



UNIVERSITY OF
SOUTH CAROLINA

Columbia, SC

CLS 009 HOSPITAL LAB RENOVATION

State Project #H27-Z107

GMK Project #13025.01

August 22, 2013

ISSUED FOR CONSTRUCTION

Prepared by:



ASSOCIATES, INC.

Design/Planning/Construction

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STRUCTURAL

NOT USED

ARCHITECTURAL

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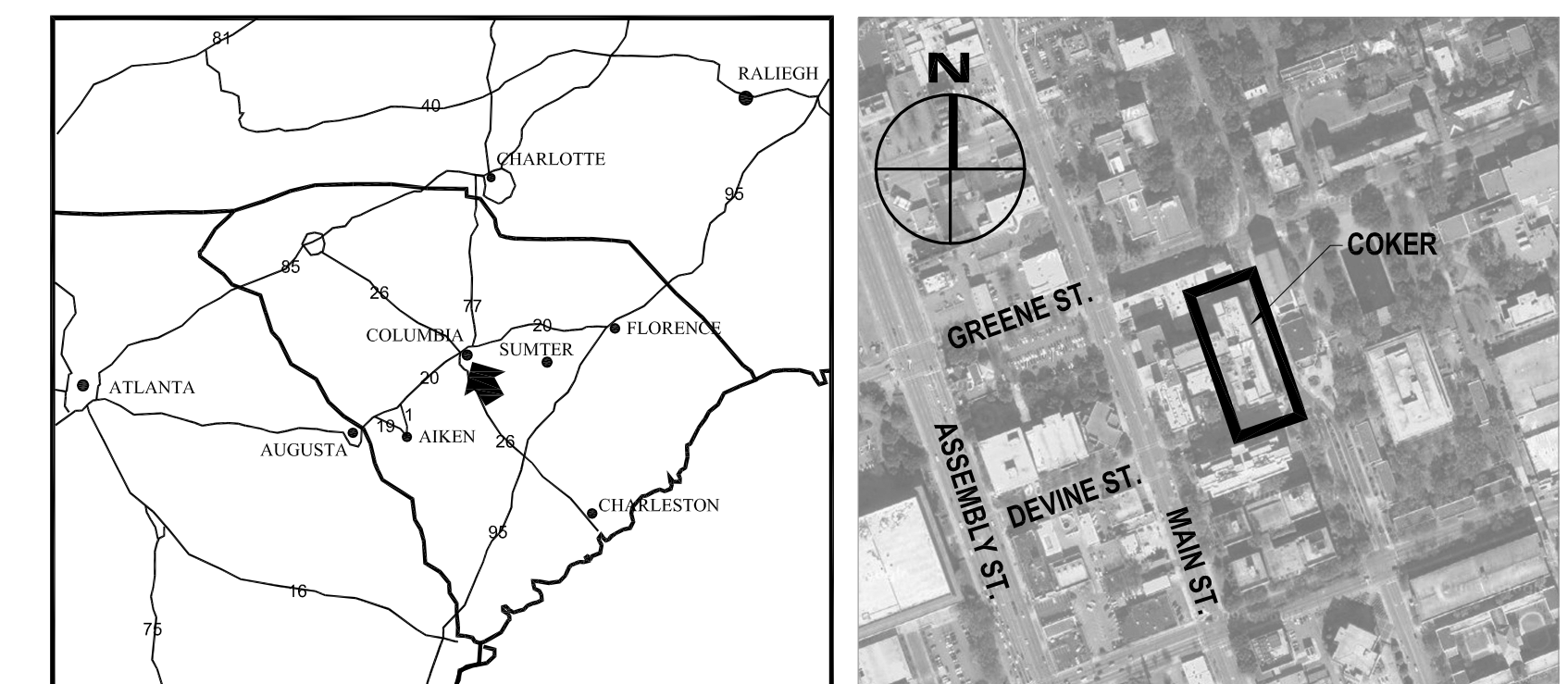
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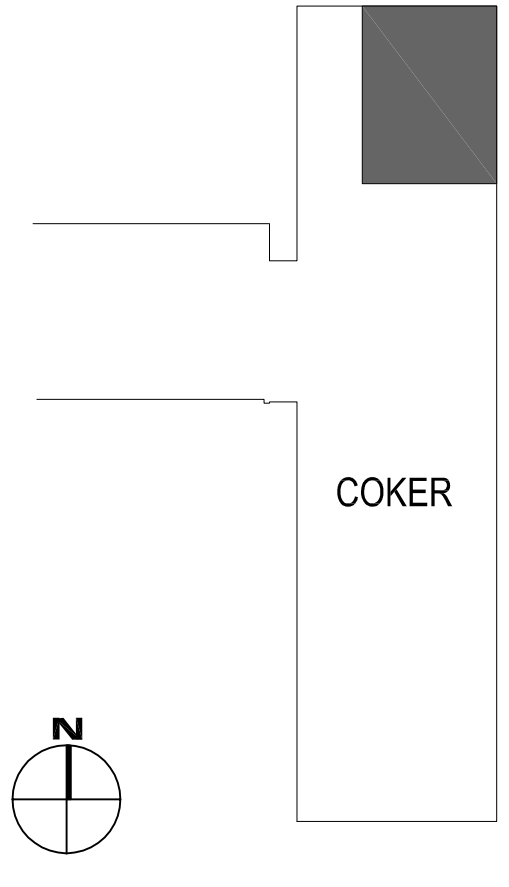
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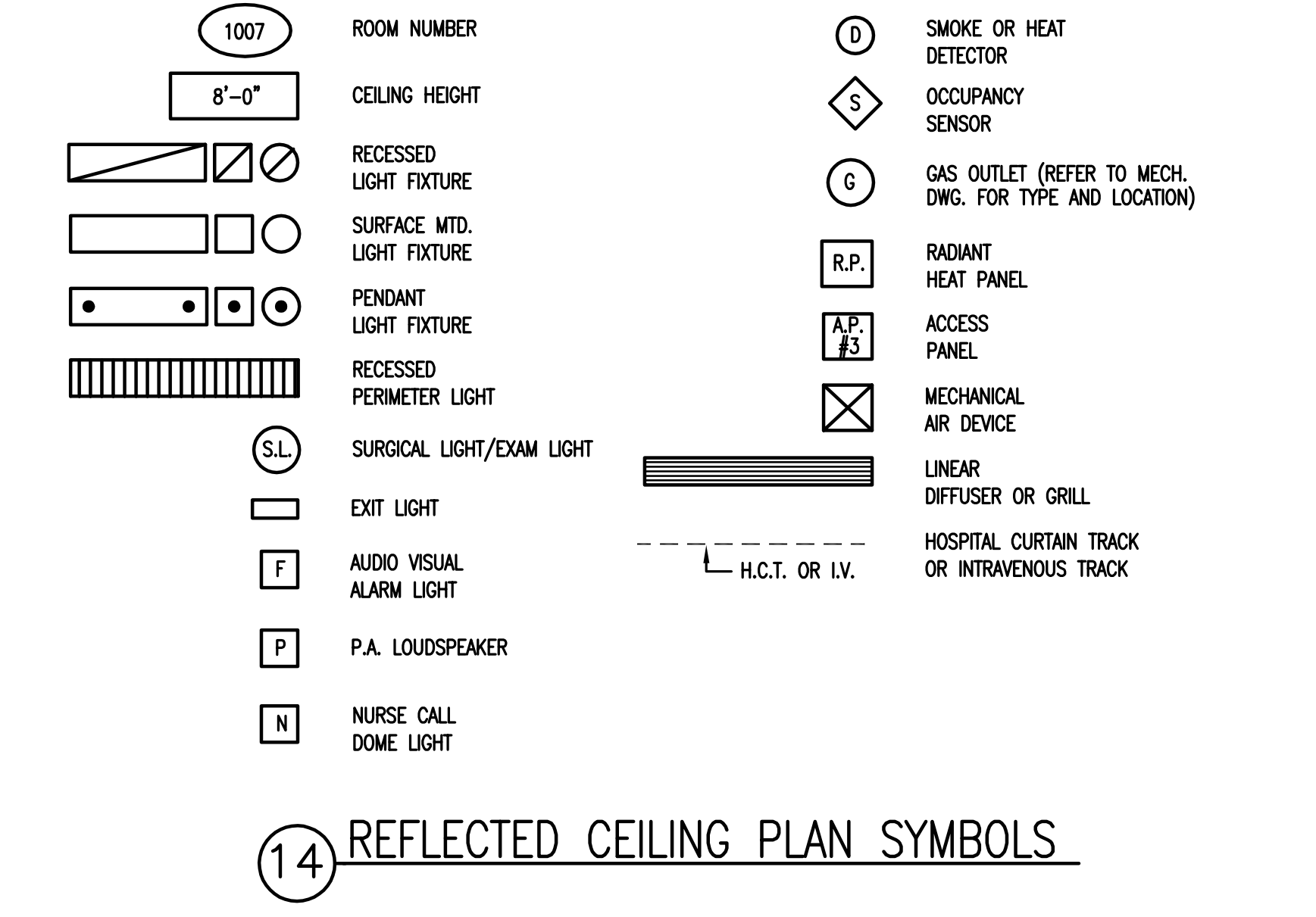
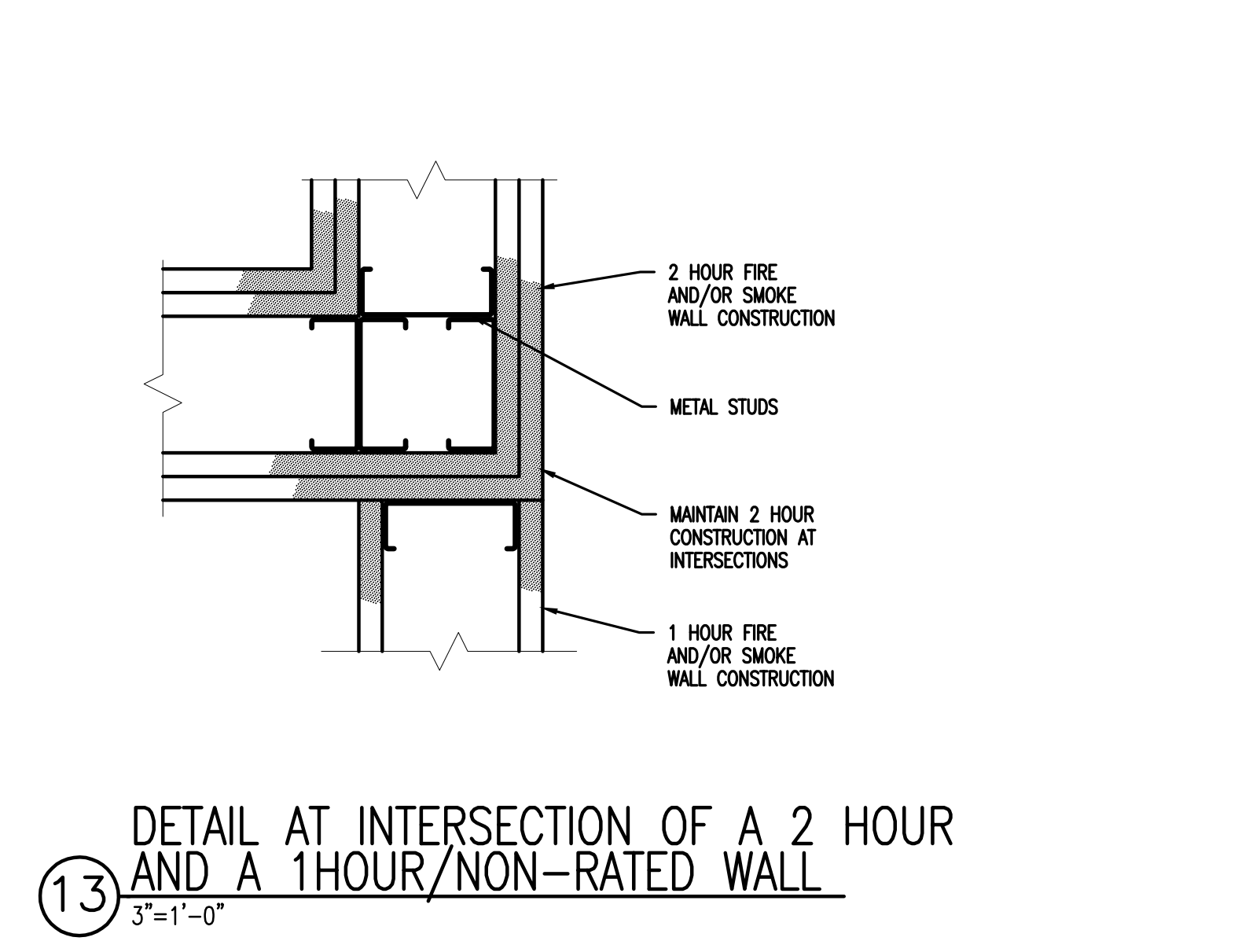
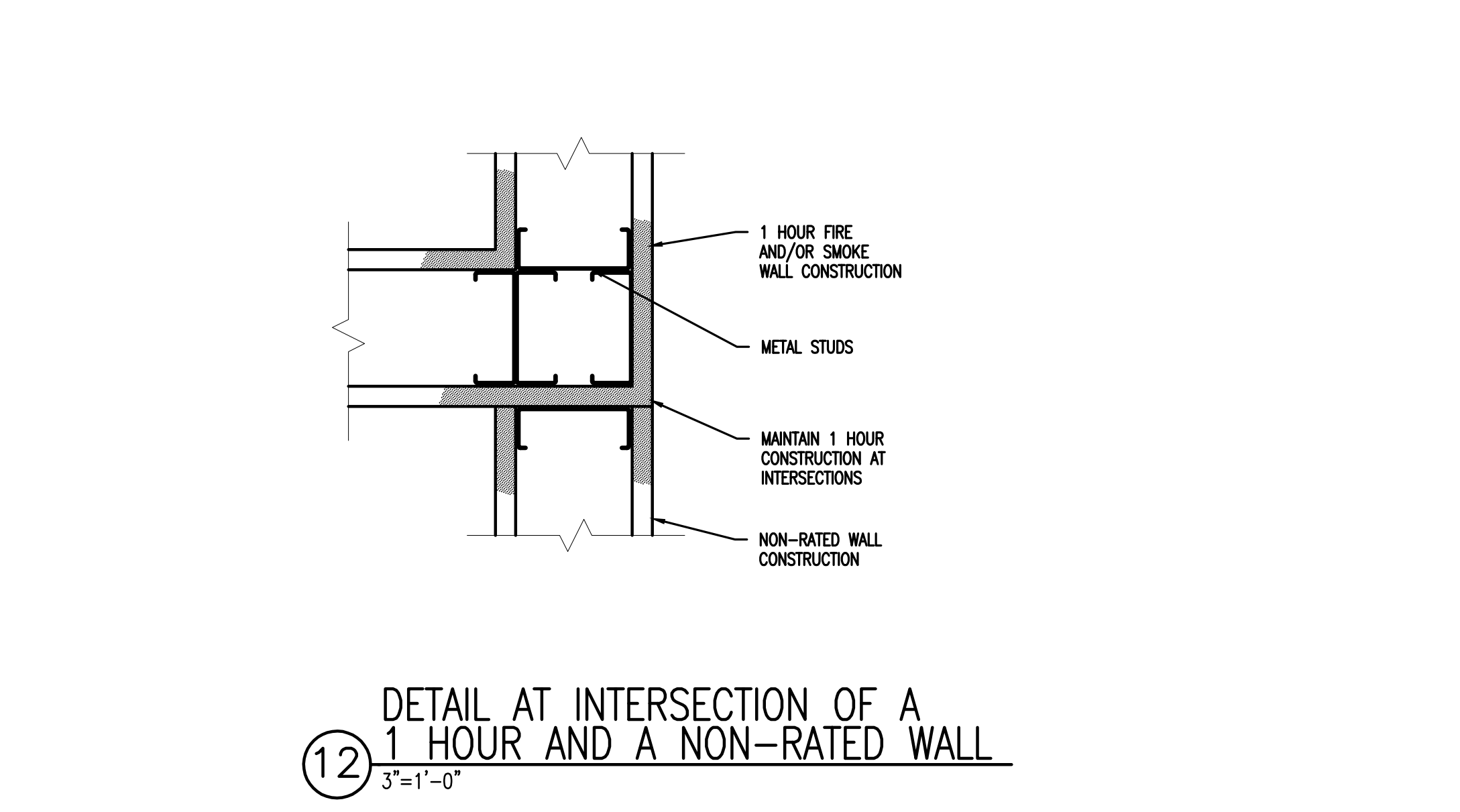
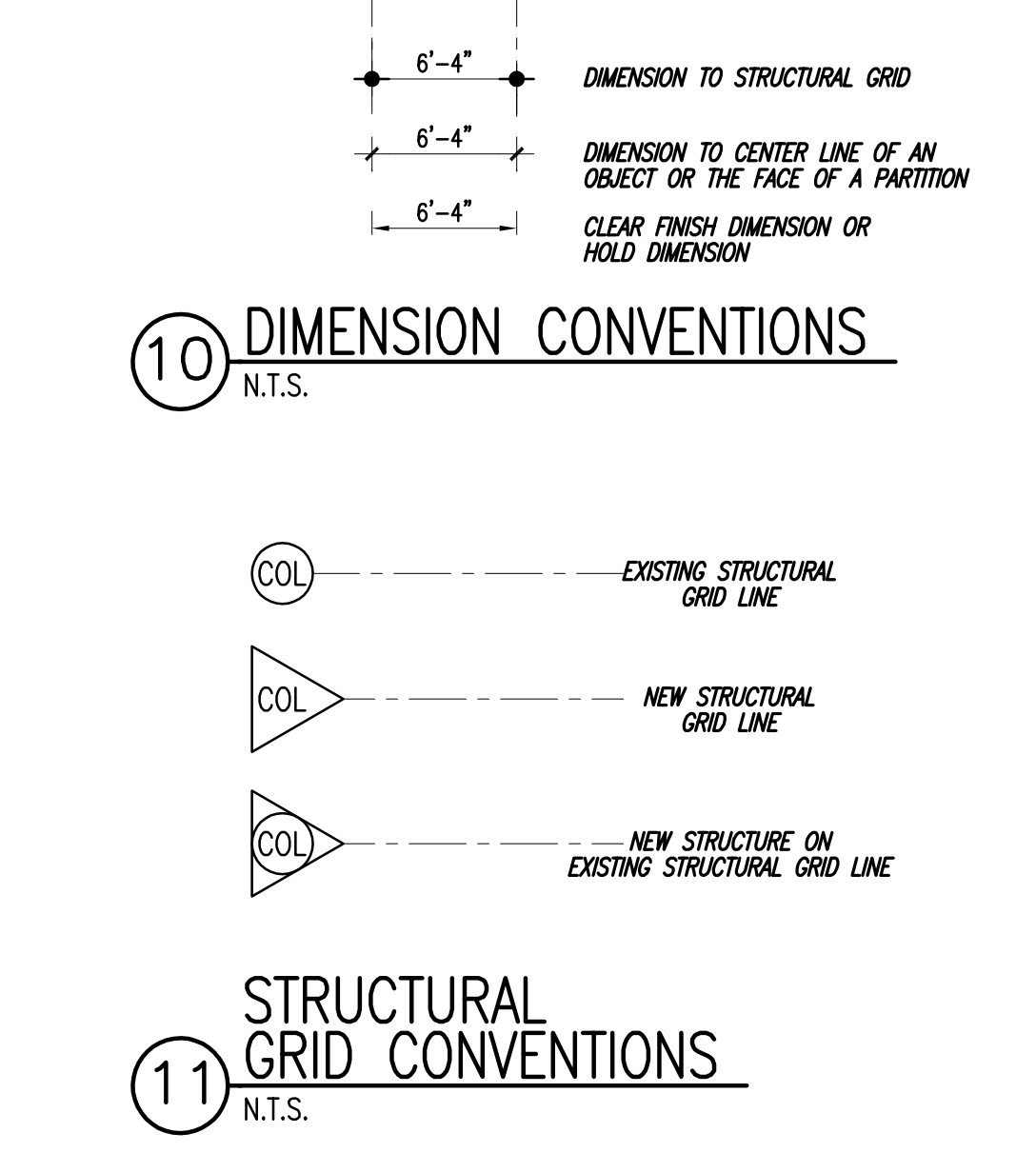
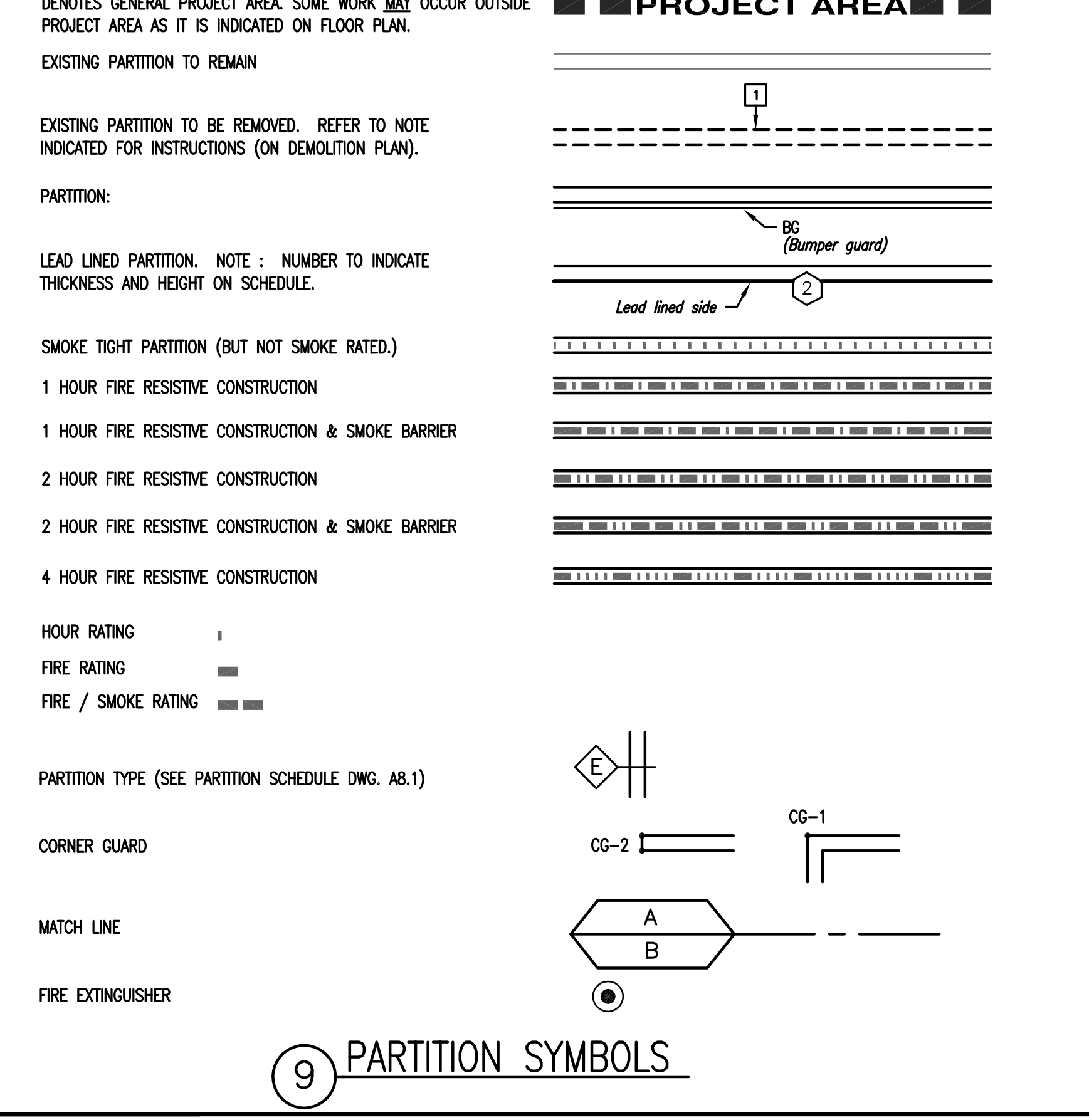
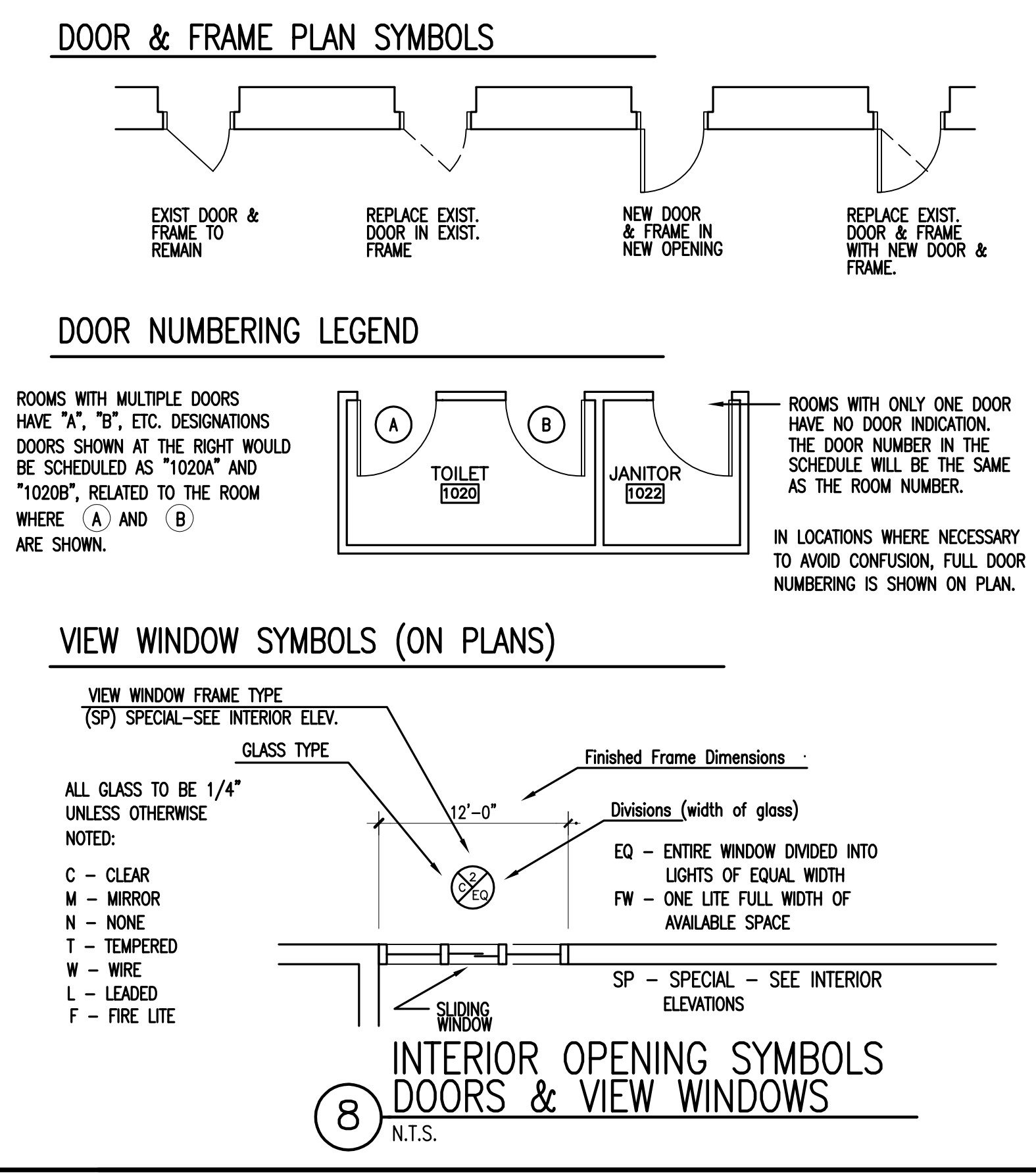
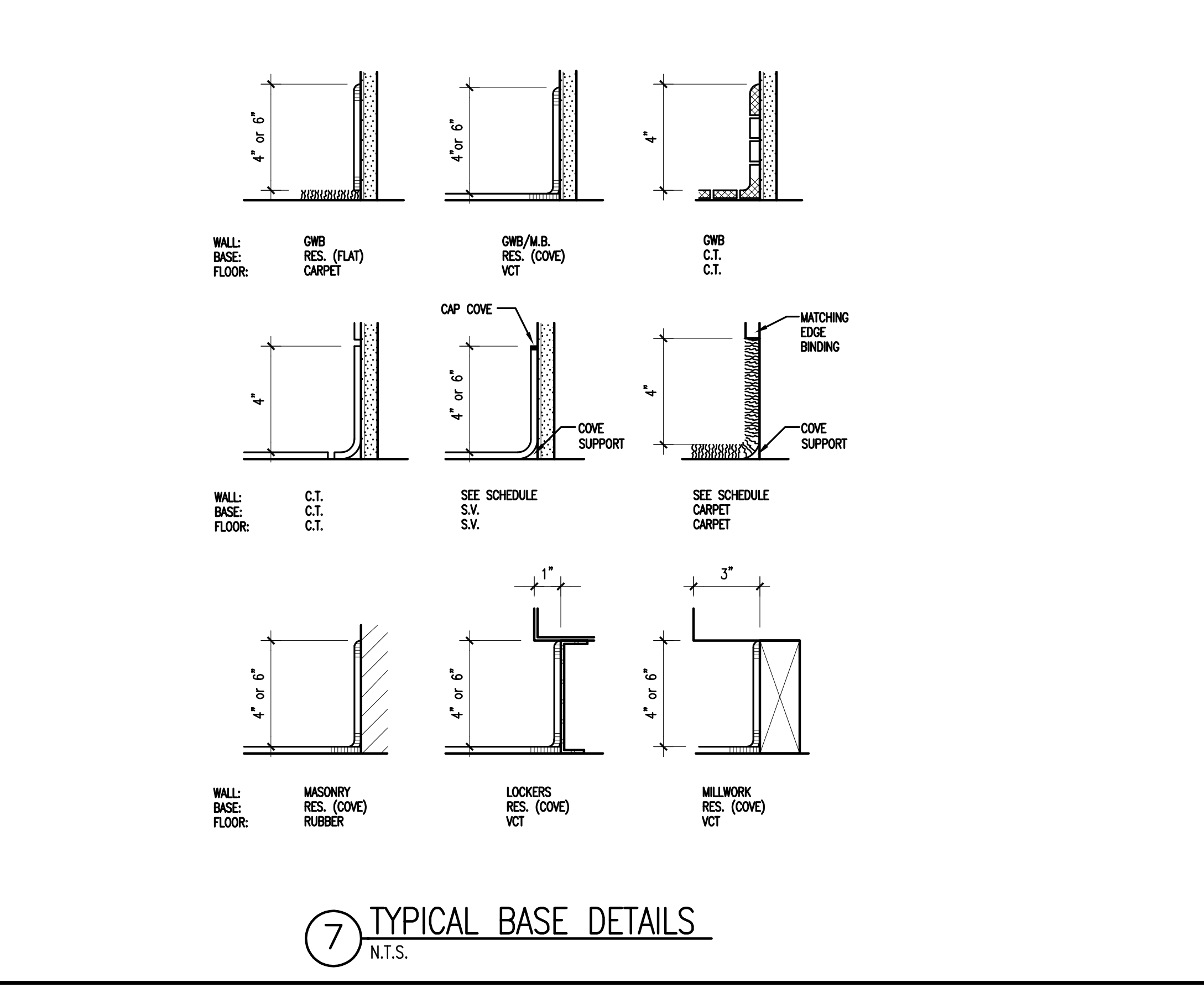
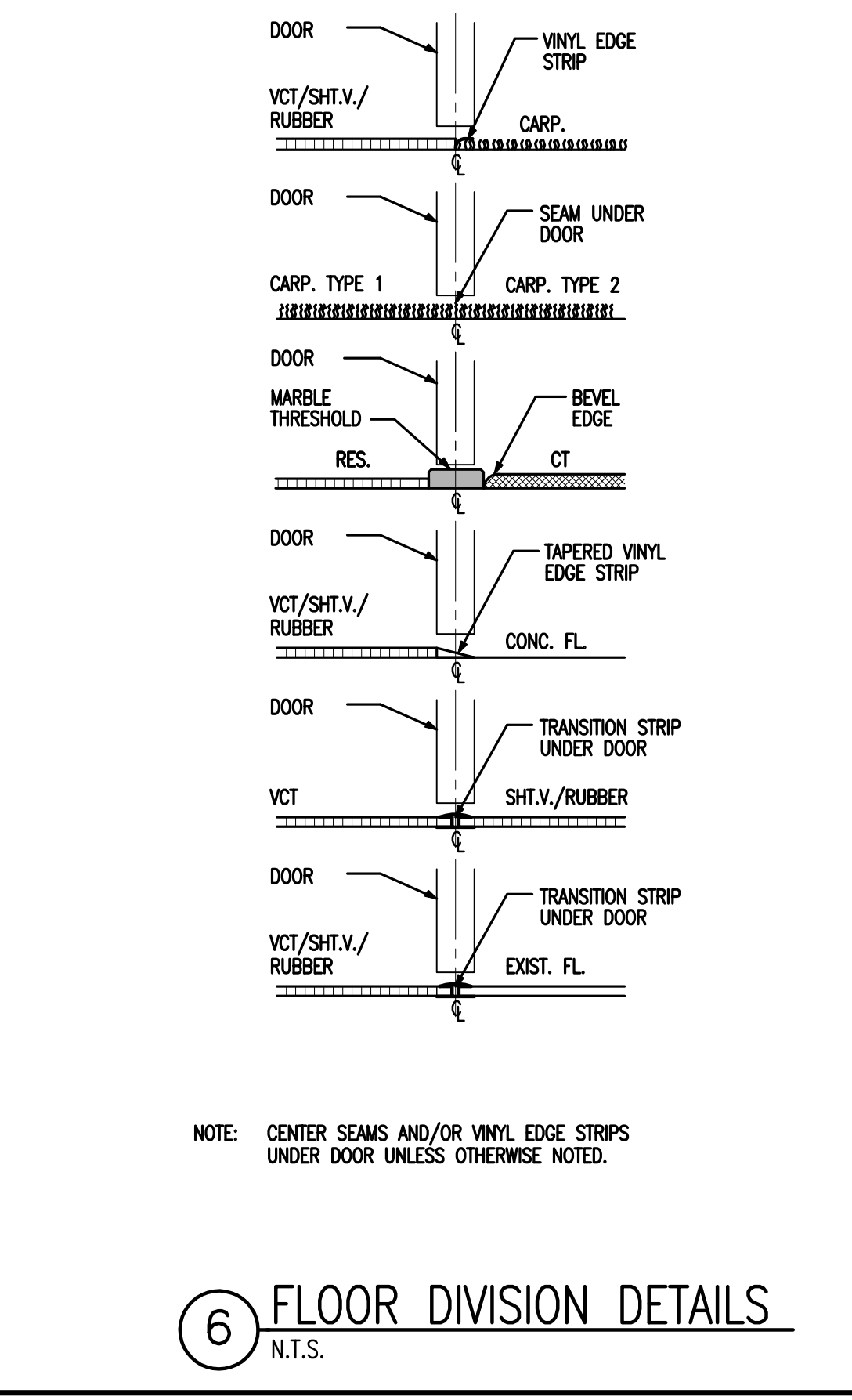
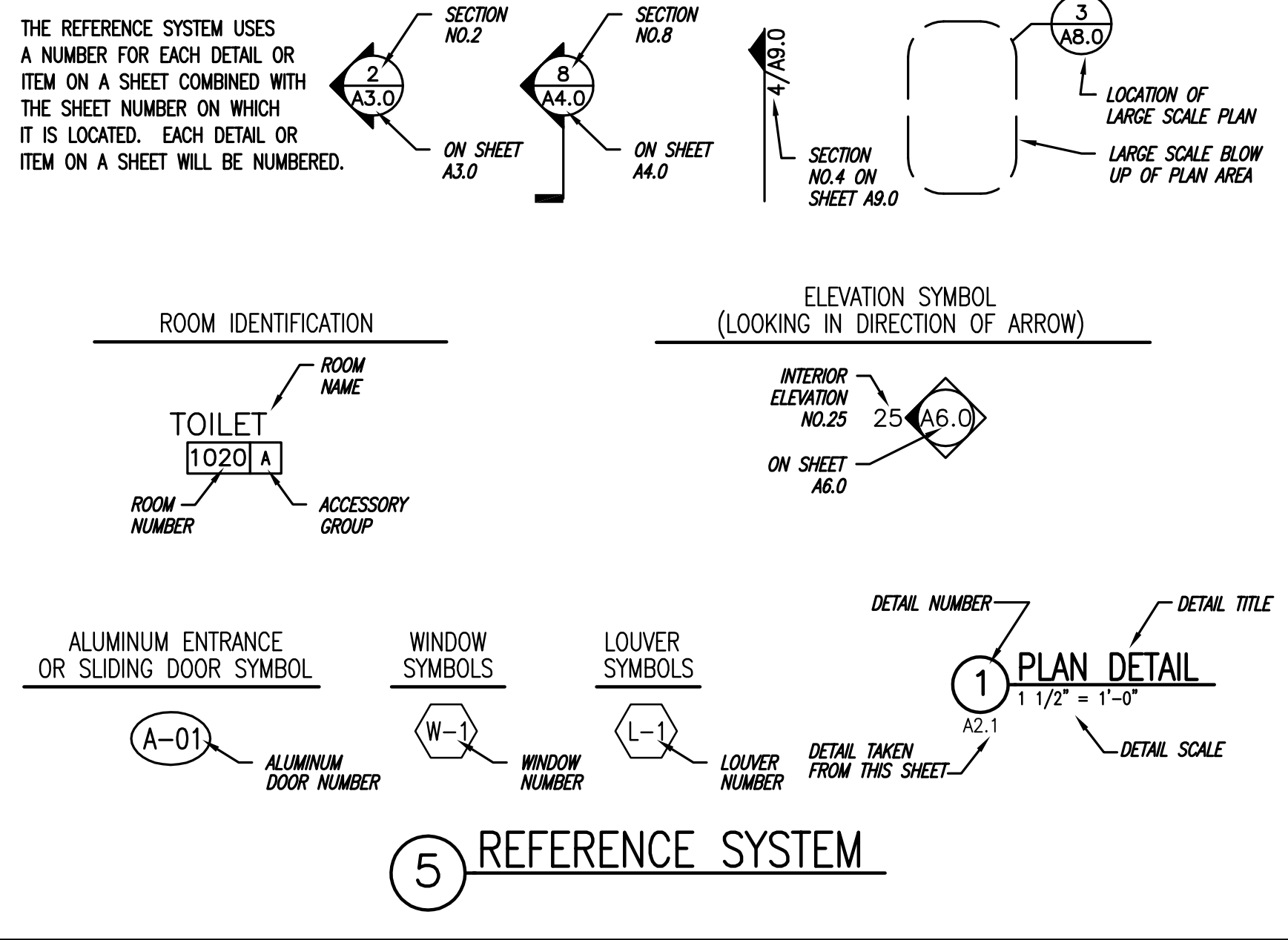
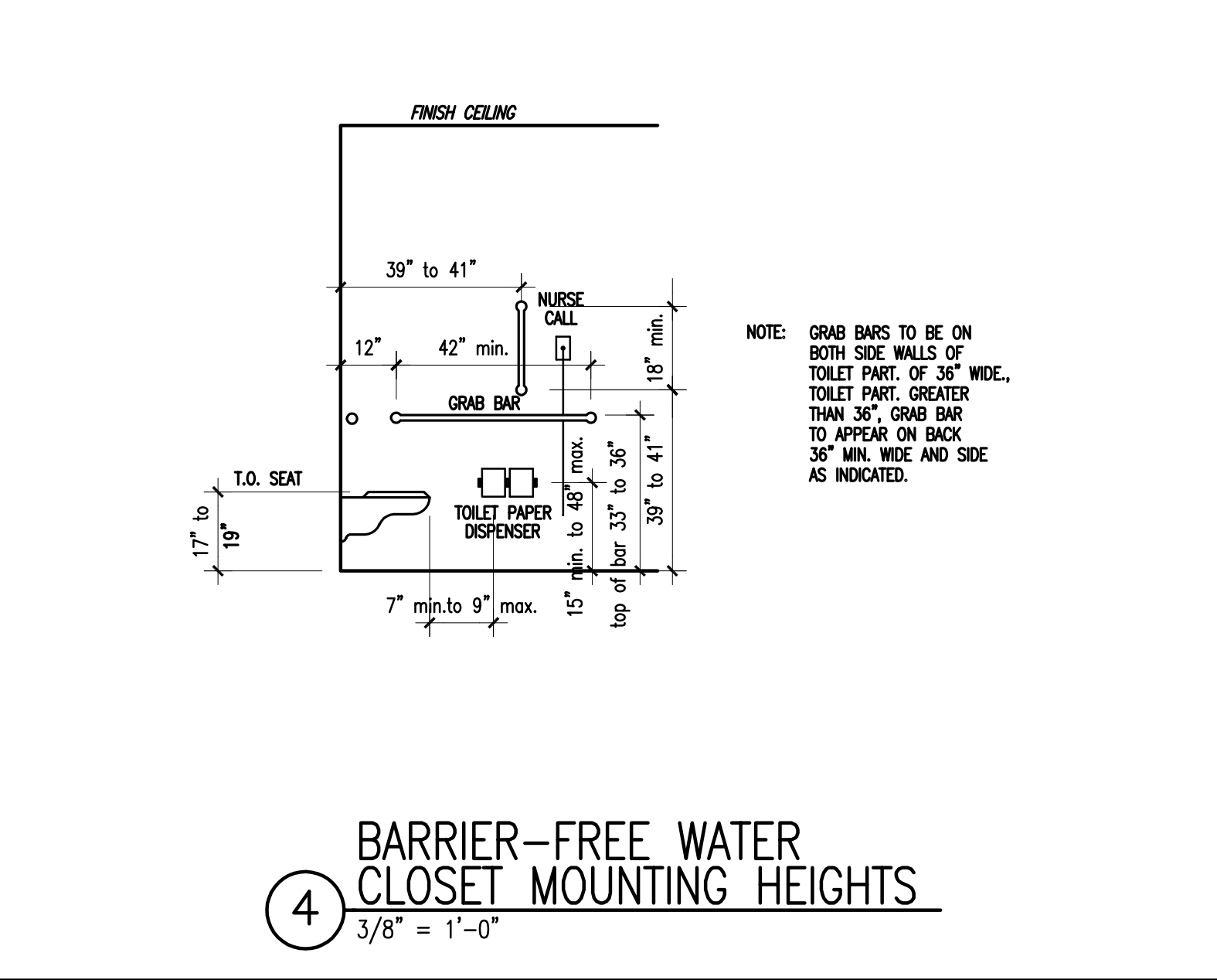
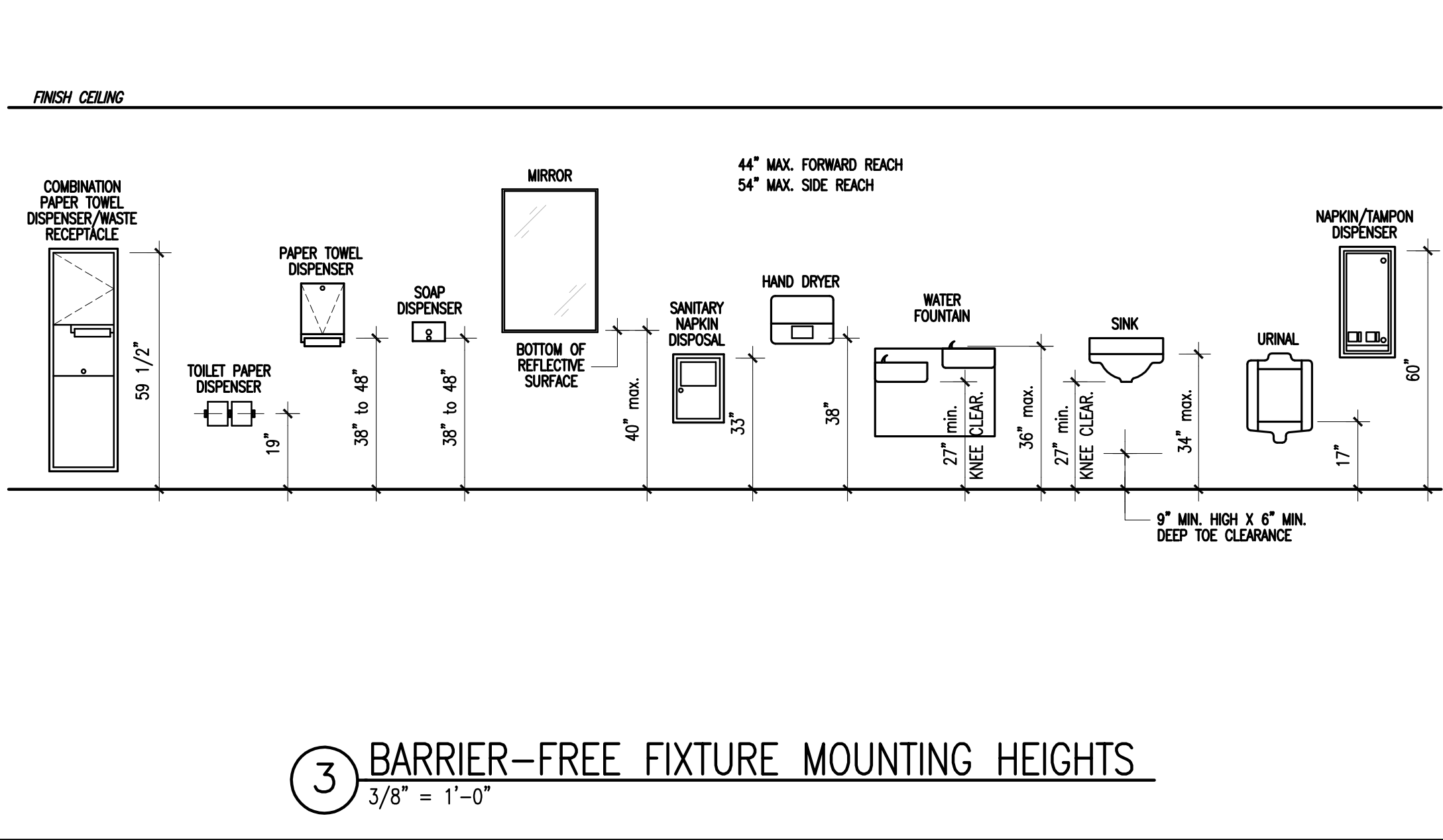
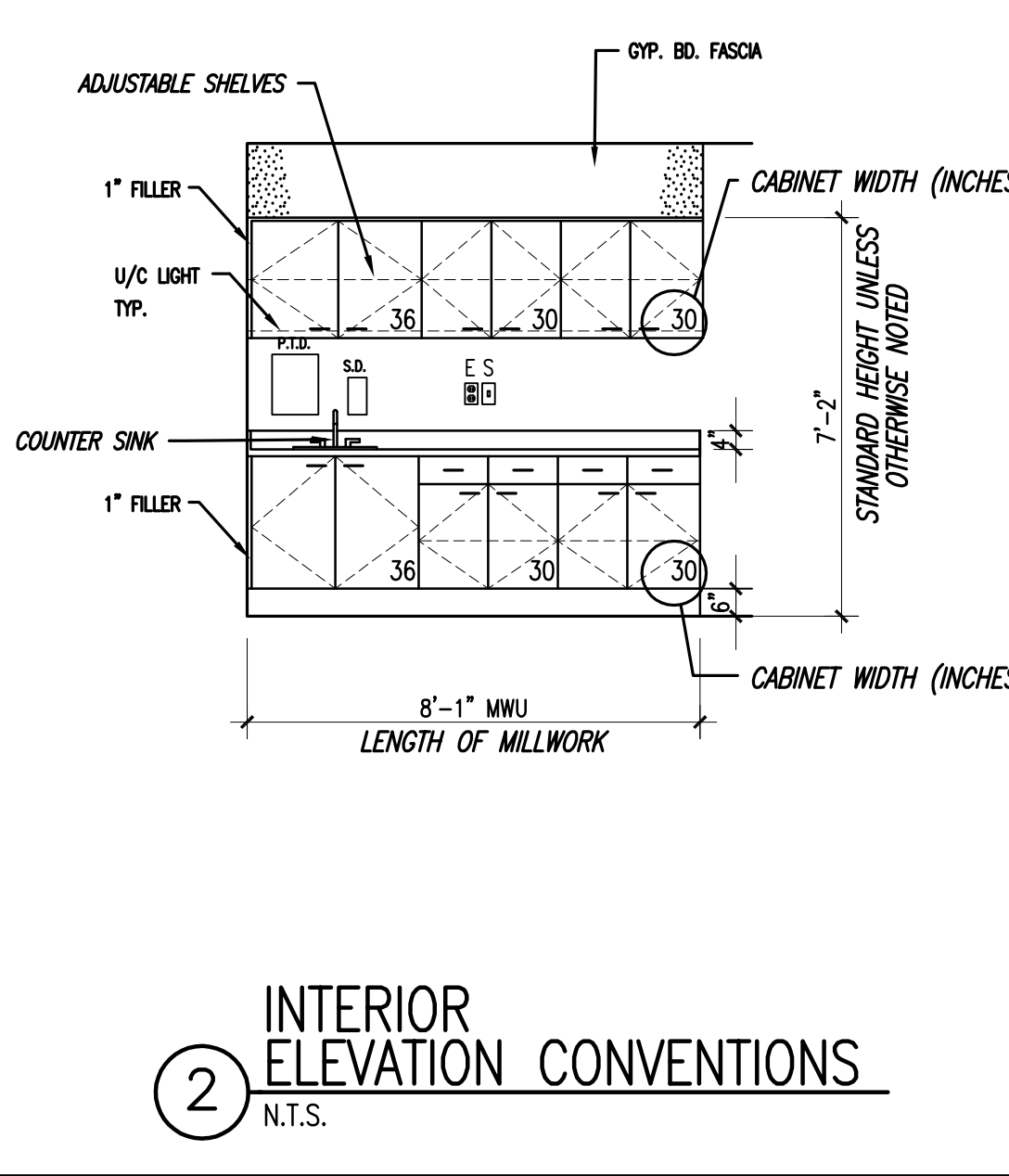
SET NO.

number	item	date



- SERIES NUMBERING**
SERIES DRAWING INFORMATION
- A00 SYMBOLS
 - A0.1 LIFE SAFETY FLOOR PLANS
 - A0.2 DEMOLITION FLOOR PLANS AND/OR DEMOLITION ELEVATIONS AND DETAILS
 - A0.3 FLOOR PLANS, ROOF PLANS AND ENLARGED FLOOR PLANS
 - A0.4 EXTERIOR ELEVATIONS
 - A0.5 BUILDING SECTIONS, EXTERIOR WALL SECTIONS, EXTERIOR PLAN DETAILS, EXTERIOR WINDOWS AND DETAILS
 - A0.6 VERTICAL CIRCULATION, PLANS, SECTIONS, DETAILS (STAIRS, ELEVATORS, ESCALATORS)
 - A0.7 INTERIOR ELEVATIONS
 - A0.8 REFLECTED CEILING PLANS AND ENLARGED REFLECTED CEILING PLANS AND DETAILS
 - A0.9 DOOR SCHEDULE, DOOR AND FRAME TYPES, PARTITIONS TYPES, INTERIOR DETAILS
 - A0.10 MILLWORK SECTIONS AND DETAILS
 - A0.11 FINISH PLANS AND FINISH SCHEDULE
 - A10.0 EQUIPMENT FLOOR PLANS
 - A12.0 FURNITURE PLAN DRAWING SERIES
- THE ARCHITECTURAL CONSTRUCTION DOCUMENT REFERENCE SYSTEM ABOVE REPRESENTS TYPICAL ARCHITECTURAL DOCUMENT SET LAYOUT. ENTIRE DRAWING SERIES MAY BE OMITTED WHEN NOT APPLICABLE TO THE PROJECT. DRAWING SERIES INFORMATION MAY ALSO BE COMBINED WITH OTHER SERIES INFORMATION WHERE SPACE PERMITS (I.E. A6.0 MAY INCLUDE BOTH INTERIOR ELEVATIONS AND MILLWORK DETAILS).

- 1 GENERAL NOTES**
1. NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT ARE CONTRARY TO THOSE REPRESENTED WITHIN THE DRAWINGS.
 2. NEW WORK SHALL ALIGN WITH AND MATCH EXISTING WORK EXCEPT WHERE OTHERWISE DIMENSIONED OR DETAILED.
 3. ALL NEW VERTICAL AND HORIZONTAL DUCTS, PIPES, CONDUITS, ETC. (WHETHER SHOWN OR NOT) IN FINISHED ROOMS OR AREAS THROUGHOUT BUILDING, NOT CONCEALED, SHALL BE FURRED IN, AND FINISHED TO MATCH ROOM FINISH.
 4. ALL NEW PARTITIONS, UNLESS OTHERWISE SHOWN OR DETAILED, SHALL BE METAL STUDS OF THICKNESS TO ADEQUATELY COVER PIPING, CONDUITS, ETC.
 5. PROVIDE AN EDGE STRIP, AS DETAILED, UNDER ALL DOORS WHERE NEW OR EXISTING FINISHES AND ADJACENT FLOOR ARE AT DIFFERENT LEVELS AND WHERE ADJACENT FLOOR FINISHES ARE OF DIFFERENT MATERIALS. SEE DETAIL 6/A0.0.
 6. EXISTING DOORS, WHICH SWING INTO ROOMS WHERE NEW FLOOR FINISH IS ABOVE ADJACENT FLOORS, SHALL BE CUT OFF AT BOTTOM TO CLEAR NEW FINISHED FLOOR. DOOR BOTTOM SHALL BE SEALED AND FINISHED TO MATCH EXISTING FINISH.
 7. OFFSET ALL DOORS 6" FROM ADJACENT WALLS UNLESS OTHERWISE NOTED.
 8. NEW TILE FINISHES APPLIED TO EXISTING WALLS AND PARTITIONS SHALL BE APPLIED DIRECTLY TO PLASTER OR GYP.SD. WALLS BY THE THIN SET METHOD. NEW PARTITIONS AND CLOSURES OF OPENINGS IN ROOMS HAVING TILE BASE AND/OR TILE WANSOT SHALL BE FINISHED WITH TILE TO MATCH EXISTING. WHEN TILE CANNOT BE MATCHED, FURNISH ARCHITECT WITH SAMPLES OF EXISTING TILE TO PERMIT SELECTION OF SUBSTITUTE TILE.
 9. PROVIDE ACCESS PANELS, 24" X 24" OR OF SIZES REQUIRED, WHERE PLUMBING AND HEATING VALVES, WATER SWITCHES, OXYGEN PRESSURE SWITCHES, VENTILATION SPLITTER DAMPERS, ETC. ARE SHOWN ON PLUMBING, HEATING, AND VENTILATION DRAWINGS. SUCH ACCESS PANELS TO BE INSTALLED IN THE FOLLOWING:
 - (A) SUSPENDED PLASTER OR GYPSUM WALLBOARD CEILINGS
 - (B) METAL STUD OR MASONRY PARTITIONS
 10. WHEREVER EXISTING EQUIPMENT, PIPING, DUCTS, ETC. ARE REQUIRED TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS ETC. AFTER REMOVAL, FLOORS, WALLS AND CEILINGS SHALL BE FINISHED TO MATCH ADJOINING SURFACES OR AS INDICATED ON ROOM FINISH SCHEDULE.
 11. WALL ASSEMBLIES SHALL BE MAINTAINED AT ALL RECESSED FIRE EXTINGUISHER CABINETS AND ALL RECESSED EQUIPMENT.
 12. WHERE PAINT IS CALLED FOR ON WALLS IN RENOVATED ROOMS IN THE EXISTING BUILDING, ALL WALLS ARE TO BE PAINTED.
 13. WHERE NO PAINT IS INDICATED IN AREAS WHERE PATCHING IS REQUIRED, NEW WORK IS TO BE PAINTED TO MATCH EXISTING ADJOINING SURFACES.
 14. WHERE THE ROOM FINISH SCHEDULE CALLS FOR A NEW CEILING, THE EXISTING CEILING AND SUSPENSION SYSTEM IS TO BE COMPLETELY REMOVED.
 15. PROVIDE FIRE EXTINGUISHING CABINETS OF THE TYPE SPECIFIED. REFER TO FLOOR PLANS (A2.0) FOR LOCATIONS.
 16. WHERE THE ROOM FINISH SCHEDULE FOR EXISTING CONSTRUCTION CALLS FOR A NEW MATERIAL, THE ENTIRE ROOM IS TO RECEIVE THE NEW MATERIAL. WHERE THE ROOM FINISH SCHEDULE CALLS FOR BOTH PATCHING AND A NEW MATERIAL, THE NEW MATERIAL IS LIMITED TO AREAS OF NEW CONSTRUCTION WITHIN THAT ROOM ONLY.
 17. SUPPLY BLOCKING AT ALL WALL HUNG EQUIPMENT (I.E. GRAB BARS, CASEWORK MEDICAL EQUIPMENT, ETC.)
 18. WHERE A NEW DOOR, VIEW WINDOW OR OPENING IS CUT THROUGH AN EXISTING MASONRY WALL, PROVIDE A LOOSE LINTEL AS REQUIRED ON THE LOOSE LINTEL SCHEDULE INDICATED ON THE STRUCTURAL DRAWINGS.
 19. ALL DIMENSIONS SHOWN IN RENOVATED AREAS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK.
 20. IN ALL ROOMS BELOW AREAS WHICH RECEIVE UNDER FLOOR SERVICES, REMOVE A PORTION OF EXISTING CEILING AS REQUIRED. PATCH FINISHES TO MATCH EXISTING OR AS INDICATED ON ROOM FINISH SCHEDULE.



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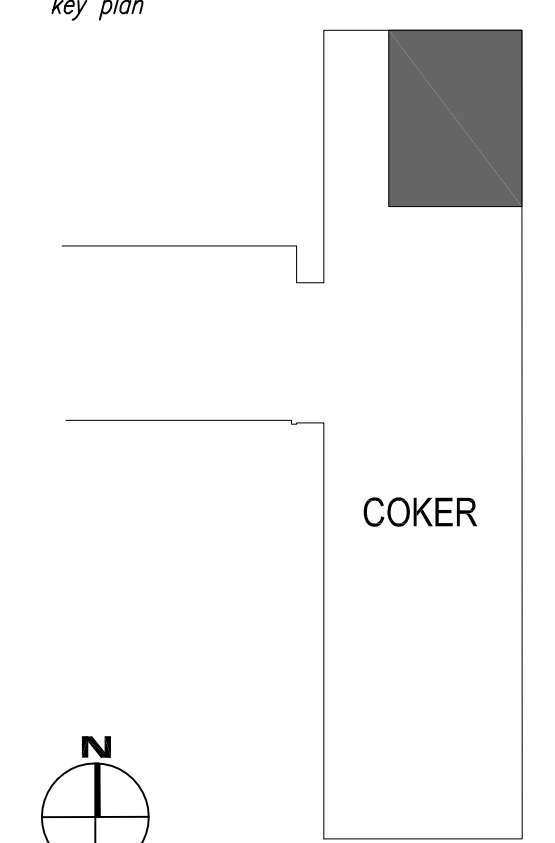
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AUGUST 22, 2013

number	item	date

key plan

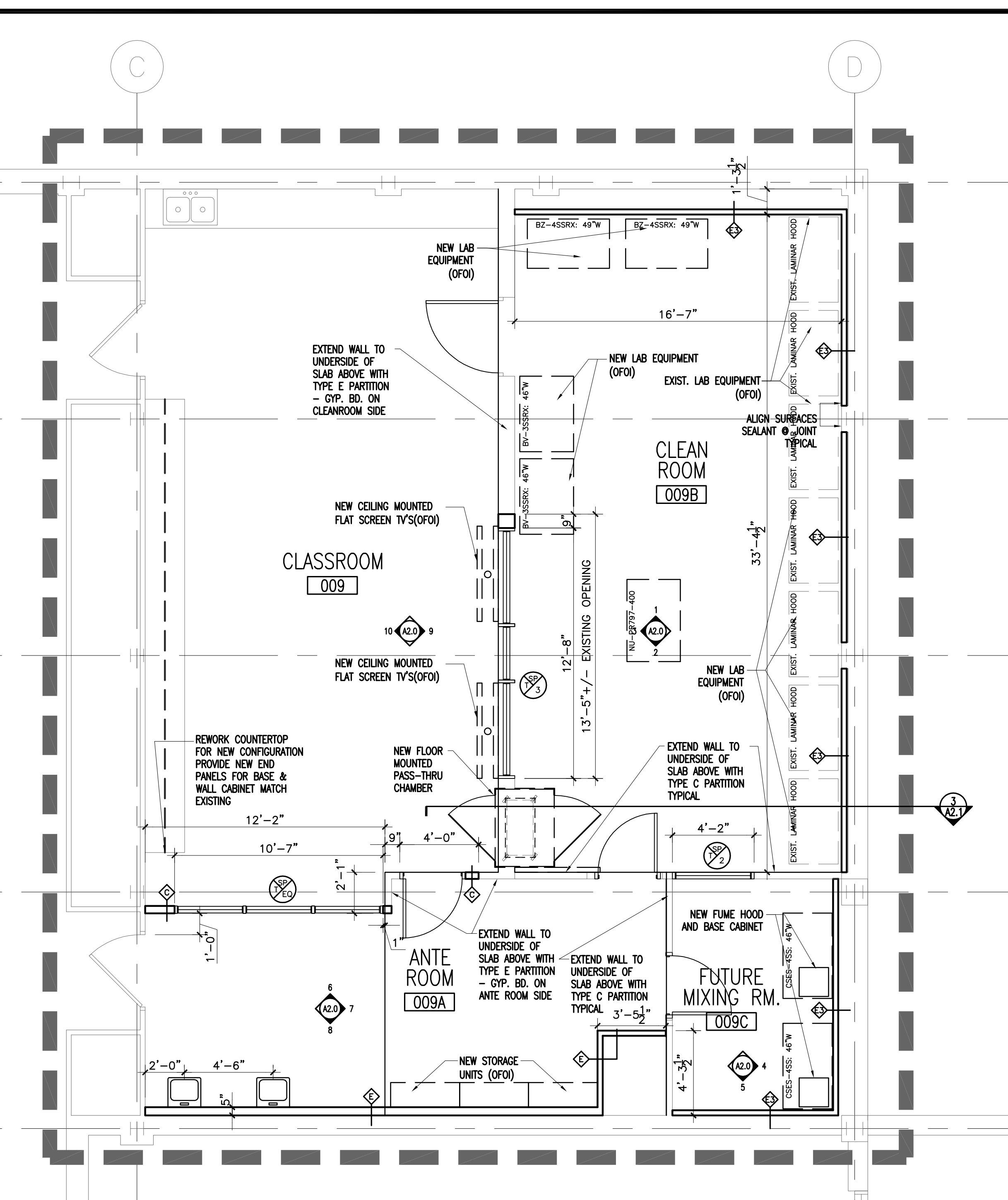


sheet title
PARTIAL BASEMENT DEMOLITION PLAN, DEMOLITION NOTES, RENOVATION PLAN & INTERIOR ELEVATIONS & PARTITION TYPES

sheet number

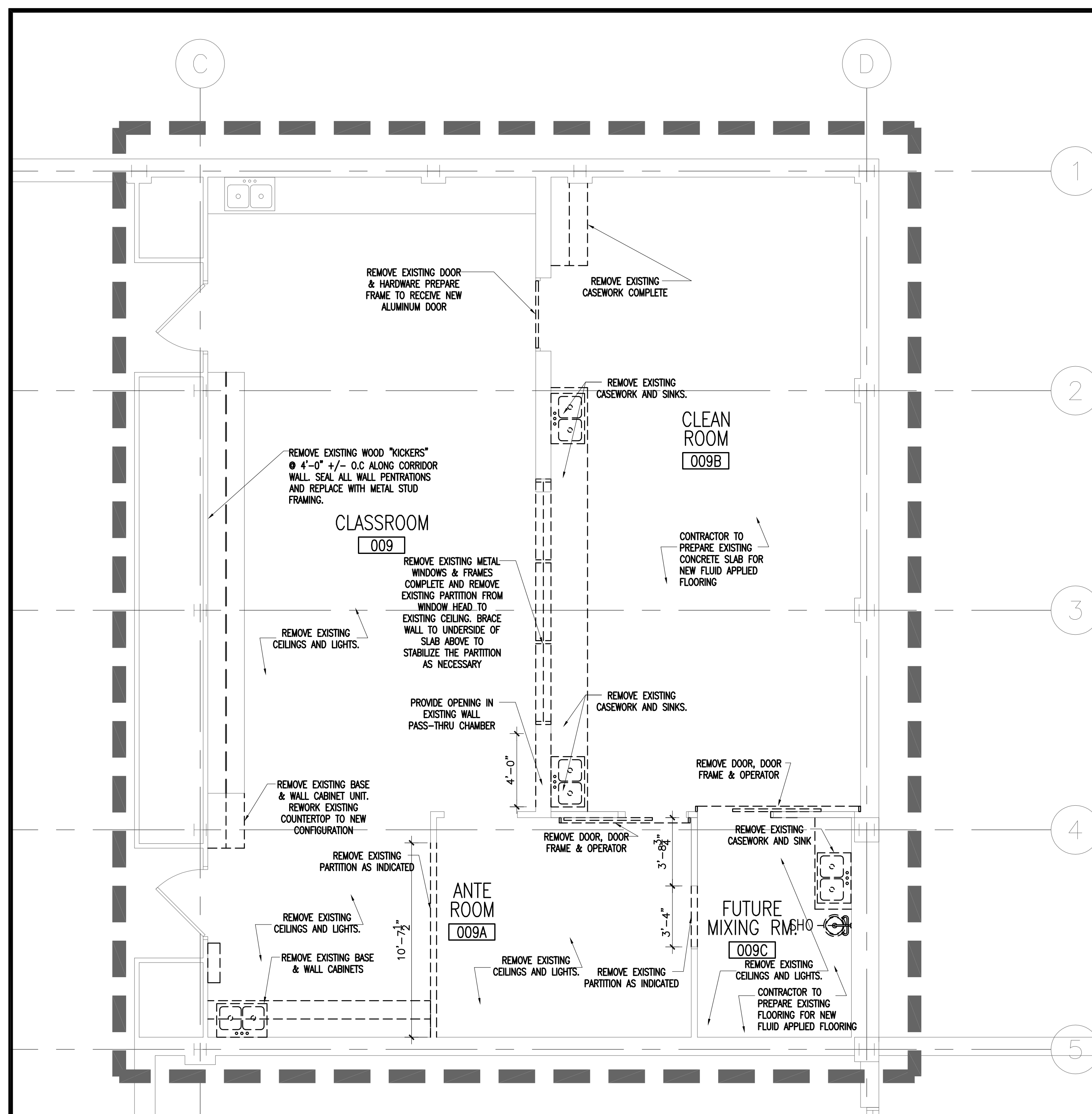
A2.0

drawn by LEX
checked by LEX



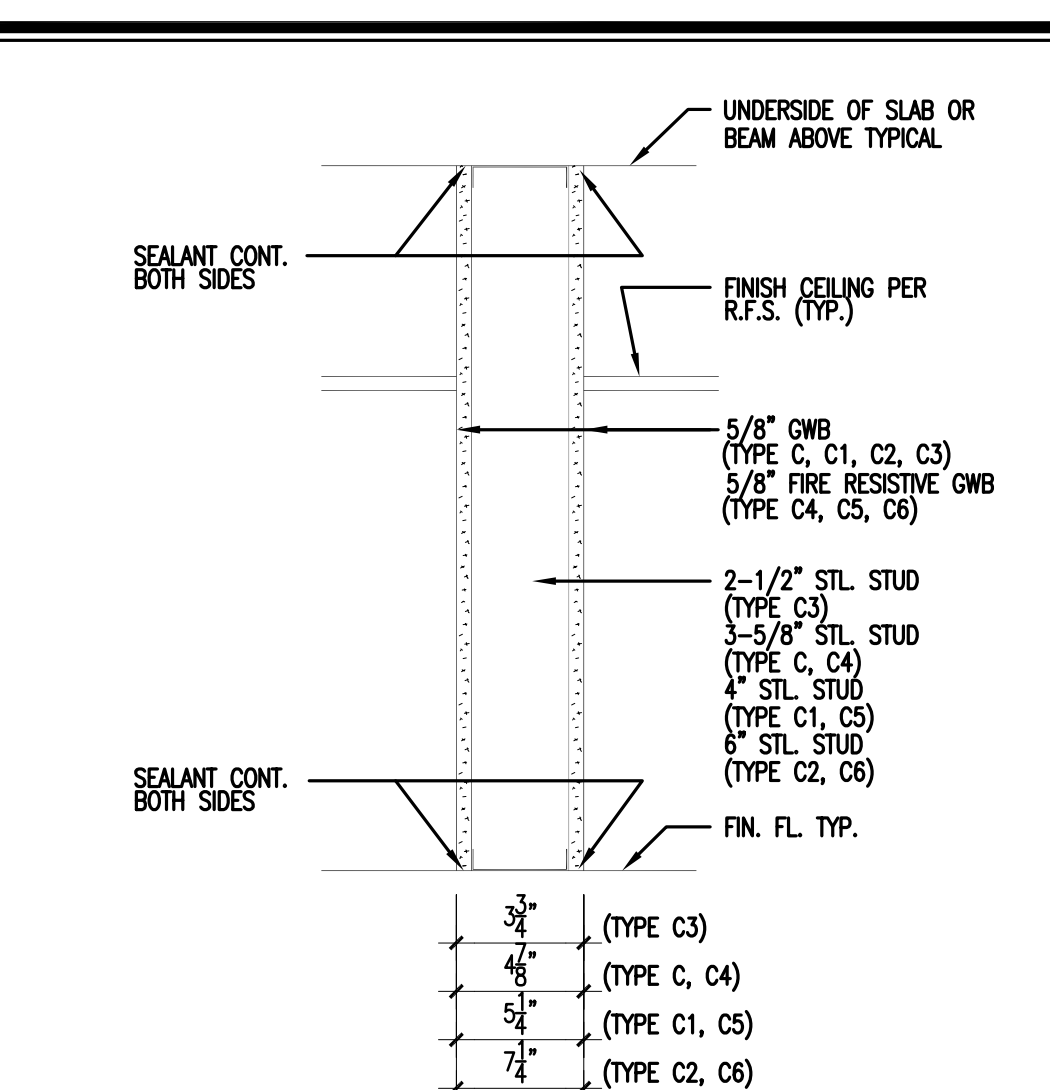
BASEMENT RENOVATION PLAN
1/4" = 1'-0"

GENERAL NOTES FOR PLANS & INTERIOR ELEVATIONS:
1. CFCI - CONTRACTOR FURNISHED CONTRACTOR INSTALLED
2. OFCI - OWNER FURNISHED CONTRACTOR INSTALLED
3. OFOI - OWNER FURNISHED OWNER INSTALLED
4. LAB EQUIPMENT IDENTIFICATION NUMBER: XXX0000 - EX. PTC0100

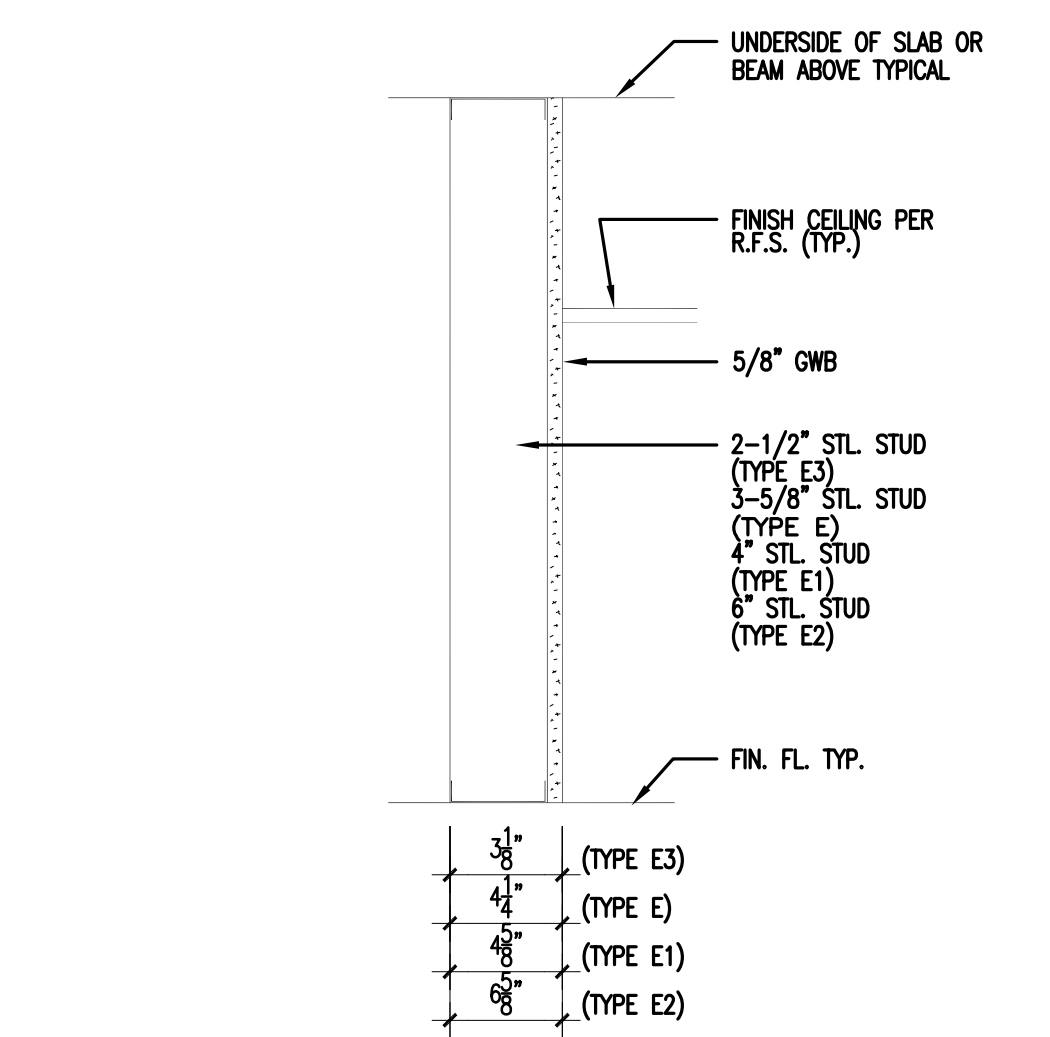


BASEMENT DEMOLITION PLAN
1/4" = 1'-0"

GENERAL DEMOLITION NOTES:
1. INTERIOR FINISHES, MATERIALS, FURNITURE, EQUIPMENT, ETC. IN AREAS TO REMAIN SHALL BE PROTECTED AS NECESSARY TO ELIMINATE THE POSSIBILITY OF MOISTURE, DUST AND/OR DEBRIS DAMAGE. COVER & PROTECT AS NECESSARY.
2. DIMENSIONS SHOWN ON THE RENOVATION PLANS ARE SHOWN AS A REFERENCE FOR THE CONTRACTOR AND SHALL BE CONSIDERED +/- IF EXACT DIMENSIONS ARE REQUIRED, FIELD MEASUREMENTS SHALL BE TAKEN BY EACH CONTRACTOR.



C NON-RATED TYPES C, C1, C2, C3
1 HR. UL. DES. U465 TYPES C4, C5, C6
STC 40 GA FILE NO. WP 1200



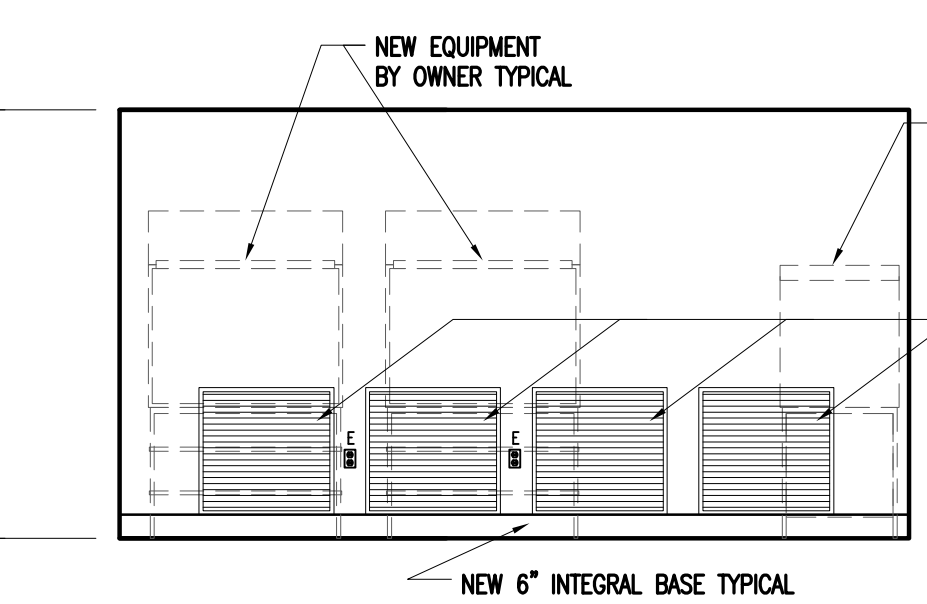
E NON-RATED TYPES E, E1, E2, E3

PARTITION TYPES
NTS

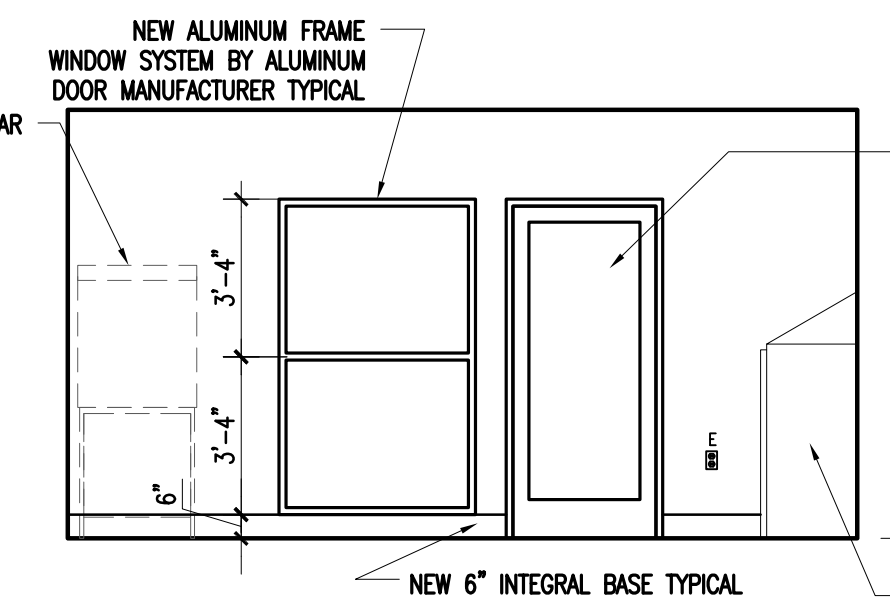
EQUIPMENT LEGEND

SD	- SOAP DISPENSER
PTD	- PAPER TOWEL DISPENSER
E	- ELECTRICAL OUTLET
EP	- EMERGENCY POWER OUTLET
V/D	- VOICE/DATA OUTLET
SW	- SWITCH
TV	- TELEVISION OUTLET

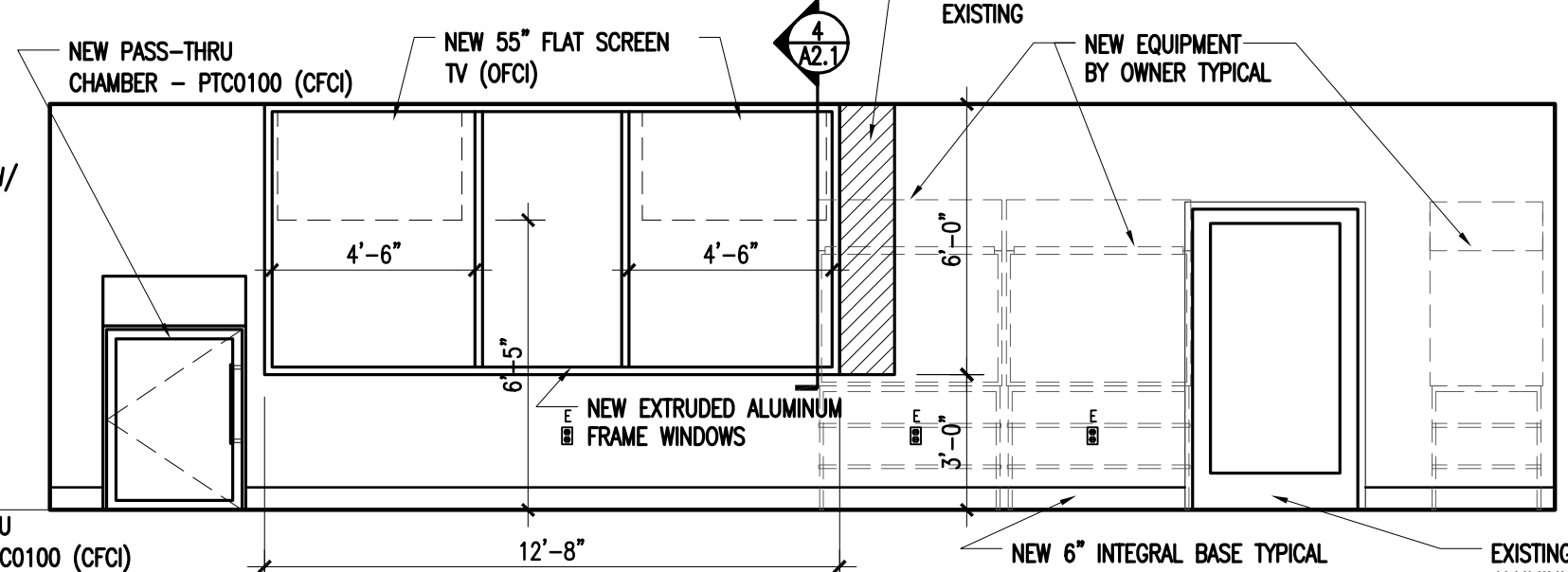
SEE ELEC. DRAWING S.



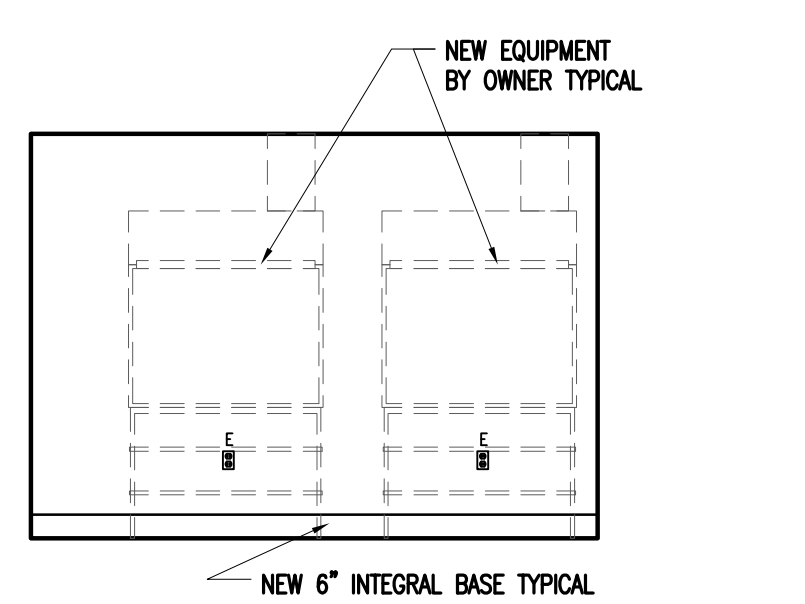
1 ELEVATION - NORTH WALL
1/4" = 1'-0" 009B



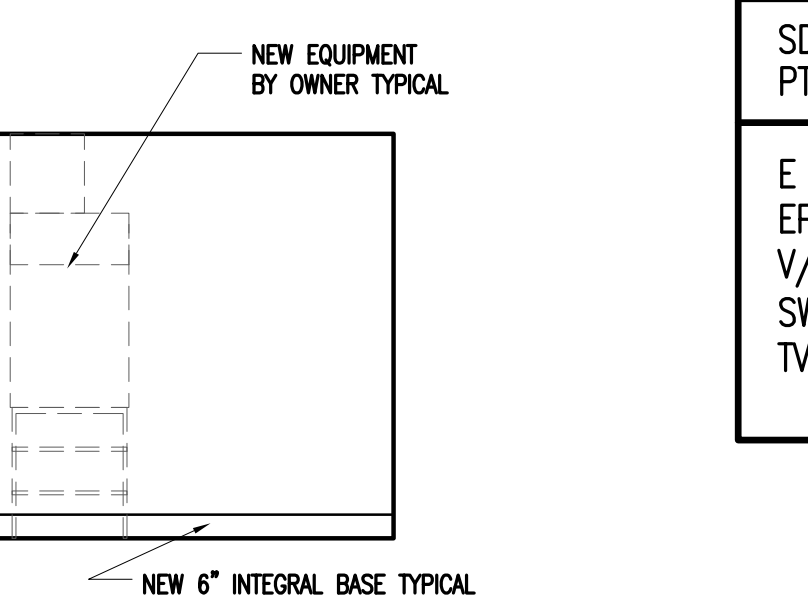
2 ELEVATION - SOUTH WALL
1/4" = 1'-0" 009B



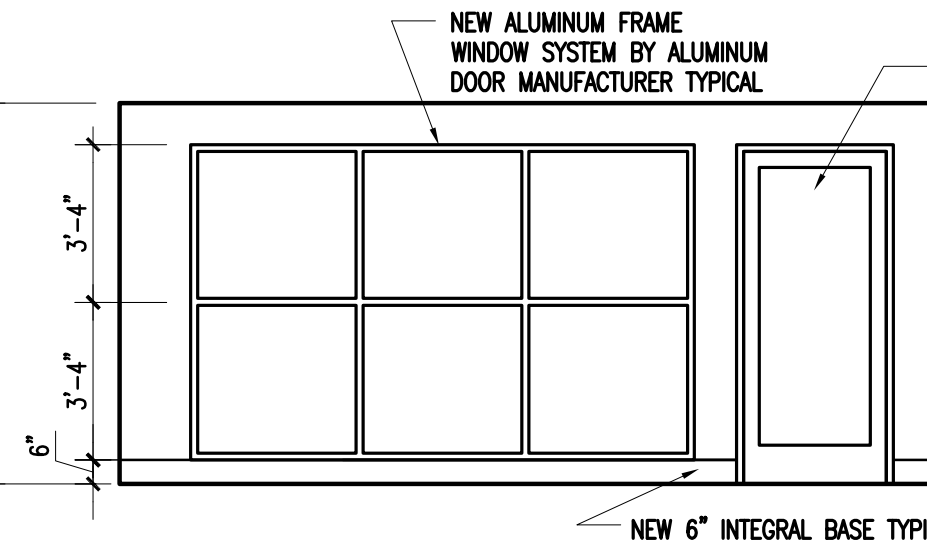
3 ELEVATION - WEST WALL
1/4" = 1'-0" 009B



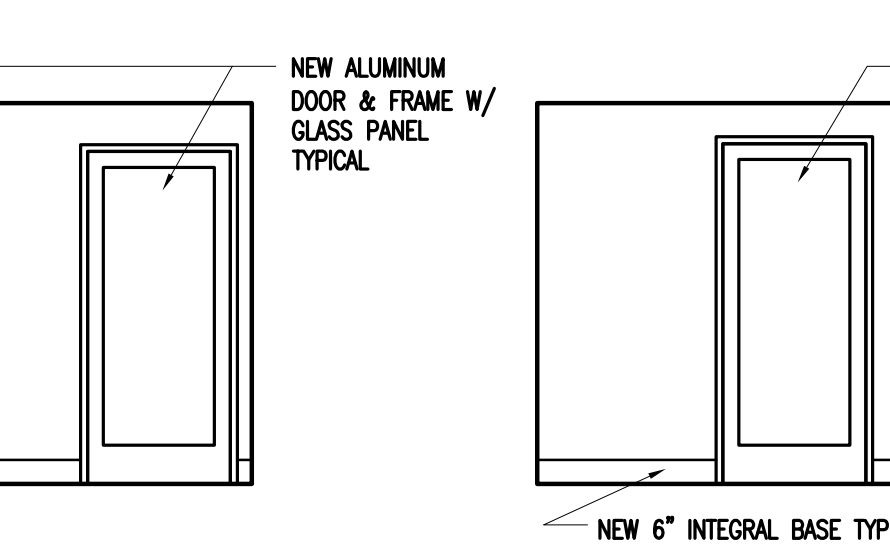
4 ELEVATION - EAST WALL
1/4" = 1'-0" 009C



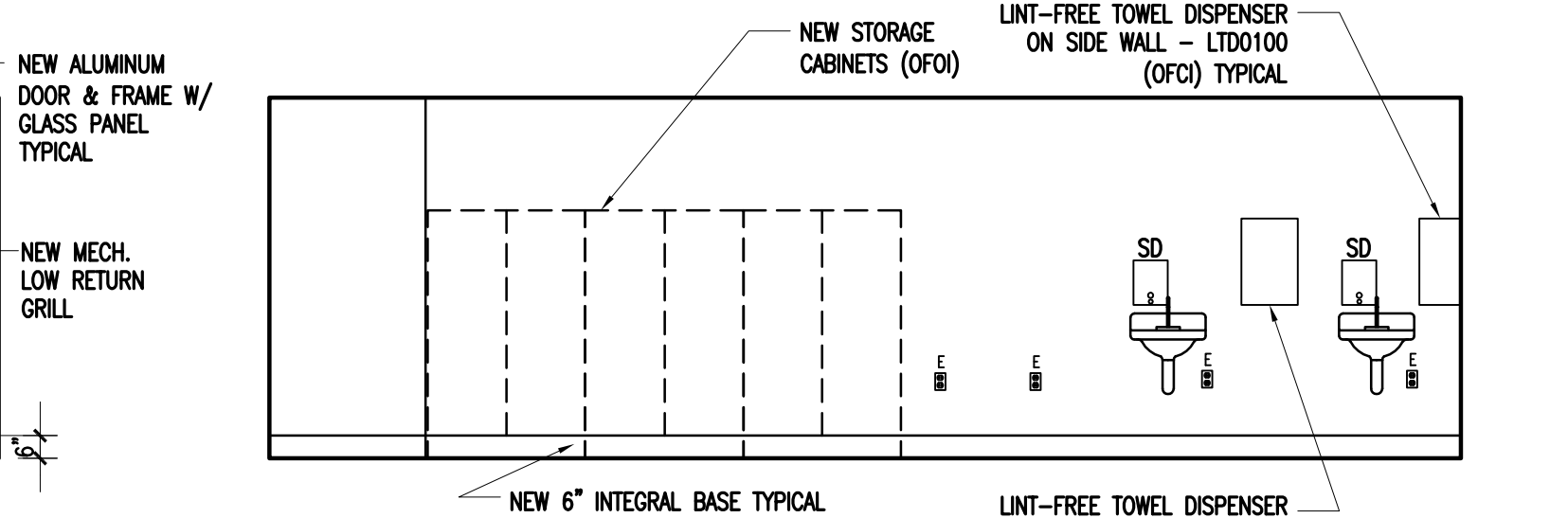
5 ELEVATION - SOUTH WALL
1/4" = 1'-0" 009C



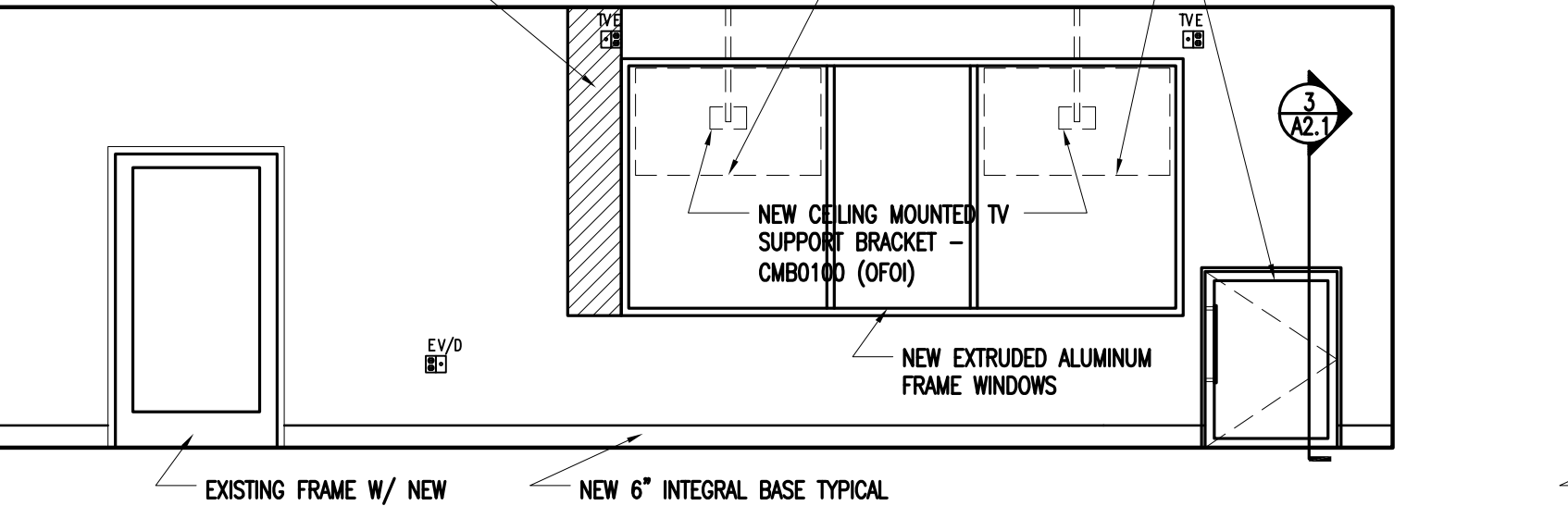
6 ELEVATION - NORTH WALL
1/4" = 1'-0" 009A



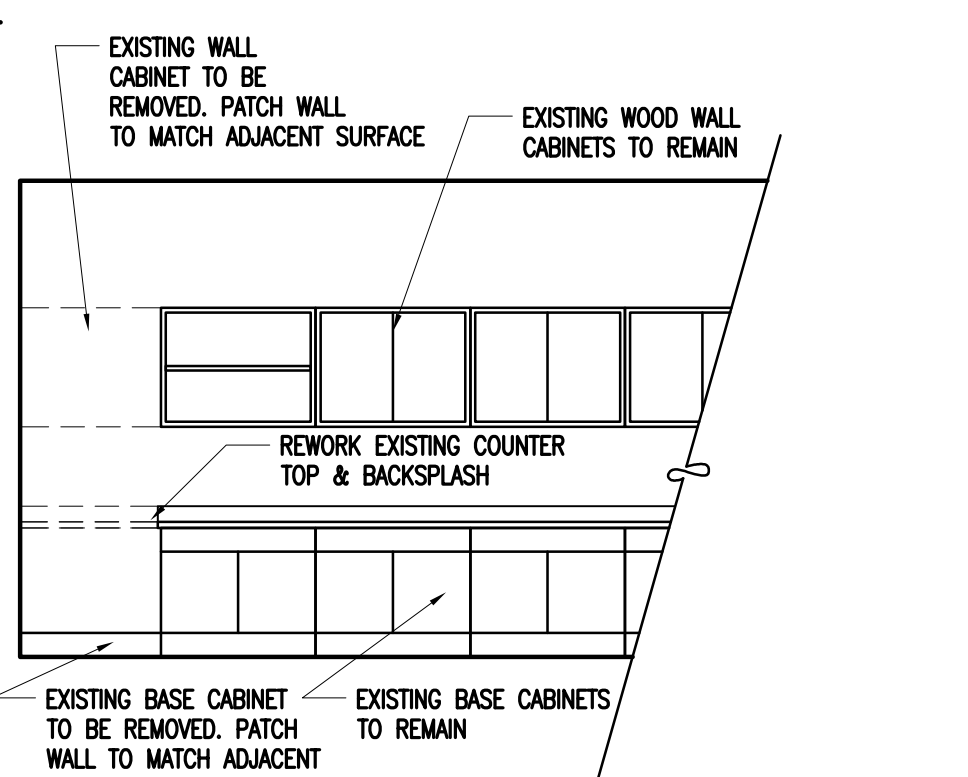
7 ELEVATION - EAST WALL
1/4" = 1'-0" 009A



8 ELEVATION - SOUTH WALL
1/4" = 1'-0" 009A



9 ELEVATION - EAST WALL
1/4" = 1'-0" 009



10 PARTIAL ELEVATION - WEST WALL
1/4" = 1'-0" 009

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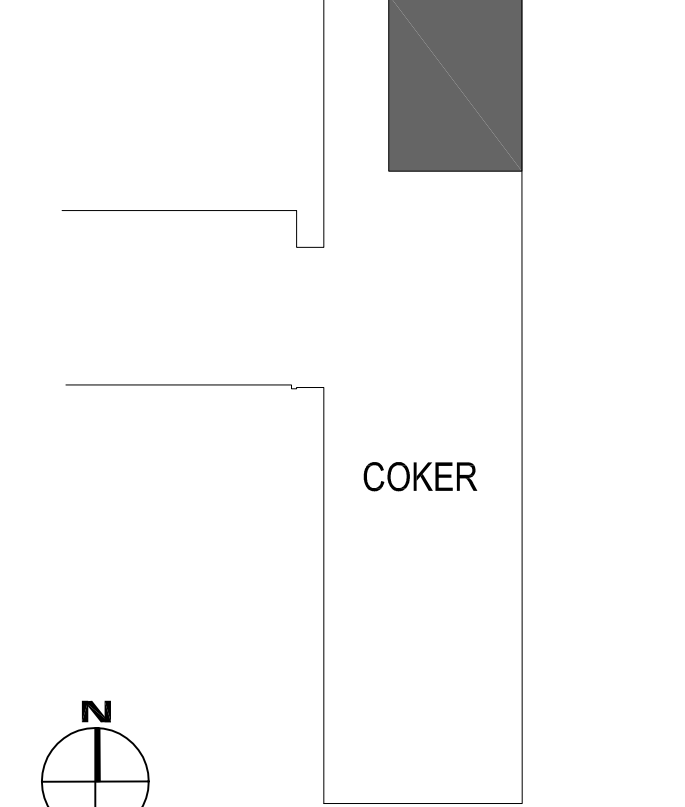
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key plan



sheet title
PARTIAL REFLECTED CEILING PLAN, SEISMIC DETAILS, SECTION, DOOR SCHEDULE & FINISH SCHEDULE

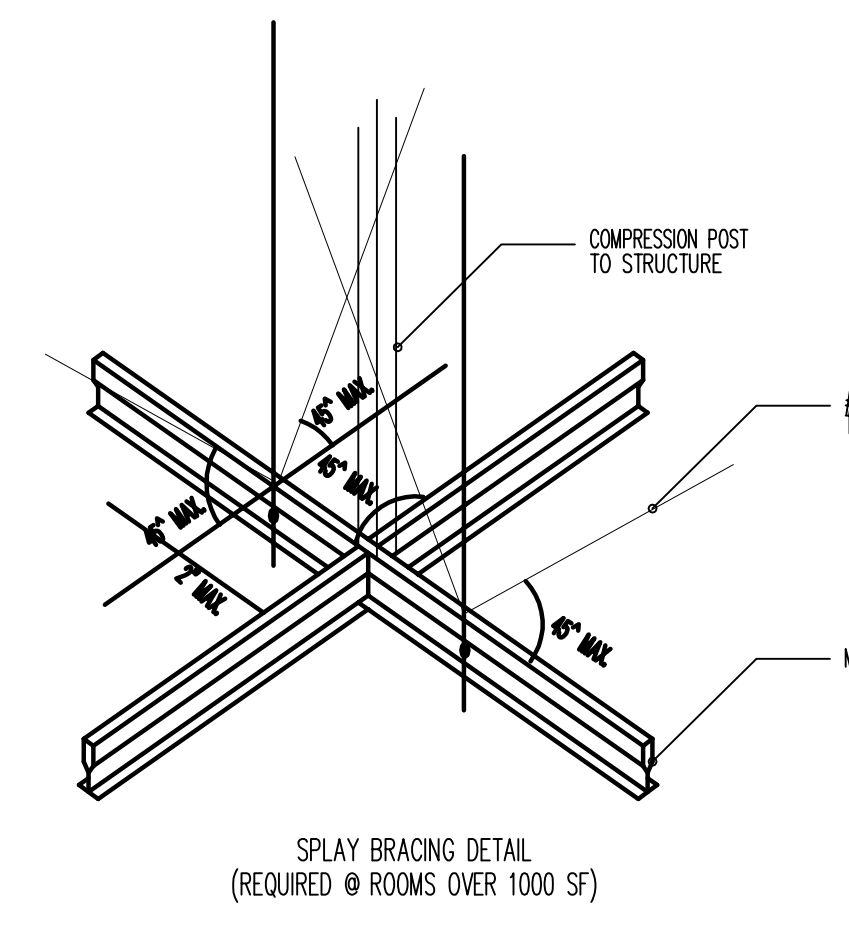
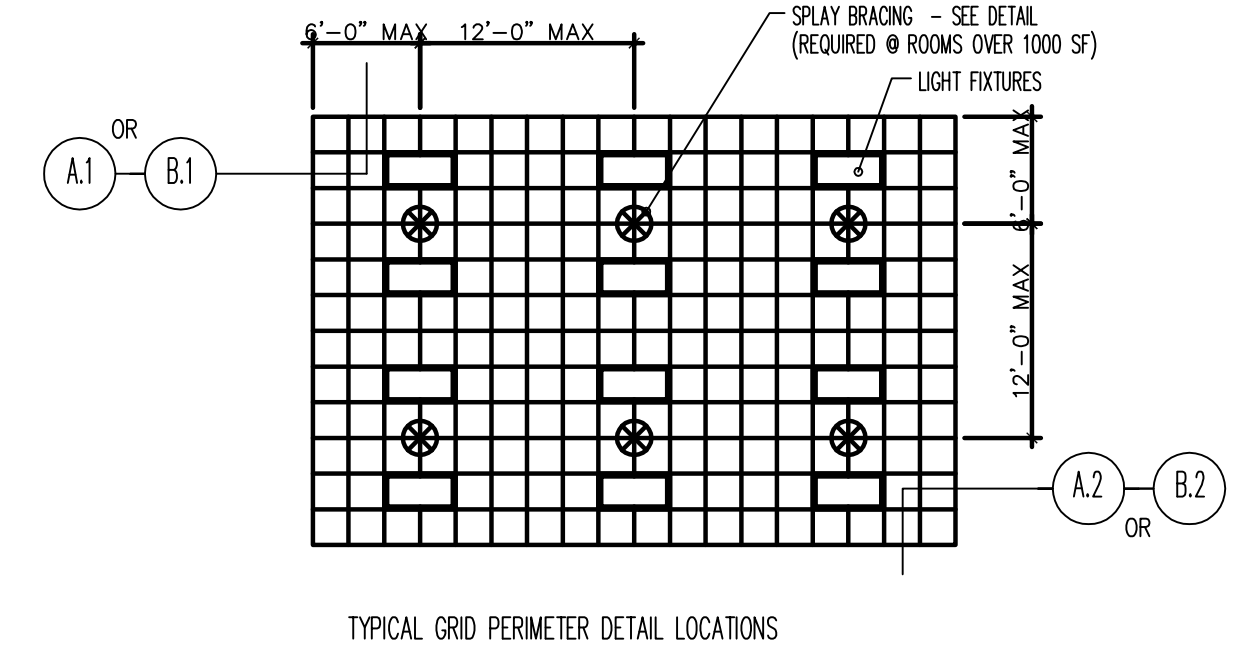
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A2.1

drawn by **LEK**
 checked by **LEK**

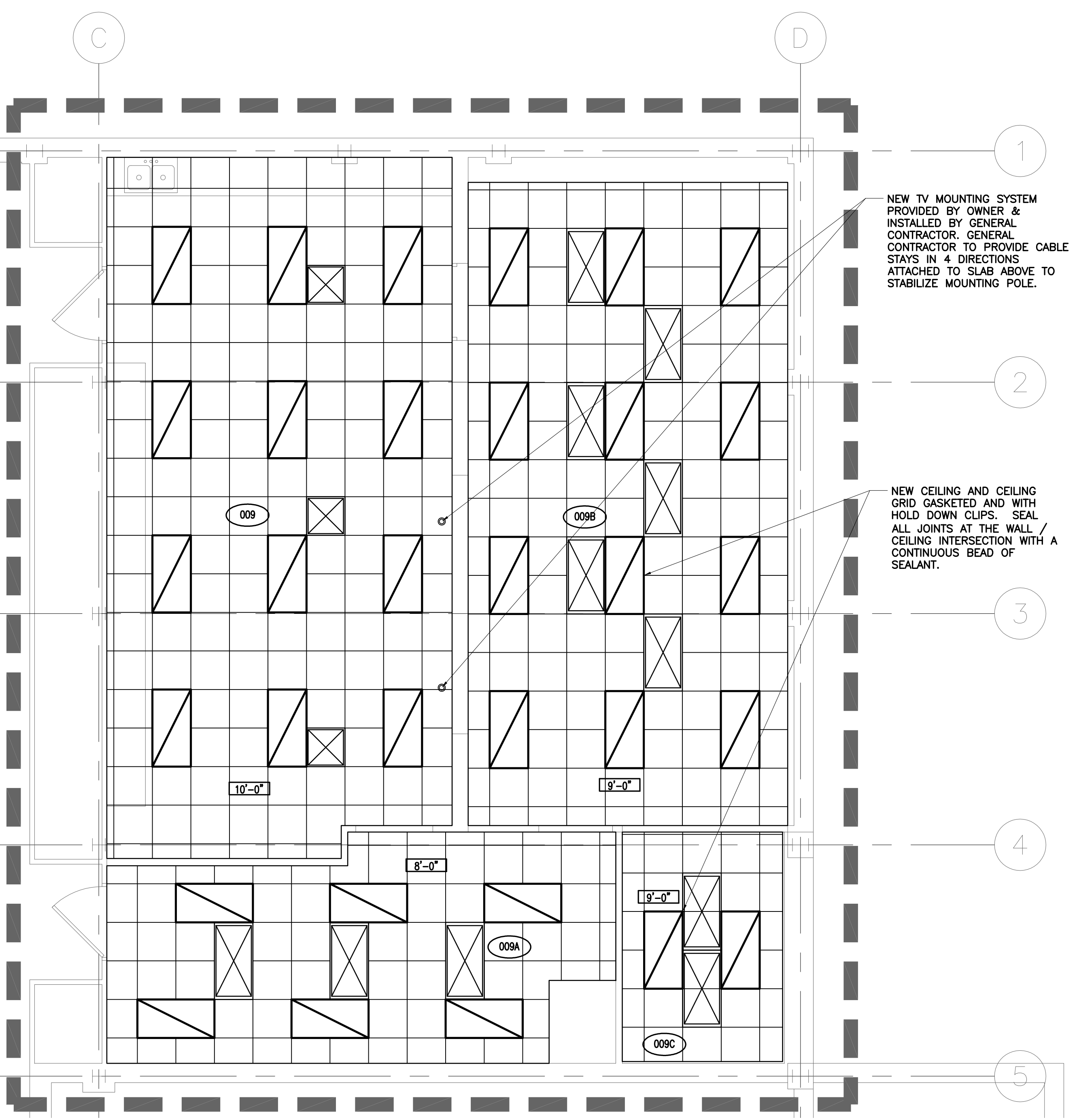
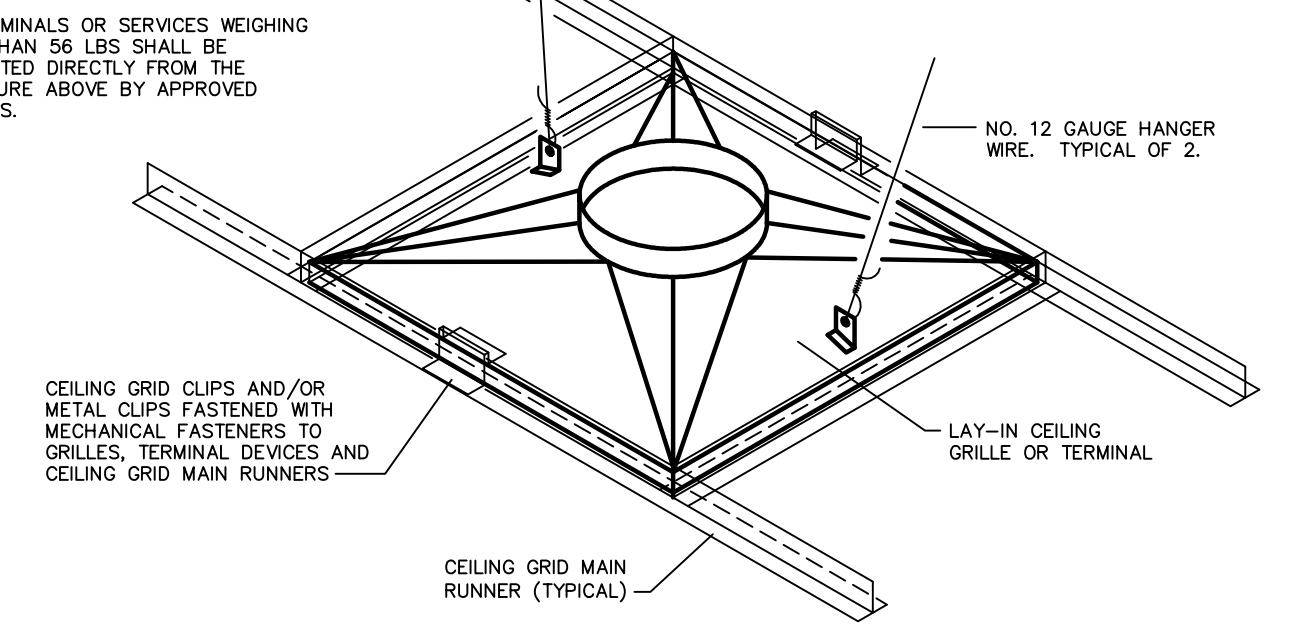
SEISMIC REQUIREMENTS FOR EXISITS 144 GSF OR GREATER

CATEGORY	REQUIREMENTS
CONNECTIONS/HANGERS	NOTE: USE HEAVY DUTY GRID
METAL STUDS	4" DIA.
HANGERS	1/2" MIN. OR 3/8" DIA.
PLATE	NOT MORE THAN 1 IN. OUT OF TRUE VERTICAL
CONNECTION BOLTS	3/4" DIA.
PRIME WIRE - ALL WALLS	MAXIMUM 8" FROM ALL WALLS
SPLAY BRACING	NOTE: USE HEAVY DUTY GRID
4 WIRE JOISTS	MINIMUM 12" DIA.
POST/PISTON	MAX. 8" FROM EXTERIOR WALL
SPACING	12" DIA.
CONNECTION STRIPS	3/4" DIA.
CONPRESSION PASTS	MINIMUM 8" FROM ALL WALLS
MOLDING/PARTITIONS	NOTE: USE HEAVY DUTY GRID
BRACING	1/2"
ATTACHMENT (NEW MOVEMENT)	MINIMUM 2" FROM ALL WALLS
CLEARANCE (TYP. BY CODE)	1/4" FROM ALL WALLS
SPACER BARS	REQUIRED - 1/2" MIN. DIA.
PARTITION ATTACHMENT	MINIMUM 4" FROM ALL WALLS
LIGHTING/FIXTURES	NOTE: USE HEAVY DUTY GRID
UNDERLIES FLOOR SLABS	CONCRETE OR STEEL DECK
CONCRETE FLOOR SLABS	SUPPORT FROM STRUCTURE, NOT VOID
METAL DECK LESS THAN 20 LB	ATTACHED TO GRID
METAL DECK GREATER THAN 20 LB, LESS THAN 50 LB	2 SPLAY WIRE
METAL DECK GREATER THAN 50 LB	SUPPORT FROM STRUCTURE, NOT VOID

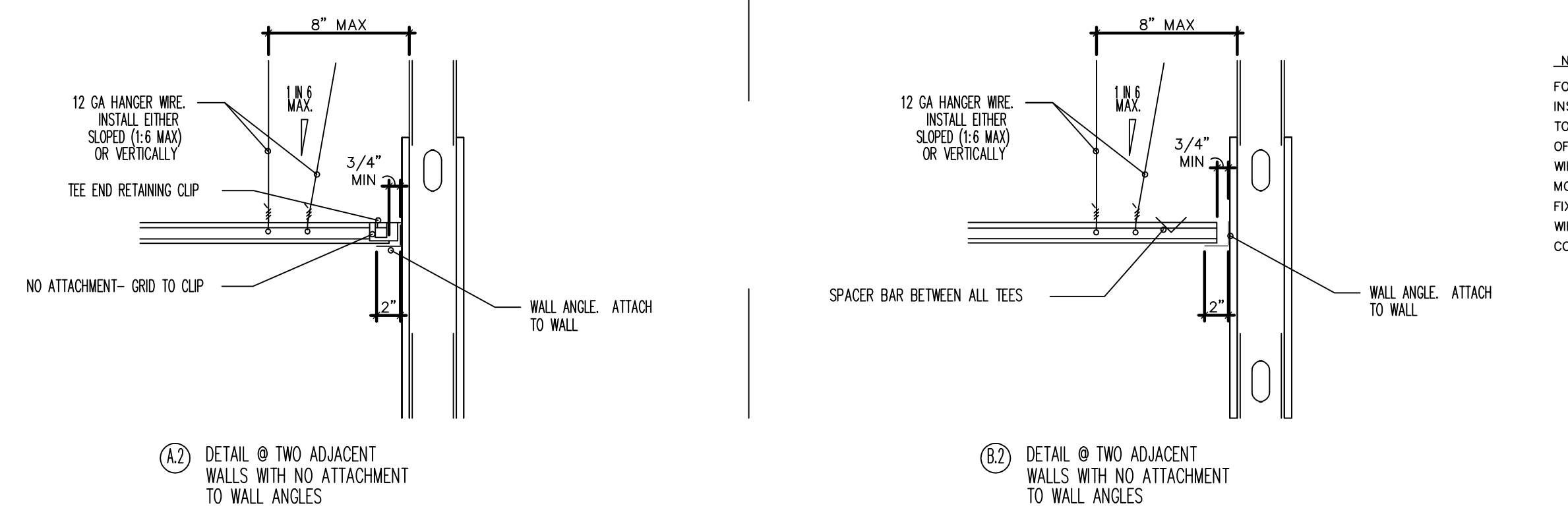
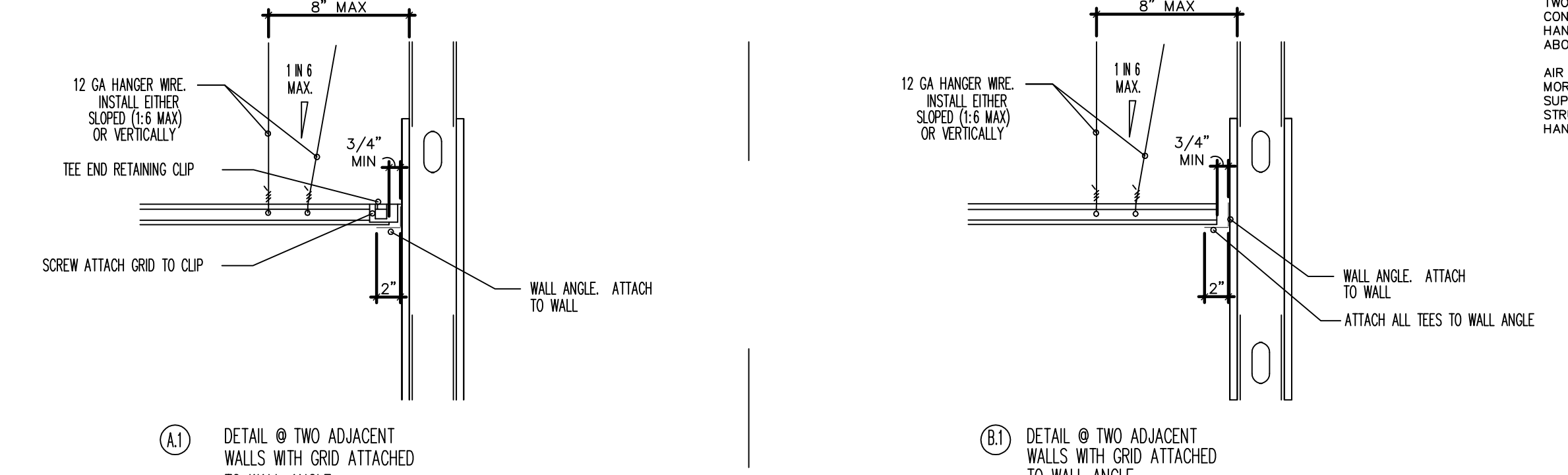


ATTACHMENT NOTES:
 CEILING MOUNTED AIR TERMINALS OR SERVICES WEIGHING 20 LBS. OR LESS SHALL BE POSITELY ATTACHED TO THE CEILING SUSPENSION MAIN RUNNERS OR CROSS RUNNERS.
 AIR TERMINALS OR SERVICES WEIGHING MORE THAN 20 LBS. AND LESS THAN 50 LBS. SHALL HAVE, IN ADDITION TO THE ATTACHMENTS NOTED ABOVE, TWO NO. 12 GAUGE HANGES CONNECTED TO THE CEILING SYSTEM HANGERS OR TO THE STRUCTURE ABOVE. WIRES MAY BE SLACK.
 AIR TERMINALS OR SERVICES WEIGHING MORE THAN 50 LBS. SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY APPROVED HANGERS.

AIR TERMINAL / SERVICES SEISMIC RESTRAINT DETAIL
 NO SCALE



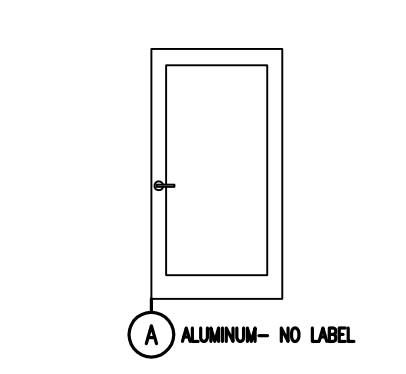
1 BASEMENT REFLECTED CEILING PLAN
 1/4" = 1'-0"



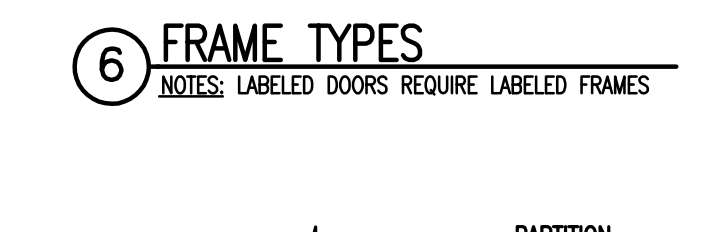
2 SEISMIC DETAILS
 1/4" = 1'-0"

DOOR SCHEDULE

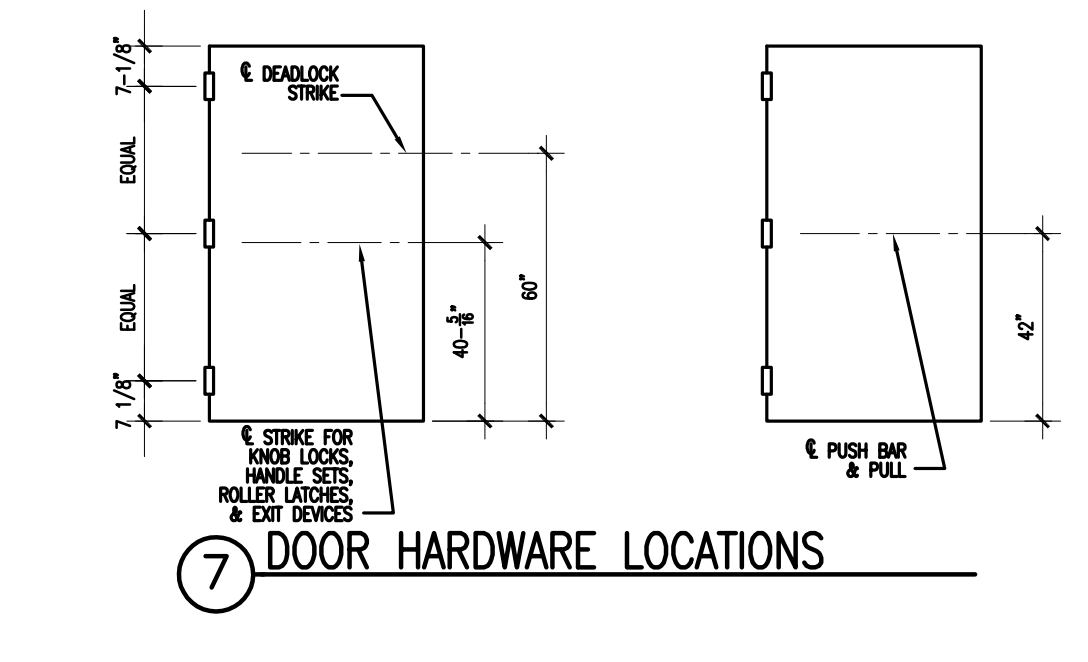
ROOM NAME	DOOR NUMBER	DOOR ELEV.	DOOR SIZE	FRAME ELEV.	HDWR SET	REMARKS
CLASSROOM	009	A	3'-8" X 7'-0"	EXIST.	Y-02	VERIFY DOOR SIZE IN THE FIELD
ANTE. ROOM	009A	A	3'-0" X 7'-0"	a	P-04	BALANCE OF HARDWARE BY 08120 ALUM. DOORS & FRAMES
CLEANROOM	009B	A	3'-0" X 7'-0"	a	P-04	BALANCE OF HARDWARE BY 08120 ALUM. DOORS & FRAMES
FUTURE MIXING ROOM	009C	A	3'-0" X 7'-0"	a	P-04	BALANCE OF HARDWARE BY 08120 ALUM. DOORS & FRAMES



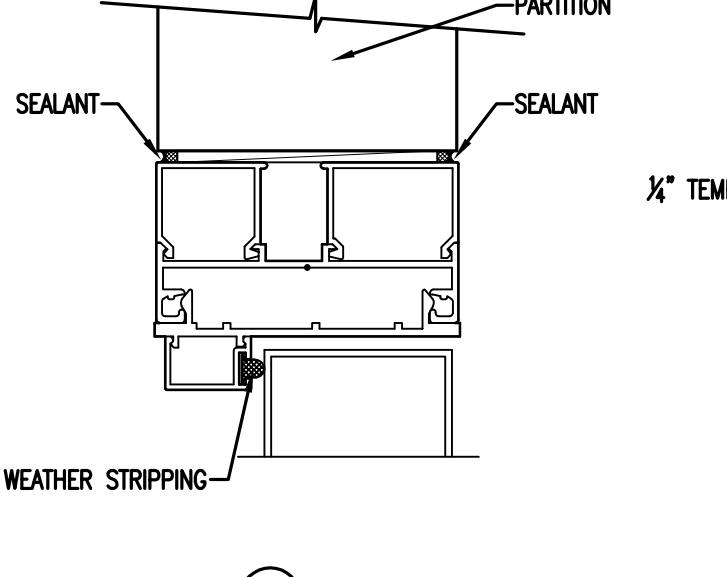
5 DOOR TYPES
 NOTES:
 1. ALL DOORS ARE 7'-0" HIGH UNLESS OTHERWISE NOTED
 2. ALL GLASS TO BE 1/4" THICK TEMPERED CLEAR GLASS



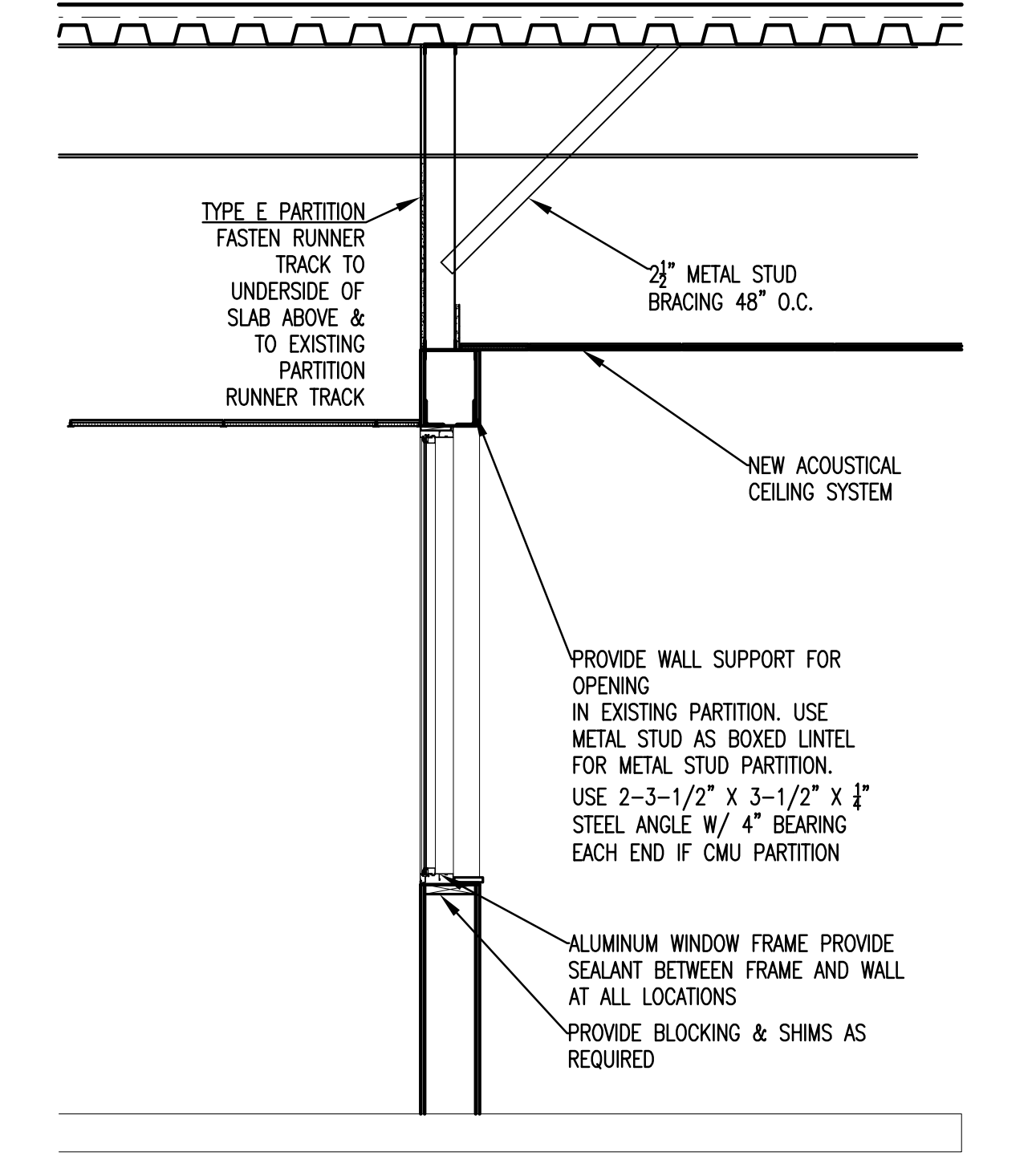
6 FRAME TYPES
 NOTES: LABELED DOORS REQUIRE LABELED FRAMES



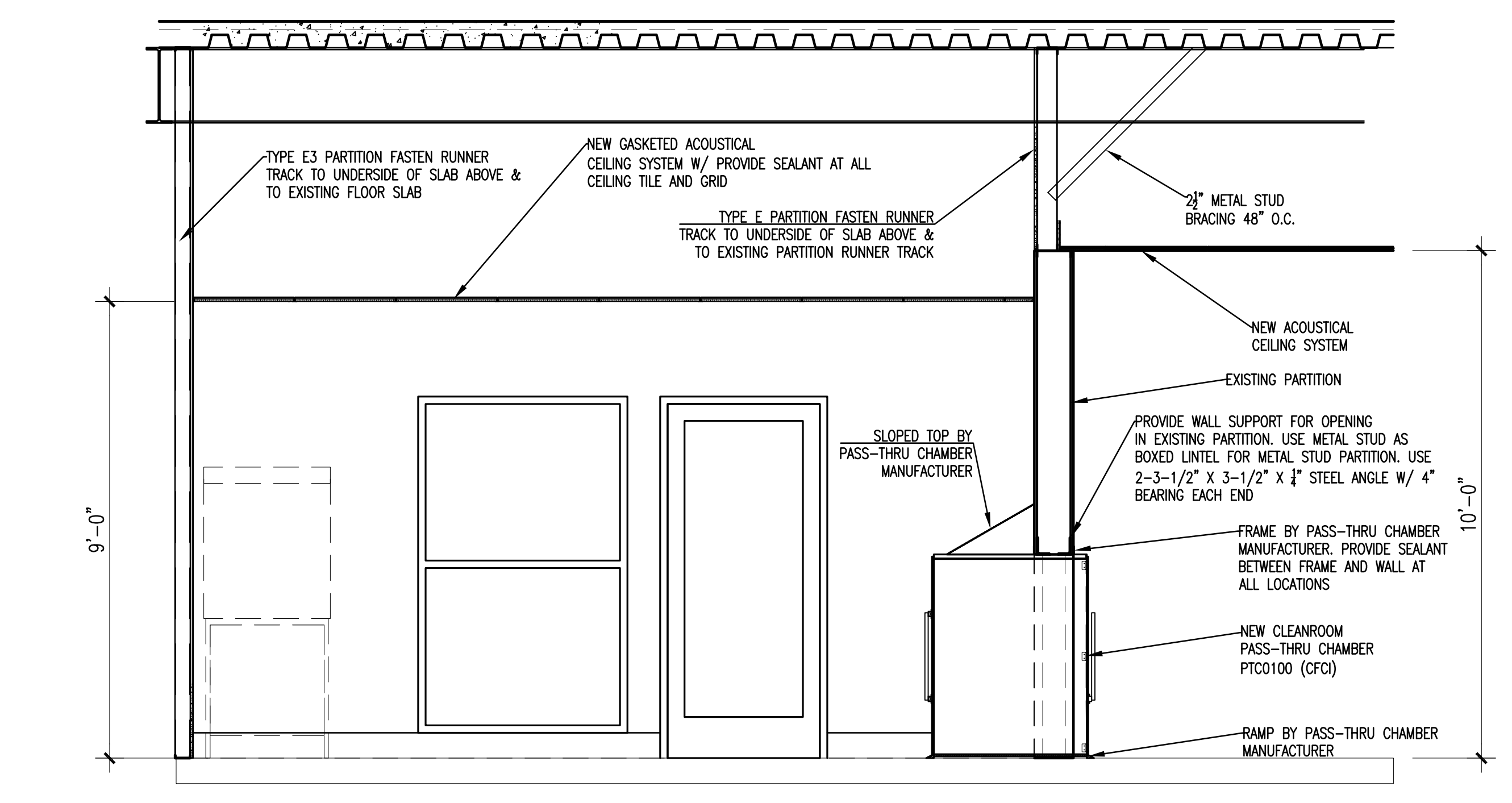
7 DOOR HARDWARE LOCATIONS



9 HEAD/JOAMB DETAILS



4 SECTION THRU NEW ALUMINUM WINDOW
 3/4" = 1'-0"



3 SECTION THRU CLEANROOM LAB
 3/4" = 1'-0"

FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	FLOOR		BASE	WALLS		CEILING		MILLWORK MATERIALS			REMARKS
		MATERIAL	ACCENT		MATERIAL/FINISH	ACCENT	MATERIAL	ACCENT	SURF-A	SURF-B	SURF-C	
009	CLASSROOM	SHEET VINYL	-	RUBBER	PAINT	-	ACT**	-	-	-	-	**DO NOT GASKET & SEAL CEILING TILE THIS RM.
009A	ANTE. ROOM	EPOXY	-	EPOXY	PAINT*	-	ACT	-	-	-	-	* EPOXY PAINT
009B	CLEANROOM	EPOXY	-	EPOXY	PAINT*	-	ACT	-	-	-	-	* EPOXY PAINT
009C	FUTURE MIXING ROOM	EPOXY	-	EPOXY	PAINT*	-	ACT	-	-	-	-	* EPOXY PAINT

FINISH LEGEND

NOTES:
 1. PREPARE EXISTING WALLS FOR NEW PAINTED FINISH
 2. PREPARE EXISTING FLOOR SLAB FOR NEW EPOXY FINISH

EPOXY: EPOXY FLOOR COATING
 RUBBER: RUBBER WALL BASE
 PAINT: PAINTED FINISH
 ACT: ACOUSTICAL CEILING TILE
 PLAM: PLASTIC LAMINATE

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consultants

owner



project name
**CLS 009 HOSPITAL
LAB RENOVATION**
State project number
H27-Z107
A/E project number
13025.01

seals/signature

PLUMBING GENERAL NOTES

- VERIFY EXACT LOCATION OF ALL PLUMBING FIXTURES IN OR ATTACHED TO CASEWORK WITH THE ARCHITECT AND THE MILLWORK SHOP DRAWINGS. COORDINATE PRIOR TO INSTALLATION.
- CONFIRM OR VERIFY EXACT LOCATION AND ACTUAL INVERT OF SANITARY LINES PRIOR TO INSTALLATION.
- DUE TO THE LARGE QUANTITY OF PIPING, DUCTWORK, CONDUIT, ETC. ABOVE THE CEILING COORDINATION WITH OTHER DISCIPLINES IS MANDATORY.
- LOCATE SHUT-OFF VALVE ABOVE CEILING AND IN LOCATIONS ACCESSIBLE FOR SERVICE. LOCATION SHALL COMPLY WITH THE REQUIREMENTS OF ALL CODES REFERENCED HEREIN.
- ALL SANITARY/ACID WASTE DRAINAGE PIPING 3" AND LARGER SHALL SLOPE 1/8" PER FOOT UNLESS NOTED OTHERWISE. ALL SANITARY/ACID DRAINAGE PIPING 2" AND SMALLER SHALL SLOPE 1/4" PER FOOT UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL REFERENCE THIS SHEET FOR PLUMBING FIXTURES, EQUIPMENT AND MATERIALS.
- CONTRACTOR SHALL PROVIDE HANGERS AND SUPPORTS FOR SEISMIC RESTRAINT PER THE INTERNATIONAL BUILDING CODE.
- THE FOLLOWING PLUMBING SYSTEMS SHALL BE INSULATED: COLD WATER AND HOT WATER.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE.
- ALL COUNTER MOUNTED FIXTURE RIMS SHALL BE SEALED WITH SILICONE CAULKING.
- OFFSET PLUMBING VENT AND WATER PIPING AS NECESSARY TO AVOID CONFLICTS WITH DUCTWORK. SEE HVAC PLANS.
- IT IS THE INTENT AND MEANING OF THE DRAWINGS TO PROVIDE COMPLETE AND OPERABLE PLUMBING AND DRAINAGE SYSTEMS.
- ALL PLUMBING LINE SIZE REDUCTIONS SHALL BE MADE WITH REDUCERS AND/OR REDUCING FITTINGS.
- PLUMBING CONTRACTOR TO MAKE FINAL CONNECTIONS ON ALL FIXTURES.
- THESE DRAWINGS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EXACT LOCATIONS OF FIXTURES AND EQUIPMENT. ALL OFFSETS AND FITTINGS FOR COMPLETE INSTALLATION MAY NOT BE DEFINED ON THE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXACT DIMENSIONS AT THE BUILDING AND ANY NECESSARY CHANGES MADE IN ACCORDANCE WITH STRUCTURAL CONDITIONS, EQUIPMENT TO BE INSTALLED, AND COORDINATION WITH OTHER SYSTEMS. IF CONFLICTS CANNOT BE RESOLVED THEY SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER.
- CONTRACTOR SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS INsofar AS THEY APPLY: NFPA 54, 2009 INTERNATIONAL BUILDING, GAS AND PLUMBING CODES.
- CONTRACTOR SHALL SECURE ALL PERMITS, INSPECTIONS, LICENSES AND TESTS REQUIRED FOR THIS WORK AND PAY ALL FEES IN CONNECTION THEREWITH.
- ALL MATERIALS SHALL BEAR THE MANUFACTURER'S NAME, TRADE NAME AND BE U.L. LABELED IF REQUIRED, UNLESS SPECIFICALLY INDICATED OTHERWISE. ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER. ALL EQUIPMENT OF A SIMILAR TYPE SHALL BE OF THE SAME MANUFACTURER.
- CONTRACTOR SHALL LOCATE AND SIZE ALL OPENINGS REQUIRED FOR PLUMBING EQUIPMENT AND PIPING, AND PROVIDE THIS INFORMATION TO THE GENERAL CONTRACTOR IN THE NOT TO DELAY BUILDING CONSTRUCTION.
- THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR OR OF THE SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE FAILURE OF THE CONTRACTOR TO PERFORM THE CONSTRUCTION WORK IN ACCORDANCE WITH THE DRAWINGS.

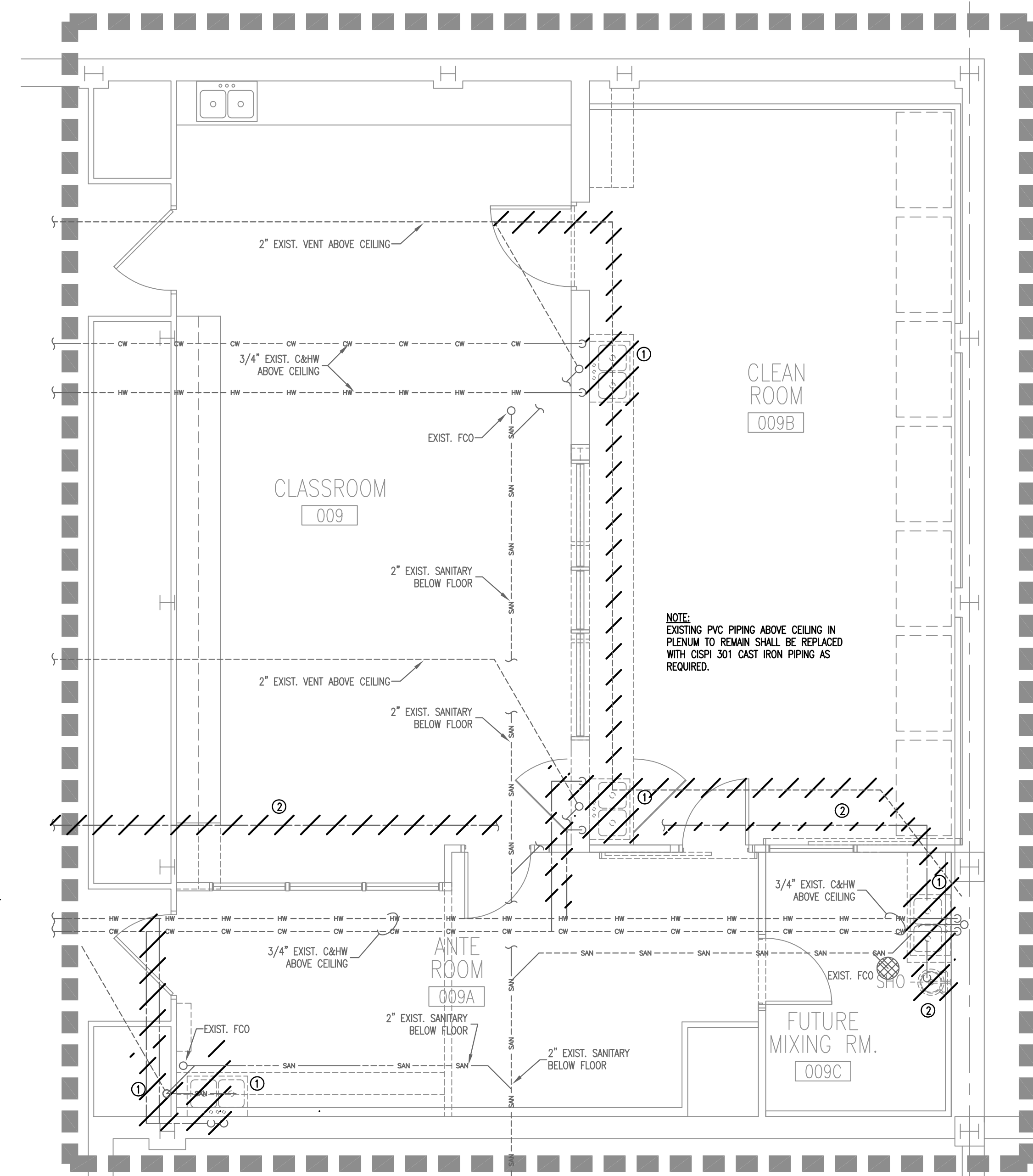
ABBREVIATIONS *

ABV	Above	N/A	Not Applicable
AD	Access Door	N	Nitrogen
AFI	Above Finished Floor	NC	Not in Contract
BFP	Backflow Preventer	NO	Nitrous Oxide
CI	Cast Iron	NPT	National Pipe Thread
COL	Column Line	NTS	Not To Scale
CONN	Connection	OFST	Over Flow Storm Drain
CW	Cold Water	OX	Oxygen
DI	Domestic Water	P-#	Pump - No.
DN	Down	PRV	Pressure Reducing Valve
ELEV	Elevation	PSI	Pounds Per Square Inch
ET	Expansion Tank	RD	Roof Drain
EW-#	Electric Water Cooler	SH-#	Shower
EWAC	Waste Anesthetic Gas Disposal	SK-#	Sink
FD	Floor Drain	SS	Stainless Steel
FL	Floor	ST	Storm Drain
FT	Feet	STD	Standard
GPH	Gallons Per Hour	TEMP	Temperature
GPM	Gallons Per Minute	TOS	Top of Steel
HW	Hot Water	TYP	Typical
HWR	Hot Water Return	U-#	Urinal
I	Invert Elevation	VAC	Vacuum
L-#	Lavatory	VB	Vacuum Breaker
MA	Medical Air	V	Sanitary Vent
MAX	Maximum	VTR	Vent Thru Roof
MIN	Minimum	W	Sanitary Waste
MPT	Male Pipe Thread	WB-#	Wall Box
MSB-#	Map Sink Basin	WC-#	Water Closet

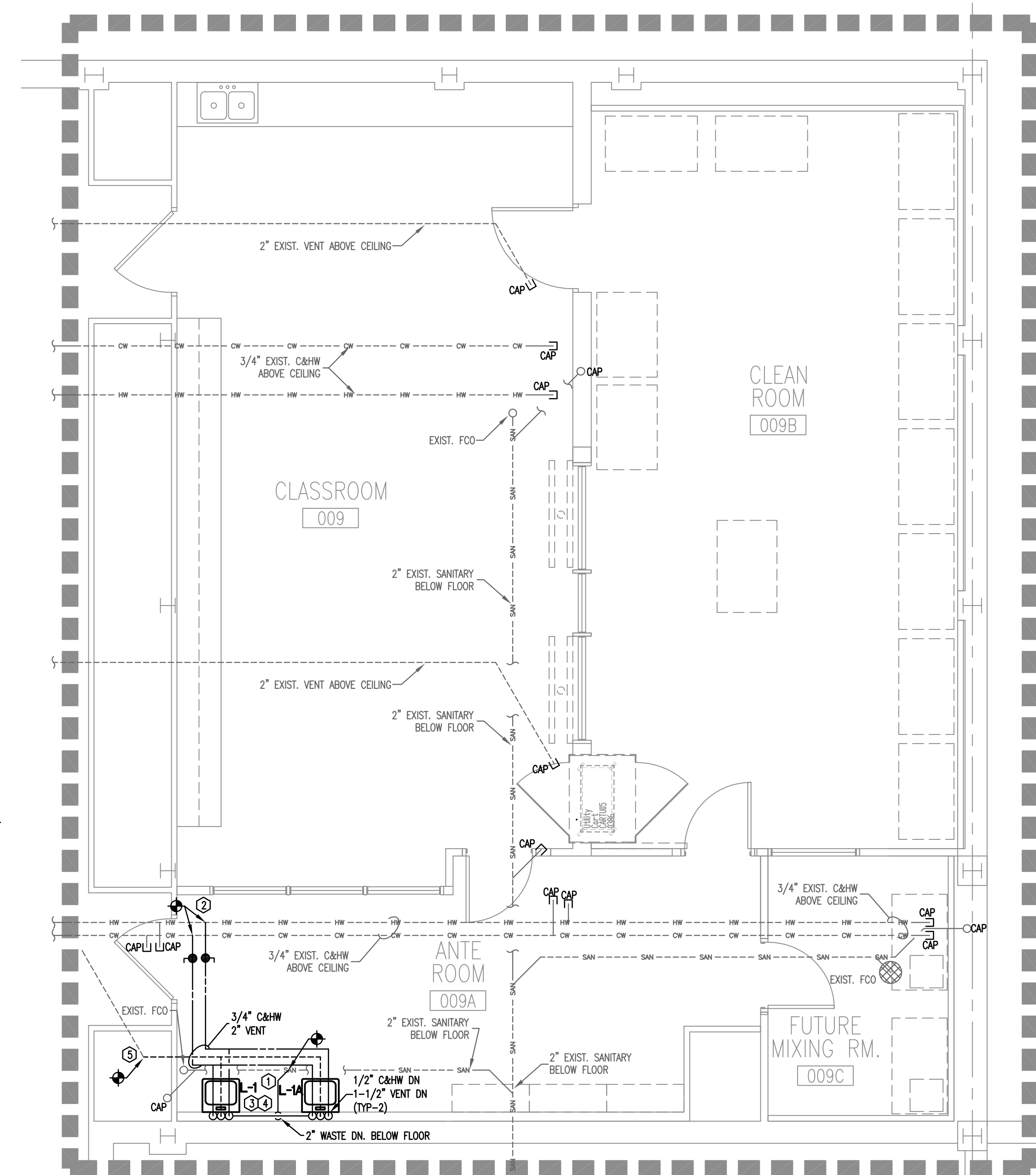
* Not All Abbreviations Used

DEMOLITION NOTES:

- DEMOLISH AND REMOVE EXISTING PLUMBING FIXTURES, DEMOLISH EXISTING WASTE PIPING BELOW FLOOR AND CAP. DEMOLISH EXISTING SANITARY VENT PIPING AND DOMESTIC SUPPLY PIPING ABOVE CEILING AND CAP.
- DEMOLISH AND REMOVE EXISTING EMERGENCY EYEWASH FIXTURE. OWNER SHALL HAVE RIGHT OF FIRST REFUSAL. DEMOLISH AND REMOVE EXISTING 1-1/2" PVC SUPPLY PIPING ABOVE CEILING AND CAP IN CORRIDOR.



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



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

PLUMBING LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---	EXISTING LINE (EX)	◆	POINT OF CONNECTION - NEW TO EXISTING
- - - -	COLD WATER LINE (CW)	⤵	ELBOW TURNED DOWN
- - - -	HOT WATER LINE (HW)	⤶	ELBOW TURNED UP
- - - -	HOT WATER RECIRCULATING LINE (HWR)	⊔	END CAP
- SAN	SANITARY ACID WASTE (SAN/W)		
- - - V	SANITARY ACID VENT LINE (V)		
▨	AREA TO DEMOLISH		

PLUMBING FIXTURES

- A. PLUMBING FIXTURES**
- L-1; HANDWASH LAVATORY (WALL MOUNT)
1. TYPE
A. KOHLER K-1721 VITREOUS CHINA.
2. SIZE
A. 20"x18" RECTANGULAR.
3. CONNECTION
A. 1-1/4" WASTE, 1/2" CW, 1/2" HW.
4. MOUNTING
A. WALL 31" AFF TO RIM.
5. FITTING
A. MOEN 8303 ELECTRONIC GOOSENECK SPOUT WITH INFRARED SENSOR & 2 GPM FLOW CONTROL.
B. OPTIONAL AC ADAPTER (WALL MOUNT BELOW L-1)
C. MOEN 04424 MIXING VALVE
6. SUPPLIES
A. MCGUIRE 165LK WITH LOOSE KEY STOPS.
7. DRAIN
A. MCGUIRE 152 1-1/2" W/ OPEN GRID STRAINER & 1-1/2" TAILPIECE.
B. TRAP
A. MCGUIRE 8912 1-1/2" P-TRAP WITH C.O. PLUG.



- L-1A; ADA HANDWASH LAVATORY (WALL MOUNT)
1. TYPE
A. SAME AS L-1 EXCEPT MOUNTING HEIGHT.
2. MOUNTING
A. WALL 34" AFF TO RIM.

FIXTURE SIZE SCHEDULE

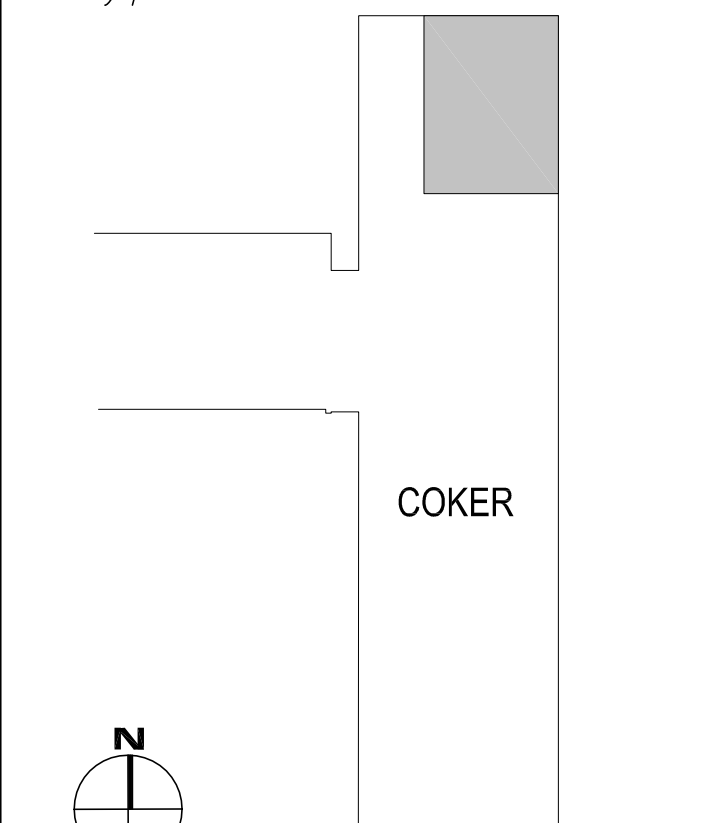
MARK	WASTE	VENT	CW	HW
L	2"	1 1/2"	1/2"	1/2"

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key plan



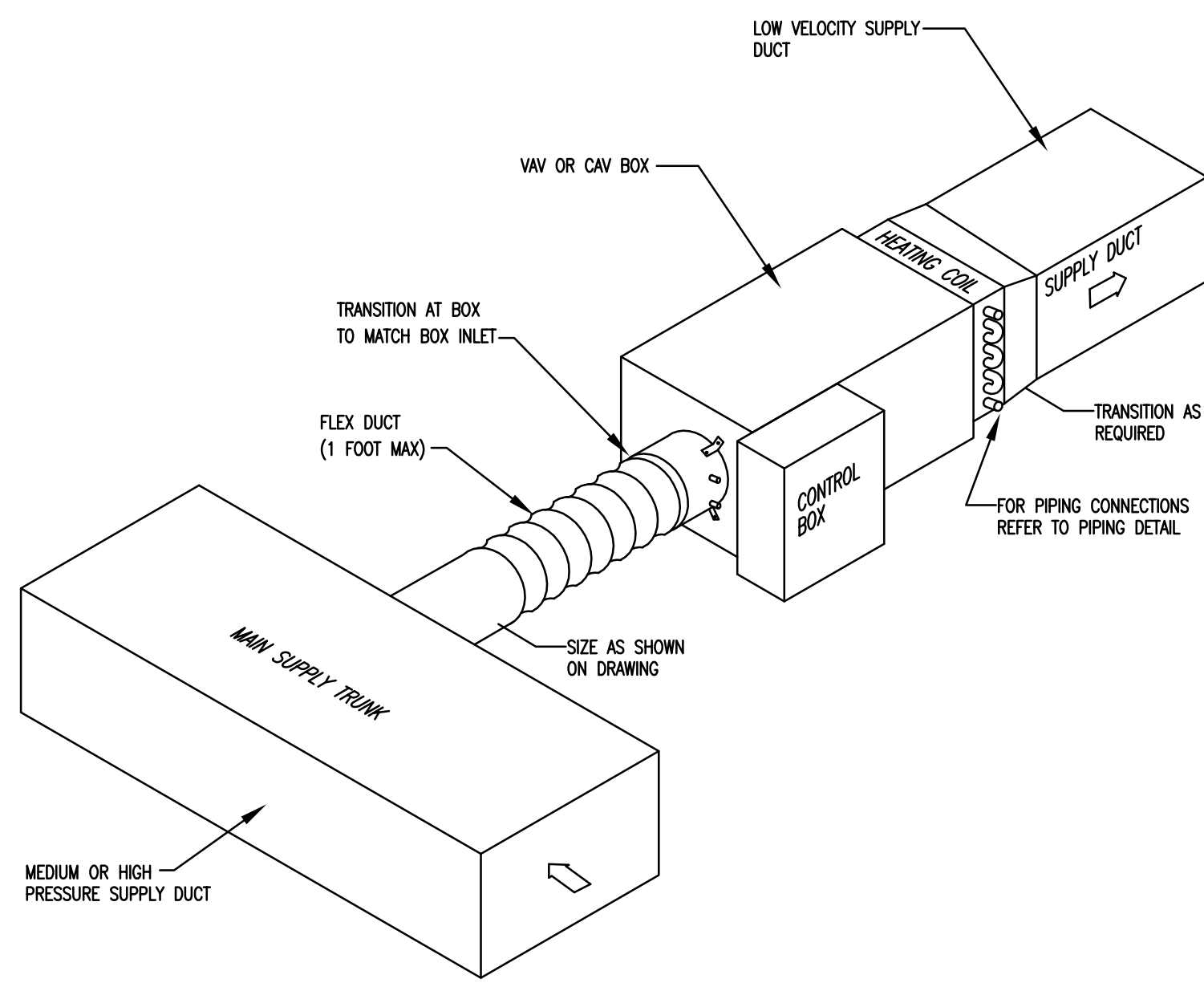
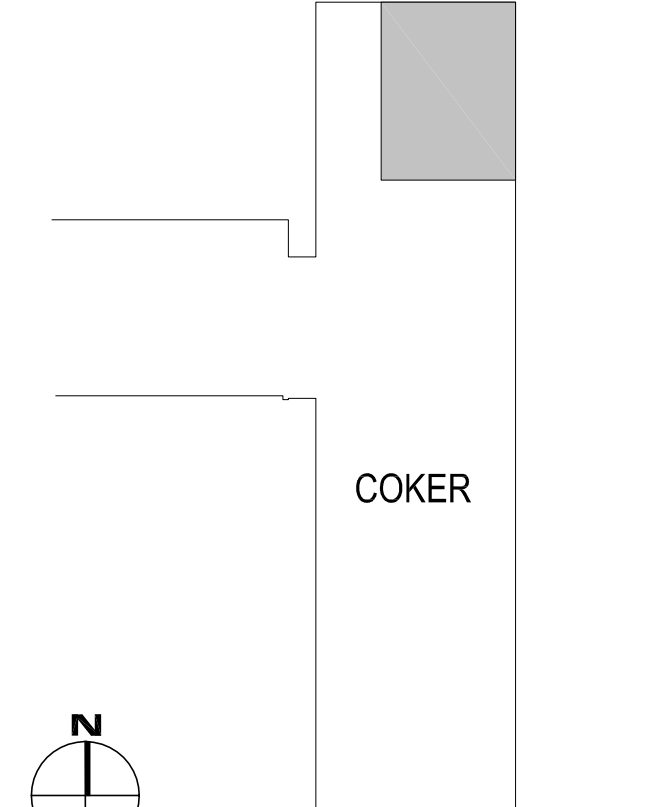
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**PLUMBING SCHEDULES, NOTES,
ABBREVIATIONS AND SYMBOLS
PLUMBING DEMOLITION AND
RENOVATION PLANS**

sheet number

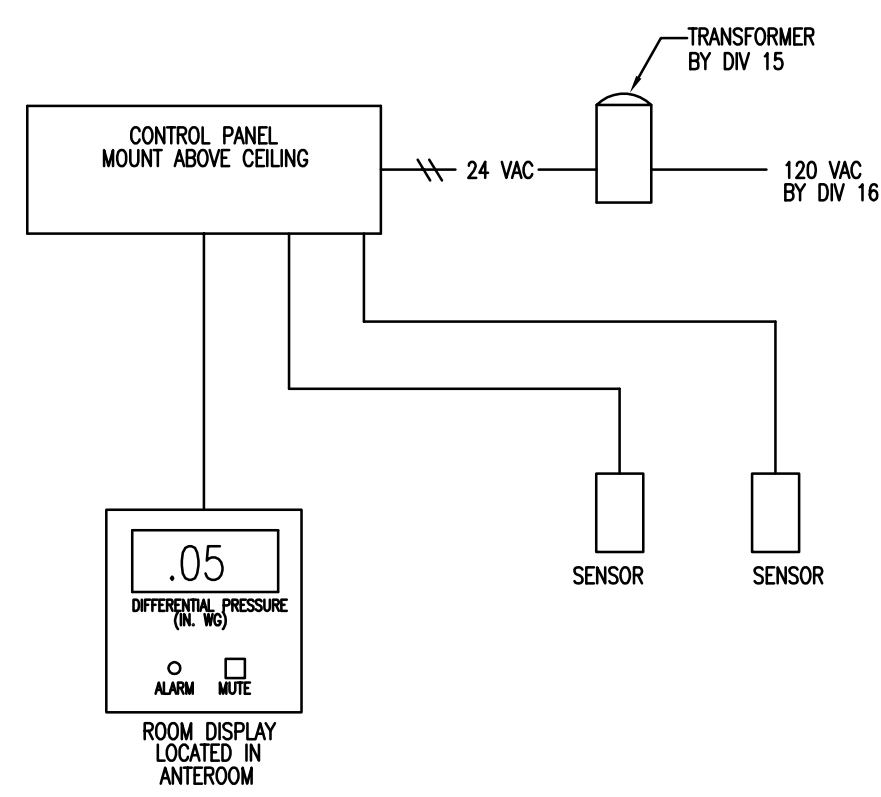
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checked by **JWB**

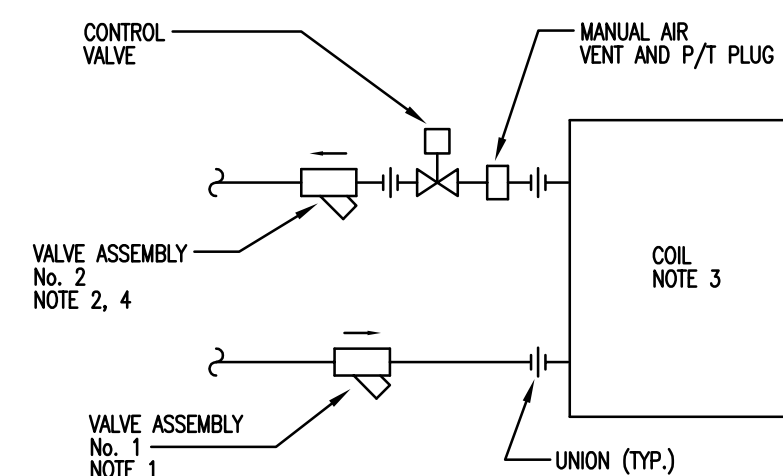
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1 SHUT OFF TYPE VAV OR CAV DETAIL
NTS

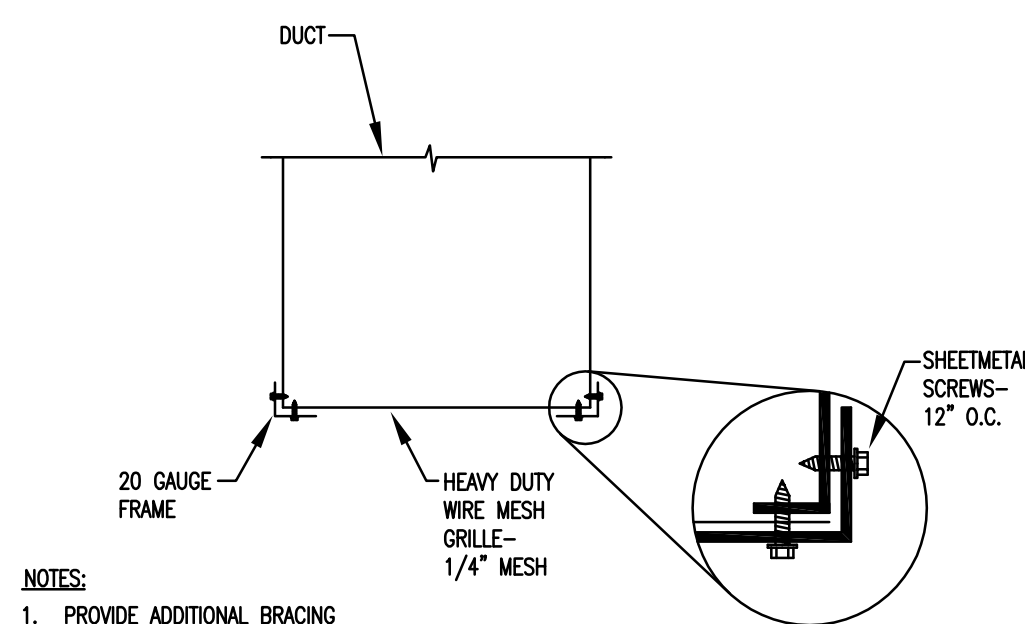


3 PRESSURE MONITOR CONTROL SCHEMATIC
NTS



- NOTES:**
- VALVE ASSEMBLY No. 1: COMBINATION BALL VALVE, Y-STRAINER, UNION, 2P/T'S, HOSE END DRAIN VALVE WITH CAP AND CHAIN.
 - VALVE ASSEMBLY No. 2: AUTOMATIC FLOW CONTROL VALVE, 2P/T'S, BALL VALVE.
 - PROVIDE ON EQUIPMENT UP TO 80 GPM.
 - IF FLOW MODULE CAN NOT BE REMOVED WITHOUT REMOVAL OF ASSEMBLY, THE BALL VALVES MUST BE SEPARATED FROM FLOW DEVICE BY A UNION.

2 TWO WAY COIL PIPING DETAIL
NTS



- NOTES:**
- PROVIDE ADDITIONAL BRACING ON GRILLES GREATER THAN 24".
 - SUBMIT SHOP DRAWINGS.

4 WIRE GRILL DETAIL
NTS

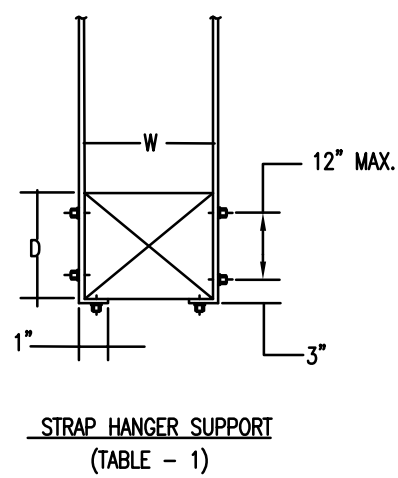


TABLE 1. STRAP HANGERS (PAIR) SPACED

W = 0	12'-0" MAX.	2'-0" MAX.	3'-0" MAX.	3'-0" OR LESS
72"	1" x 226g.	1" x 226g.	1" x 226g.	1" x 226g.
96"	1" x 206g.	1" x 206g.	1" x 226g.	1" x 226g.
120"	1" x 186g.	1" x 186g.	1" x 226g.	1" x 226g.
168"	1" x 186g.	1" x 186g.	1" x 186g.	1" x 186g.
192"	1" x 186g.	1" x 186g.	1" x 186g.	1" x 186g.

6 DUCT AND EQUIPMENT SUPPORT DETAILS
NTS

ABBREVIATIONS

A/C	Air Conditioning	MBH	Thousand BTU/Hr (thousands)
ABV	Above	MIN	Minimum
ATF	Above Finished Floor	N/A	Not Applicable
BHP	Brake Horsepower	NTS	Not in Contract
CAV-1	Constant Volume Unit Box No. 1	NOT IN SCALE	Not in Scale
CFM	Cubic Feet Per Minute	OA	Outside Air
CO	Duct Smoke Detector	OSD	Opposed Blade Damper
DB	Dry Bulb Temperature	OD	Outside Diameter
DE	Direct Expansion	PD	Pressure Drop
EAT	Entering Air Temperature	RA	Return Air
ELEC	Electric or Electrical	SA	Supply Air
EMB	Entering Air Wet Bulb	SHT	Sheet
FD	Fire Damper	SP	Static Pressure
FL	Floor	SPEC	Specifications
HP	Horsepower	SPLY	Supply
LAT	Leaving Air Temperature	TSTAT	Thermostat
LWB	Leaving Air Wet Bulb	TSTAT	Thermostat
MAX	Maximum	TYP	Typical
		WB	Wet Bulb Temperature

AIR DISTRIBUTION SCHEDULE

TAG	DESCRIPTION	NECK	MODULE SIZE	MOUNT	CONSTR.	MFR	MAX. IN.	MODEL	NOTES
A	SQUARE PLATE CEILING SUPPLY	AS SHOWN	24 X 24	LAY-IN	ALUMINUM	PRICE	35	SERIES ASPD	2,4
B	SQUARE PLATE RETURN/EXHAUST	AS SHOWN	24 X 24	LAY-IN	ALUMINUM	PRICE	35	SERIES ASPD	4
C	SIDENAL RETURN/EXHAUST	AS SHOWN	AS SHOWN	SIDENAL	STAINLESS STL.	PRICE	35	SERIES 735	4

NOTES:

- FURNISH WITH OGD
- 4-WAY DEFLECTION (UNLESS OTHERWISE NOTED)
- FURNISH WITH INSULATED BOOT FLASHING
- PAINT ENAMEL OFF-WHITE FINISH
- READY DUTY GRILLE
- PROVIDE 1 SET OF EXTRA PRE AND HEPA FILTERS

FAN HEPA FILTER MODULE SCHEDULE (PROVIDED BY OWNER)

TAG	AIRFLOW (CFM)	MODULE SIZE	FILTER EFFICIENCY	MOUNTING	MOTOR (HP)	VOLT/PH/Hz	MANUFACTURERS	MODEL NO.	NOTES
D	AS SHOWN	AS SHOWN	99.99%	LAY-IN	1/3	115/1/60	PRICE	FUS5	1, 2, 3, 4, 5, 6, 7

NOTES:

- FACTORY SCR CONTROLLER
- PROVIDE 1 SET OF EXTRA PRE AND HEPA FILTERS
- ECM MOTOR
- FACTORY MOUNTED DISCONNECT SWITCH
- 8 FT. POWER CORD
- STAINLESS STEEL CONSTRUCTION
- FILTER IS ROOM-SIZE REPLACEMENT

VARIABLE AIR VOLUME TERMINAL SCHEDULE

TAG NO.	MAXIMUM BOX CFM	MINIMUM BOX CFM	MIN. INLET S.P. (IN. W.C.)	ESP IN. W.C.	RIGHT COIL						PRIMARY NC @ 1.5" SP DISCH/RAD.	INLET SIZE (INCHES)	MANUFACTURER	MODEL NO.	NOTE
					MBH	GPM	DWT	LWT	WFO FT	PIPE RUN-OUT IN					
CAV-1	2710	2710	1.0	0.5	40.0	4.0	180	180	5.0	3/4"	20/20	14	TRANE	VCMF	2,7

NOTES:

- ELECTRIC ACTUATOR
- PNEUMATIC ACTUATOR
- SOUND ATTENUATOR
- SINGLE POINT POWER CONNECTION WITH DISCONNECT
- ACCESS PANEL
- CONTROL TRANSFORMER
- REUSE EXISTING BOX, REBALANCE TO SPECIFIED CFM AND GPM

CLEAN ROOM NOTES

ROOM NAME	CLEAN ROOM	ANTE ROOM
FUTURE MIXING ROOM	CLEAN ROOM	ANTE ROOM
ROOM SHALL BE CLASS 10,000 (ISO CLASS 7)	ROOM SHALL BE CLASS 10,000 (ISO CLASS 7)	ROOM SHALL BE CLASS 100,000 (ISO CLASS 8)
VENTED CHEMICAL HOODS ARE CLASS 100 (ISO CLASS 3)	LAMINAR FLOW BENCHES ARE CLASS 100 (ISO CLASS 3) PER USP 797 (BY OTHERS)	ROOM PRESSURIZATION - POSITIVE
ROOM PRESSURIZATION - NEGATIVE	ROOM PRESSURIZATION - POSITIVE	TOTAL AIRFLOW - 1650 CFM
TOTAL AIRFLOW - 1000 CFM	TOTAL AIRFLOW - 3000 CFM	TOTAL ACH - 33.6
TOTAL ACH - 60.0	TOTAL ACH - 35.8	ROOM TEMPERATURE - 72°F
ROOM TEMPERATURE - 68°F	ROOM TEMPERATURE - 68°F	ROOM HUMIDITY - 40%-60%
ROOM HUMIDITY - 40%-60%	ROOM HUMIDITY - 40%-60%	

HVAC LEGEND

	SUPPLY DIFFUSER
	RETURN DIFFUSER
	EXHAUST DIFFUSER
	FIRE DAMPER IN FIRE-RATED WALL
	DUCT SMOKE DETECTOR
	THERMOSTAT
	SWITCH OR MOTION SENSOR
	PRESSURE MONITOR
	CHANGE IN DUCT ELEVATION
	DUCT TURNING DOWN
	DUCT TURNING UP
	DIFFUSER, GRILLE, LOUVER OR REGISTER TYPE
	NECK SIZE
	PEAK LOAD CFM

consultants

owner



project name
**CLS 009 HOSPITAL
LAB RENOVATION**

State project number
H27-Z107

A/E project number
13025.01

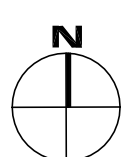
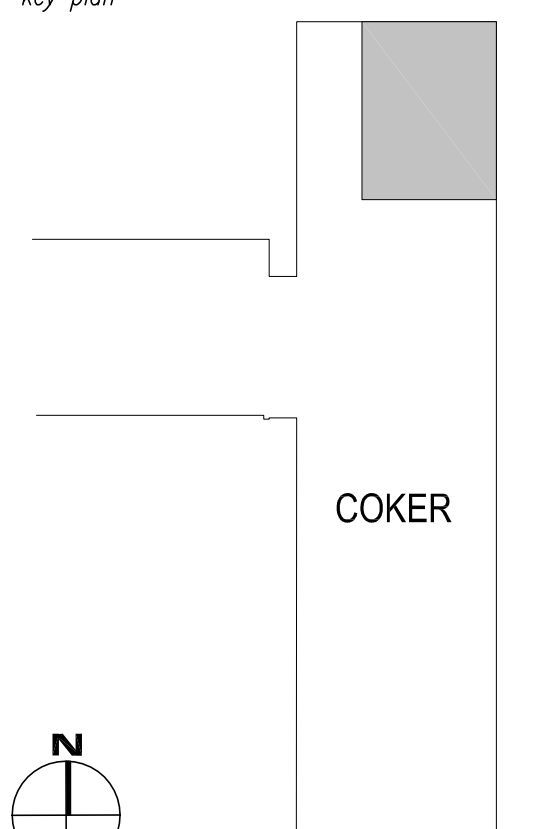
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key plan

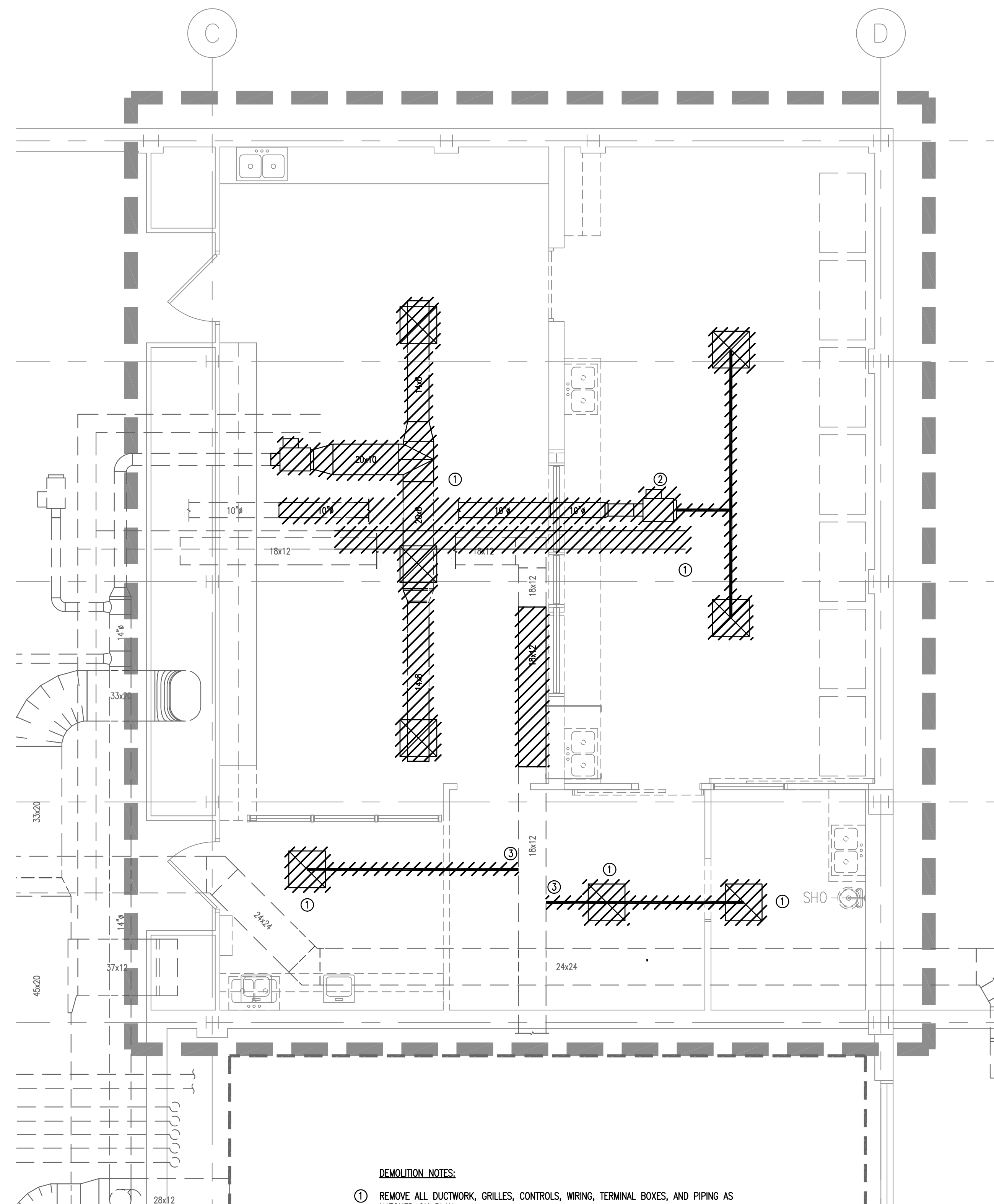


sheet title
**PARTIAL BASEMENT
PLAN - HVAC DEMOLITION &
RENOVATION**

sheet number

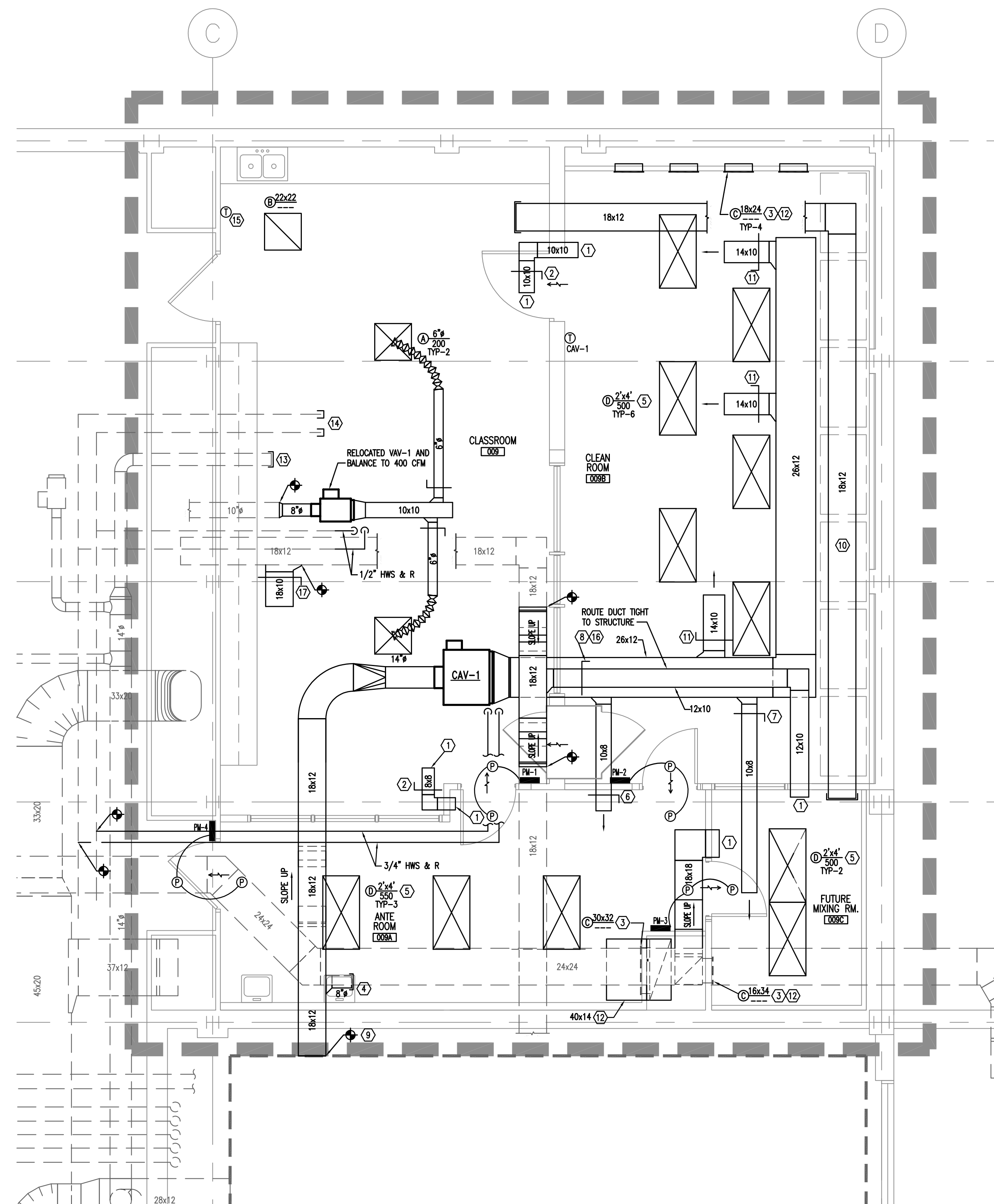
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drawn by **JDR**
checked by **JDR**



- DEMOLITION NOTES:
- ① REMOVE ALL DUCTWORK, GRILLES, CONTROLS, WIRING, TERMINAL BOXES, AND PIPING AS HATCHED ON PLAN.
 - ② RELOCATE EXISTING VAV-1 TO NEW LOCATION SHOWN ON RENOVATION PLAN.
 - ③ PATCH EXISTING RETURN DUCT AND REINSULATE AS REQUIRED.

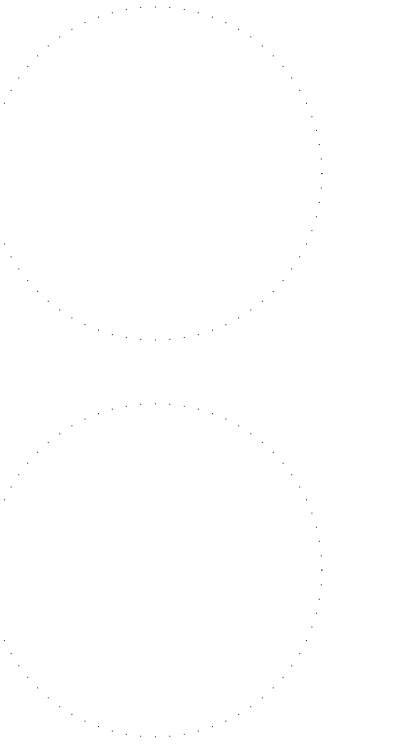
① **BASEMENT FLOOR LEVEL – HVAC DEMOLITION**
1/4"=1'-0"



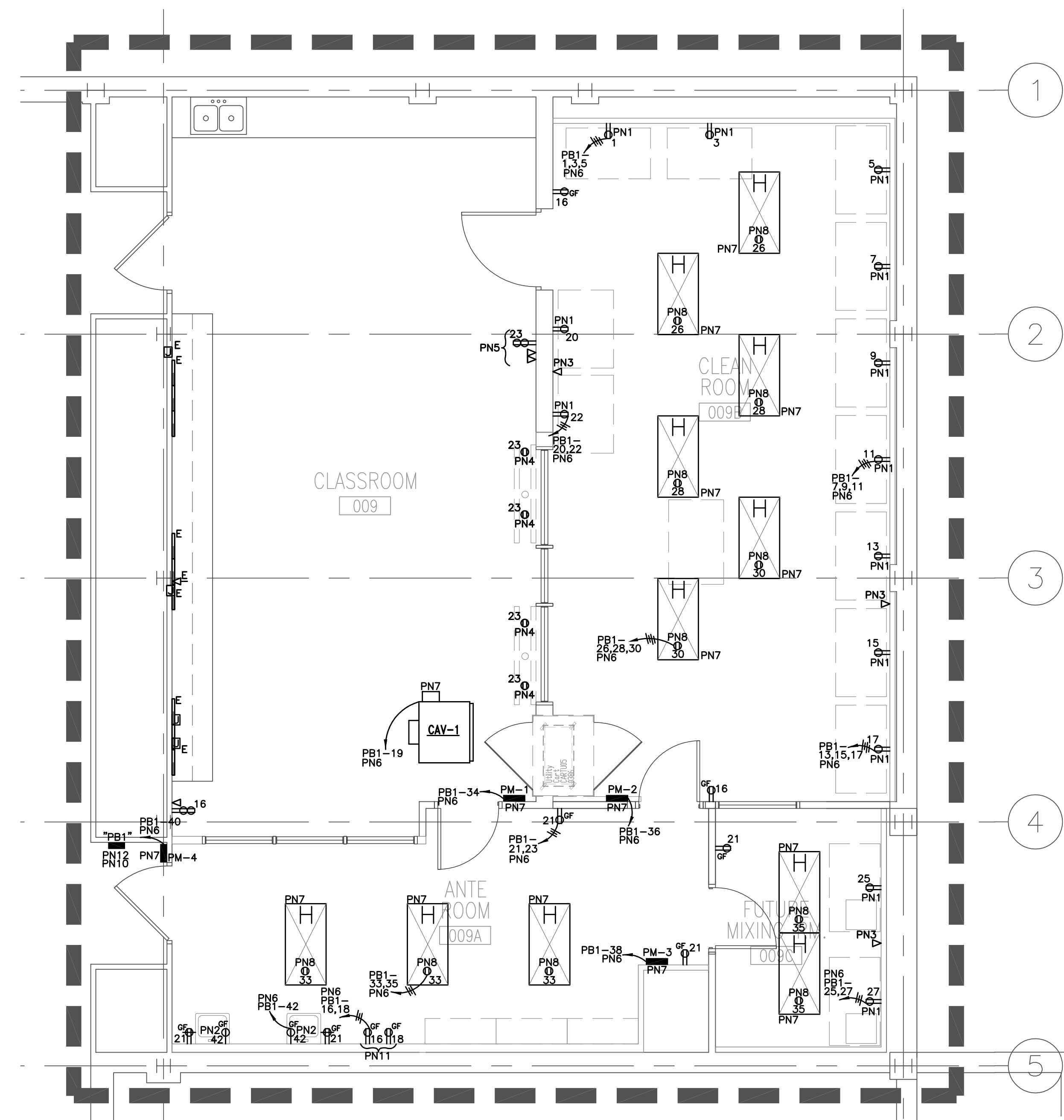
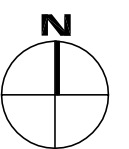
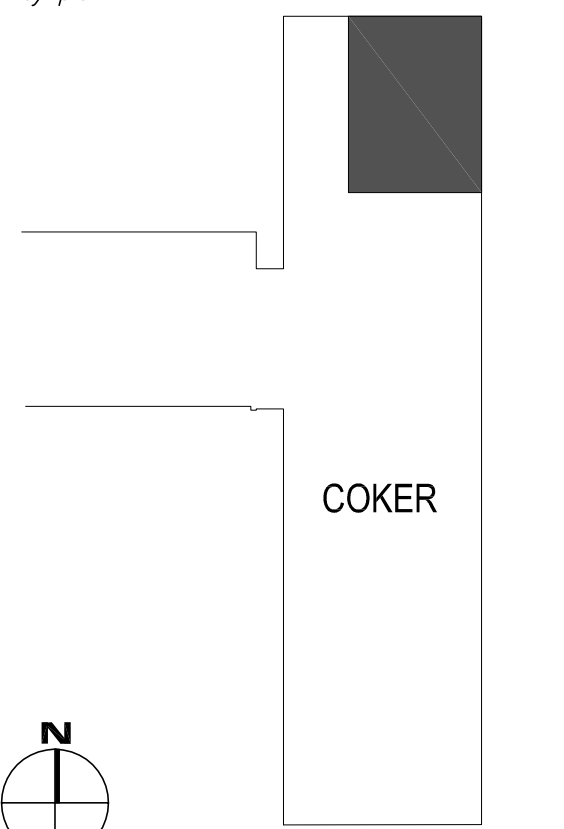
NOTES:

- ① PROVIDE WIRE GRILLE OVER DUCT OPENING. SEE WIRE GRILLE DETAIL FOR ADDITIONAL INFORMATION.
- ② DURING TAB OF THE SYSTEM, THE CONTRACTOR SHALL CLOSE DAMPER IN TRANSFER DUCT TO CREATE A POSITIVE PRESSURE DIFFERENTIAL BETWEEN 0.02 TO 0.05" W.C. IN THE SPACE.
- ③ INSTALL RETURN GRILLES 8" ABOVE FINISHED FLOOR.
- ④ PROVIDE 6" TAP AND CAP FOR FUTURE TERMINAL BOX.
- ⑤ FAN FILTER UNITS ARE OWNER FURNISHED AND CONTRACTOR INSTALLED. CONTRACTOR SHALL OBTAIN FAN FILTER UNITS FROM OWNER AND INSTALL AT LOCATION SPECIFIED.
- ⑥ SET BALANCING DAMPER TO 300 CFM.
- ⑦ SET BALANCING DAMPER TO 400 CFM.
- ⑧ SET BALANCING DAMPER TO 600 CFM.
- ⑨ PROVIDE BELLMOUTH FITTING AND CONNECT SUPPLY DUCT TO AIR HANDLER DISCHARGE PLENUM.
- ⑩ PROVIDE STAINLESS STEEL EXHAUST DUCT ABOVE CEILING AND CAP OF BOTH END FOR FUTURE EXHAUST. DUCT SHALL BE WELDED AND FIRE WRAPPED WITH FIRE BLANKET.
- ⑪ SET BALANCING DAMPER TO 670 CFM.
- ⑫ INSTALL TRANSFER DUCT DOWN INTO CHASE AND CONNECT RETURN GRILLE TO TRANSFER DUCT.
- ⑬ CAP EXISTING DUCT AND REINSULATE.
- ⑭ CAP EXISTING HOT WATER PIPING AND REINSULATE.
- ⑮ RELOCATE EXISTING THERMOSTAT FOR VAV-1 TO THIS LOCATION. RECONNECT TO EXISTING VAV-1.
- ⑯ DURING TAB OF THE SYSTEM, THE CONTRACTOR SHALL OPEN/CLOSE RETURN DAMPER TO CREATE A NEGATIVE PRESSURE DIFFERENTIAL BETWEEN THE CLEAN ROOM AND FUTURE MIXING ROOM. DIFFERENTIAL SHALL BE BETWEEN 0.02 TO 0.05" W.C.
- ⑰ SET BALANCING DAMPER TO 1000 CFM.

② **BASEMENT FLOOR LEVEL – HVAC RENOVATION**
1/4"=1'-0"



number	item	date



ELECTRICAL POWER PLAN
1/4" = 1'-0"

POWER NOTES (PN):

- PN1. FURNISH AND INSTALL 125V, 20A, NEMA 5-20R RECEPTACLE FOR A NEMA 5-20P PLUG FURNISHED WITH CLEAN ROOM HOOD. COORDINATE RECEPTACLE MOUNTING HEIGHT AND LOCATION WITH EXACT CLEAN ROOM HOOD LOCATION.
- PN2. COORDINATE FAUCET SENSOR RECEPTACLE MOUNTING HEIGHT AND LOCATION WITH PLUMBING CONTRACTOR PRIOR TO ANY ROUGH-INS.
- PN3. SINGLE GANG DATA BACKBOX WITH A 1" EMPTY CONDUIT FROM THE DATA BACKBOX STUBBED INTO CLASSROOM 009 WITH A PULL WIRE. SEE DETAIL 1 THIS SHEET. COORDINATE.
- PN4. CEILING MOUNTED RECEPTACLE SHALL NOT BE ROUGHED IN UNTIL AFTER OWNER FURNISHED CONTRACTOR INSTALLED CEILING TV MOUNTS HAVE BEEN INSTALLED. COORDINATE ROUGH IN LOCATION WITH A/V SUPPLIER.
- PN5. COORDINATE 1" CABINET RECEPTACLE AND DATA OUTLETS WITH A/V SUPPLIER PRIOR TO ANY ROUGH-INS FOR EXACT MOUNTING LOCATION. COORDINATE.
- PN6. CIRCUIT TO EXISTING SPARE CIRCUIT BREAKER IN EXISTING PANEL PB1 FROM DEMOLITION. COORDINATE.
- PN7. MECHANICAL CONTRACTOR FURNISHED AND INSTALLED EQUIPMENT.
- PN8. RECEPTACLE SHALL BE MOUNTED IN CEILING PLENUM. COORDINATE EXACT RECEPTACLE MOUNTING LOCATION WITH MECHANICAL CONTRACTOR FAN FILTER UNIT 8 FOOT CORD AND PLUG.
- PN9. EXISTING RELOCATED SURFACE MOUNTED ELECTRICAL PANEL FROM DEMOLITION. ALL EXISTING CIRCUITS TO EXISTING PANEL FROM DEMOLITION SHALL BE EXTENDED AND RELOCATED TO NEW LOCATION UNLESS OTHERWISE NOTED. EXISTING PANEL FEEDER SHALL BE EXTENDED AND RELOCATED AS REQUIRED TO NEW LOCATION. COORDINATE.
- PN10. PROVIDE A NEW TYPED CIRCUIT DIRECTORY FOR ALL EXISTING CIRCUIT BREAKERS IN EXISTING PANELBOARD PB1.
- PN11. RECEPTACLES FOR OWNER PROVIDED EQUIPMENT. COORDINATE EXACT RECEPTACLE TYPE REQUIRED, MOUNTING LOCATION, AND MOUNTING HEIGHT WITH OWNER PRIOR TO ANY ROUGH-INS.

