHART

PLUMBING ABBREVIATIONS	PLUMBING SYMBOLS	PLUMBING SPECIFICATION NOTES	PLUMBING GENERAL NOTES
<p>ABV ABOVE AFF ABOVE FINISHED FLOOR AHU AIR HANDLING UNIT BFP BACK FLOW PREVENTOR BLW BELOW BTU BRITISH THERMAL UNIT CI CAST IRON CLG CEILING CO CLEAN OUT CONN CONNECTION CONT CONTINUATION CW COLD WATER DEG DEGREES DFU DRAINAGE FIXTURE UNITS DIA DIAMETER DN DOWN DW DISHWASHER DWG DRAWING EA EACH ELECT ELECTRICAL ETR EXISTING TO REMAIN EWH ELECTRIC WATER HEATER EX, E EXISTING F FAHRENHEIT FLR FLOOR GPF GALLONS PER FLUSH GPH GALLONS PER HOUR GPM GALLONS PER MINUTE HD HUB DRAIN HP HORSEPOWER HW HOT WATER HWR RECIRCULATED HOT WATER HZ HERTZ KW KILOWATT LF LINEAR FOOT MAX MAXIMUM MBH 1000 BRITISH THERMAL UNITS PER HOUR MCA MINIMUM CIRCUIT AMPACITY MIN MINIMUM MTD MOUNTED N/A NOT APPLICABLE NIC NOT IN CONTRACT OSD OPEN SITE DRAIN PD PRESSURE DROP PH PHASE REF REFRIGERATOR RPM REVOLUTIONS PER MINUTE RPZ REDUCED PRESSURE ZONE RTU ROOFTOP UNIT SAN SANITARY SFU SUPPLY FIXTURE UNITS TEMP TEMPERATURE TYP TYPICAL UON UNLESS OTHERWISE NOTED V VOLTAGE VP VENT PIPE VS VENT STACK VTR VENT THROUGH ROOF WCO WALL CLEAN-OUT WHA WATER HAMMER ARRESTER WP WASTE PIPE WS WASTE STACK W WITH</p>	<p> KEYNOTE DESIGNATION</p> <p> COLD WATER PIPING</p> <p> HOT WATER PIPING</p> <p> HOT WATER RECIRCULATION PIPING</p> <p> SANITARY OR WASTE PIPING</p> <p> SANITARY OR WASTE PIPING BELOW SLAB ON GRADE</p> <p> VENT PIPING</p> <p> PLUMBING FIXTURE DESIGNATION</p> <p> PIPE TURNING UP</p> <p> PIPE TURNING DOWN</p> <p> STOP VALVE</p> <p> UNION</p> <p> GATE VALVE</p> <p> CHECK VALVE</p> <p> CLEANOUT</p> <p> EXISTING PIPING</p> <p> REMOVE EXISTING EQUIPMENT OR PIPING</p> <p> BACKFLOW PREVENTOR</p> <p> NEW TO EXISTING POINT OF CONNECTION</p> <p> LIMIT OF DEMOLITION POINT OF REMOVAL</p> <p> DRAIN TRAP</p> <p> FLOOR OR OPEN SITE DRAIN</p> <p> RISER DESIGNATION</p>	<ol style="list-style-type: none"> THE HORIZONTAL SANITARY AND WASTE PIPING SHALL SLOPE AT 1/4" PER FOOT FOR ALL PIPING UP TO AND INCLUDING 3" AND SHALL SLOPE AT 1/8" PER FOOT FOR ALL PIPING 4" AND LARGER. PIPING SHALL BE ROUTED ABOVE CEILINGS AND SHALL BE CONCEALED WITHIN WALLS WHEREVER POSSIBLE. ALL DOMESTIC WATER PIPING SYSTEMS SHALL BE TESTED AND CLEANED IN ACCORDANCE WITH THE APPLICABLE CODES. THE CONTRACTOR SHALL HYDRAULICALLY PRESSURE TEST ALL PIPING AT THE FULL WORKING PRESSURE FOR A MINIMUM PERIOD OF 24-HOURS. STOP-LEAK COMPOUNDS WILL NOT BE ALLOWED. UNLESS NOTED OTHERWISE, ALL PRESSURIZED WATER PIPING SYSTEMS SHALL BE RATED FOR 150 PSI WORKING PRESSURE. THE CONTRACTOR SHALL MAKE ALL EQUIPMENT AND FIXTURE CONNECTIONS. SANITARY, SOIL OR WASTE PIPE SHALL NOT EXTEND GREATER THAN 2'-0" TO A DEAD-END. PROVIDE CLEAN-OUTS AS REQUIRED BY THE LOCAL AUTHORITIES. CONNECTIONS BETWEEN DISSIMILAR PIPING MATERIALS SHALL BE MADE WITH SUITABLE DIELECTRIC INSULATING UNIONS. ALL PIPING SHALL BE SUPPORTED WITH U.L. LISTED HANGERS AND SUPPORTS SUITABLE FOR THE INTENDED INSTALLATION. DESIGN, SELECTION, SPACING AND APPLICATION OF HANGERS AND SUPPORTS SHALL COMPLY WITH ANSI B31.1 AND MSS SP-89. SOLDERED COPPER JOINTS SHALL BE SOLDERED WITH LEAD FREE ASTM B22 GRADE 95T TIN-ANTIMONY SOLDER. ALL PRODUCTS LOCATED WITHIN PLENUM AREAS, INCLUDING BUT NOT LIMITED TO INSULATION AND ADHESIVE SYSTEMS, SHALL HAVE A COMPOSITE FIRE HAZARD RATING NOT TO EXCEED 25 FLAME SPREAD AND 50 SMOKE DEVELOPED AS DETERMINED BY THE APPLICABLE U.L. OR ASTM STANDARD. ALL NEW DOMESTIC WATER PIPING SHALL BE TYPE L HARD DRAWN SEAMLESS COPPER WATER TUBE. COPPER TUBE FITTINGS SHALL BE WROUGHT COPPER JOINT FITTINGS CONFORMING TO ANSI B16.22. PIPING SYSTEM SHALL BE INSULATED WITH 1/2" (1" FOR HOT WATER) THICK HEAVY DUTY FIBERGLASS MATERIAL WITH ALL PURPOSE NON-COMBUSTIBLE VAPOR BARRIER JACKET. INSULATION SHALL HAVE A MAXIMUM THERMAL CONDUCTIVITY FACTOR (K) OF 0.23 AT 75 DEGREES F. ADHESIVE SYSTEMS THAT EMPLOY RELEASE PAPER WILL NOT BE ACCEPTABLE. AS AN ACCEPTABLE ALTERNATE TO THE ABOVE INSULATION, THE CONTRACTOR MAY PROVIDE OWENS-CORNING "SSL-II" DOUBLESURE PIPE INSULATION. ALL NEW DOMESTIC WATER PIPING SHALL HAVE THE OPTION TO BE INSULATED WITH 3/4" (1" FOR HOT WATER) THICK ARMSTRONG FLEXIBLE ELASTOMERIC CLOSED CELL PIPE INSULATION OR APPROVED EQUAL. THE INSULATION SHALL HAVE A MAXIMUM THERMAL CONDUCTIVITY FACTOR (K) OF 0.28 AT 75 DEGREES F AND A MAXIMUM WATER PERMEABILITY OF 0.15 PERM-INCH. THE PIPE INSULATION BUTT JOINTS AND LONGITUDINAL JOINT SHALL BE SEALED WITH ARMSTRONG 520 ADHESIVE AND THE ENTIRE INSULATION INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ADHESIVE SYSTEMS THAT EMPLOY RELEASE PAPER WILL NOT BE ACCEPTABLE. GATE VALVES SHALL BE USED FOR STOP OR ISOLATION WATER APPLICATIONS. IN LIEU OF GATE VALVES FOR PIPING 2-1/2" AND SMALLER, BALL VALVES MAY BE USED. GLOBE VALVES SHALL BE USED FOR BALANCING OR THROTTLING VALVE APPLICATIONS. DOMESTIC WATER GATE VALVES FOR COPPER PIPING UP TO AND INCLUDING 2-1/2" SHALL BE NIBCO MODEL S-111 OR APPROVED EQUAL. CLASS 125, 200 PSIG WOG, BRONZE BODY WITH SOLDERED ENDS, RISING STEM, SOLID WEDGE AND SCREWED BONNET. STEMS, DISC FACES, SEAT FACES, SEAT RINGS AND BONNET BUSHINGS CONSTRUCTED OF BRONZE. DOMESTIC WATER GLOBE VALVES FOR COPPER PIPING UP TO AND INCLUDING 2-1/2" SHALL BE NIBCO MODEL S-235 OR APPROVED EQUAL. CLASS 150, 300 PSIG WOG, BRONZE BODY, BRONZE RISING STEM, UNION BONNET, RENEWABLE SEAT AND SOLDERED ENDS. STEMS, DISC FACES, SEAT FACES AND BUSHINGS CONSTRUCTED OF BRONZE. ALL NEW SANITARY, SOIL, WASTE, AND VENT WATER PIPING SHALL BE SERVICE WEIGHT CAST IRON, BELL AND SPIGOT, PIPE AND FITTINGS, ANSI A 112.5.1 AS MANUFACTURED BY TYPE PIPE AND FOUNDRY CO., U.S. PIPE AND FOUNDRY CO., CENTRAL FOUNDRY OR APPROVED EQUAL. TYPE "TY-SEAL" OR APPROVED EQUAL, NEOPRENE POSITIVE SEAL ELASTOMERIC COMPRESSION TYPE GASKETS SHALL BE USED AT ALL JOINTS. AS AN OPTION, ALL NEW SANITARY, SOIL, WASTE, AND VENT PIPING 4" AND SMALLER MAY USE HUBLESS SERVICE WEIGHT CAST IRON PIPE, FITTINGS AND JOINTS WITH TYPE "NO-HUB" STAINLESS STEEL CONNECTORS. IN ADDITION, ALL VENT PIPING MAY BE DWV COPPER PIPE AND FITTINGS WITH SOLDERED JOINTS. GASKETS, JOINTS, CONNECTORS, SPECIALTIES AND PIPE SHALL BE MANUFACTURED AND PROVIDED BY THE SAME MANUFACTURER. CLEAN-OUTS SHALL BE PROVIDED IN PIPING AT EACH CHANGE IN DIRECTION. IN ALL HORIZONTAL STRAIGHT RUNS MORE THAN 50 FEET LONG AND AT ALL OTHER LOCATIONS AS NOTED ON THE DRAWINGS. THE CONTRACTOR SHALL MAKE ALL EQUIPMENT FINAL CONNECTIONS AND PROVIDE THE NECESSARY ADAPTERS, FITTINGS, VALVES, DEVICES, ETC. FOR A COMPLETE AND OPERABLE SYSTEM. PIPING AND EQUIPMENT SHALL NOT BE SUPPORTED FROM STRUCTURE WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER. THE CONTRACTOR IS PROHIBITED FROM USING LEAD-BASED SOLDER ON DOMESTIC POTABLE WATER SYSTEMS. ALL FIXTURES, PIPING, AND EQUIPMENT SHALL COMPLY WITH THE LATEST ENERGY CONSERVATION CODES APPLICABLE. DOUBLE WYE PIPING CONNECTIONS ARE NOT PERMITTED. BACKFLOW PREVENTERS FOR DRINKING WATER SUPPLY SERVICES (COFFEE MAKERS, REFRIGERATOR WATER DISPENSERS) SHALL BE WATTS SERIES 7 DUAL CHECK TYPE OR APPROVED EQUAL, BRONZE BODY CONSTRUCTION, TWO COMPACT REPLACEABLE CHECK MODULES, BLANK N SEALS AND STAINLESS STEEL SPRINGS, 1/2" UNION CONNECTIONS ON INLETS AND OUTLETS AND SHALL COMPLY WITH ASSE. 	<ol style="list-style-type: none"> ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL JURISDICTION HAVING AUTHORITY, ALL APPLICABLE DISTRICT OF COLUMBIA CODE REQUIREMENTS, AND NFPA 90. PRIOR TO BID, THE CONTRACTOR SHALL EXAMINE ALL PROJECT DOCUMENTS TO DEVELOP A COMPLETE UNDERSTANDING OF THE PROJECT SCOPE. FAILURE TO REVIEW ALL CONTRACT DRAWINGS AND EXISTING CONDITIONS WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO PERFORM ALL WORK REQUIRED. THE CONTRACTOR SHALL, UPON REVIEW OF THE DRAWINGS AND EXISTING CONDITIONS, ADVISE THE OWNER OF ANY DISCREPANCIES WHICH WILL AFFECT THE WORK REQUIRED. IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INDICATE FINISHED WORK THAT IS FULLY ADJUSTED, TESTED, AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE" UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL FURNISH AND INSTALL THE COMPLETE AND FUNCTIONAL SYSTEMS REQUIRED, INCLUDING EQUIPMENT, PIPING, VALVES, AND ALL OTHER APPURTENANCES AND HARDWARE FOR A COMPLETE SYSTEM. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS NECESSARY FOR THE COMPLETE INSTALLATION OF THE EQUIPMENT AS REQUIRED BY CODE WITHOUT ADDITIONAL COST TO THE OWNER, REGARDLESS WHETHER THE ITEMS ARE INDICATED IN THE CONTRACT DRAWINGS OR SPECIFICATIONS. SUCH ITEMS COULD BE, BUT ARE NOT LIMITED TO, SUPPORTS, INSULATION, WIRING, LUBRICATION, MOTOR CONTROLLERS, START-UP AND SERVICE, ETC. THE CONTRACTOR SHALL FURNISH AND INSTALL SYSTEM AND SHALL COMPLETELY COORDINATE WITH ALL OTHER TRADES. ALL CONFLICTS WHICH MAY PREVENT THE COMPLETION OF WORK SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL NOT PROCEED WITH RELATED WORK UNTIL THE CONFLICT IS RESOLVED. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE ALL COMPONENTS AND ACCESSORIES REQUIRED FOR THE COMPLETE INSTALLATION. THE CONTRACTOR SHALL PROVIDE SUCH ITEMS TO COMPLETE THE ENTIRE SYSTEM AND PLACE IN PROPER OPERATION IN ACCORDANCE WITH APPLICABLE CODES, INDUSTRY STANDARDS, AND EQUIPMENT MANUFACTURER'S RECOMMENDATIONS. LOCATIONS OF EQUIPMENT, PIPING, VALVES, ETC. ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN EXACT LOCATIONS AND ESTABLISH EXACT DIMENSIONS ON THE JOB SITE AFTER STUDYING THE CONDITIONS. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND ARRANGE FOR ALL INSPECTIONS BY LOCAL AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ADDITIONAL FITTINGS AND REROUTING OF PIPING AS REQUIRED TO ASSURE THE PIPING SYSTEMS ARE INSTALLED PROPERLY AND IN ACCORDANCE WITH CODE. THE CONTRACTOR SHALL INSTALL ALL SYSTEMS SO AS TO NOT INTERFERE WITH THE MECHANICAL, STRUCTURAL, ELECTRICAL, AND ARCHITECTURAL SYSTEMS. THE CONTRACTOR SHALL COORDINATE THIS PROJECT REQUIREMENT. ALL NEW SYSTEMS SHALL BE TESTED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT. ALL PIPING SYSTEMS SHALL BE COMPLETELY LEAK AND PRESSURE TESTED PRIOR TO EQUIPMENT START-UP. IT SHALL BE ESTABLISHED THAT ALL EQUIPMENT IS CAPABLE OF OPERATING AT THE DESIGN CAPACITY TO THE SATISFACTION OF THE OWNER. ANY EQUIPMENT LOCATED WITHIN A RETURN AIR PLENUM SHALL BE RATED FOR SUCH APPLICATION IN ACCORDANCE WITH APPLICABLE REGULATIONS. STRUCTURAL COMPONENTS SHALL BE X-RAYED PRIOR TO CUTTING OR DRILLING, AND SHALL NOT BE CUT, DRILLED, OR MODIFIED IN ANY WAY WITHOUT REVIEW AND WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER. THE CONTRACTOR SHALL PROVIDE ACCESS DOORS IN WALLS AND CEILINGS AS REQUIRED TO MAINTAIN ACCESS TO VALVES. ALL PIPING SHALL BE CONCEALED ABOVE CEILINGS, WITHIN WALLS, AND WITHIN CHASES UNLESS OTHERWISE NOTED. MOUNT PLUMBING FIXTURES IN ACCORDANCE WITH ANSI AND ADA REQUIREMENTS, ARCHITECTURAL DRAWINGS, AND THE PLUMBING FIXTURE SCHEDULE. PROVIDE AND INSTALL CLEANOUTS IN DRAINAGE PIPING AT EVERY CHANGE IN DIRECTION OF PIPING GREATER THAN 45 DEGREES, EVERY 100 LINEAR FEET, AND AS INDICATED ON THE DRAWINGS. ALL CLEANOUT PLUGS SHALL BE REMOVED, THREADS DOPED, AND PLUGS REPLACED PRIOR TO COMPLETION OF PROJECT. ALL DRAINAGE PIPING 3" AND SMALLER SHALL BE RUN AT A MINIMUM SLOPE OF 1/4" PER FOOT UNLESS INDICATED OTHERWISE ON THE DRAWINGS. ALL DOMESTIC HOT AND COLD WATER PIPING SHALL BE INSULATED PROVIDE ALL FLOOR DRAINS WITH A DEEP SEAL TRAP THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP, MATERIALS, EQUIPMENT, AND RELATED ITEMS FOR A PERIOD AFTER COMPLETION OF THE PROJECT AND REPLACE ANY DEFECTIVE MATERIALS, EQUIPMENT, AND RELATED ITEMS WITHIN THE GUARANTEE PERIOD. THE PERIOD SHALL BE TWELVE MONTHS FROM THE COMPLETION OF THE PROJECT UNLESS SPECIFIED OTHERWISE IN THE SPECIFICATIONS OR CONTRACT DOCUMENTS. ALL CONTRACT DOCUMENTS INCLUDING ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL, AND PLUMBING ARE COMPLEMENTARY AND MUST BE USED IN COMBINATION BY THE CONTRACTOR TO OBTAIN COMPLETE CONSTRUCTION INFORMATION AND PROVIDE A COMPLETE OPERABLE SYSTEM. REFER TO THE SPECIFICATION NOTES FOR ADDITIONAL INFORMATION. CONTRACTOR SHALL PROVIDE SHOP DRAWING SUBMITTALS FOR APPROVAL BY THE OWNER/ARCHITECT/ENGINEER ALL EQUIPMENT IN ACCORDANCE WITH THE GENERAL CONDITIONS FOR THE PROJECT. SUBMITTALS SHALL INCLUDE: PLUMBING FIXTURES, BACK FLOW PREVENTORS, SPRINKLER HEAD LAYOUT SUBMISSION.
	<p align="center">FIRE PROTECTION NOTES</p> <ol style="list-style-type: none"> THE CONTRACTOR SHALL MODIFY THE EXISTING FULLY AUTOMATIC SPRINKLER SYSTEM CURRENTLY SERVING THE RENOVATED SPACE. THE SYSTEM SHALL BE IN ACCORDANCE WITH THE LATEST EDITION NFPA 13, THE REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION, AND ALL APPLICABLE STANDARDS. THE CONTRACTOR SHALL USE PIPING AND FITTINGS FOR FIRE PROTECTION SYSTEMS WHICH ARE APPROVED FOR USE BY UNDERWRITERS LABORATORIES AND FACTORY MUTUAL SYSTEM AND IN ACCORDANCE WITH NFPA, LOCAL CODES, ALL AUTHORITIES HAVE JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE RELOCATION AND COORDINATION OF THE EXISTING SPRINKLER SYSTEM INCLUDING HEAD LOCATIONS WITH THE NEW MECHANICAL AND ELECTRICAL SYSTEM REQUIREMENTS OF THE PROJECT. COORDINATE WITH LIGHTING FIXTURES AND DIFFUSER LAYOUTS INDICATED IN THE CONTRACT DOCUMENTS. ALL FIRE PROTECTION EQUIPMENT, INCLUDING PIPING, VALVES, FITTINGS AND ACCESSORIES, SHALL BE RATED FOR A MAXIMUM WORKING PRESSURE OF THE EXISTING SYSTEM. THE CONTRACTOR SHALL PREPARE SPRINKLER HEAD DRAWINGS INDICATING LOCATIONS OF ALL HEADS FOR SUBMISSION AND APPROVAL BY LOCAL AUTHORITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF AND ALL PERMIT SUBMISSIONS OF HYDRAULIC CALCULATIONS, FLOW TEST DATA, SPRINKLER HEAD SHOP DRAWINGS, AND SPRINKLER PIPING AND SYSTEM SHOP DRAWINGS. UNLESS NOTED OTHERWISE OR SPECIFIED BY THE ARCHITECT, SPRINKLER HEADS SHALL BE THE SAME MANUFACTURER AND MODEL AS THE EXISTING. FIRE PROTECTION SYSTEM SHALL BE BLACK STEEL PIPING MANUFACTURED TO SATISFY ASTM STANDARDS A53 AND A135 OR SHALL BE COPPER TUBING, TYPE L HARD DRAWN, WITH WROUGHT COPPER SOLDER JOINT FITTINGS (MAKE JOINTS WITH 95-5 ASTM B36-72 GRADE 95TA TIN-ANTIMONY SOLDER, OR WITH AWAS A5.8 CLASSIFICATION BCuP-3 OR BCuP-4 BRAZING LETTER METAL). SUPPORT ALL PIPING FROM THE STRUCTURE WITH APPROVED U. L. LISTED HANGERS AND SUPPORTS SUITABLE FOR THE INTENDED APPLICATION. ALL SPRINKLER PIPING SHALL BE INSTALLED SO THAT ALL PORTIONS OF THE SYSTEM CAN BE DRAINED BACK THROUGH THE DRAIN VALVE WHERE REQUIRED. PROVIDE DRAIN VALVES FOR ALL TRAPPED PORTIONS OF THE SYSTEM. ALL TRAPPED PIPING SHALL BE PROVIDED WITH DRAIN VALVES, NIPPLES, AND CAPS. IN AREAS OF LAY-IN CEILING, SPRINKLER HEADS SHALL BE CENTERED IN THE MIDDLE OF CEILING TILES UNLESS NOTED OTHERWISE ON THE ARCHITECTURAL DOCUMENTS. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR HEAD LOCATION WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE SPRINKLER ZONES WITH FIRE ALARM ZONES. ONE SPRINKLER SYSTEM ZONE SHALL NOT EXCEED TWO FIRE ALARM ZONES. 	<p align="center">PLUMBING DEMOLITION NOTES</p> <ol style="list-style-type: none"> THE EXACT SIZES AND LOCATIONS OF ALL EXISTING PIPING SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO DEMOLITION OF ANY EXISTING WORK. THE DEMOLITION WORK SHALL BE COORDINATED WITH THE NEW WORK TO ASSURE PROPER LIMITS OF DEMOLITION. WHETHER SPECIFICALLY INDICATED OR NOT, THE CONTRACTOR SHALL REMOVE ALL EXISTING EQUIPMENT AND ASSOCIATED PIPING THAT IS NO LONGER REQUIRED TO REMAIN AS A PART OF AN ACTIVE SYSTEM. THE CONTRACTOR SHALL REMOVE AND CAP EXISTING BRANCH PIPING AT THE APPROPRIATE MAIN THAT IS NO LONGER REQUIRED TO REMAIN AS PART OF AN ACTIVE SYSTEM. ALL EXISTING EQUIPMENT AND PIPING REMOVED DURING CONSTRUCTION SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STORED, REMOVED FROM THE JOB SITE, OR DISPOSED OF AS DIRECTED BY THE OWNER'S REPRESENTATIVE. WHERE EXISTING EQUIPMENT IS RELOCATED, EXTREME CARE SHALL BE TAKEN TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE OWNER, AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL COORDINATE ANY PIPING WHICH MUST REMAIN AS PART OF AN ACTIVE SYSTEM AND IS IN CONFLICT WITH THE NEW LAYOUT. CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND ENGINEER IMMEDIATELY. ALL SANITARY PIPING BELOW SLAB ON GRADE INDICATED TO BE REMOVED CAN BE ABANDONED IN PLACE IF PIPING DOES NOT CONFLICT WITH INSTALLATION OF NEW WORK. CAP PIPING WITHIN TWO FEET OF MAIN. COORDINATE SERVICE OUTAGES WITH THE OWNER 48 HOURS PRIOR TO DISRUPTION. ALL EXISTING EQUIPMENT TO REMAIN OR THAT IS RELOCATED SHALL BE INSPECTED FOR DAMAGE, CLEANED, REPAIRED OR REPLACED AT NO ADDITIONAL COST AND INSTALLED AS SHOWN ON THE PLUMBING DRAWINGS. 	



- KEYNOTES
- 1 THE EXISTING SPRINKLER SYSTEM SHALL REMAIN. THE CONTRACTOR SHALL MODIFY AND RELOCATE SPRINKLER HEADS IN THE AREAS OF WORK AS NECESSARY FOR THE NEW SPACE CONFIGURATIONS. REFER TO FIRE PROTECTION NOTES ON DRAWING P-1. TYPICAL.
 - 2 REMOVE EXISTING PLUMBING FIXTURE AT THIS LOCATION FOR REPLACEMENT WITHIN SAME AREA. MAINTAIN EXISTING WATER FILTRATION SYSTEM FOR REUSE WITH REPLACEMENT SINK, OR RETURN TO OWNER IF DIRECTED. TEMPORARILY CAP DOMESTIC COLD WATER, DOMESTIC HOT WATER, AND SANITARY PIPING FOR RECONNECTION.
 - 3 EXISTING FIXTURE(S) AND ASSOCIATED PLUMBING SYSTEMS IN THIS AREA TO REMAIN.
 - 4 MAINTAIN EXISTING WATER LINE TO REFRIGERATOR FOR USE WITH REFRIGERATOR.
 - 5 REMOVE PLUMBING FROM WITHIN THIS AREA. REMOVE ANY COLD WATER AND HOT WATER PIPING TO BELOW FLOOR AND CAP AT NEAREST ACTIVE TO REMAIN MAIN. REMOVE SANITARY PIPING TO BELOW FLOOR AND CAP IN ACCORDANCE WITH CODE AT NEAREST ACTIVE TO REMAIN MAIN. CAP AND SEAL VENT PIPING WITHIN WALL OR ABOVE CEILING.

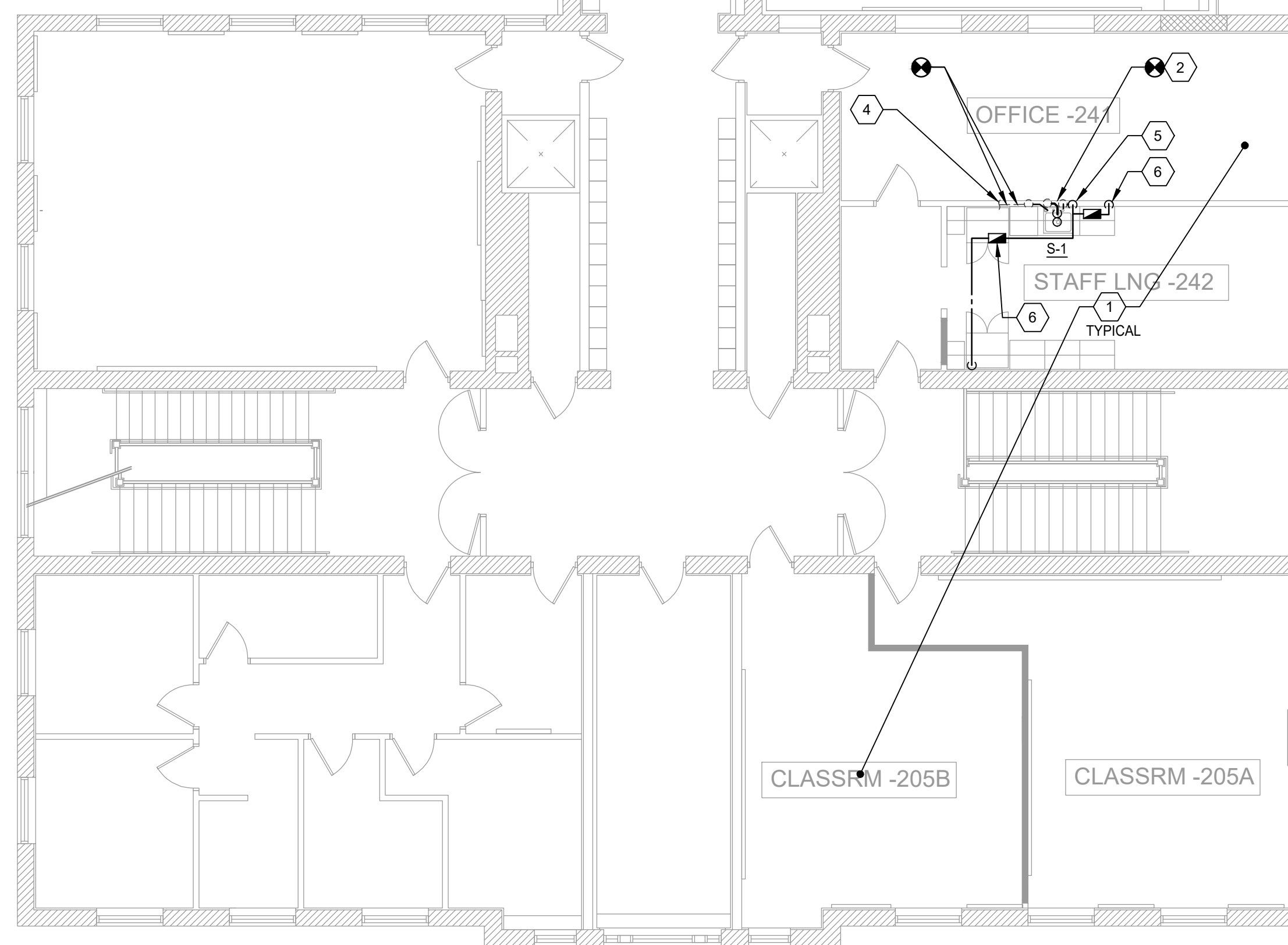
1 THIRD FLOOR PLUMBING DEMOLITION PLAN
 P-2 1/8" = 1'-0"



PLUMBING FIXTURE AND CONNECTION SCHEDULE							
DESCRIPTION	ITEM DESIGNATION	SANITARY WASTE SIZE	VENT SIZE	COLD WATER (CW) SIZE	HOT WATER (HW) SIZE	DESCRIPTION	MANUFACTURER AND MODEL NUMBER
SINK	S-1	2"	1-1/2"	1/2"	1/2"	UNDERMOUNT SINGLE BOWL STAINLESS STEEL, ADA COMPLIANT, W/1.75 GPM DECK MOUNT FAUCET AND SIDE SPRAYER	KRAUS STANDART PRO KHU100-30 W/PARMA D401058 FAUCET AND DISPOSAL

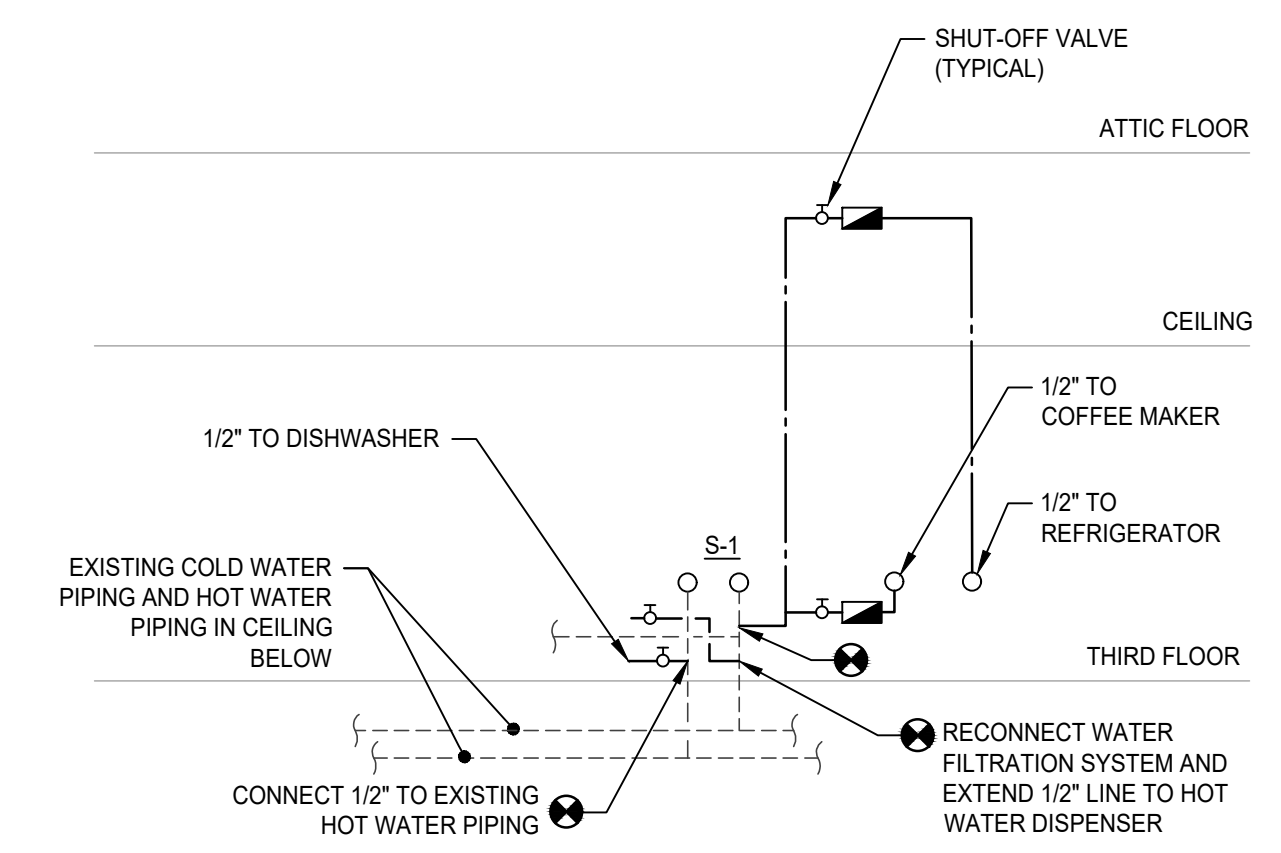
NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE ROUGH-IN AND SPECIAL MOUNTING REQUIREMENTS.
- PROVIDE ESCUTCHEONS ON ALL ROUGH-IN HOT AND COLD WATER SUPPLIES TO PLUMBING FIXTURE, SPLIT HINGED TYPE ARE NOT ACCEPTABLE.
- PROVIDE PRE-FORMED INSULATION ON ALL HANDICAPPED LAVATORY, P-TRAPS, ANGLE STOPS, AND SUPPLY PIPES.
- IN CASES WHERE FAUCET MOUNTS TO SINK, COORDINATE NUMBER OF HOLES BETWEEN SINK AND FAUCET, AND COORDINATE SINK DIMENSION WITH ARCHITECTURAL ELEVATIONS AND DIMENSIONS. IN CALL CASES OF COUNTER OR UNDER-MOUNT, COORDINATE MOUNTING OF FAUCET WITH DECK, SINK AND ARCHITECT.
- DISPOSAL: DISPOSAL SHALL BE INSINKERATOR BADGER 5, 120 VOLT, SINGLE PHASE, 3/4 HORSEPOWER WITH DISHWASHER DRAIN CONNECTION. CONTROL WITH COUNTERTOP TOP MOUNTED SWITCH. SWITCH SHALL BE PUSH BUTTON TYPE MODEL STS-00SN AND SHALL BE SATIN NICKEL FINISH. COORDINATE WITH ARCHITECTURAL DRAWINGS.

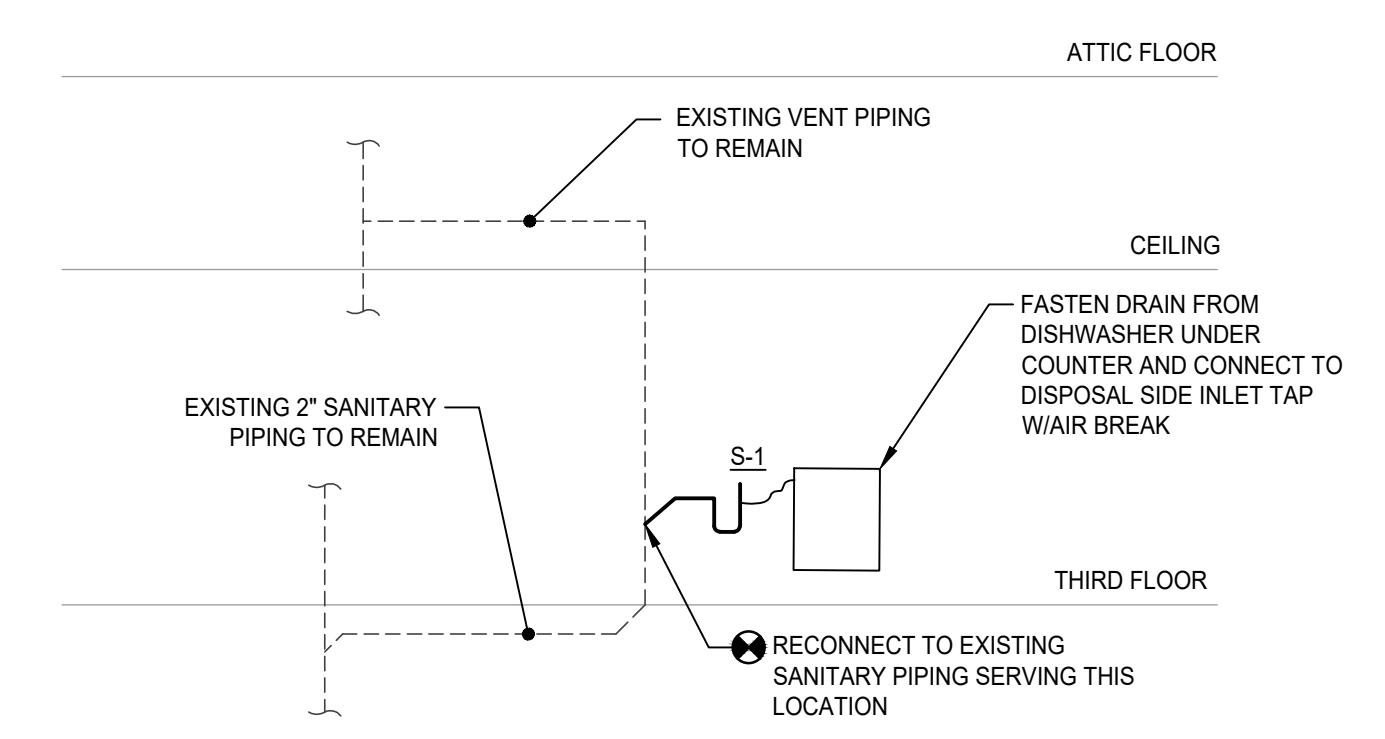


1 THIRD FLOOR PLUMBING PLAN
 P-3 1/8" = 1'-0"

- KEYNOTES
- THE EXISTING SPRINKLER SYSTEM SHALL REMAIN. THE CONTRACTOR SHALL MODIFY AND RELOCATE SPRINKLER HEADS IN THE AREAS OF WORK AS NECESSARY FOR THE NEW SPACE CONFIGURATIONS. REFER TO FIRE PROTECTION NOTES ON DRAWING P-1. TYPICAL.
 - PROVIDE REPLACEMENT FIXTURE. EXTEND DOMESTIC COLD WATER, DOMESTIC HOT WATER, AND SANITARY PIPING FOR RECONNECTION TO FIXTURE. EXTEND HOT WATER LINE TO DISHWASHER. EXTEND COLD WATER LINE TO HOT WATER DISPENSER. REINSTALL EXISTING FILTRATION SYSTEM OR COORDINATE AND INSTALL NEW FILTRATION SYSTEM WITH OWNER. WATER TO HOT WATER DISPENSER SHALL BE FILTERED.
 - EXISTING FIXTURE(S) AND ASSOCIATED PLUMBING SYSTEMS IN THIS AREA TO REMAIN.
 - MAINTAIN EXISTING WATER LINE TO REFRIGERATOR FOR USE WITH REFRIGERATOR.
 - PROVIDE WATER LINE TAPPED FROM EXISTING WATER LIEN TO FEE TO COFFEE MAKER AND REFRIGERATOR.
 - PROVIDE WATER LINE WITH BACKFLOW PREVENTOR (WATTS SERIES NUMBER LF7C ASSE 1024 APPROVED) TO ITEM. REFER TO RISER DIAGRAM. DROP PIPING DOWN IN WALL. MOUNT LINE FOR CONNECTION IN RECESSED WATER VALVE BOX ON WALL BELOW COUNTER. COORDINATE LOCATION IN FIELD. LOCATE PREVENTOR IN ACCESSIBLE LOCATION.



2 WATER RISER DIAGRAM
 P-3 NOT TO SCALE



3 SANITARY RISER DIAGRAM
 P-3 NOT TO SCALE

ELECTRICAL ABBREVIATIONS	
A	AMPERE
ABV	ABOVE
AFCI	ARC FAULT CIRCUIT INTERRUPTER
AFF	ABOVE FINISHED FLOOR
AIC	AVAILABLE INTERRUPTING CURRENT
AL	ALUMINUM
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C or CND	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
C/T	CURRENT TRANSFORMER
CU	COPPER
D or DED	DEDICATED
DN	DOWN
DWG	DRAWING
EA	EACH
EC	EMPTY CONDUIT
EG	EQUIPMENT GROUND
EM	EMERGENCY
ETR	EXISTING TO REMAIN
EX, E	EXISTING
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FLA	FULL LOAD AMPS
FLR	FLOOR
FSS	FUSED SAFETY SWITCH
GFI	GROUND FAULT CIRCUIT INTERRUPTER
HP	HORSEPOWER
HZ	HERTZ
INC	INCANDESCENT
J/B	JUNCTION BOX
K	THOUSAND
KW	KILOWATT
KVA	KILOVOLT AMPERE
LC	LIGHTING CONTROLLER
LCP	LIGHTING CONTROL PANEL
LF	LINEAR FOOT
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPACITY
MCS	MAIN CIRCUIT BREAKER
MCM	THOUSAND CIRCULAR MILS
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NEC	NATIONAL ELECTRIC CODE
NF	NON-FUSIBLE
NFSS	NON-FUSED SAFETY SWITCH
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
P	POLES
PNL	PANEL
RECEP	RECEPTACLE
TEL	TELEPHONE
TYP	TYPICAL
UNV	UNIVERSAL
UON	UNLESS OTHERWISE NOTED
V	VOLTS
W	WATTS
WP	WEATHERPROOF
W/	WITH
Ø or PH	PHASE

ELECTRICAL DEMOLITION NOTES

- WHETHER SPECIFICALLY INDICATED OR NOT, THE CONTRACTOR SHALL REMOVE ALL EXISTING WIRING AND EQUIPMENT THAT IS NO LONGER REQUIRED TO REMAIN AS A PART OF AN ACTIVE SYSTEM.
- FOR ALL EQUIPMENT REMOVED INCLUDING LIGHTS, RECEPTACLES, AND WIRING DEVICES, THE CONTRACTOR SHALL REMOVE ALL CIRCUITING BACK TO THE ELECTRICAL PANEL OR TO THE NEAREST JUNCTION BOX TO REMAIN ENERGIZED. CIRCUITS NO LONGER REQUIRED TO REMAIN AS PART OF AN ACTIVE SYSTEM SHALL BE REMOVED BACK TO THE PANEL. INACTIVE OUTLETS SHALL BE PROVIDED WITH BLANK COVERS UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL REMOVE ALL EXISTING WIRING NOT BEING USED FROM ABOVE LAY-IN CEILING. CONDUIT NOT BEING USED SHALL BE REMOVED BACK TO THE SOURCE.
- ALL EXISTING CIRCUITS NO LONGER USED SHALL BE LABELED AS A SPARE CIRCUIT IN THE RESPECTIVE PANEL.
- ALL EXISTING EQUIPMENT REMOVED DURING CONSTRUCTION SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STORED, REMOVED FROM THE JOB SITE, OR DISPOSED OF AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- WHERE EXISTING EQUIPMENT IS RELOCATED, EXTREME CARE SHALL BE TAKEN TO PREVENT DAMAGE DURING THE REMOVAL AND REINSTALLATION. WHERE DAMAGE OCCURS, THE EQUIPMENT SHALL BE REPLACED OR REPAIRED TO THE SATISFACTION OF THE OWNER, AT NO ADDITIONAL COST TO THE OWNER.
- UNLESS NOTED OTHERWISE, ALL EXISTING ELECTRICAL SYSTEMS TO REMAIN ACTIVE THAT ARE DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL OPERATING CONDITION.
- WHERE EXISTING ELECTRICAL SYSTEMS INTERFERE WITH THE INSTALLATION OF NEW SYSTEMS AND THE EXISTING IS TO REMAIN ACTIVE, THE INSTALLATION SHALL BE DISCONNECTED, RELOCATED, AND RECONNECTED AS REQUIRED TO MAINTAIN THE SYSTEM. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE AND ENGINEER IMMEDIATELY.
- FEEDERS AND BRANCH CIRCUITS EXTENDING THROUGH THE CONTRACT SPACE TO SERVE OTHER AREAS NOT IN THE CONTRACT SHALL REMAIN ACTIVE. IT IS THE CONTRACTOR RESPONSIBILITY TO MAINTAIN THIS CIRCUIT CONTINUITY.
- THE CONTRACTOR SHALL NOT DISCONNECT ANY SERVICE WITHOUT OBTAINING WRITTEN APPROVAL FROM THE OWNER NOT LESS THAN THREE DAYS PRIOR. IT IS THE CONTRACTOR RESPONSIBILITY TO KEEP OUTAGES TO A MINIMUM.
- UNLESS NOTED OTHERWISE, PANELBOARD, LIGHT FIXTURE CABINETS, AND OTHER CABINETS SHALL NOT BE USED FOR PURPOSES OTHER THAN CIRCUIT PROTECTION OR DISTRIBUTION POINTS. THESE CABINETS ARE NOT TO BE USED AS JUNCTION BOXES.
- ALL EXISTING EQUIPMENT TO REMAIN OR THAT IS RELOCATED SHALL BE INSPECTED FOR DAMAGE, CLEANED, REPAIRED OR REPLACED AT NO ADDITIONAL COST AND INSTALLED AS SHOWN ON THE ELECTRICAL DRAWINGS.

ELECTRICAL SYMBOLS	
	KEYNOTE PLAN DESIGNATION
	EXISTING ITEM TO REMAIN
	RELOCATE/RELOCATED
	REMOVE EXISTING ITEM
	LIGHT FIXTURE DESIGNATION. UPPERCASE LETTER AND NUMBER INDICATES TYPE. LOWERCASE LETTER INDICATES SWITCHING ZONE FOR THAT ROOM.
	LINEAR OR TROFFER LIGHT FIXTURE
	RECESSED OR WALL MOUNTED LIGHT FIXTURE
	PENDANT LIGHT FIXTURE
	EMERGENCY LIGHT FIXTURE
	EXIT LIGHTING FIXTURE, CEILING OR WALL MOUNTED. DIRECTIONAL ARROWS INDICATED ON PLANS
	SINGLE POLE FLUSH SWITCH, MOUNT 48" AFF UNLESS OTHERWISE NOTED. LETTER INDICATES SWITCHING ZONE.
	DUAL TECHNOLOGY OCCUPANCY SENSOR FLUSH SWITCH, MOUNT 48" AFF UNLESS OTHERWISE NOTED. SENSOR SHALL AUTOMATICALLY TURN LIGHTS ON AND OFF.
	DUAL TECHNOLOGY VACANCY SENSOR FLUSH SWITCH, MOUNT 48" AFF UNLESS OTHERWISE NOTED. SENSOR SHALL AUTOMATICALLY TURN LIGHTS OFF. LIGHTS SHALL BE TURNED ON MANUALLY BY SWITCH.
	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, WATT STOPPER DT300 OR EQUIVALENT. PROVIDE POWER PACKS AS NEEDED.
	CEILING MOUNTED DUAL TECHNOLOGY VACANCY SENSOR, WATT STOPPER DT300 OR EQUIVALENT. PROVIDE POWER PACKS AS NEEDED. SENSOR SHALL AUTOMATICALLY TURN LIGHTS OFF. LIGHTS SHALL BE TURNED ON MANUALLY BY SWITCH.
	FLUSH MOUNTED DIMMER SWITCH, FLUSH MOUNTED AT 48" AFF UNLESS OTHERWISE NOTED. LETTER INDICATES DIMMING ZONE.
	THREE WAY OR FOUR WAY FLUSH SWITCH, MOUNT 48" AFF UNLESS OTHERWISE NOTED
	DUPLEX RECEPTACLE, 2P, 3W, 20A, 125 V, NEMA 5-20R FLUSH MOUNTED 18" AFF UNLESS OTHERWISE NOTED. C INDICATES CEILING MOUNTED.
	GFCI RECEPTACLE, 2P, 3W, 20A, 125 V, NEMA 5-20R FLUSH MOUNTED 6" ABOVE COUNTER UNLESS OTHERWISE NOTED
	CONTROLLED RECEPTACLE, 2P, 3W, 20A, 125 V, NEMA 5-20R FLUSH MOUNTED 18" AFF UNLESS OTHERWISE NOTED. CONTROLLED RECEPTACLE SHALL BE PERMANENTLY MARKED IN ACCORDANCE WITH NEC 406.3(E).
	MOUNTED 18" AFF UNLESS OTHERWISE NOTED. C INDICATES CEILING MOUNTED.
	FLOOR MOUNTED DEVICE
	CEILING MOUNTED DEVICE
	JUNCTION BOX, WALL OR CEILING MOUNTED
	MOTOR
	MANUAL MOTOR CONTROLLER
	SAFETY SWITCH (FSS - FUSIBLE, NFSS - NONFUSIBLE)
	BRANCH CIRCUIT HOMERUN TO PANELBOARD.
	EQUIPMENT GROUND
	PANELBOARD, SURFACE OR FLUSH MOUNTED
	DATA OUTLET MOUNTED AT 18" AFF UNLESS OTHERWISE NOTED. PROVIDE WITH 1/2" EMPTY CONDUIT WITH PULLSTRING TO 6" ABOVE ACCESSIBLE CEILING. C INDICATES CEILING MOUNTED.

- ### ELECTRICAL SPECIFICATION NOTES
- CONTRACTOR SHALL PROVIDE SHOP DRAWING SUBMITTALS FOR APPROVAL BY THE OWNER/ARCHITECT/ENGINEER FOR ALL EQUIPMENT IN ACCORDANCE WITH THE GENERAL CONDITIONS FOR THE PROJECT.
 - ALL EXISTING ELECTRICAL FIXTURES AND DEVICES SHALL REMAIN UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL REROUTE ANY EXISTING CONDUIT, JUNCTION BOXES, ELECTRICAL EQUIPMENT CONNECTIONS, ETC. TO ACCESSIBLE LOCATIONS WHETHER OR NOT INDICATED ON THE DRAWINGS. EXISTING CONDUIT AND JBOXES ABOVE INACCESSIBLE CEILINGS/WALLS WHICH CANNOT BE RELOCATED SHALL BE ABANDONED WITH ALL WIRING REMOVED.
 - IN THE EVENT THAT ANY OWNER FURNISHED EQUIPMENT, DEVICES, OR MATERIAL BECOMES DAMAGED AFTER RECEIPT FROM OWNER, THE CONTRACTOR SHALL REPLACE THE EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
 - AFTER FINAL INSTALLATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR FILLING ALL VOIDS AROUND CONDUIT PENETRATIONS AND OTHER CORE DRILLS/OPENINGS IN SLAB WITH A FIRE SAFING REMOVABLE MASTIC. FILL SHALL EQUAL FIRE RATING OF FLOOR.
 - ALL CONDUCTORS SHALL BE COPPER WITH TYPE THW OR THHN (DRY LOCATION ONLY) 75 C INSULATION, NO. 12 AWG MINIMUM UNLESS OTHERWISE NOTED.
 - ALL WIRING #10 AND LESS SHALL BE SOLID CONDUCTOR.
 - ALL CONDUIT AND WIRING SIZES ON PANELBOARD SCHEDULES ARE BASED ON 75 FEET FOR 120 VOLT BRANCH CIRCUITS AND 150 FEET FOR 277 VOLT BRANCH CIRCUITS. IF LENGTH EXCEEDS 75 FEET FOR 120 VOLT CIRCUITS OR 150 FEET FOR 277 VOLT CIRCUITS, THEN THE CONTRACTOR SHALL USE AND INSTALL THE NEXT HIGHER WIRE SIZE.
 - ALL 20 AMP 120V/208V HOMERUNS LONGER THAN 75'-0" SHALL BE MINIMUM #10 AWG.
 - A SEPARATE GREEN EQUIPMENT GROUND WIRE SHALL BE PULLED IN ALL BRANCH AND FEEDER CIRCUITS, INCLUDING BUT NOT LIMITED TO CONNECTION FOR LIGHTS, RECEPTACLES, AIR HANDLING UNITS, PUMPS AND OTHER MOTORS/EQUIPMENT.
 - METALLIC CONDUIT WITH CONDUCTORS SHALL BE USED IN LIEU OF CABLE IN ALL VISIBLE PUBLIC AREAS AND BACK OF HOUSE LOCATIONS. "MC" CABLE SHALL NOT BE TERMINATED AT PANELBOARDS. CABLE SHALL TERMINATE OUTSIDE OF ELECTRICAL CLOSEST AND ROOMS WITH GUTTERS. CONDUIT SHALL BE USED TO CONNECT GUTTERS TO PANELS.
 - COUPLINGS AND FITTINGS FOR EMT SHALL BE OF STEEL (CAST POT METAL IS NOT ACCEPTABLE) AND SHALL BE OF THE COMPRESSION OR SET STEEL SCREW TYPE.
 - ALL CONDUITS SHALL BE RIGIDLY SUPPORTED TIGHT TO THE BUILDING STRUCTURE. THE MAXIMUM SPACING OF SUPPORTS SHALL BE 10'-0" FOR VERTICAL RUNS AND 8'-0" FOR HORIZONTAL RUNS.
 - CONDUIT/CABLE SHALL BE PROVIDED AS FOLLOWS:
MOTORS: ALL CONNECTIONS TO MOTORS SHALL BE U.L. LISTED LIQUID TIGHT FLEX. (MINIMUM 24" LONG).
EXPOSED INTERIOR: ALL EXPOSED INTERIOR WIRING SHALL BE IN GALVANIZED STEEL OR EMT WITH STEEL SET SCREW CONNECTORS.
CABLE: BRANCH CIRCUIT WIRING CONCEALED IN A WALL OR CEILING CONNECTING RECEPTACLES AND LIGHTS MAY BE "MC" CABLE.
 - THE CONTRACTOR SHALL TRACE ALL CIRCUITS INDICATED ON DRAWINGS TO BE USED IN THE CONTRACT AREA AND INDICATED AS "SPARES" ON PANEL SCHEDULES. THE CONTRACTOR SHALL CONFIRM CIRCUITS ARE DEDICATED TO RENOVATED CONTRACT AREA AND ARE NOT SERVING EXISTING OCCUPIED SPACES. THE CONTRACTOR SHALL NOT USE CIRCUITS PRESENTLY BEING USED BY OTHER OCCUPIED SPACES SO AS TO MINIMIZE ANY POTENTIAL INTERRUPTION OF SERVICE TO THOSE AREAS.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANELBOARDS.
 - NEW DIRECTORY CARDS FOR EACH MODIFIED PANELBOARD SHALL BE PROVIDED AT COMPLETION OF WORK WITH TYPED DESIGNATIONS INDICATING NAME, VOLTAGE, PHASE, ETC. AND FINAL CIRCUITING DEPICTING EACH POLE POSITION IN A TWO COLUMN FASHION. ROOM NUMBERS SHALL BE USED WHENEVER POSSIBLE ON CIRCUIT DESIGNATIONS.
 - ALL SWITCHES, RECEPTACLES, AND TELEPHONE/DATA OUTLETS SHOWN ON THE DRAWINGS IN THE SAME LOCATION SHALL BE INSTALLED IN MULTIPLE GANG BOXES MOUNTED IN A COMMON COVER PLATE UNLESS NOTED OTHERWISE. POWER SYSTEMS SHALL NOT BE INSTALLED IN THE SAME BOX WITH TELEPHONE/DATA. THE CONTRACTOR SHALL PROVIDE DIVIDER AS REQUIRED BY LOCAL CODES.
 - COORDINATE WITH ARCHITECT FOR DEVICE COVER PLATE TYPES AND COLORS.
 - RECEPTACLES MOUNTED WITHIN 6'-0" OF SINKS SHALL BE GROUND FAULT INTERRUPTER (GFI) TYPE.
 - THE CONTRACTOR SHALL LOCATE ALL GFI RECEPTACLES IN ACCESSIBLE LOCATIONS OR PROVIDE REMOTE RESET DEVICE IN ACCESSIBLE LOCATION.
 - ALL DUPLEX RECEPTACLES ON DEDICATED CIRCUITS SHALL BE NEMA 5-20R, UNLESS OTHERWISE NOTED.
 - THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR ON ANY REQUIRED CONTROL CIRCUITS INCLUDING "LINE" AND "LOW" VOLTAGE POWER REQUIREMENTS. THE ELECTRICAL CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ANY NECESSARY "LINE" OR "LOW" VOLTAGE WIRING AND CONDUIT TO NEW ELECTRIC THERMOSTATS, DAMPERS OR OTHER ACTUATORS AND CONTROL EQUIPMENT. CONTROL SYSTEMS FOR NEW MECHANICAL SYSTEMS SHALL BE COMPLETE AND OPERATIONAL.
 - LIGHTING FIXTURES INSTALLED IN SUSPENDED CEILINGS SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE AND SHALL BE INDEPENDENT OF THE CEILING SYSTEM.
 - THE CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS ARE CORRECT BEFORE INSTALLING LIGHT SWITCH OUTLETS.
 - ALL STANDBY AND EXIT LIGHTING SHALL BE CONNECTED TO THE CLOSEST STANDBY CIRCUIT UNLESS OTHERWISE NOTED.
 - DIMMER SWITCHES SHALL INCLUDE A MANUAL FULL OFF OPTION.
 - DIMMER SWITCHES SHALL BE COMPATIBLE WITH LIGHT FIXTURES BEING CONTROLLED. COORDINATE WITH MANUFACTURER'S LISTS OF COMPATIBLE DIMMERS. MULTIPLE DIMMER TYPES MAY BE REQUIRED IN THE PROJECT.
 - OCCUPANCY/VACANCY SENSORS SHALL AUTOMATICALLY TURN LIGHTS OFF AFTER A MAXIMUM OF 20 MINUTES.
 - THE CONTRACTOR SHALL PROVIDE 3/4" EMPTY CONDUIT WITH PULL STRING FROM ALL TELEPHONE, DATA, WALL MOUNTED SPEAKERS, AND TELEVISION OUTLETS UP FROM JUNCTION BOX TO ACCESSIBLE CEILING UNLESS NOTED OTHERWISE. GROMMETS SHALL BE PROVIDED AT THE END OF THE CONDUIT AT THE CEILING SPACE.
 - ALL EMPTY CONDUIT RUNS IN EXCESS OF 10 FEET SHALL BE PROVIDED WITH A PULL WIRE OR FISH TAPE/CORD.

- ### ELECTRICAL GENERAL NOTES
- ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL JURISDICTION HAVING AUTHORITY, ALL APPLICABLE DISTRICT OF COLUMBIA (DC) CODE REQUIREMENTS, THE NATIONAL ELECTRICAL CODE (NEC), AND THE LIFE SAFETY CODE.
 - THE CONTRACTOR SHALL OBTAIN ALL TRADE PERMITS AND ARRANGE FOR ALL INSPECTIONS BY LOCAL AUTHORITIES HAVING JURISDICTION.
 - PRIOR TO BID, THE CONTRACTOR SHALL EXAMINE ALL PROJECT DOCUMENTS AND EXISTING CONDITIONS FOR ALL TRADES TO DEVELOP A COMPLETE UNDERSTANDING OF THE PROJECT SCOPE OF WORK. THE CONTRACTOR SHALL, UPON REVIEW OF THE DRAWINGS AND EXISTING CONDITIONS, ADVISE THE OWNER PRIOR TO BID OF ANY DISCREPANCIES WHICH WILL AFFECT THE WORK REQUIRED.
 - ALL ELECTRICAL EQUIPMENT SHALL BE UNDERWRITERS LABORATORY (UL) LABELED OR LABELED BY AN APPROVED ACCREDITED AGENCY AND TESTING ORGANIZATION.
 - IT IS THE INTENT OF THE CONTRACT DOCUMENTS TO INDICATE WORK THAT SHALL BE FULLY ADJUSTED, TESTED, AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE AND READY FOR USE", UNLESS OTHERWISE NOTED.
 - THE CONTRACTOR SHALL FURNISH, INSTALL, WIRE, CONNECT, AND ENERGIZE THE COMPLETE FUNCTIONAL SYSTEM REQUIRED BY CODE, INCLUDING EQUIPMENT, DEVICES, WIRING, START-UP, SERVICE AND ALL OTHER APPURTENANCES AND HARDWARE FOR A COMPLETE SYSTEM.
 - THE CONTRACTOR SHALL COMPLETELY COORDINATE WITH ALL OTHER TRADES.
 - ALL CONFLICTS WHICH MAY PREVENT THE COMPLETION OF WORK SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL NOT PROCEED WITH RELATED WORK UNTIL THE CONFLICT IS RESOLVED.
 - THE CONTRACTOR SHALL INSTALL ALL MECHANICAL AND ELECTRICAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
 - ALL EQUIPMENT, DEVICES, AND RELATED APPURTENANCES SHALL BE THE LATEST PRODUCT OF THE SPECIFIED MANUFACTURERS UNLESS OTHERWISE NOTED.
 - THE CONTRACT DRAWINGS ARE DIAGRAMMATIC AND DO NOT INDICATE ALL COMPONENTS AND ACCESSORIES REQUIRED FOR THE COMPLETE INSTALLATION. THE CONTRACTOR SHALL PROVIDE SUCH ITEMS TO COMPLETE THE ENTIRE SYSTEM AND PLACE IN PROPER OPERATION IN ACCORDANCE WITH APPLICABLE CODES, INDUSTRY STANDARDS, AND EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
 - LOCATIONS OF EQUIPMENT, LIGHTING FIXTURES, DEVICES, ETC. ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE CONTRACTOR SHALL OBTAIN EXACT LOCATIONS AND ESTABLISH EXACT DIMENSIONS ON THE JOB SITE AFTER STUDYING THE CONDITIONS.
 - THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS, MOUNTING METHODS, AND DIMENSIONS OF LIGHT FIXTURES, LIFE SAFETY DEVICES, CEILING DEVICES, RECEPTACLES, TELEPHONE AND DATA OUTLETS, AND OTHER ITEMS VISIBLE IN PUBLIC AREAS.
 - EXACT LOCATION AND MOUNTING HEIGHTS OF JUNCTION BOXES, OUTLETS, STUB-UPS, ETC. SHALL BE DETERMINED FROM CONTRACT DOCUMENTS, EQUIPMENT, DETAILS, SPECIFICATIONS WHERE APPLICABLE, AND MANUFACTURER'S ROUGH-IN DRAWINGS.
 - ALL LIGHTING FIXTURE LOCATIONS SHALL BE COORDINATED WITH THE REFLECTED CEILING PLANS, ARCHITECTURAL SECTIONS AND DETAILS, MECHANICAL AND PLUMBING DRAWINGS AND SYSTEMS. SHOULD A DISCREPANCY ARISE, NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL ADDITIONAL CONDUIT, DEVICES, AND FITTINGS AS REQUIRED TO ASSURE THE ELECTRICAL DISTRIBUTION SYSTEMS ARE INSTALLED PROPERLY AND IN ACCORDANCE WITH CODE.
 - THE CONTRACTOR SHALL INSTALL ALL ELECTRICAL SYSTEMS SO AS TO NOT INTERFERE WITH THE PLUMBING, STRUCTURAL, MECHANICAL, AND ARCHITECTURAL SYSTEMS. THE CONTRACTOR SHALL COORDINATE THIS PROJECT REQUIREMENT
 - ALL ELECTRICAL SYSTEMS, DEVICES, AND RELATED ITEMS SHALL BE TESTED AT THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL REPLACE ANY AND ALL DEFECTIVE DEVICES, ITEMS, OR SYSTEMS AT COMPLETION OF THE PROJECT.
 - THE CONTRACTOR SHALL PERFORM FUNCTIONAL TESTING OF THE LIGHTING CONTROL DEVICES TO ENSURE COMPLIANCE WITH PLANS, SPECIFICATIONS, SEQUENCES OF OPERATIONS, AND MANUFACTURER RECOMMENDATIONS. THE CONTRACTOR SHALL SUBMIT A TESTING REPORT TO THE OWNER AND ARCHITECT/ENGINEER UPON COMPLETION OF THE TESTING.
 - PROVIDE NFPA APPROVED FIRE STOPPING AT ALL CONDUIT PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND COMPONENTS.
 - ALL WORK SHALL BE PERFORMED IN SUCH A MANNER TO CREATE MINIMAL POWER OUTAGES FOR THE OWNER. ALL SUCH OUTAGES SHALL BE CAREFULLY COORDINATED WITH THE OWNER SO THAT POWER TO ESSENTIAL SERVICES CAN BE MAINTAINED.
 - ELECTRICAL EQUIPMENT REQUIRING ACCESS SUCH AS JUNCTION BOXES, CONNECTIONS TO EQUIPMENT, ETC. SHALL NOT BE INSTALLED ABOVE INACCESSIBLE CEILINGS OR BEHIND DRAWINGS.
 - THE NUMBER OF WIRES FOR EACH CIRCUIT ARE NOT INDICATED ON THE DRAWINGS UNLESS NECESSARY FOR CLARIFICATION. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON THE DRAWINGS OR NOT.
 - ALL GROUNDING SHALL BE DONE AS PER NEC REQUIREMENTS. THE CONTRACTOR SHALL USE GREEN GROUND WIRE FOR GROUNDING.
 - THE MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL MOTOR CONTROLLERS FOR MECHANICAL EQUIPMENT AND THE EQUIPMENT SHALL BE WIRED BY THE ELECTRICAL CONTRACTOR.
 - THE CONTRACTOR SHALL REFER TO MECHANICAL/PLUMBING DRAWINGS FOR EXACT LOCATION OF MECHANICAL/PLUMBING EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL COORDINATE AND VERIFY VOLTAGE/PHASE INDICATED ON ELECTRICAL DRAWINGS WITH MECHANICAL/PLUMBING EQUIPMENT TO BE PROVIDED PRIOR TO INSTALLING ELECTRICAL SERVICE. SHOULD A DISCREPANCY BE NOTED BETWEEN EQUIPMENT TO BE SUPPLIED AND WHAT IS INDICATED ON THE DRAWINGS, THE CONTRACTOR SHALL OBTAIN WRITTEN DIRECTION FROM OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH WORK.
 - THE CONTRACTOR SHALL PERFORM THE FOLLOWING EQUIPMENT CONNECTIONS AS REQUIRED BY THE EQUIPMENT OR AS INDICATED IN THE CONTRACT DOCUMENTS: EXTEND AND CONNECT TO EQUIPMENT; MOUNT AND CONNECT TO CONTROLLERS; FURNISH SUITABLE RECEPTACLES, PLUG, COVER PLATE, CORD, ARMORED CABLE, WIRE, DIRECT CONNECTIONS, DISCONNECT SWITCHES, ETC.
 - ANY EQUIPMENT INCLUDING TELEPHONE/DATA CABLE LOCATED WITHIN A RETURN AIR PLENUM SHALL BE RATED FOR SUCH APPLICATION IN ACCORDANCE WITH APPLICABLE REGULATIONS.
 - THE CONTRACTOR SHALL GUARANTEE ALL WORKMANSHIP, MATERIALS, EQUIPMENT, AND RELATED ITEMS FOR A PERIOD AFTER ACCEPTANCE OF THE PROJECT BY THE OWNER AND REPLACE ANY DEFECTIVE MATERIALS, EQUIPMENT, AND RELATED ITEMS WITHIN THE GUARANTEE PERIOD. THE PERIOD SHALL BE TWELVE MONTHS FROM THE COMPLETION OF THE PROJECT UNLESS SPECIFIED OTHERWISE IN THE SPECIFICATIONS OR CONTRACT DOCUMENTS.



KEYNOTES

- 1 EXISTING LIGHTING AND ASSOCIATED CONTROLS TO REMAIN UNLESS MARKED OTHERWISE.
- 2 REMOVE LIGHTING AND CONTROLS MARKED FOR DEMOLITION. REMOVE WIRING AND CONDUIT BACK TO SOURCE.
- 3 INDICATED LIGHT FIXTURE SHALL REMAIN IN PLACE AND BE RECIRCUITED AND RESWITCHED IN THE NEW WORK SCOPE. DEMOLISH ALL WIRING BACK TO SOURCE FOR RECONNECTION IN NEW WORK SCOPE.
- 4 RELOCATE SWITCHES FOR EXISTING TO REMAIN FIXTURES WITHIN THIS ROOM. REMOVE UNUSED SWITCHES AND ASSOCIATED WIRING.
- 5 EXISTING EMERGENCY AND EXIT LIGHTING ALONG COMMON EGRESS PATH TO REMAIN.

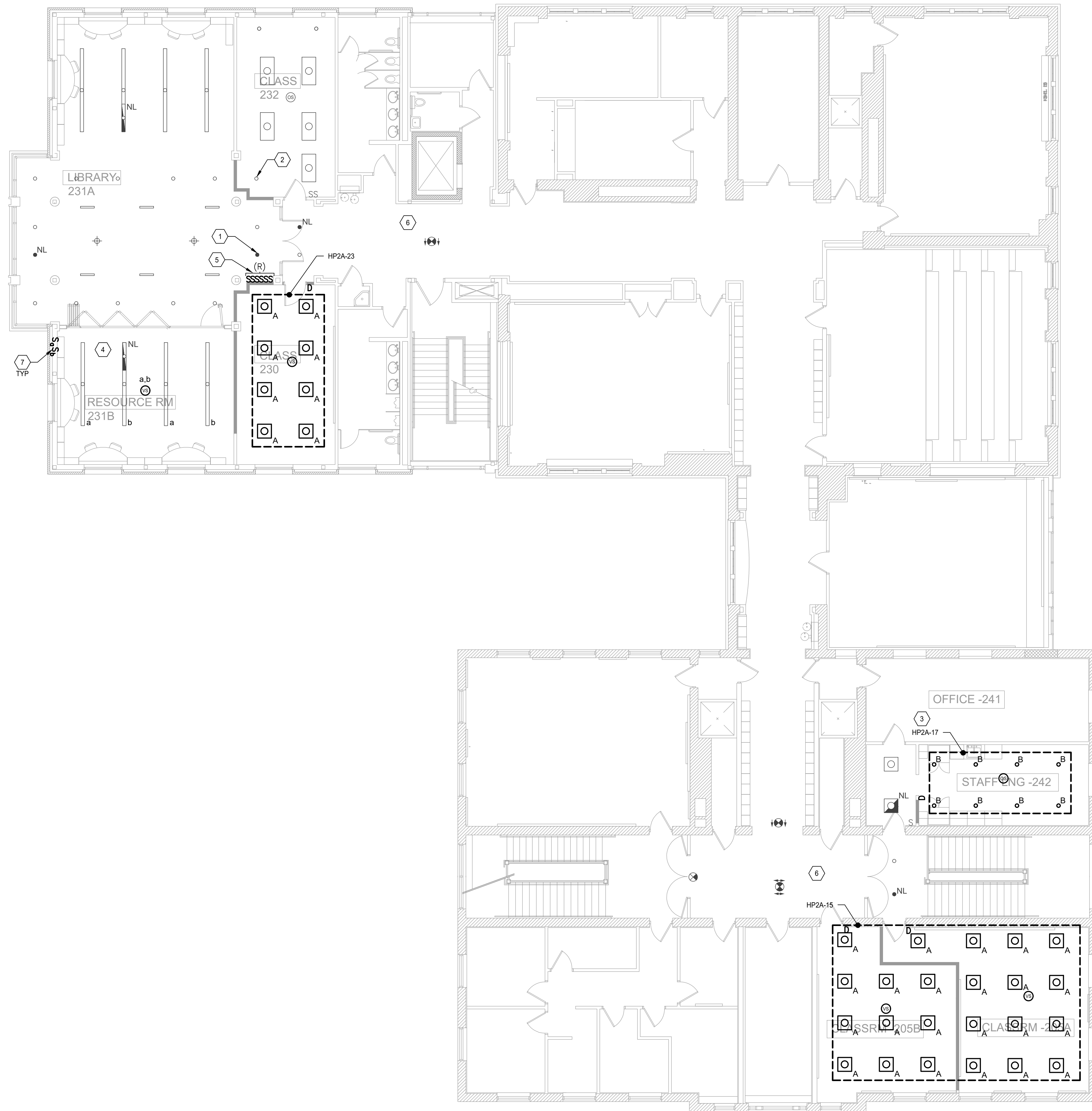
1 THIRD FLOOR LIGHTING DEMOLITION PLAN
E-2 1/8" = 1'-0"



KEYNOTES

- 1 INDICATED RECEPTACLE SHALL BE RELOCATED FROM ITS CURRENT POSITION AT +44" TO +18" IN THE SAME LOCATION. COORDINATE WITH NEW WORK POWER SHEET.
- 2 INDICATED POWER AND DATA SHALL BE REMOVED FROM EXISTING WALL AND RELOCATED TO NEW BULKHEAD AT SAME LOCATION, SPLICE AND EXTEND EXISTING TO REMAIN BRANCH CIRCUIT.
- 3 EXISTING POWER AND COMMUNICATIONS DEVICES TO REMAIN UNLESS MARKED OTHERWISE.
- 4 EXISTING FIRE ALARM DEVICES TO REMAIN UNLESS MARKED OTHERWISE.
- 5 REMOVE POWER AND COMMUNICATIONS DEVICES MARKED FOR DEMOLITION. REMOVE WIRING AND CONDUIT BACK TO SOURCE.
- 6 RELOCATE EXISTING FIRE ALARM DEVICES MARKED FOR RELOCATION.
- 7 EXISTING PANELS IN ELECTRICAL CLOSET TO REMAIN.

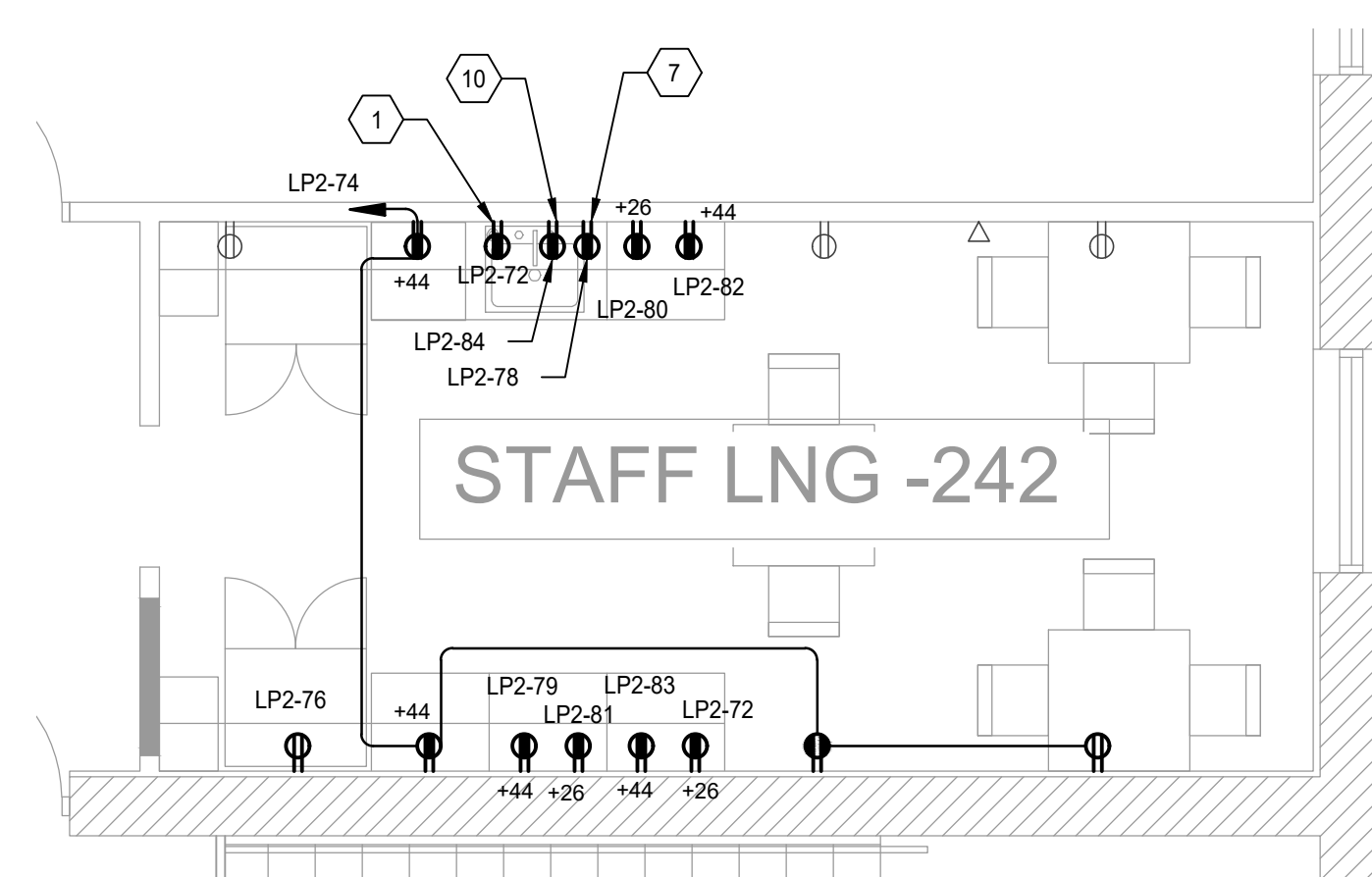
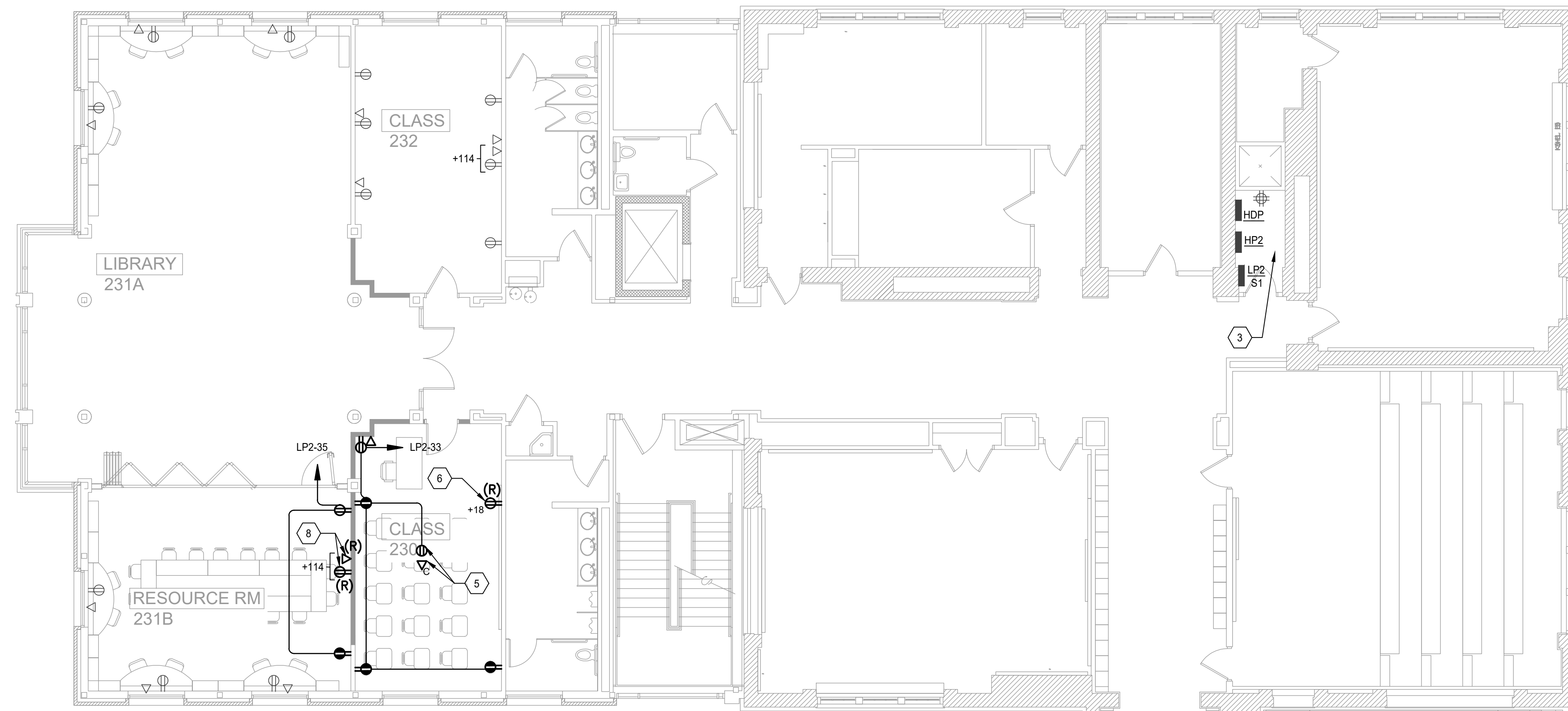
1 THIRD FLOOR ELECTRICAL DEMOLITION PLAN
E-3 1/8" = 1'-0"



KEYNOTES

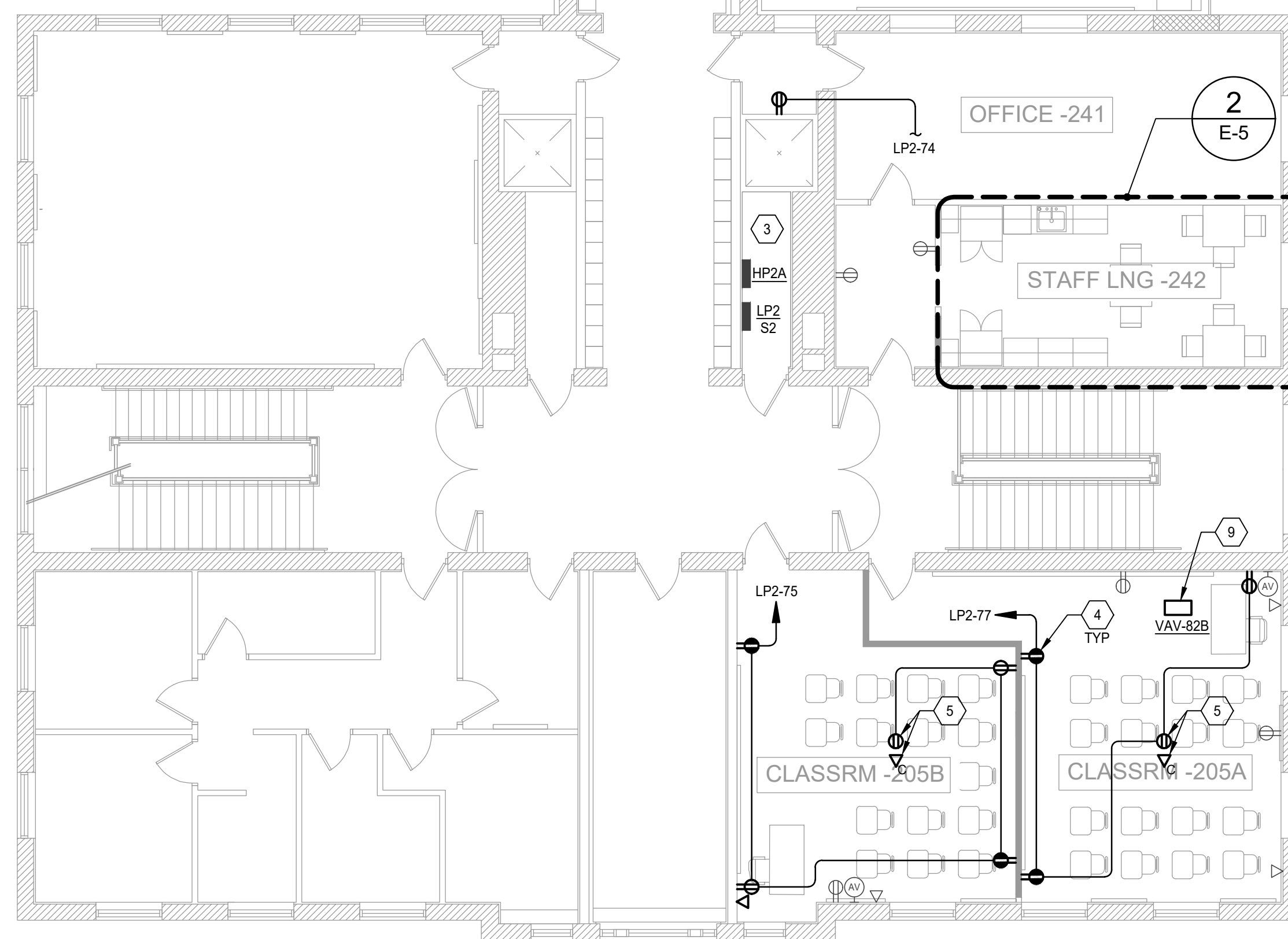
- 1 RETROFIT EXISTING TO REMAIN LIGHT FIXTURE WITH BATTERY PACK.
- 2 CONTRACTOR SHALL CIRCUIT INDICATED FIXTURE TO THE NEAREST NON-NIGHTLIGHT LIGHTING BRANCH CIRCUIT. CONNECT TO EXISTING NON-NIGHTLIGHT LIGHTING CIRCUIT SERVING FIXTURES IN THIS ROOM. CONNECT TO EXISTING CONTROLS. CONNECT INDICATED FIXTURE TO THE EXISTING TO REMAIN CONTROLS SERVING THE ROOM'S 2X4 LIGHT FIXTURES.
- 3 TYPICAL LIGHTING CIRCUIT DESIGNATION. WIRING IS NOT SHOWN. ALL NORMAL FIXTURES WITHIN THIS AREA SHALL BE FED FROM THE INDICATED CIRCUIT EXISTING CIRCUIT. NEW LOAD IS LESS THAN PREVIOUS LOAD. TYPICAL UNLESS NOTED OTHERWISE.
- 4 PROVIDE NEW CONTROLS FOR EXISTING TO REMAIN LIGHT FIXTURES IN THIS ROOM.
- 5 RELOCATE SWITCHES SERVING EXISTING TO REMAIN FIXTURES IN THIS ROOM.
- 6 EXISTING EMERGENCY AND EXIT LIGHTING ALONG COMMON EGRESS PATH TO REMAIN.
- 7 PROVIDE NEW CONTROLS FOR EXISTING TO REMAIN FIXTURES IN THIS ROOM.

1 THIRD FLOOR LIGHTING PLAN
E-4 1/8" = 1'-0"



2
E-5
1/4" = 1'-0"

**ENLARGED STAFF LOUNGE
ELECTRICAL PLAN**



1
E-5
1/8" = 1'-0"

THIRD FLOOR ELECTRICAL PLAN

- KEYNOTES
- 1 INSTALL RECEPTACLE UNDER SINK FOR DISHWASHER. COORDINATE EXACT LOCATION IN FIELD.
 - 2 ENSURE UPSTREAM BREAKER IS GFI RATED, COORDINATE WITH PANEL SCHEDULES.
 - 3 EXISTING PANELS IN ELECTRICAL CLOSET TO REMAIN.
 - 4 PROVIDE CONTROLLED RECEPTACLES WHERE INDICATED. SEE DETAIL 1 ON SHEET E-7, TYPICAL.
 - 5 PROVIDE CEILING MOUNTED DUPLEX AND DATA FOR CEILING PROJECTOR. COORDINATE EXACT LOCATION IN FIELD PRIOR TO ROUGH-IN. COORDINATE LOW VOLTAGE REQUIREMENTS WITH MANUFACTURER CUTSHEETS.
 - 6 EXTEND WIRING FROM EXISTING BRANCH CIRCUIT LOCATION TO NEW RECEPTACLE ELEVATION.
 - 7 PROVIDE RECEPTACLE UNDER SINK FOR GARBAGE DISPOSAL. PROVIDE SINKTOP SWITCH. COORDINATE WITH ARCHITECTURAL DOCUMENTS.
 - 8 INDICATED POWER AND DATA SHALL BE REMOVED FROM EXISTING WALL AND RELOCATED TO NEW BULKHEAD AT SAME LOCATION. EXTEND EXISTING TO REMAIN BRANCH CIRCUIT.
 - 9 PROVIDE CONNECTION TO LOW VOLTAGE CONTROLS FOR NEW VAV UNIT. UNIT REQUIRES NO LINE VOLTAGE CONNECTION. COORDINATE LOW VOLTAGE WIRING REQUIREMENTS WITH MECHANICAL PLANS AND MANUFACTURER REQUIREMENTS.
 - 10 PROVIDE RECEPTACLE UNDER SINK FOR HOT WATER DISPENSER. COORDINATE WITH MANUFACTURER REQUIREMENTS.



- KEYNOTES
- 1 EXISTING FIRE ALARM DEVICES ALONG COMMON EGRESS PATH TO REMAIN
 - 2 RELOCATE EXISTING FIRE ALARM DEVICE. RECONNECT TO SYSTEM WITH WIRING TO MATCH EXISTING.
 - 3 PROVIDE NEW FIRE ALARM DEVICE TO MATCH EXISTING. CONNECT TO SYSTEM WITH WIRING TO MATCH EXISTING. TYPICAL UNLESS OTHERWISE NOTED AS RELOCATED.

FIRE ALARM SYMBOLS	
	SMOKE DETECTOR
	WALL MOUNTED FIRE ALARM VISUAL ONLY SIGNALING DEVICE MOUNTED 80" AFF TO BOTTOM OF DEVICE, UNLESS OTHERWISE NOTED. CANDELA RATING INDICATED ON PLANS.
	FIRE ALARM AUDIO-VISUAL SIGNALING DEVICE MOUNTED 80" AFF TO BOTTOM OF DEVICE, UNLESS OTHERWISE NOTED. CANDELA RATING INDICATED ON PLANS. C INDICATES CEILING MOUNTED.
	FIRE ALARM PULL STATION DEVICE MOUNTED 48" AFF HANDLE OF DEVICE, UNLESS OTHERWISE NOTED

- FIRE ALARM SPECIFICATION NOTES
- PRIOR TO PRICING AND BIDDING, THE CONTRACTOR IS REQUIRED TO FIELD SURVEY THE EXISTING BUILDING FIRE ALARM SYSTEM AND SHALL WORK WITH FIRE ALARM SYSTEM MANUFACTURER TO DETERMINE EXACT REQUIREMENTS FOR MODIFYING THE SYSTEM TO ACCOMMODATE NEW DEVICES TO SATISFY ADA REQUIREMENTS. THE BID SHALL INCLUDE ANY NECESSARY MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM INCLUDING BUT NOT LIMITED TO ADDITIONAL AMPLIFIERS AND HARD CARDS AS NECESSARY TO DRIVE NEW HORNS AND ADA STROBES. ALL FIRE ALARM STROBES SHALL MEET ADA REQUIREMENTS.
 - THE CONTRACTOR SHALL PREPARE ALL FIRE ALARM SYSTEM DRAWINGS INDICATING LOCATIONS OF ALL FIRE ALARM DEVICES FOR SUBMISSION AND APPROVAL BY LOCAL AUTHORITIES INCLUDING FIRE MARSHAL. THE PREPARED DRAWINGS BY THE CONTRACTOR SHALL BE THE SHOP DRAWINGS REQUIRED BY THE FIRE MARSHAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARATION OF AND ALL SUBMISSIONS OF FIRE ALARM SYSTEM DRAWINGS, ANNUNCIATOR PANEL SHOP DRAWINGS, AND BATTERY CALCULATIONS.
 - THE FIRE ALARM SYSTEM SHALL BE FULLY INTERFACED AND COMPATIBLE WITH THE EXISTING FIRE DETECTION AND ALARM SYSTEM.
 - FIRE ALARM STROBE DEVICES SHALL BE SYNCHRONIZED THROUGHOUT THE SPACE AND WITH ANY DEVICES VISIBLE FROM THE SPACE.
 - ALL FIRE ALARM DEVICES AND EQUIPMENT FOR THIS SYSTEM SHALL BE UL LISTED, BEAR THE UL LABEL AND SHALL CONFORM TO THE APPLICABLE SECTIONS OF NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 72 AND 90A. THE INSTALLATION SHALL BE IN ACCORDANCE WITH ALL REQUIREMENTS OF NFPA, THE NATIONAL ELECTRICAL CODE (NEC), AND ALL STATE AND LOCAL CODES AND REQUIREMENTS.

1 THIRD FLOOR FIRE ALARM PLAN
E-6 1/8" = 1'-0"

INTERIOR LIGHTING ENERGY COMPLIANCE

Energy Code: DC Energy Code 2017
Project Name: Thurgood Marshall Academy Renovations
Project Type: Alteration
Project Location: Washington DC

Allowed Interior Lighting Power - Space by Space

Space Type	Room Description	Room Area (sf)	Allowed Watts / sf	Allowed Watts
Classroom/lecture hall/training room: Otherwise	205B	428	1.24	531
Classroom/lecture hall/training room: Otherwise	205A	502	1.24	622
Conference/meeting/multipurpose room	231B	523	1.1	575
Classroom/lecture hall/training room: Otherwise	230	386	1.24	479
Lounge/breakroom	242	286	0.62	177
Total Allowed Watts:				2384

Proposed Interior Lighting Power

Luminaire Type	Luminaire Description	Fixture Wattage	Quantity of Fixtures	Total Wattage
A	2x2	23.4	31	725
B	6" DOWNLIGHT	18	8	144
EX D1	EX 4' Pendant Strip Light	54	12	648
Total Proposed Watts:				1517
Interior Lighting Passed				

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1 of 1

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	LAMP QUANTITY	LAMP WATTAGE	LAMP TYPE	LAMP COLOR	FIXTURE WATTAGE	FIXTURE LUMENS	VOLTAGE	DIMMING	MOUNTING	NOTES
A	SKYRIDGE - RECESSED 2X2	COOPER	22SR-LD2-29-C-UNV-L835-CD-1	-	-	LED	3500K	23.4	2900	277	0-10V	RECESSED	PROVIDE ADDITIONAL 4 FIXTURES FOR OWNER ATTIC STOCK. PROVIDE FIXTURES WITH OPTIONAL 10 YEAR WARRANTY.
B	HALO - 6" DOWNLIGHT	COOPER	HC6-20-0010 - HM6-0525-835-TRIM-61-WD-W-WF	-	-	LED	3500K	18	2000	277	0-10V	RECESSED	PROVIDE ADDITIONAL 2 FIXTURES FOR OWNER ATTIC STOCK.

SPACE TYPE	MANUAL ON	OCCUPANCY SENSOR ON 100%	OCCUPANCY SENSOR ON 90%	TIME CLOCK ON	EXTERIOR PHOTOCELL ON	MANUAL OFF	OCCUPANCY/VACANCY SENSOR OFF	TIME CLOCK OFF	DIMMING SWITCH	OVERRIDE SWITCH	MULTI-ZONE SWITCH	KEY SWITCH	DAYLIGHT DIMMING	EXTERIOR PHOTOCELL OFF	NOTES
CLASSROOMS / LECTURE / TRAINING ROOMS	X						X		X						
CONFERENCE / MEETING ROOMS	X						X		X						
PANTRY / BREAKROOM / LOUNGE	X						X		X						

NOTES:
 1. OCCUPANCY/VACANCY SENSORS SHALL AUTOMATICALLY TURN LIGHTS OFF AFTER A MAXIMUM OF 20 MINUTES.
 2. DIMMER SWITCHES SHALL INCLUDE A MANUAL FULL OFF OPTION.
 3. THE CONTRACTOR SHALL PERFORM FUNCTIONAL TESTING OF THE LIGHTING CONTROL DEVICES TO ENSURE COMPLIANCE WITH PLANS, SPECIFICATIONS, SEQUENCES OF OPERATIONS, AND MANUFACTURER RECOMMENDATIONS. THE CONTRACTOR SHALL SUBMIT A TESTING REPORT TO THE OWNER AND ARCHITECT / ENGINEER UPON COMPLETION OF THE TESTING.

