

# IMED BUILDING 5 - MRI CARING SUITE

INTERMOUNTAIN HEALTHCARE  
5125 SOUTH COTTONWOOD STREET, MURRAY UT 84107



524 SOUTH 600 EAST  
SALT LAKE CITY, UT 84102  
801.575.8800 | VCBO.COM



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WOODROW DRIVE

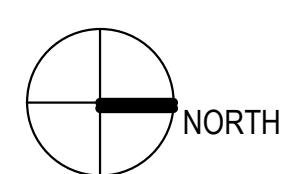
COTTONWOOD DRIVE

INTERMOUNTAIN DRIVE

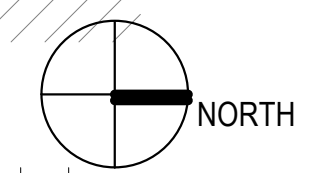
LITTLE COTTONWOOD CREEK

STATE STREET

**A4** PLAN - SITE - OVERALL  
SCALE: 1" = 80'-0"



**A2** BUILDING 5 - LEVEL LL-1 - OVERALL PLAN  
SCALE: 1/32" = 1'-0"



PROJECT AREA @ LEVEL LL-1  
REFER TO SHEETS A0110.0 &  
A110. PLANS FOR ADDITIONAL  
INFORMATION IN THIS AREA



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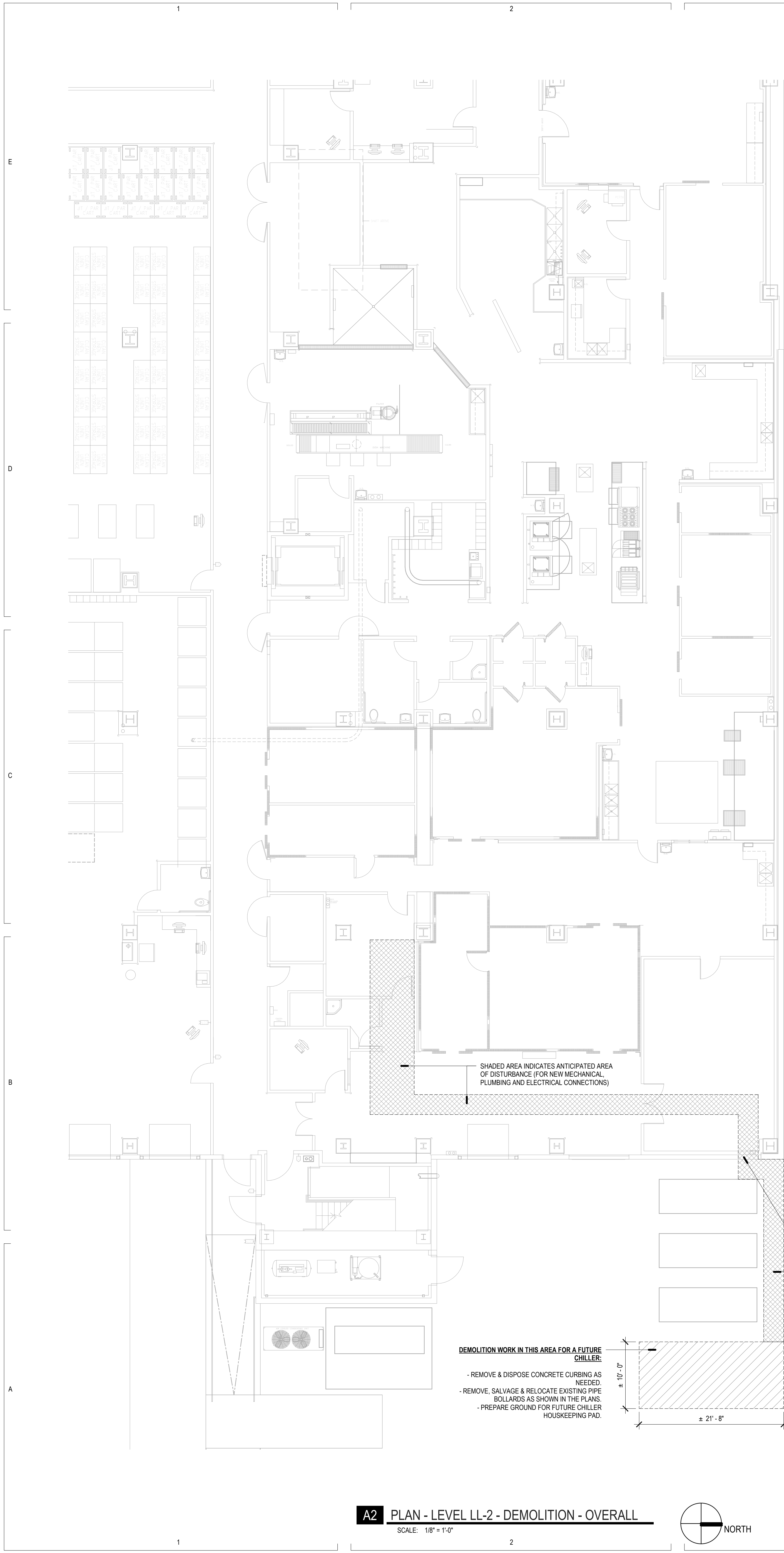
**IMED BUILDING 5 - MRI CARING SUITE**

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5125 SOUTH COTTONWOOD STREET, MURRAY UT 84107

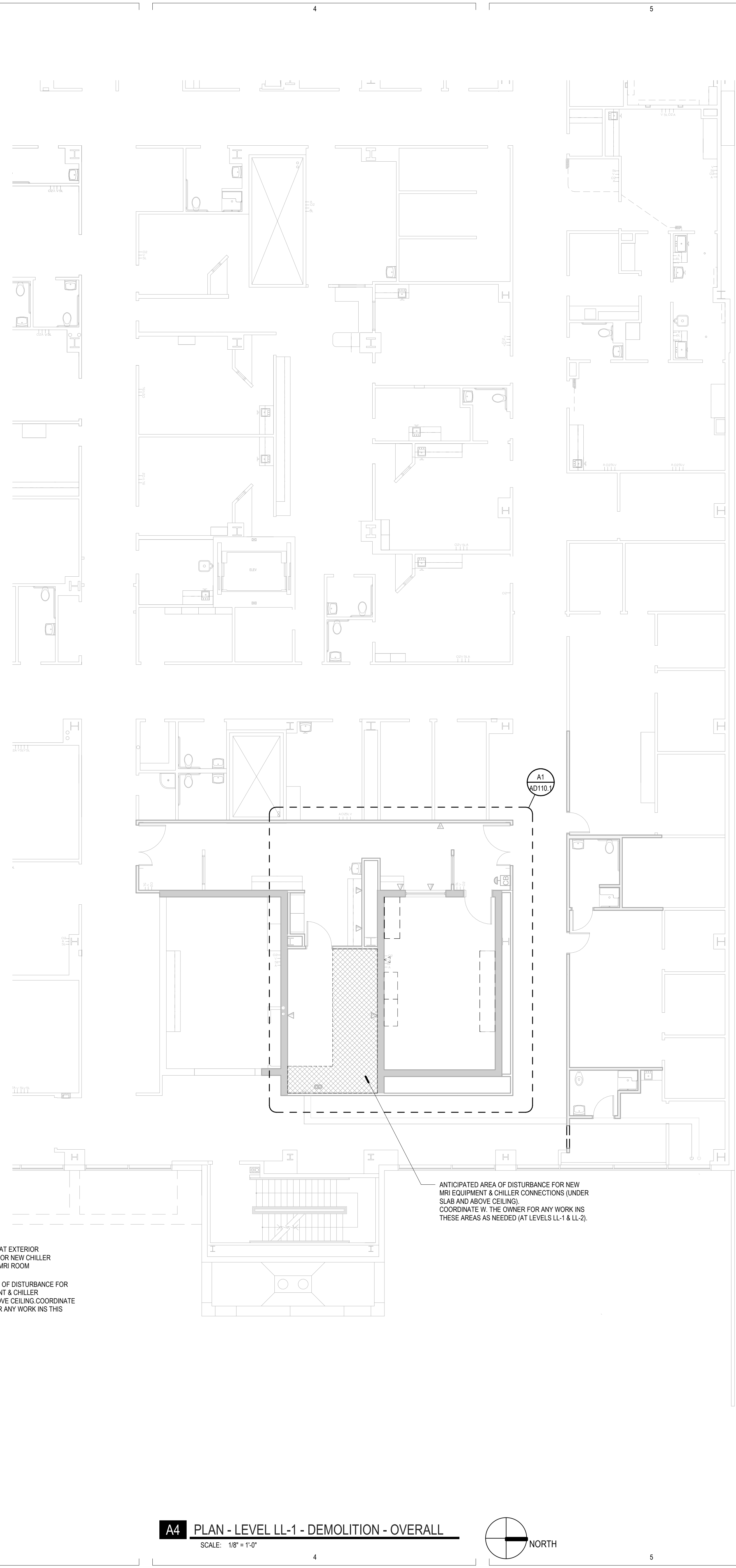
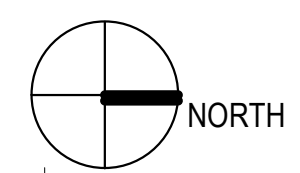
BID SET / CONSTRUCTION DOCUMENTS

OVERALL SITE PLAN -  
OVERALL BUILDING 5

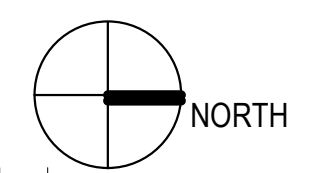
**AS101**



**A2 PLAN - LEVEL LL-2 - DEMOLITION - OVERALL**  
SCALE: 1/8" = 1'-0"



**A4 PLAN - LEVEL LL-1 - DEMOLITION - OVERALL**  
SCALE: 1/8" = 1'-0"



**GENERAL DEMOLITION NOTES**

1. FIELD VERIFY DIMENSIONS AND CONDITIONS INCLUDING EXISTING UTILITIES PRIOR TO BIDDING. BRING DIFFERING DIMENSIONS AND CONDITIONS TO ARCHITECT'S ATTENTION PRIOR TO BIDDING.
2. A HAZARDOUS MATERIAL SURVEY IS AVAILABLE FROM THE OWNER. ABATEMENT MUST BE COMPLETED PRIOR TO DEMOLITION OF BUILDINGS OR BUILDING ELEMENTS.
3. PROVIDE DUSTPROOF ENCLOSURES AT PERIMETER OF CONSTRUCTION & DEMOLITION FOR PROTECTION OF ADJACENT SPACES.
4. COORDINATE MAINTENANCE OF FIRE EGRESS FOR OCCUPANTS IN EXISTING BUILDING WITH THE OWNER AND FIRE MARSHAL. PROVIDE NECESSARY TEMPORARY WALLS OR ENCLOSURES, EMERGENCY LIGHTS, ETC., FOR THE DURATION OF CONSTRUCTION.
5. BRING TO ARCHITECT'S ATTENTION EXISTING CONDITIONS THAT PRESENT ANY CODE VIOLATIONS, INCORRECT CONSTRUCTION OR SAFETY PROBLEMS.
6. MAINTAIN EXISTING FIRE RATINGS, AND ASSOCIATED FIRE PROTECTION SYSTEMS (I.E. FIRE SPRINKLERS AND FIRE ALARM SYSTEMS) THROUGHOUT CONSTRUCTION. COORDINATE ANY INTERRUPTION TO THESE SYSTEMS WITH THE OWNER AND FIRE MARSHAL. PROVIDE FIRE WATCH REQUIREMENTS ASSOCIATED WITH INTERRUPTIONS TO THESE SYSTEMS.
7. PROTECT EXISTING STRUCTURE, FINISHES, AND SITE ELEMENTS NOT SCHEDULED FOR DEMOLITION. RESTORE DAMAGED ITEMS TO THEIR ORIGINAL CONDITION OR REPLACE AT CONTRACTOR'S EXPENSE.
8. REMOVE AND DISPOSE SELECTIVE DEMOLITION MATERIAL PER CITY REQUIREMENTS.
9. SALVAGE MATERIAL WHERE INDICATED. REMOVE ITEMS FROM CURRENT LOCATIONS & PREPARE FOR TRANSPORT BY THE OWNER.

**GENERAL PLAN DEMOLITION NOTES**

1. REFER TO ELECTRICAL AND MECHANICAL PLANS FOR REQUIRED ADDITIONAL DEMOLITION.
2. MAINTAIN EXISTING FIRE RATINGS THROUGHOUT CONSTRUCTION.
3. DO NOT DISTURB EXISTING FIRE RATED ELEMENTS INCLUDING FIREPROOFING, PATCH/REPAIR, DAMAGED OR DISTURBED ITEMS.
4. AFTER DEMOLITION, PRIOR TO FINISH, PATCH AND REPAIR EXISTING WALLS TO PROVIDE SMOOTH SURFACE SUITABLE FOR PAINTING OR WALL COVERING.
5. PATCH & LEVEL EXISTING CONCRETE SLABS FOR NEW FINISHES WITH FLOOR LEVELING COMPOUND.
6. FIELD VERIFY AND COORDINATE SAW CUTTING OF THE CONCRETE FLOOR SLAB WITH PLUMBING AND ELECTRICAL.
7. REPLACE SLAB AND TRENCH BY COMPACTING CLEAN GRAVEL IN 8 INCH LIFTS. DRILL #4 EPOXY-COATED REBAR INTO EXISTING SLAB @ 12 INCHES OC. POUR SLAB TO PROVIDE A SMOOTH EVEN FLOOR.
8. WHERE ELECTRICAL CIRCUIT CONTINUITY IS INTERRUPTED, BUT MUST BE MAINTAINED, MAKE NECESSARY MODIFICATIONS TO MAINTAIN CIRCUIT INTEGRITY.
9. REMOVE ELECTRICAL BOXES BEHIND RELOCATED MILLWORK AND CAP AS REQUIRED.
10. CAP EXISTING DUCT WORK FOR DUST CONTROL.

**DEMOLITION LEGEND**

- HALF-TONE LINE DENOTES ITEMS TO REMAIN
- - - DASHED LINE DENOTES ITEMS TO BE DEMOLISHED
- [ ] AREA TO REMAIN UNDISTURBED DURING CONSTRUCTION
- [X] AREA OF DISTURBANCE DURING CONSTRUCTION (COORDINATE W. OWNER)
- [Hatched] AREA OF DEMOLITION WORK (COORDINATE W. OWNER)



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BID SET / CONSTRUCTION DOCUMENTS

LEVELS LL-1 & LL-2 - DEMOLITION PLAN - OVERALL  
**AD110**



**GENERAL DEMOLITION NOTES**

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- PROVIDE DUSTPROOF ENCLOSURES AT PERIMETER OF CONSTRUCTION & DEMOLITION FOR PROTECTION OF ADJACENT SPACES.
- COORDINATE MAINTENANCE OF FIRE EGRESS FOR OCCUPANTS IN EXISTING BUILDING WITH THE OWNER AND FIRE MARSHAL. PROVIDE NECESSARY TEMPORARY WALLS OR ENCLOSURES, EMERGENCY LIGHTS, ETC., FOR THE DURATION OF CONSTRUCTION.
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- REMOVE AND DISPOSE SELECTIVE DEMOLITION MATERIAL PER CITY REQUIREMENTS.
- SALVAGE MATERIAL WHERE INDICATED. REMOVE ITEMS FROM CURRENT LOCATIONS & PREPARE FOR TRANSPORT BY THE OWNER.

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- DO NOT DISTURB EXISTING FIRE RATED ELEMENTS INCLUDING FIREPROOFING, PATCH/REPAIR, DAMAGED OR DISTURBED ITEMS.
- AFTER DEMOLITION, PRIOR TO FINISH, PATCH AND REPAIR EXISTING WALLS TO PROVIDE SMOOTH SURFACE SUITABLE FOR PAINTING OR WALL COVERING.
- PATCH & LEVEL EXISTING CONCRETE SLABS FOR NEW FINISHES WITH FLOOR LEVELING COMPOUND.
- FIELD VERIFY AND COORDINATE SAW CUTTING OF THE CONCRETE FLOOR SLAB WITH PLUMBING AND ELECTRICAL.
- REPLACE SLAB AND TRENCH BY COMPACTING CLEAN GRAVEL IN 8 INCH LIFTS. DRILL #4 EPOXY COATED REBAR INTO EXISTING SLAB @ 12 INCHES OC. POUR SLAB TO PROVIDE A SMOOTH EVEN FLOOR.
- WHERE ELECTRICAL CIRCUIT CONTINUITY IS INTERRUPTED, BUT MUST BE MAINTAINED, MAKE NECESSARY MODIFICATIONS TO MAINTAIN CIRCUIT INTEGRITY.
- REMOVE ELECTRICAL BOXES BEHIND RELOCATED MILLWORK AND CAP AS REQUIRED.
- CAP EXISTING DUCT WORK FOR DUST CONTROL.

**DEMOLITION LEGEND**

- HALF-TONE LINE DENOTES ITEMS TO REMAIN
- - - DASHED LINE DENOTES ITEMS TO BE DEMOLISHED
- [Hatched Box] AREA TO REMAIN UNDISTURBED DURING CONSTRUCTION
- [Cross-hatched Box] AREA OF DISTURBANCE DURING CONSTRUCTION (COORDINATE W. OWNER)
- [Diagonal Hatched Box] AREA OF DEMOLITION WORK (COORDINATE W. OWNER)

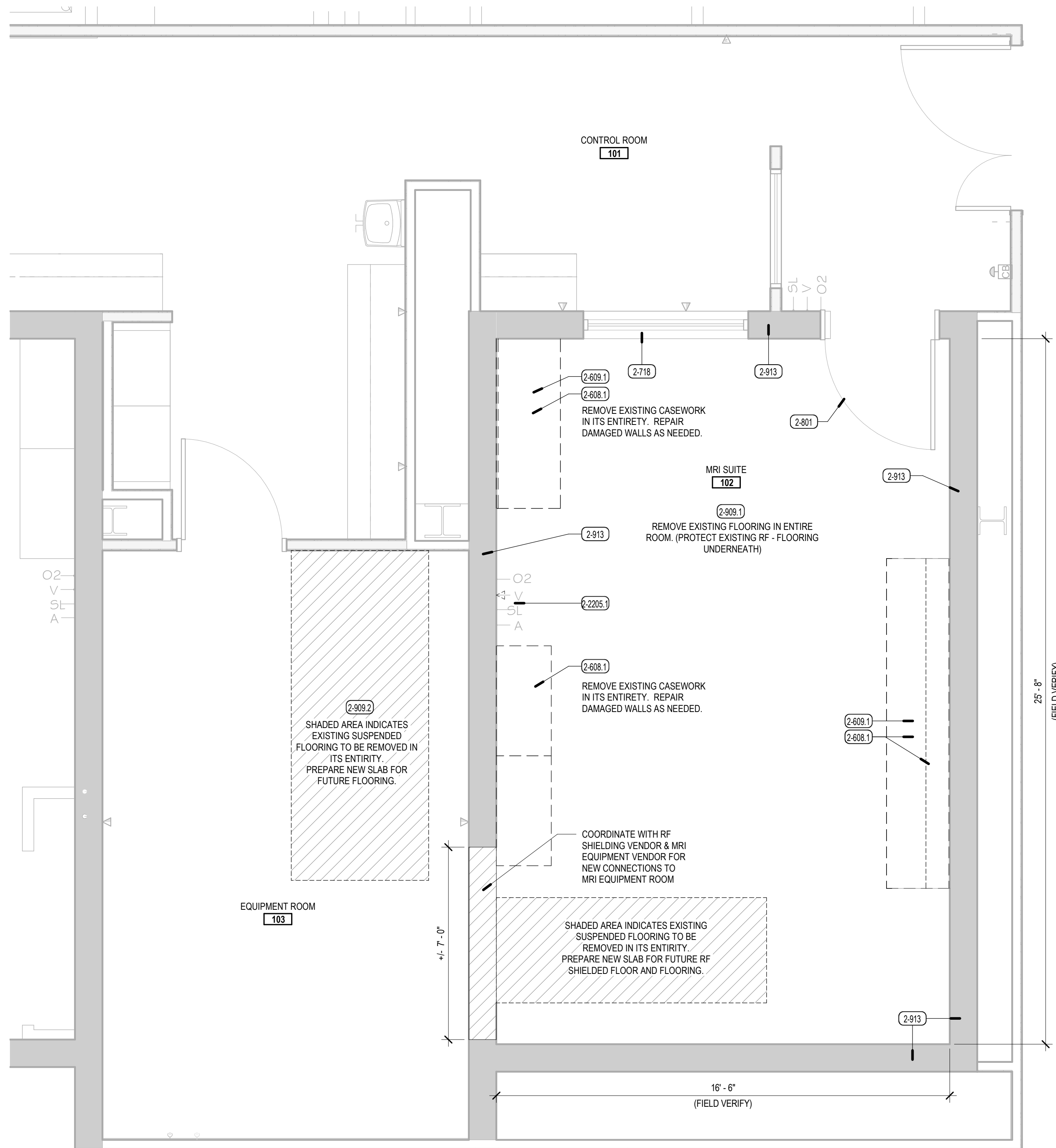
**KEYED NOTES**

| KEY VALUE | KEYNOTE TEXT   |
|-----------|--|
| 2-608.1   | EXISTING CABINET, REMOVE & DISPOSE IN ITS ENTIRETY                                   |
| 2-609.1   | EXISTING COUNTERTOP, REMOVE & DISPOSE IN ITS ENTIRETY                                |
| 2-718     | EXISTING WINDOW HEAD/SILL FLASHING, PROTECT AS NECESSARY, NECESSARY                  |
| 2-801     | EXISTING DOOR AND FRAME, PROTECT AS NECESSARY, REPAIR AS REQUIRED                    |
| 2-909.1   | EXISTING FLOORING, REMOVE & DISPOSE IN ITS ENTIRETY                                  |
| 2-909.2   | EXISTING FLOORING, REMOVE & DISPOSE AS SHOWN   |
| 2-912.1   | EXISTING CEILING SYSTEM, REMOVE & DISPOSE IN ITS ENTIRETY                            |
| 2-912.6   | EXISTING ACOUSTICAL CEILING TILE SYSTEM, PROTECT AS NECESSARY, REPAIR AS REQUIRED    |
| 2-913     | EXISTING STUD WALL FRAME WITH GYPSUM BOARD, PROTECT AS NECESSARY, REPAIR AS REQUIRED |
| 2-2102    | EXISTING SPRINKLER HEAD, PROTECT AS NECESSARY, REPAIR AS REQUIRED                    |
| 2-2205.1  | EXISTING MEDICAL GAS OUTLETS, TO BE RELOCATED TO NEW LOCATION                        |
| 2-2301.1  | EXISTING MECHANICAL DIFFUSERS, REMOVE & DISPOSE IN ITS ENTIRETY                      |
| 2-2601.1  | EXISTING LIGHTING FIXTURES, REMOVE & DISPOSE IN ITS ENTIRETY                         |

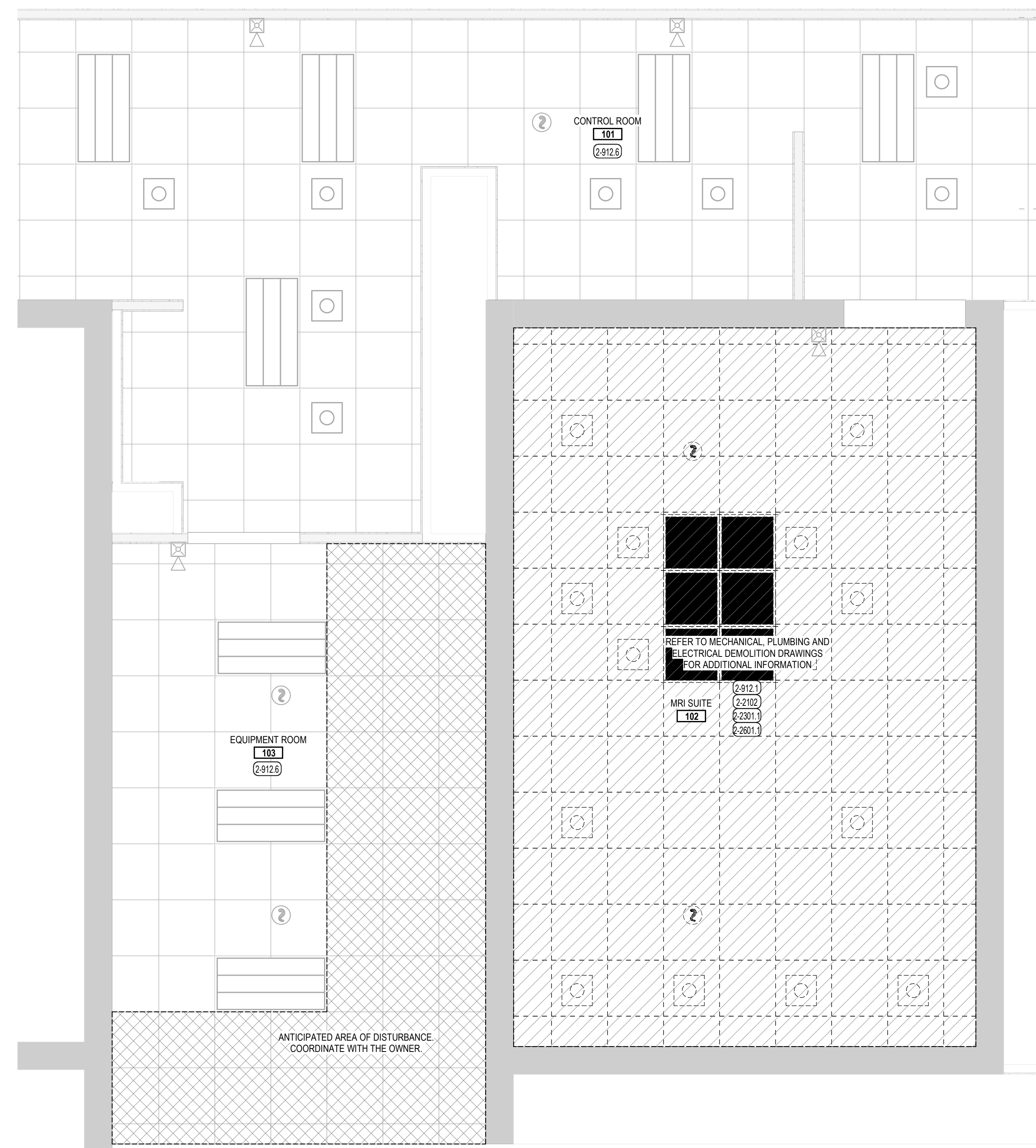
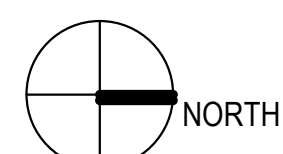
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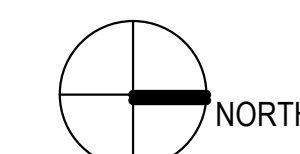
VCBO NUMBER: 19480  
DATE: 07/15/2019



**A1 DEMO PLAN - ENLARGED**  
SCALE: 3/8" = 1'-0"



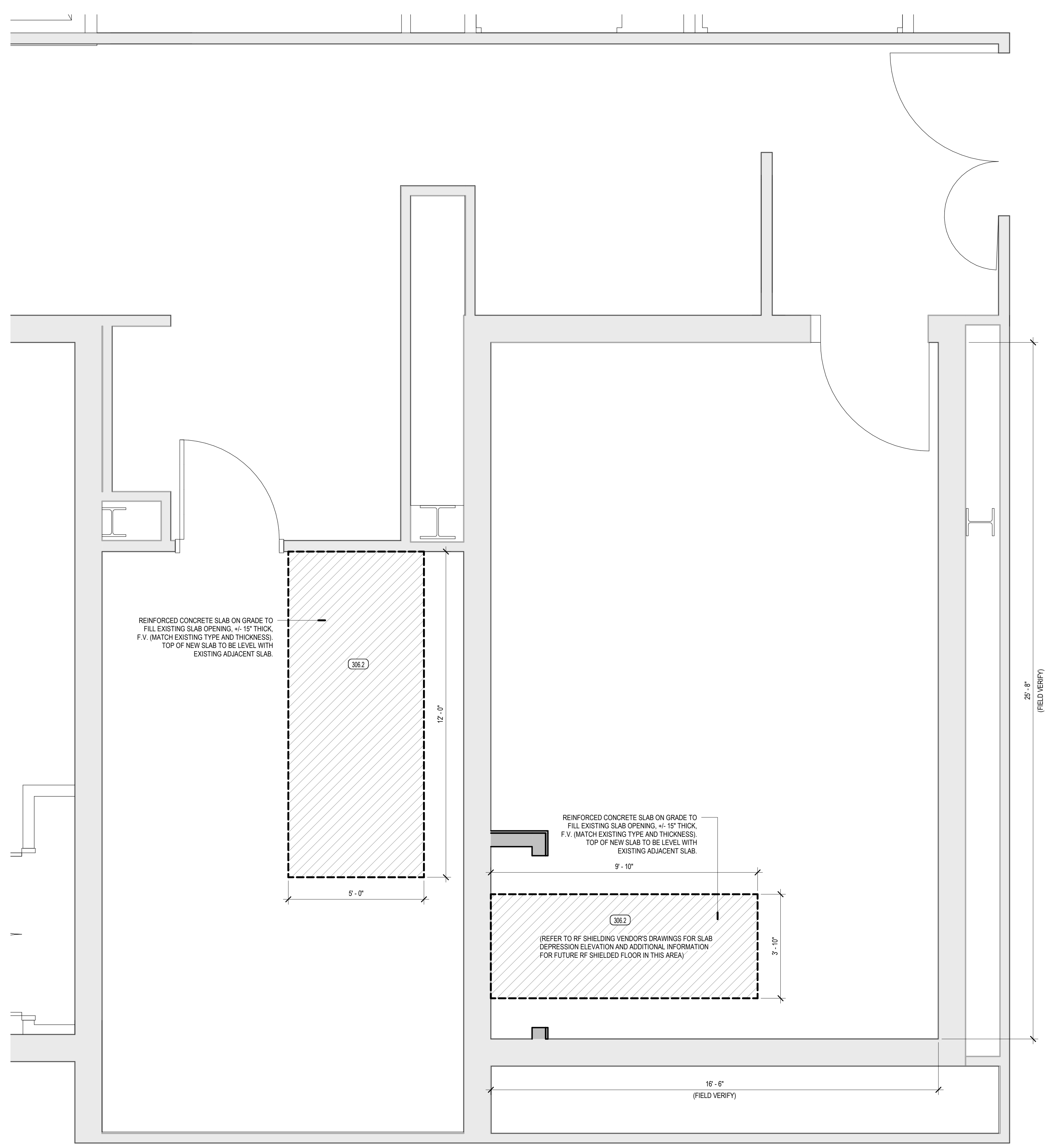
**A4 DEMO REFLECTED CEILING PLAN - ENLARGED**  
SCALE: 3/8" = 1'-0"





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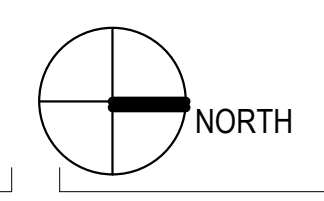
REINFORCED CONCRETE SLAB ON GRADE TO FILL EXISTING SLAB OPENING, ±15" THICK, F.V. (MATCH EXISTING TYPE AND THICKNESS). TOP OF NEW SLAB TO BE LEVEL WITH EXISTING ADJACENT SLAB.

REINFORCED CONCRETE SLAB ON GRADE TO FILL EXISTING SLAB OPENING, ±15" THICK, F.V. (MATCH EXISTING TYPE AND THICKNESS). TOP OF NEW SLAB TO BE LEVEL WITH EXISTING ADJACENT SLAB.

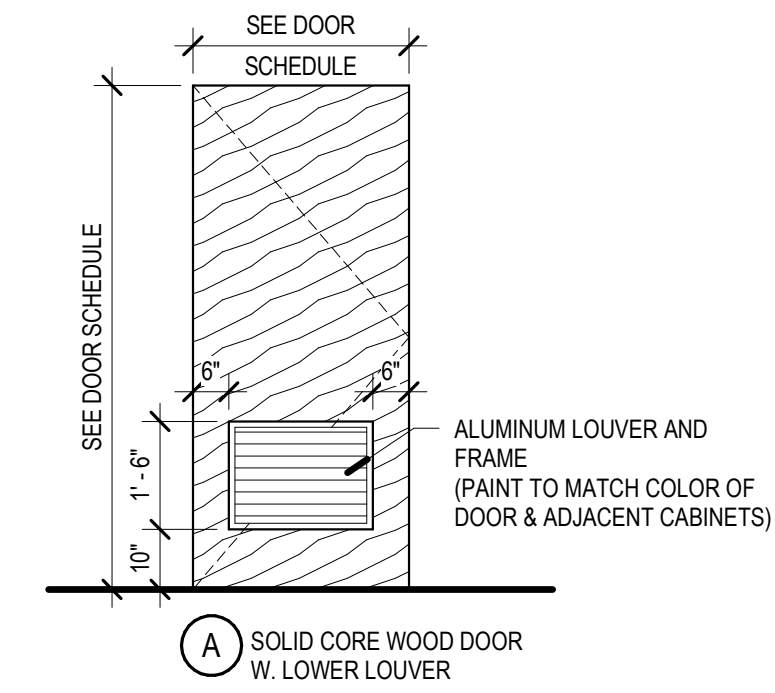
(REFER TO RF SHIELDING VENDORS DRAWINGS FOR SLAB DEPRESSION ELEVATION AND ADDITIONAL INFORMATION FOR FUTURE RF SHIELDED FLOOR IN THIS AREA)

| KEYED NOTES |   |
|-------------|---|
| KEY VALUE   | KEYNOTE TEXT  |
| 306.2       | REINFORCED CONCRETE SLAB ON GRADE, ±15" THICK TO MATCH EXISTING |

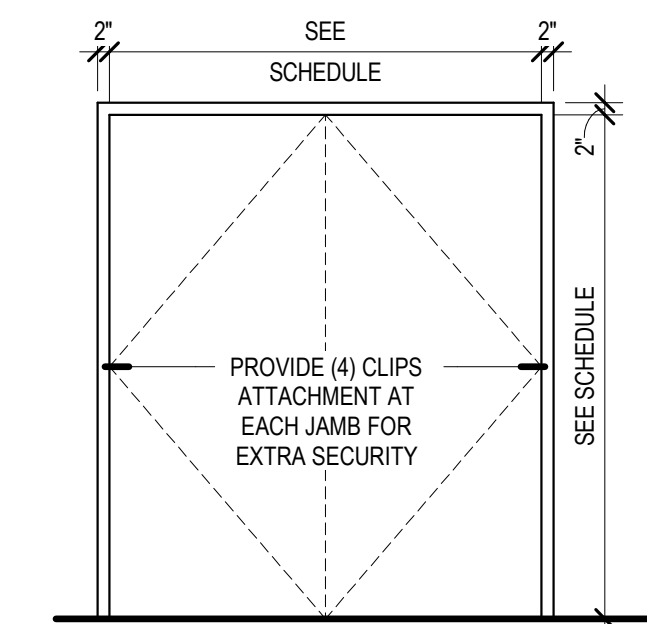
**A3** SLAB PLAN - ENLARGED  
SCALE: 1/2" = 1'-0"



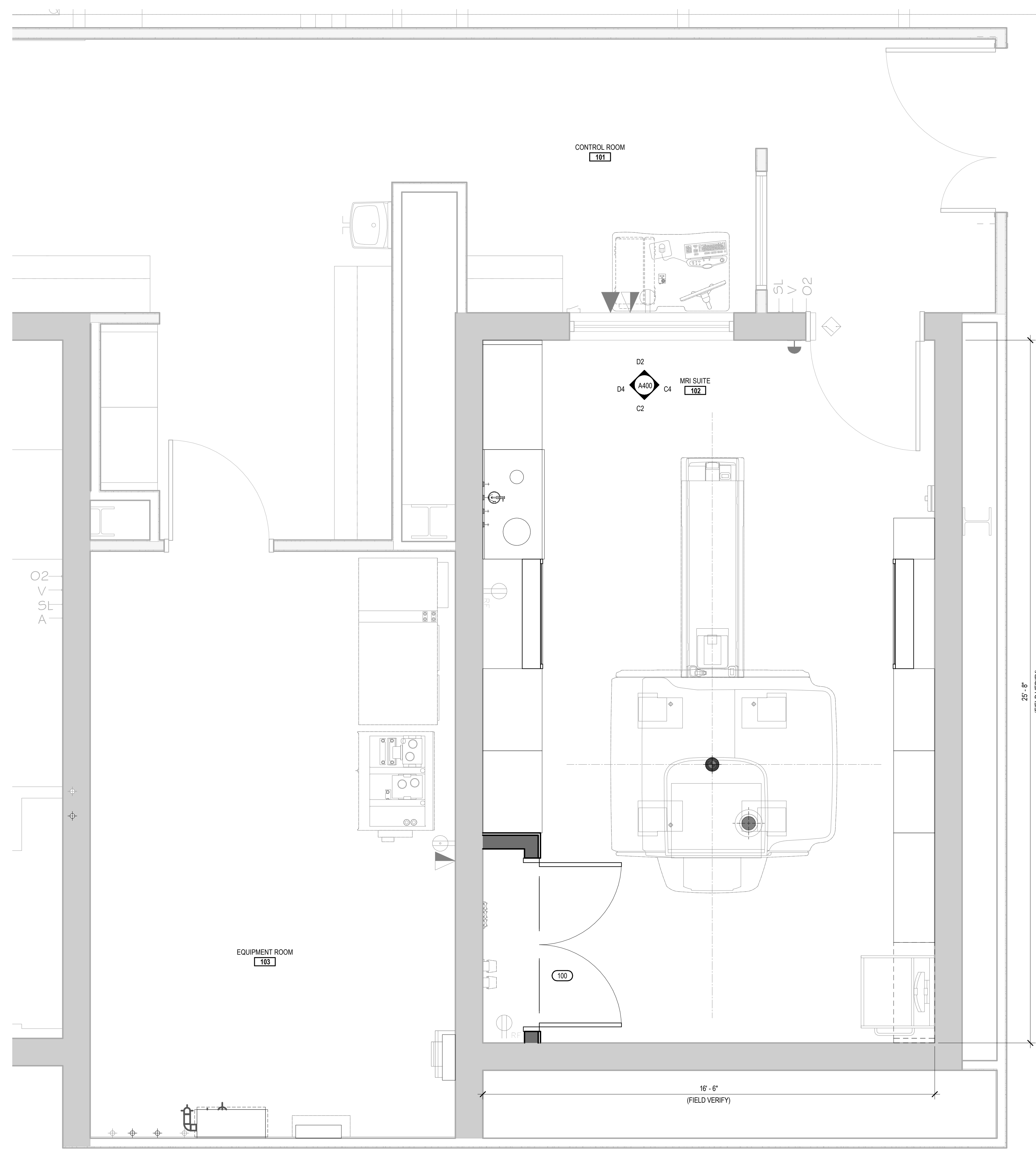
| SCHEDULE - DOOR AND FRAME |       |        |        |                 |          |               |            |          |               |                |   |             |
|---------------------------|-------|--------|--------|-----------------|----------|---------------|------------|----------|---------------|----------------|---|-------------|
| DOOR NUMBER               | SIZE  |        |        | DOOR ELEV. TYPE | MATERIAL | FACING/FINISH | FRAME      |          |               | HARDWARE GROUP | NOTES   | DOOR NUMBER |
|                           | WIDTH | HEIGHT | THICK  |                 |          |               | ELEV. TYPE | MATERIAL | FINISH/FACING |                |   |             |
| 100                       | 72"   | 84"    | 1 3/4" | 1               | WOOD     | PLAM          | 1          | HM       | PAINT         | 1.0            | HARDWARE: "PASSAGE" LOCK FUNCTION / PLASTIC LAMINATED DOOR FINISH TO MATCH CABINETS / HOLLOW METAL DOOR FRAME AND ALUMINUM LOUVERS TO BE PAINTED TO MATCH DOOR-CABINET FINISH | 100         |



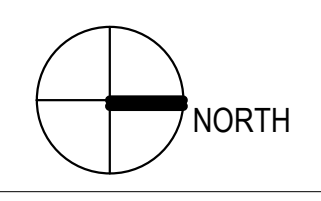
**D4 DOOR ELEVATIONS**  
SCALE: 3/8" = 1'-0"



**D5 HOLLOW METAL DOOR FRAME**  
SCALE: 3/8" = 1'-0"



**A3 LL-1 ANNOTATED & DIMENSION PLAN - ENLARGED**  
SCALE: 1/2" = 1'-0"



**GENERAL NOTES**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES AND SUPPLIERS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BEFORE COMMENCING CONSTRUCTION, AND TO ASSURE THAT ALL PARTIES ARE AWARE OF ALL REQUIREMENTS, REGARDLESS OF WHERE THE REQUIREMENTS OCCUR IN THE CONTRACT DOCUMENTS, WHICH MIGHT AFFECT THE WORK OF THAT PARTY.
- AS PART OF THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES AND SUPPLIERS, THE CONTRACTOR SHALL ENDEAVOR TO IDENTIFY AND NOTIFY THE ARCHITECT OF ANY CONFLICTS BETWEEN THE WORK OF DIFFERENT PARTIES AT THE EARLIEST POSSIBLE DATE SO AS TO ALLOW REASONABLE AND ADEQUATE TIME FOR THE CONFLICT TO BE RESOLVED WITHOUT DELAYING THE WORK. ALL DEVIATIONS FROM THAT WHICH IS REQUIRED BY THE CONTRACT DOCUMENTS MUST BE APPROVED IN ADVANCE BY THE ARCHITECT.
- THE ARCHITECTURAL DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL EXPOSED ELEMENTS OF THE WORK OF ALL THE TRADES, INCLUDING THAT WORK WHICH IS ILLUSTRATED PRIMARILY ON DRAWINGS OF OTHER DISCIPLINES BUT LOCATIONS SHOWN ON OTHER DRAWINGS ARE SCHEMATIC, UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS. THE ARCHITECTURAL DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL PARTS OF THE WORK.
- EXCEPT WHERE DIRECTED TO PLACE ITEMS OF WORK AT THE APPROXIMATE LOCATION SHOWN, DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN OR MAY BE DERIVED FROM THOSE SHOWN ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS. IF DIMENSIONS ARE NOT PRESENT, THE ARCHITECT IS TO BE NOTIFIED SO THAT A CLARIFICATION CAN BE ISSUED.
- CONTRACTOR TO FOLLOW CURRENT ANSI 117-1 STANDARDS AS REPRESENTED ON SHEET 0301, GENERAL ACCESSIBILITY GUIDELINES. NOTIFY ARCHITECT IF THE DESIGN DRAWINGS CONFLICT WITH THIS SHEET.

**DIMENSION NOTES**

- ALL DIMENSIONS ARE TO CENTER OF STUD WALL OR FACE OF CONCRETE, MASONRY OR ROUGH OPENING UNLESS NOTED OTHERWISE. WHERE THE END OF A WALL IS INDICATED THE DIMENSION IS TO THE FINISH SURFACE OF THE WALL END.
- UNLESS DIMENSIONED OTHERWISE, THE DIMENSION FROM THE BUCK OF A DOOR FRAME IS TO BE 4" TO THE WALL CORNER.
- EXCEPT WHERE DIRECTED TO PLACE ITEMS OF WORK AT THE APPROXIMATE LOCATION SHOWN, DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN OR MAY BE DERIVED FROM THOSE SHOWN ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS. IF DIMENSIONS ARE NOT PRESENT, THE ARCHITECT IS TO BE NOTIFIED SO THAT A CLARIFICATION CAN BE ISSUED.

| KEYED NOTES |              |
|-------------|--------------|
| KEY VALUE   | KEYNOTE TEXT |
|             |              |



EXISTING MRI SUITE / CONTROL ROOM DOOR



EXISTING MRI ROOM DOOR



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**CEILING LEGEND**

- A- SUSPENDED 2' X 2' ACOUSTICAL LAY-IN TILE CEILING
- B- SUSPENDED 5/8" GYP. BD. CEILING SYSTEM - (1 LAYER) PAINTED

**CEILING SYMBOLS**

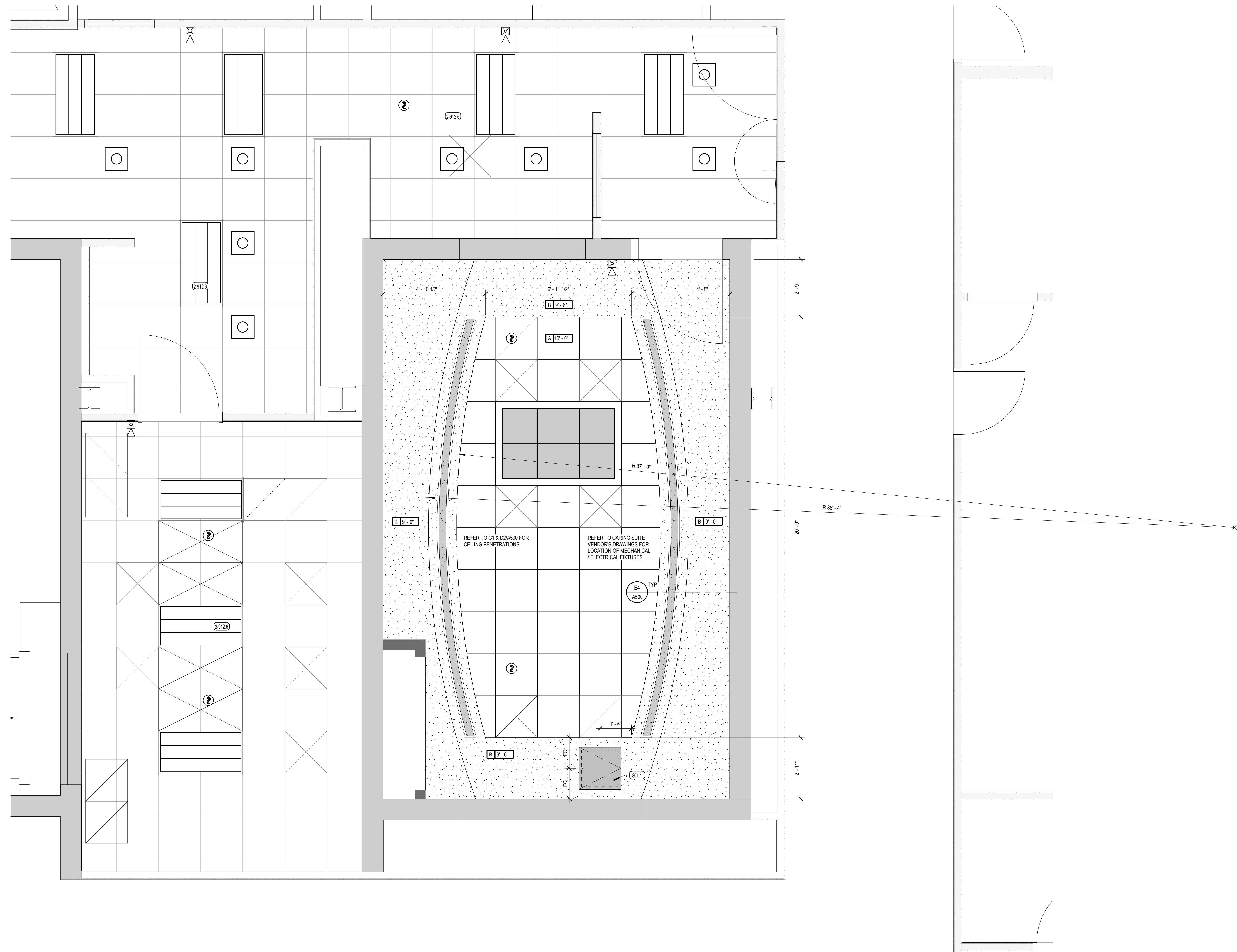
- ELECTRICAL**
- 2'X4' FLUORESCENT FIXTURE
  - 2'X2' FLUORESCENT FIXTURE
  - 1'X4' FLUORESCENT FIXTURE
  - FLUORESCENT STRIP FIXTURE
  - RECESSED DOWN LIGHT
  - WALL WASH
  - 1'X4' FLUORESCENT FIXTURE
  - EXIT SIGN, SINGLE-SIDED
  - EXIT SIGN, DOUBLE-SIDED
  - FIRE ALARM
  - SPEAKER
  - SMOKE DETECTOR
  - WIRELESS INTERNET
- MECHANICAL**
- SUPPLY GRILLE
  - RETURN GRILLE
  - EXHAUST GRILLE
  - LINEAR DIFFUSER
  - SPRINKLER HEAD - CEILING MOUNT
  - SPRINKLER HEAD - WALL MOUNT

**GENERAL CEILING NOTES**

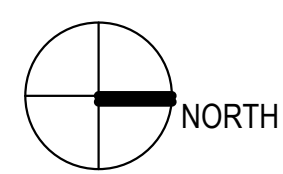
1. REFER TO DETAIL A2/A500 FOR TYPICAL CEILING SUSPENSION & SEISMIC BRACING
2. REFER TO DETAIL A3/A500 FOR TYPICAL SUSPENDED GYP. BOARD CEILINGS
3. ALL UNIDENTIFIED CEILING TYPES ON THE PLANS SHALL BE TYPE "A" AT 9'-0" A.F.F.
4. GRID SUSPENSION SYSTEMS SHALL BE CENTERED WITHIN AREAS INDICATED, UNLESS NOTED OTHERWISE
5. PAINT BLACK ALL EXPOSED STRUCTURE, MECHANICAL, DUCTS, ELECTRICAL WORK, PIPING, ETC.
6. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION OF MECHANICAL GRILLES, AND TO MECHANICAL DRAWINGS FOR QUANTITIES AND TYPES
7. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS OF LIGHT FIXTURES AND TO ELECTRICAL DRAWINGS FOR QUANTITY AND TYPES
8. MECHANICAL AND ELECTRICAL CONTRACTORS TO COORDINATE WORK WITH SPRINKLER CONTRACTOR TO AVOID CONFLICTS IN FIELD
9. ALL CEILING HEIGHTS ARE ELEVATION ABOVE TOP OF CONCRETE FLOOR SLAB

**KEYED NOTES**

| KEY VALUE | KEYNOTE TEXT  |
|-----------|---|
| 2-912.6   | EXISTING ACOUSTICAL CEILING TILE SYSTEM. PROTECT AS NECESSARY, REPAIR AS REQUIRED |
| 801.1     | DOOR, CEILING ACCESS  |



**A1 REFLECTED CEILING PLAN - ENLARGED**  
SCALE: 1/2" = 1'-0"



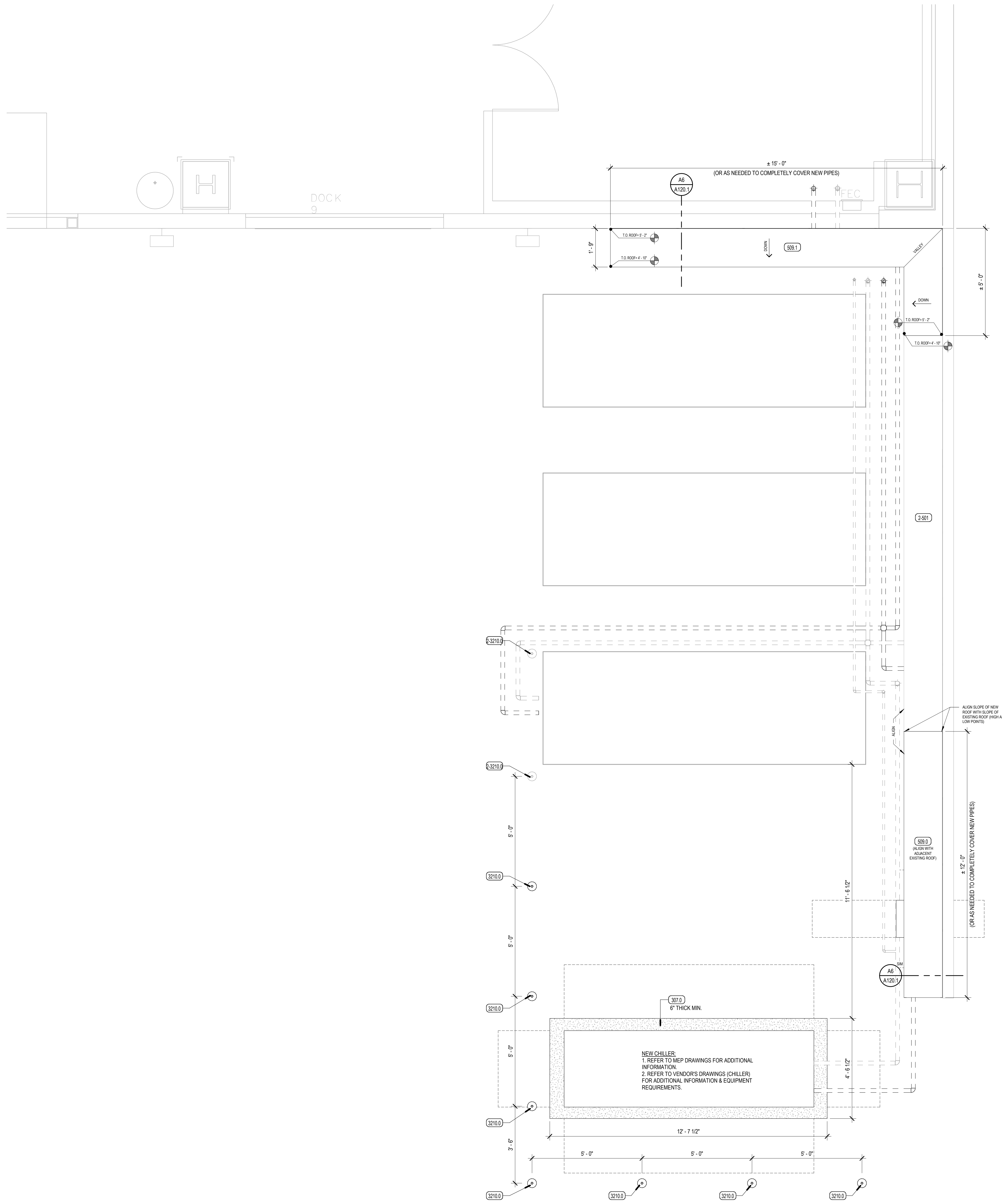
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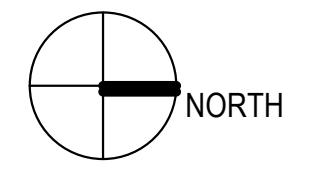
VCBO NUMBER: 19480  
DATE: 07/15/2019







**A4 LL-2 ANNOTATED & DIMENSION PLAN - ENLARGED**  
SCALE: 1/2" = 1'-0"



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- IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES AND SUPPLIERS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BEFORE COMMENCING CONSTRUCTION, AND TO ASSURE THAT ALL PARTIES ARE AWARE OF ALL REQUIREMENTS, REGARDLESS OF WHERE THE REQUIREMENTS OCCUR IN THE CONTRACT DOCUMENTS, WHICH MIGHT AFFECT THE WORK OF THAT PARTY.
- AS PART OF THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES AND SUPPLIERS, THE CONTRACTOR SHALL ENDEAVOR TO IDENTIFY AND NOTIFY THE ARCHITECT OF ANY CONFLICTS BETWEEN THE WORK OF DIFFERENT PARTIES AT THE EARLIEST POSSIBLE DATE SO AS TO ALLOW REASONABLE AND ADEQUATE TIME FOR THE CONFLICT TO BE RESOLVED WITHOUT DELAYING THE WORK. ALL DEVIATIONS FROM THAT WHICH IS REQUIRED BY THE CONTRACT DOCUMENTS MUST BE APPROVED IN ADVANCE BY THE ARCHITECT.
- THE ARCHITECTURAL DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL EXPOSED ELEMENTS OF THE WORK OF ALL THE TRADES, INCLUDING THAT WORK WHICH IS ILLUSTRATED PRIMARILY ON DRAWINGS OF OTHER DISCIPLINES. QUANTITIES ARE TO BE PROVIDED AS SHOWN ON DRAWINGS OF OTHER DISCIPLINES BUT LOCATIONS SHOWN ON OTHER DRAWINGS ARE SCHEMATIC, UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS. THE ARCHITECTURAL DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL PARTS OF THE WORK.
- EXCEPT WHERE DIRECTED TO PLACE ITEMS OF WORK AT THE APPROXIMATE LOCATION SHOWN, DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN OR MAY BE DERIVED FROM THOSE SHOWN ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS. IF DIMENSIONS ARE NOT PRESENT, THE ARCHITECT IS TO BE NOTIFIED SO THAT A CLARIFICATION CAN BE ISSUED.
- CONTRACTOR TO FOLLOW CURRENT ANSI 117-1 STANDARDS AS REPRESENTED ON SHEET 0301, GENERAL ACCESSIBILITY GUIDELINES. NOTIFY ARCHITECT IF THE DESIGN DRAWINGS CONFLICT WITH THIS SHEET.

**DIMENSION NOTES**

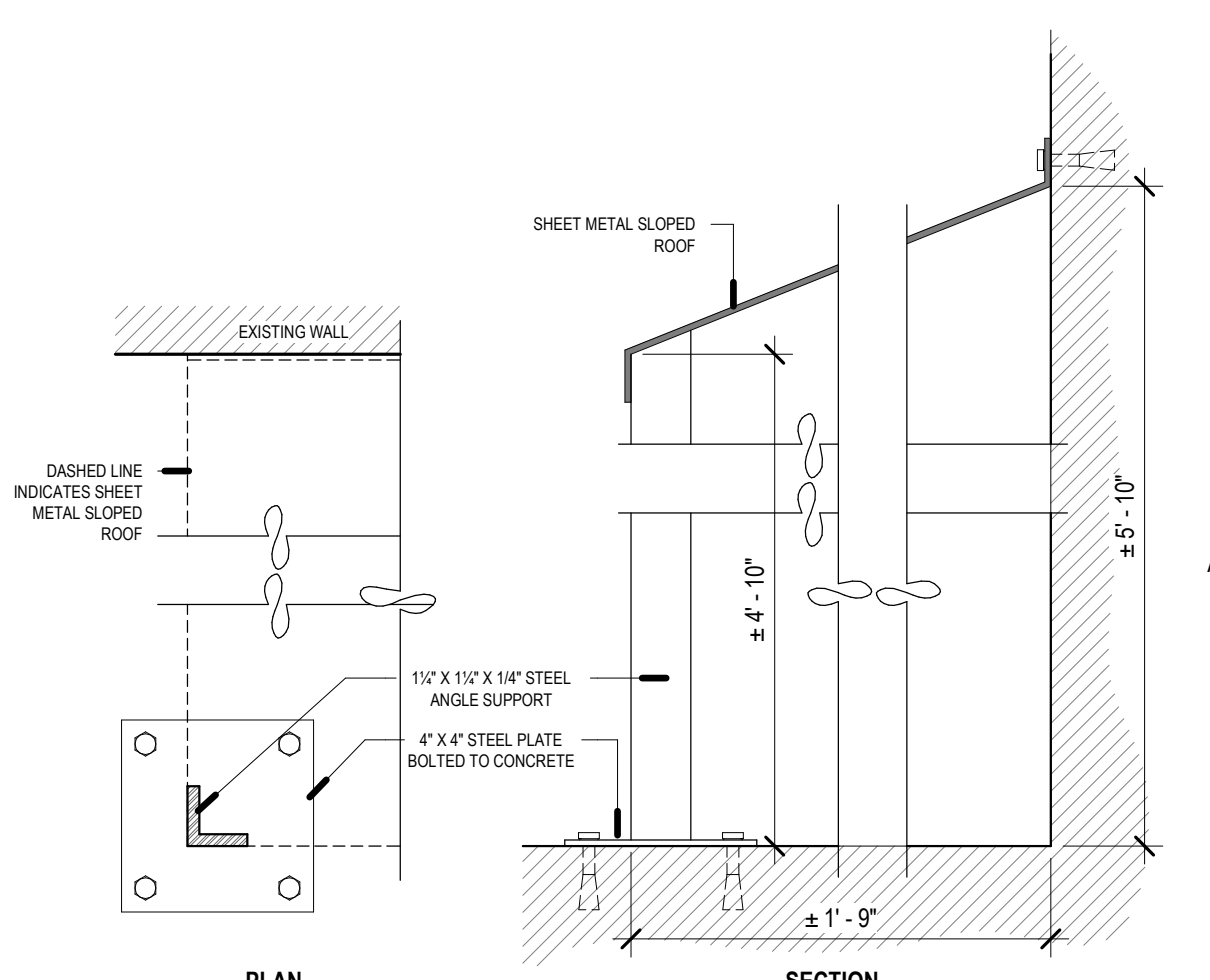
- ALL DIMENSIONS ARE TO CENTER OF STUD WALL OR FACE OF CONCRETE, MASONRY OR ROUGH OPENING UNLESS NOTED OTHERWISE. WHERE THE END OF A WALL IS INDICATED THE DIMENSION IS TO THE FINISH SURFACE OF THE WALL END.
- UNLESS DIMENSIONED OTHERWISE, THE DIMENSION FROM THE BUCK OF A DOOR FRAME IS TO BE 4" TO THE WALL CORNER.
- EXCEPT WHERE DIRECTED TO PLACE ITEMS OF WORK AT THE APPROXIMATE LOCATION SHOWN, DO NOT SCALE DRAWINGS FOR DIMENSIONAL INFORMATION. ALL ELEMENTS OF THE DRAWINGS MAY NOT BE DRAWN TO EXACT SCALE. ALL DIMENSIONS REQUIRED ARE SHOWN OR MAY BE DERIVED FROM THOSE SHOWN ON THE FLOOR PLANS, DETAIL PLANS, ELEVATIONS, SECTIONS, DETAILS, SCHEDULES AND SPECIFICATIONS. IF DIMENSIONS ARE NOT PRESENT, THE ARCHITECT IS TO BE NOTIFIED SO THAT A CLARIFICATION CAN BE ISSUED.

**KEYED NOTES**

| KEY VALUE | KEYNOTE TEXT   |
|-----------|--|
| 2501      | EXISTING METAL COVER STRUCTURE (SHEET METAL ROOF), PROTECT AS NECESSARY, REPAIR AS REQUIRED                              |
| 23210.0   | EXISTING PIPE BOLLARD, PROTECT AS NECESSARY, REPAIR AS REQUIRED  |
| 307.0     | REINFORCED CONCRETE HOUSEKEEPING PAD   |
| 509.0     | METAL COVER STRUCTURE, 1/2" X 1/2" X 1/4" GALVANIZED STEEL ANGLE POSTS WITH 4" X 4" BASE PLATE, BOLTED TO CONCRETE SLAB  |
| 509.1     | METAL COVER STRUCTURE, 1/2" X 1/2" X 1/4" GALVANIZED STEEL ANGLE POSTS EXTENSIONS, OVERLAP WITH EXISTING POSTS AS NEEDED |
| 3210.0    | PIPE BOLLARD   |



EXISTING METAL COVER STRUCTURE

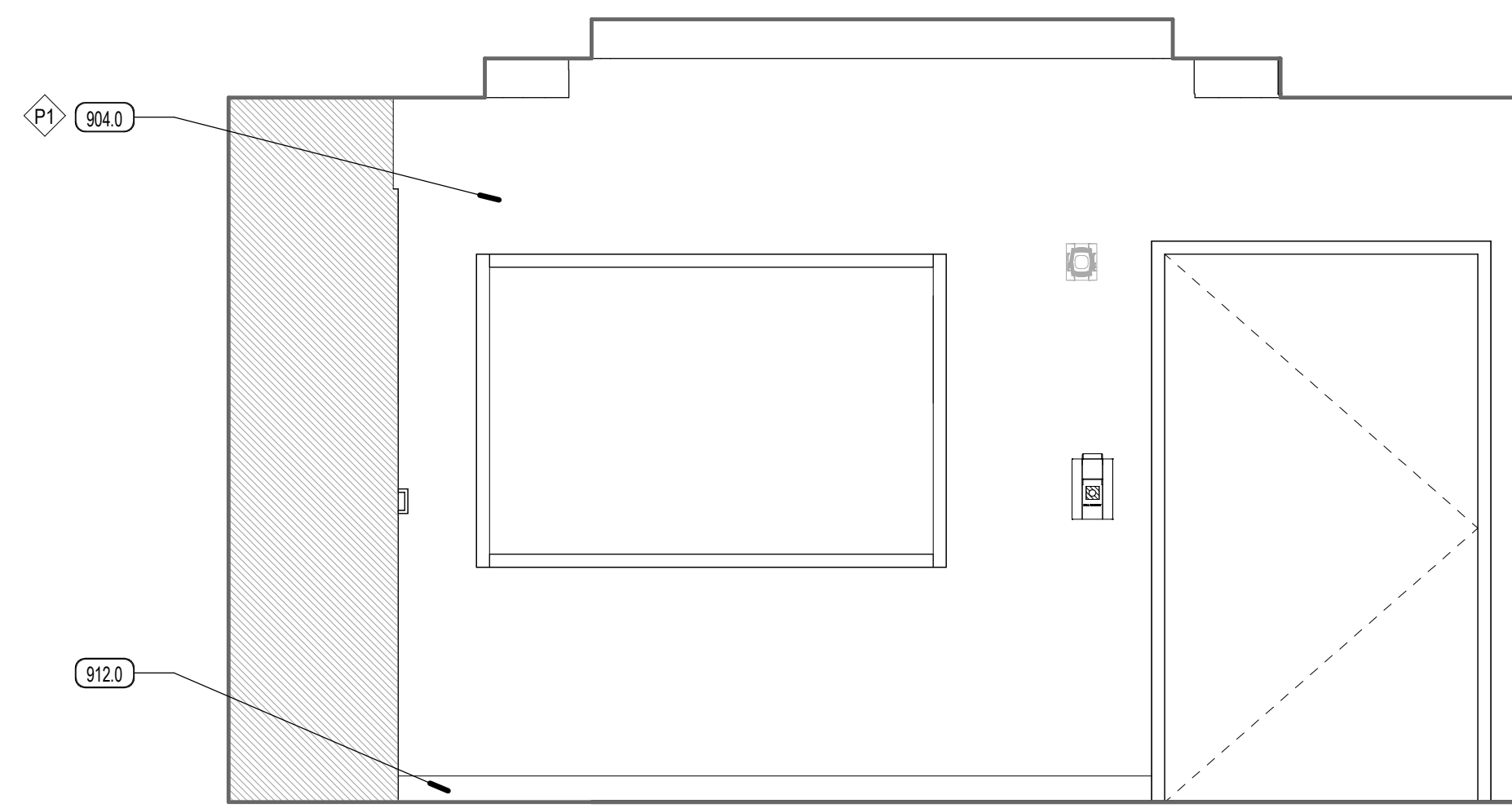


**A6 METAL COVER STRUCTURE**  
SCALE: 3" = 1'-0"



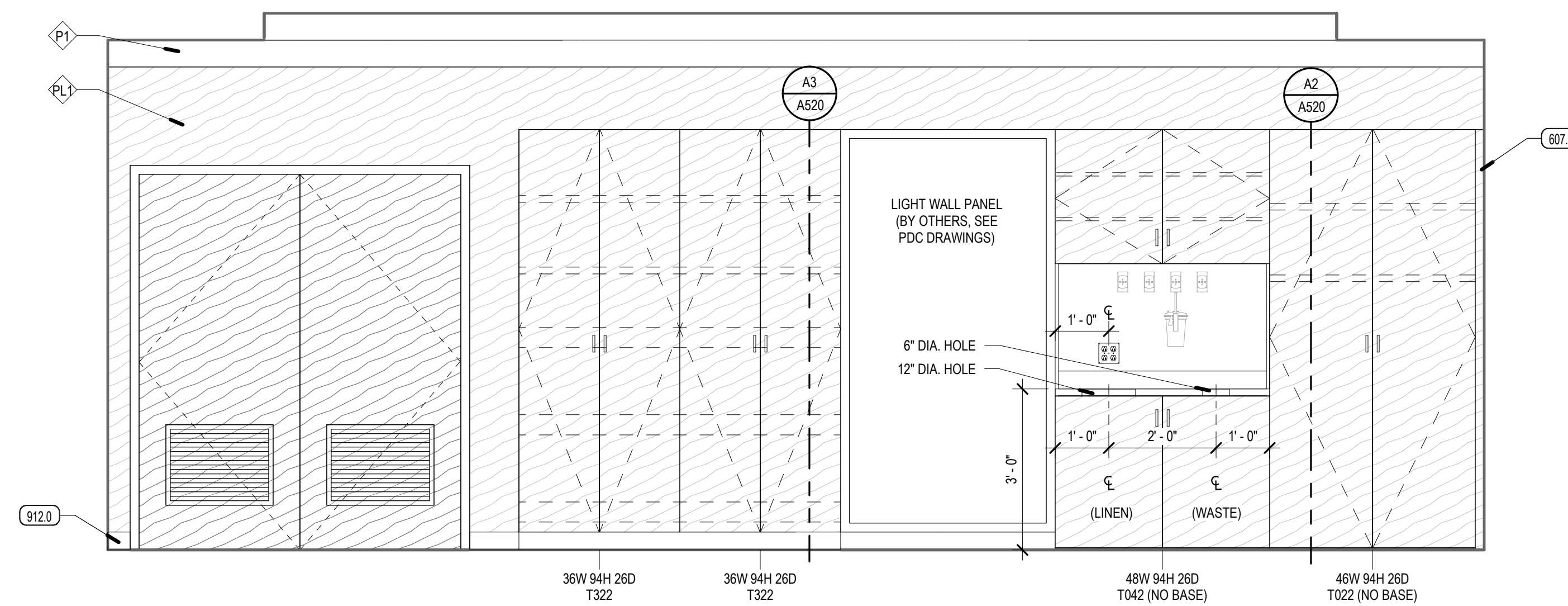
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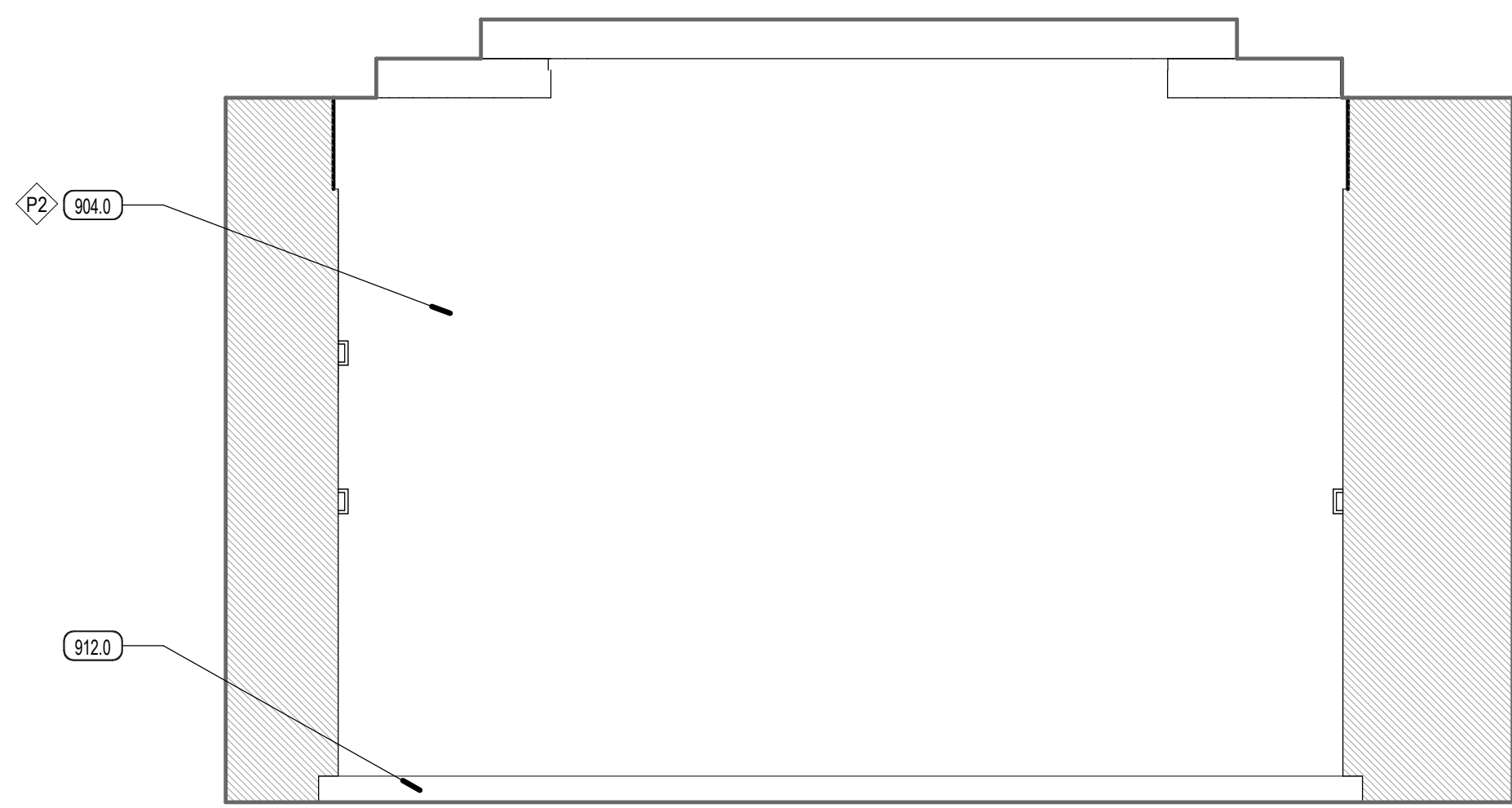
**D2 MRI ROOM - NORTH ELEVATION**

SCALE: 1/2" = 1'-0"



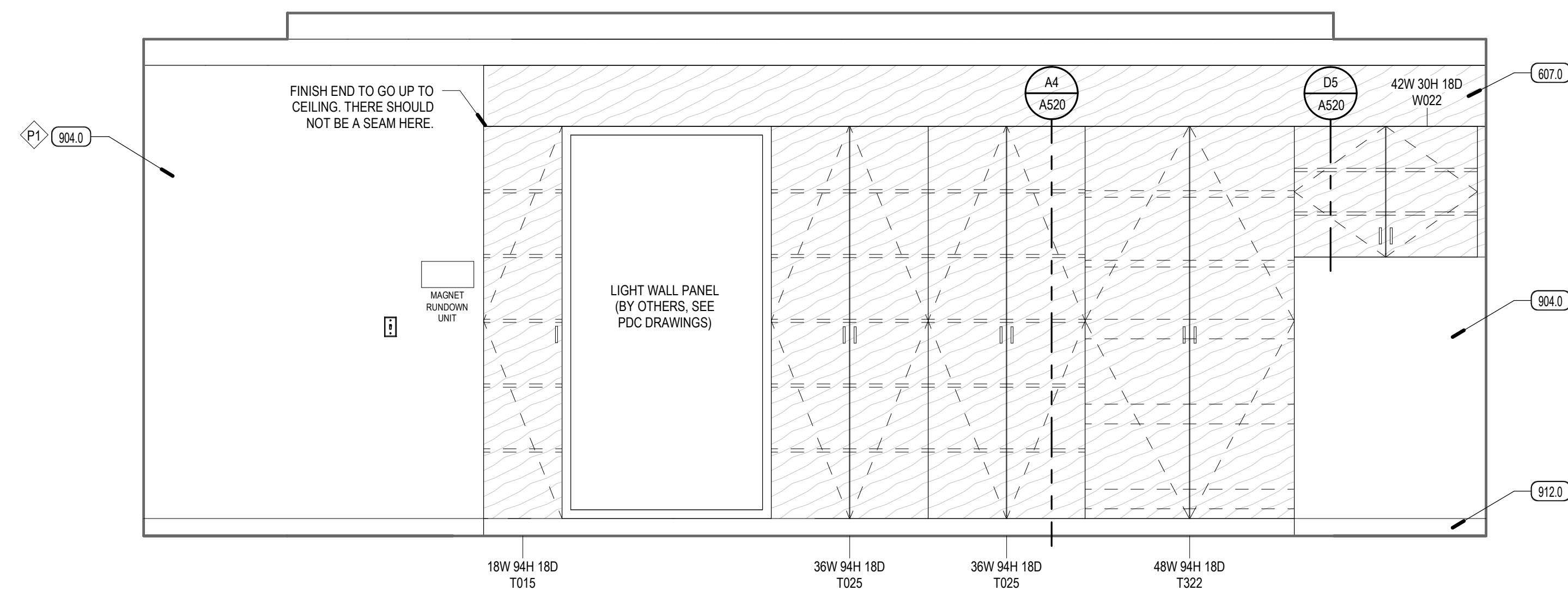
**D4 MRI ROOM - WEST ELEVATION**

SCALE: 1/2" = 1'-0"



**C2 MRI ROOM - SOUTH ELEVATION**

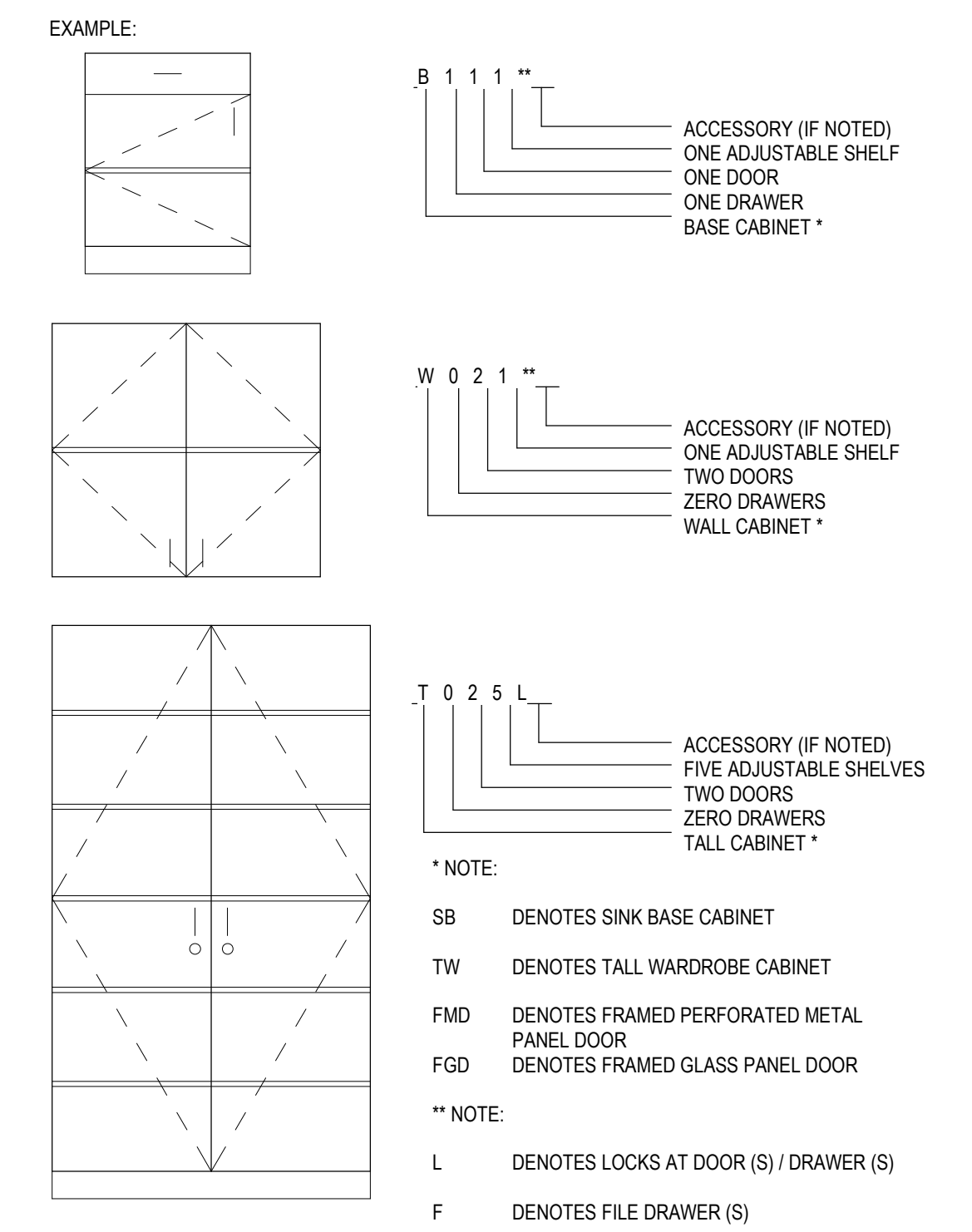
SCALE: 1/2" = 1'-0"



**C4 MRI ROOM - EAST ELEVATION**

SCALE: 1/2" = 1'-0"

**ARCHITECTURAL MILLWORK KEY**



**MILLWORK LEGEND**

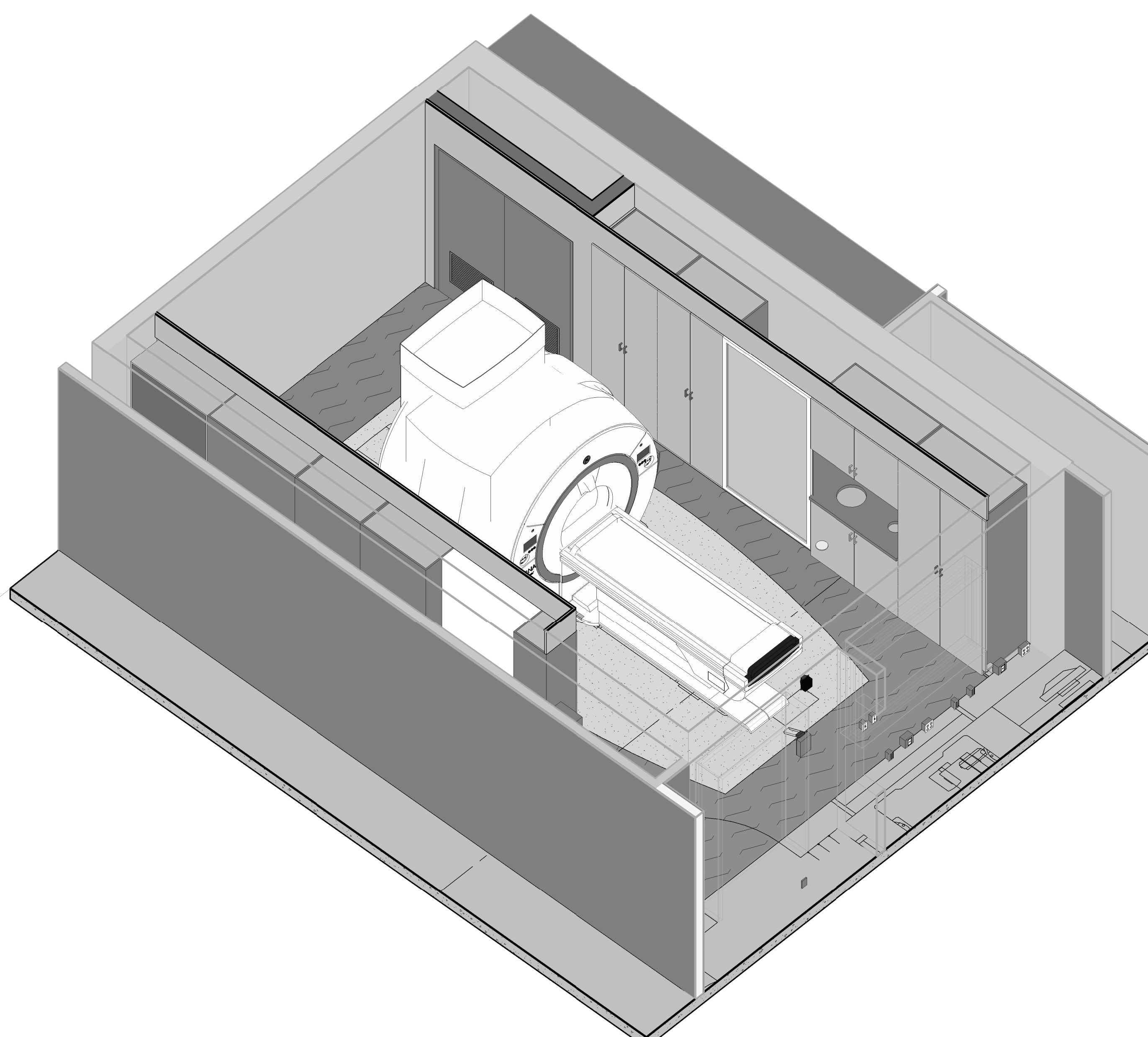
- MILLWORK DIMENSION NUMBERS ARE WIDTH X HEIGHT X DEPTH.
- ALL MILLWORK DIMENSIONED FROM BASE TO TOP OF IDENTIFIED COUNTERTOP, TYP.
- CABINET DEPTHS ARE MEASURED FROM THE WALL TO THE FACE OF THE DOOR OR DRAWER FRONT (WHERE APPLICABLE).
- PROVIDE GROUSET WHERE "G" IS LABELED ON PLANS OR ELEVATIONS.
- ALL COUNTERTOPS TO HAVE A 4" BACKSPLASH, UNLESS NOTED OTHERWISE, TO MATCH COUNTERTOP, ON BACK AND SIDE WALLS.
- PROVIDE FILLER PANELS TO SEAL SIDES AND TOPS OF ALL CABINETS PLACED AT AN ANGLE TO ADJACENT WALLS.
- ALL MILLWORK TO FINISHED ON ENDS, TYP.
- CONTRACTOR TO PROVIDE BLOCKING BEHIND ALL CABINETS, COAT RACKS, PENCIL SHARPENER BLOCKS, T.V. BRACKETS AND PROJECTION SCREENS AS WELL AS ALL WALL MOUNTED ACCESSORIES, INCLUDING WHITE BOARDS, TACKBOARDS, TOILET AND URINAL PARTITIONS AND TOILET ROOM ACCESSORIES, ETC. NOTE: ONLY 2X WOOD BLOCKING IS ACCEPTABLE BEHIND MILLWORK AND TOILET ROOM PARTITIONS.
- REFER TO SHEET A1103 FOR FINISH COLORS ON ALL MILLWORK AND CASEWORK.

**KEYED NOTES**

| KEY VALUE | KEYNOTE TEXT                       |
|-----------|------------------------------------|
| 607.0     | MILLWORK, FILLER PANEL             |
| 904.0     | GYPSUM BOARD PAINTED WHERE EXPOSED |
| 912.0     | SCHEDULED BASE                     |

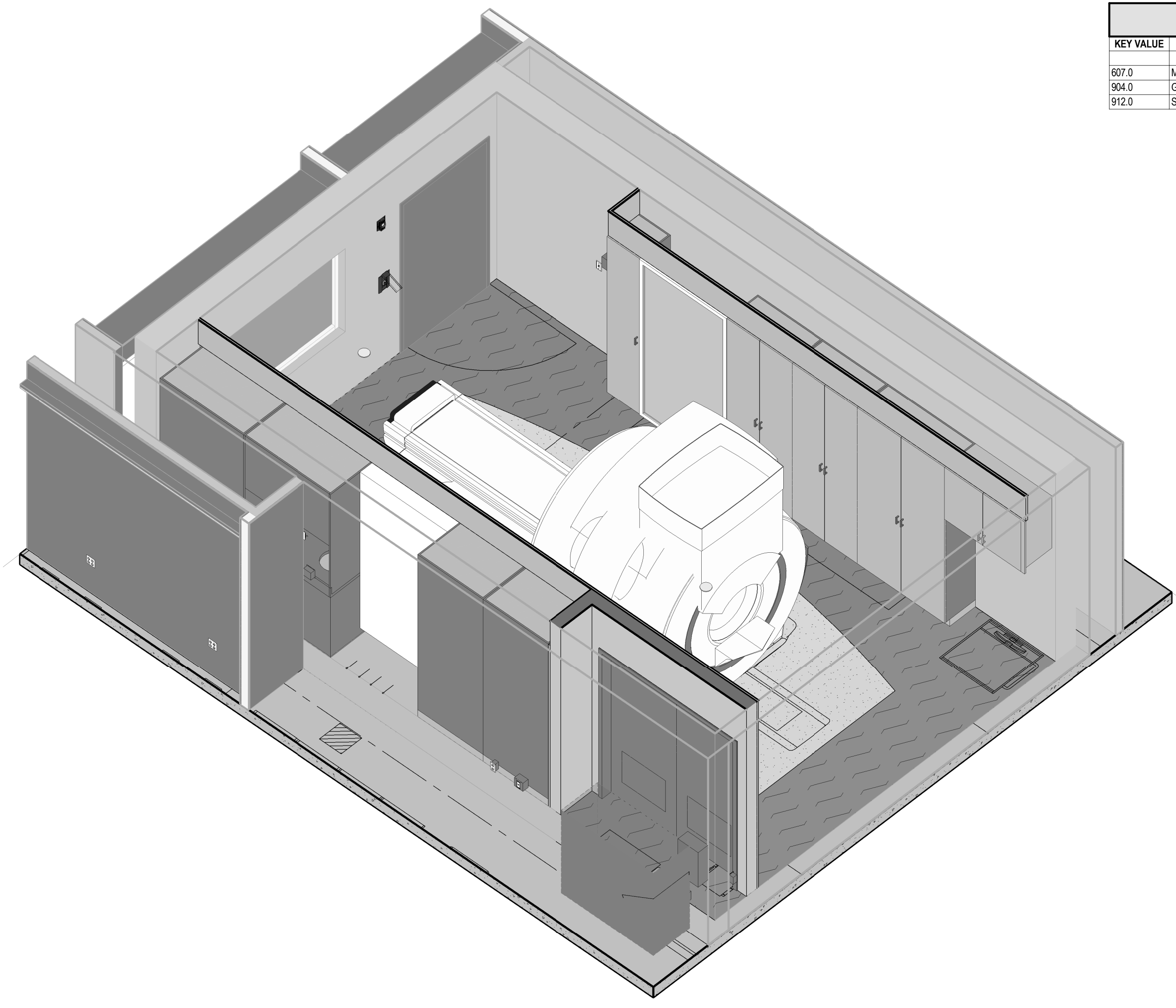
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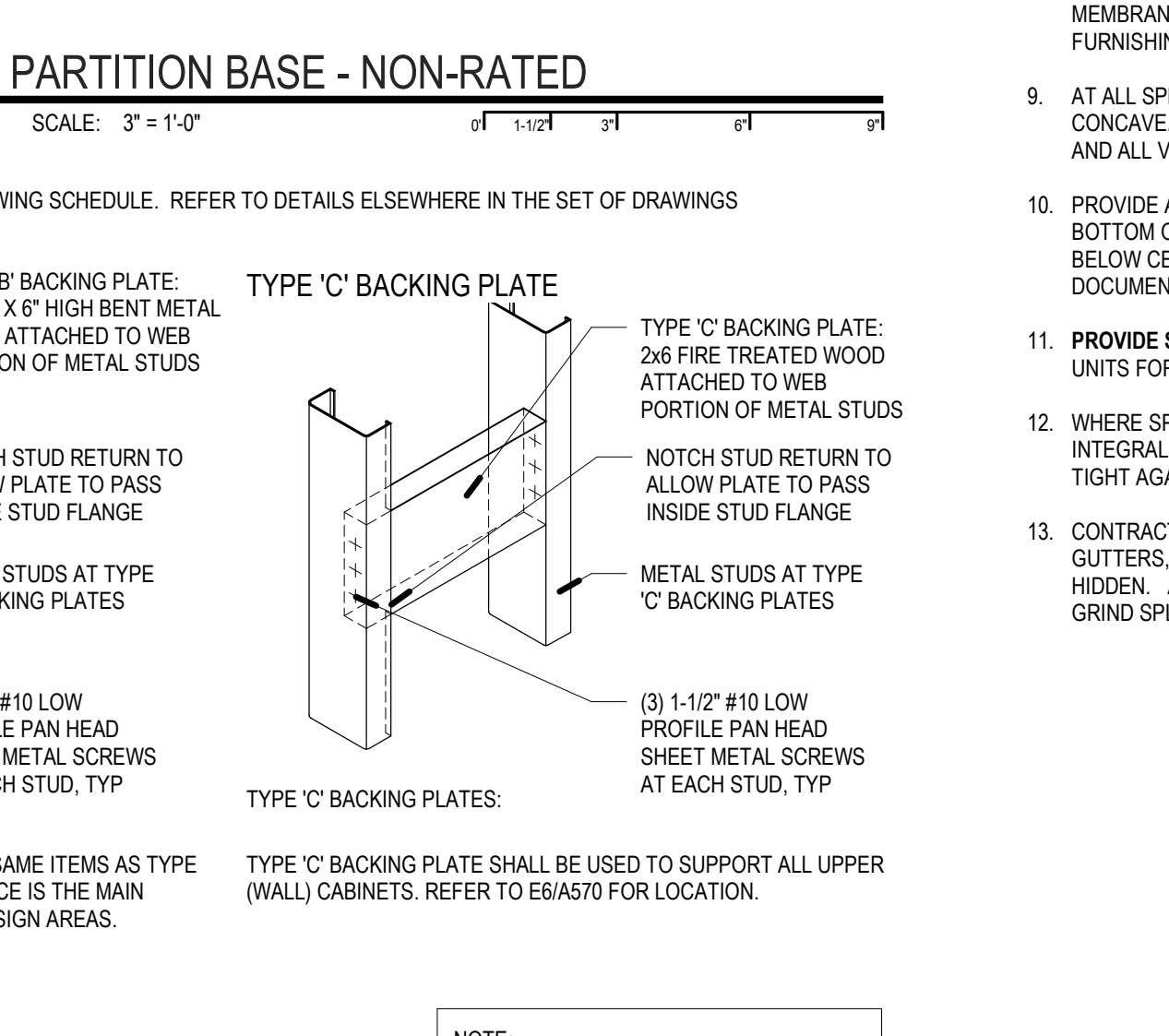
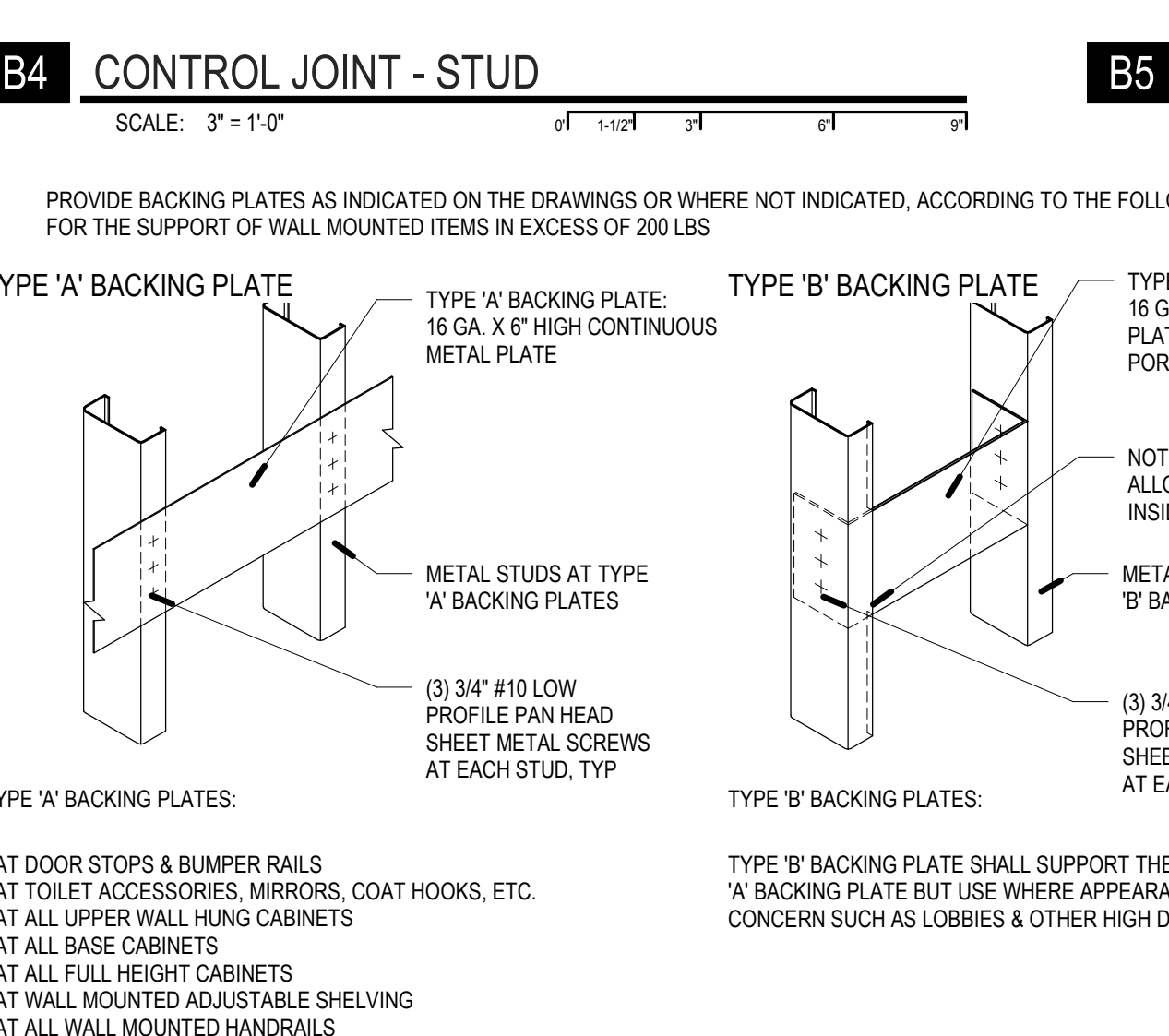
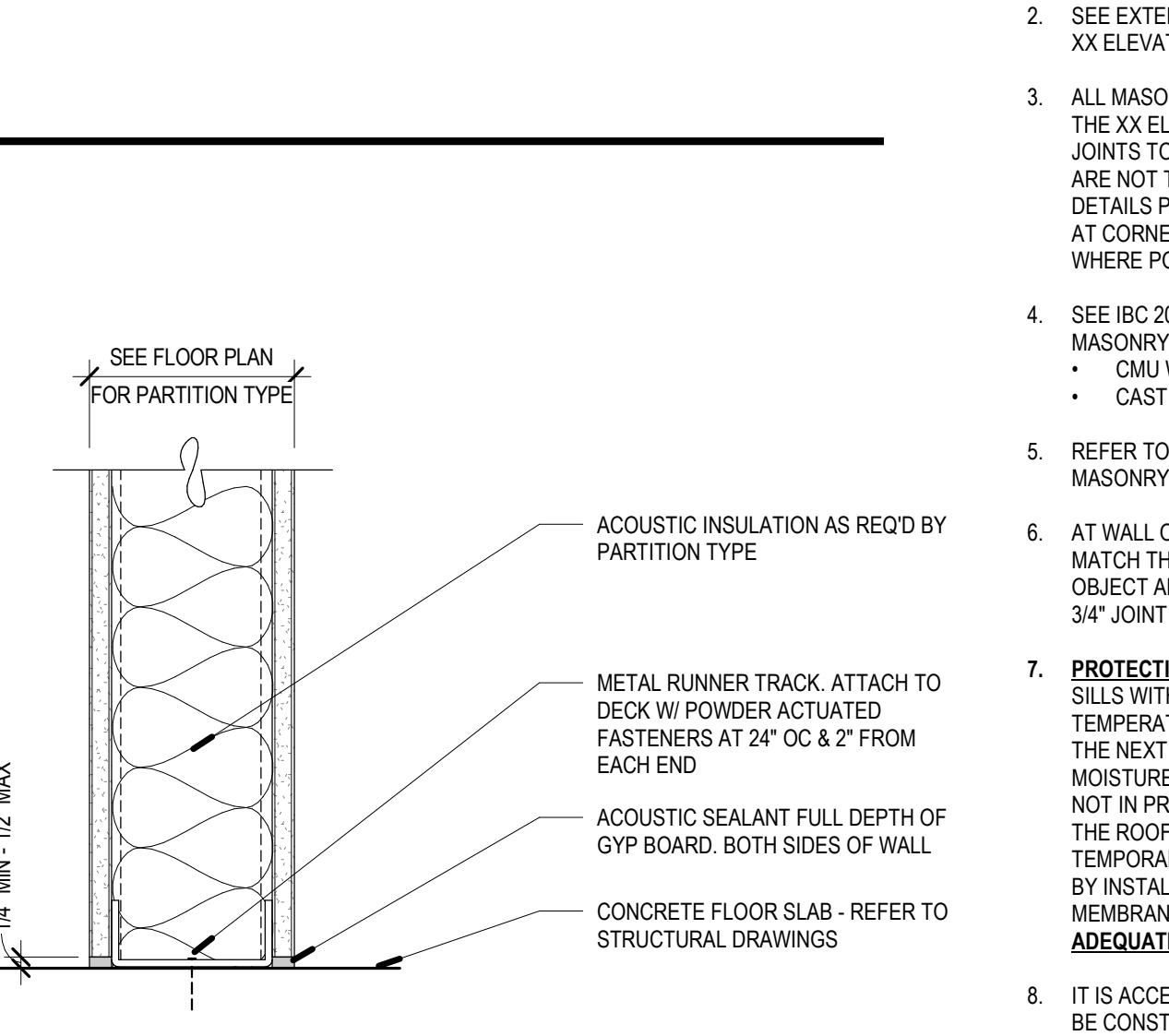
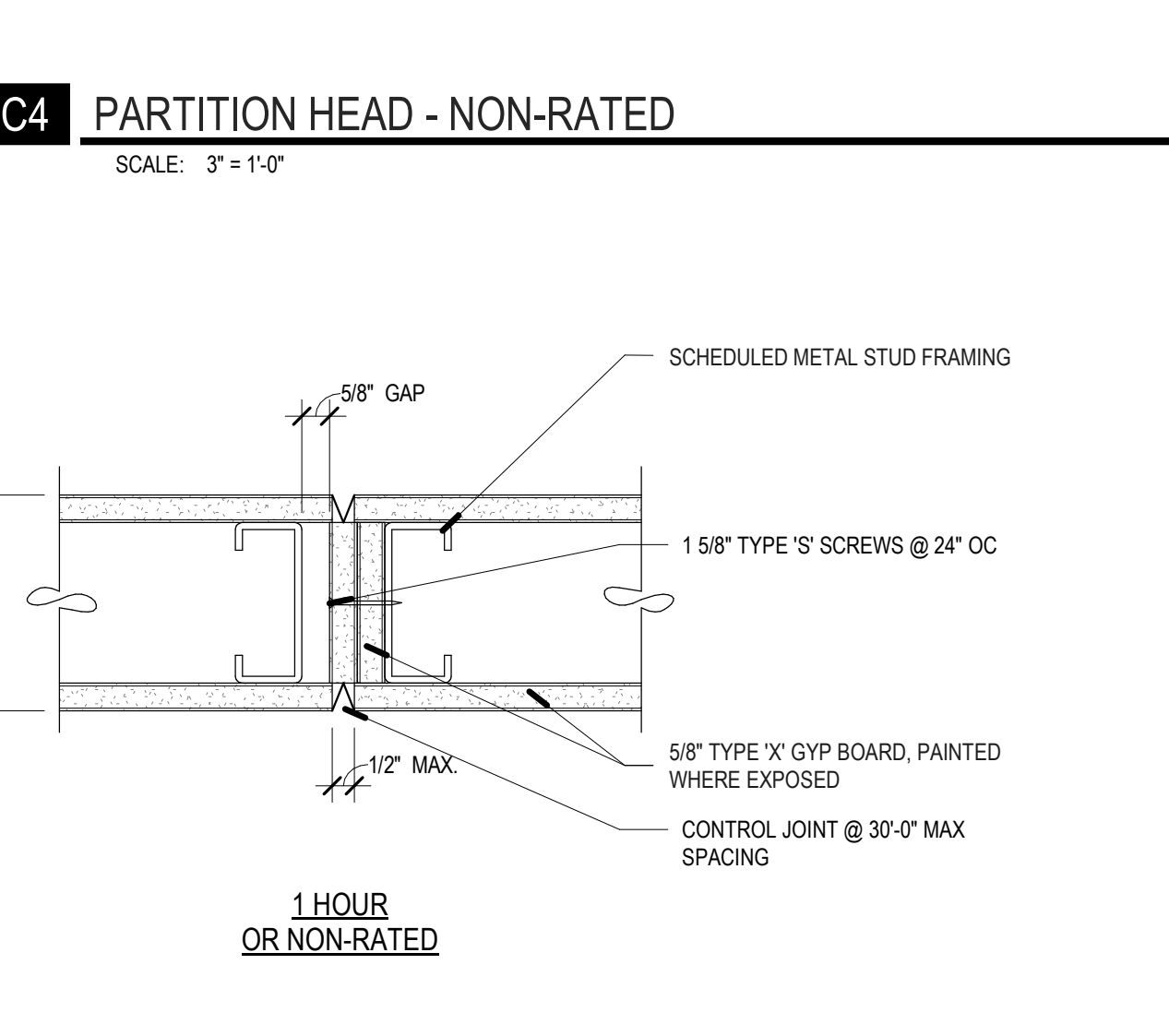
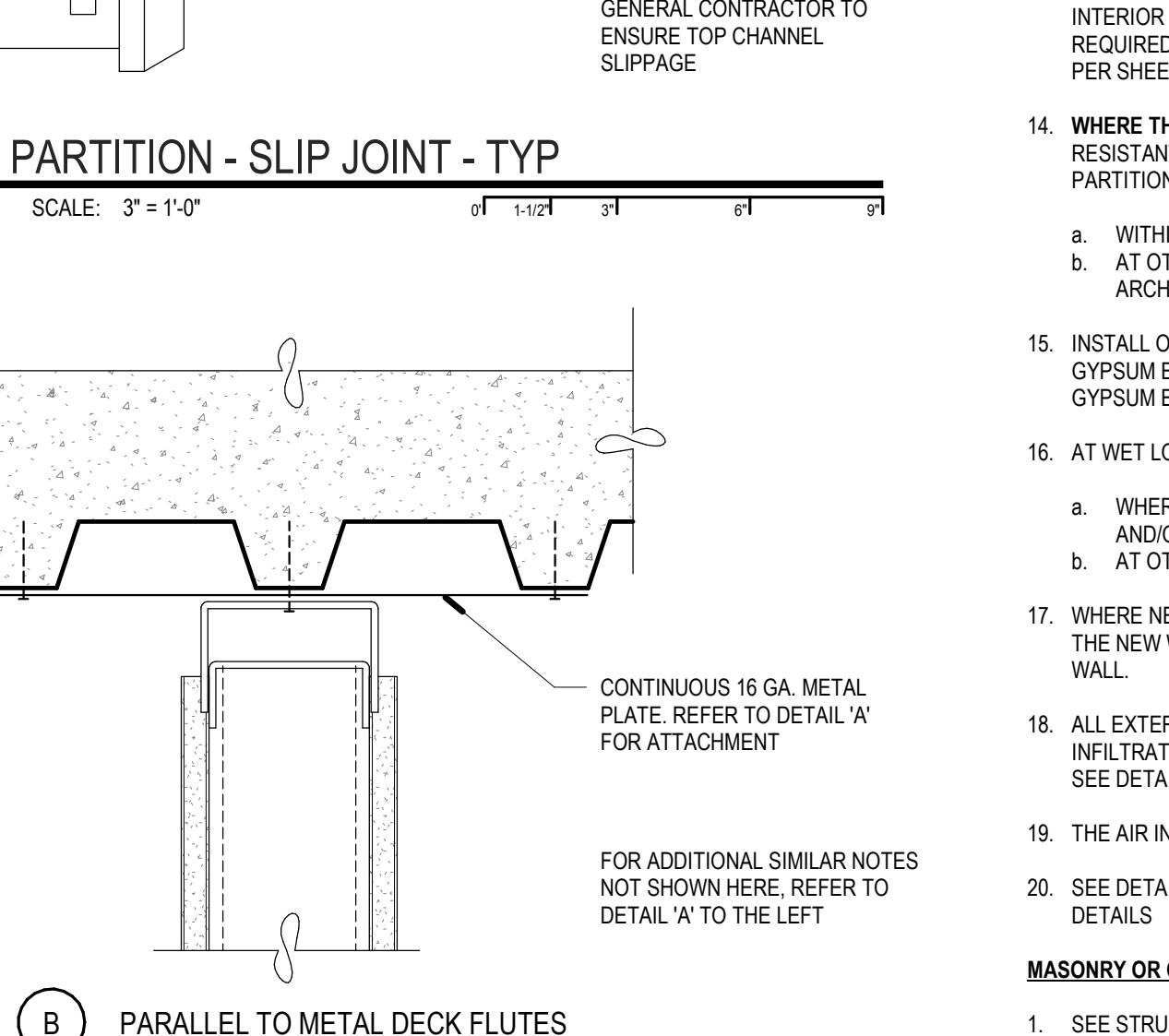
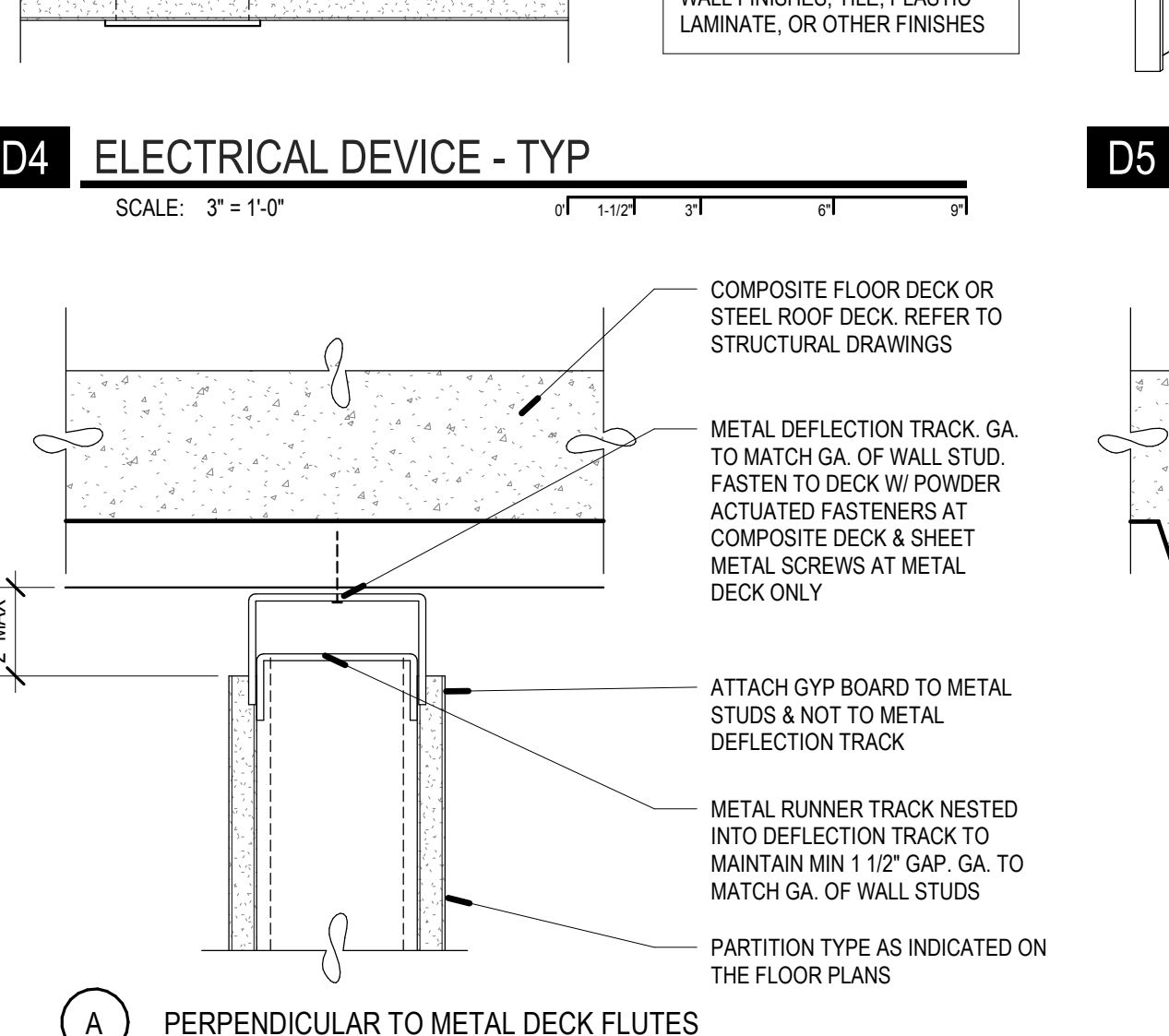
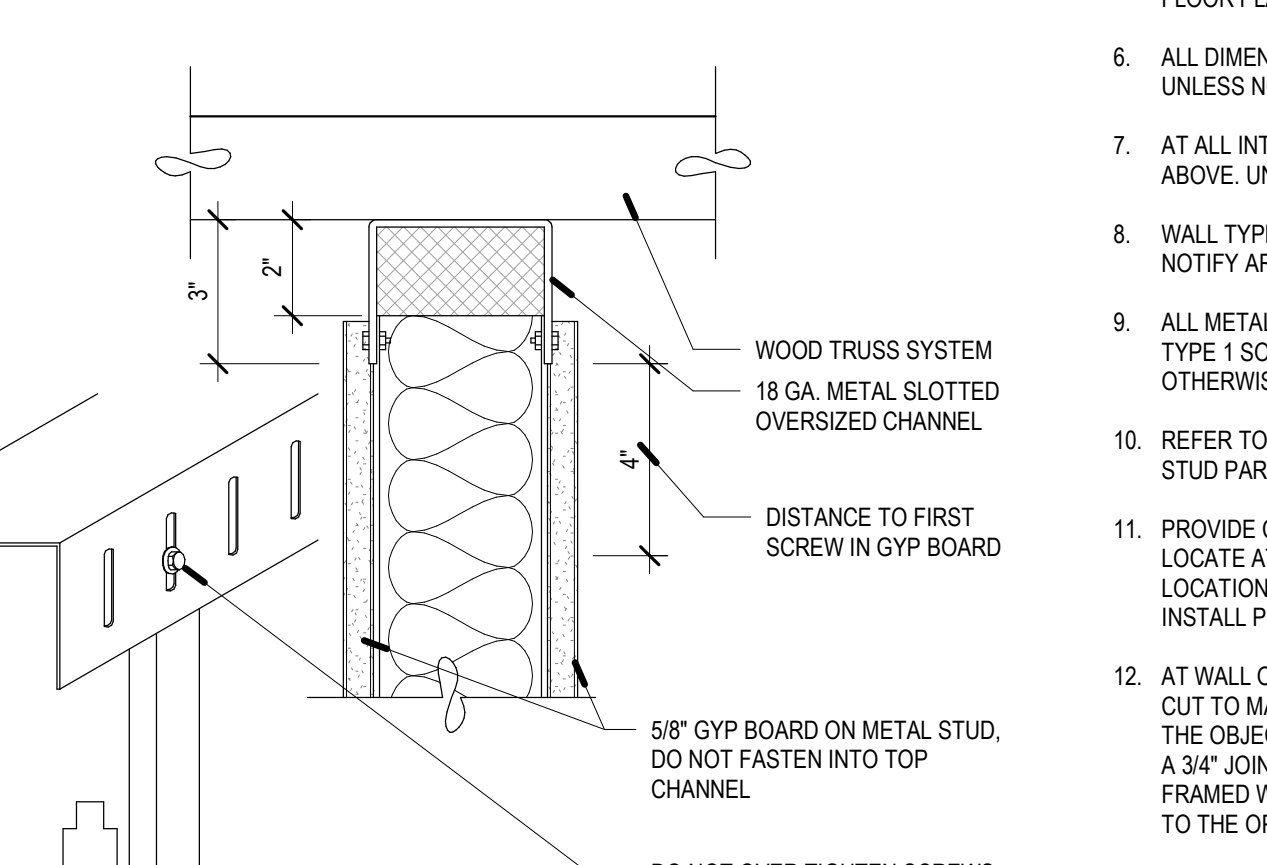
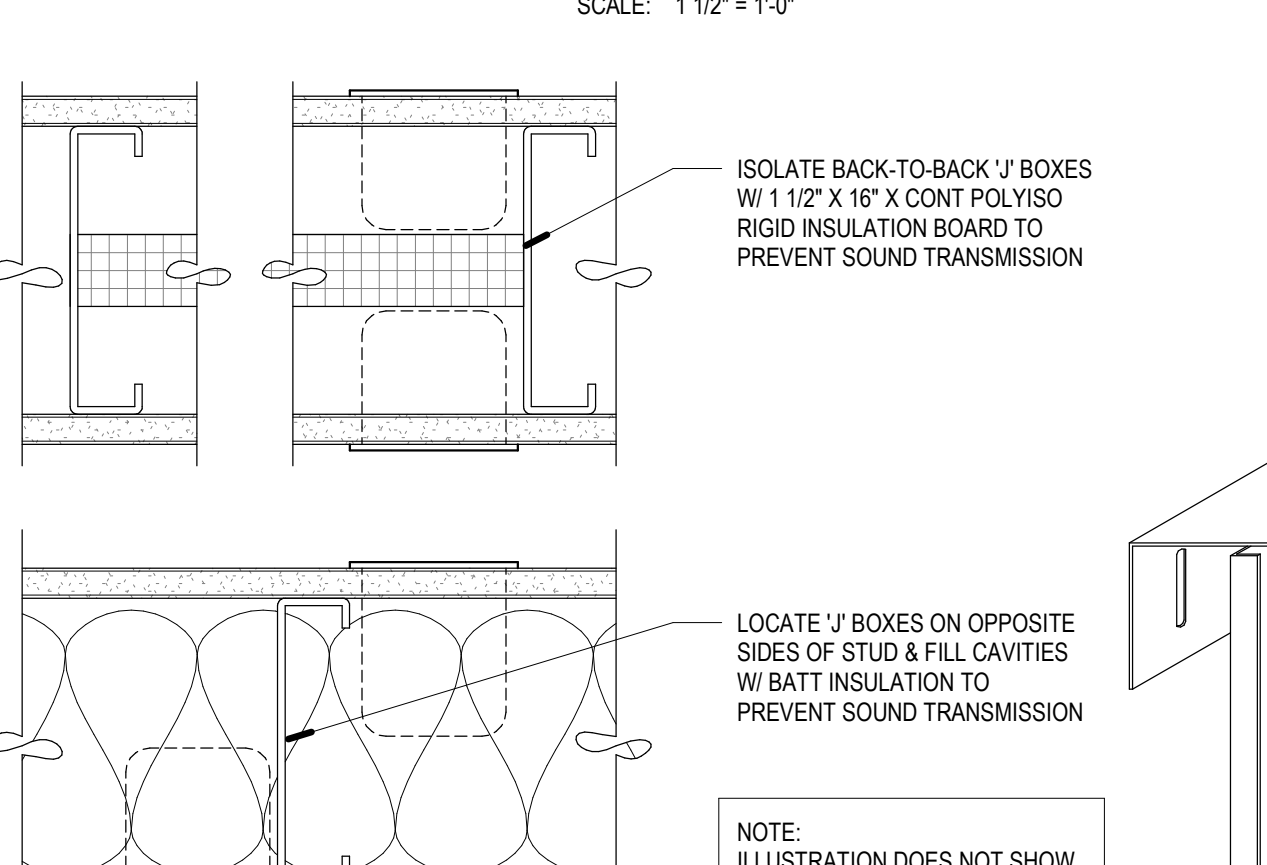
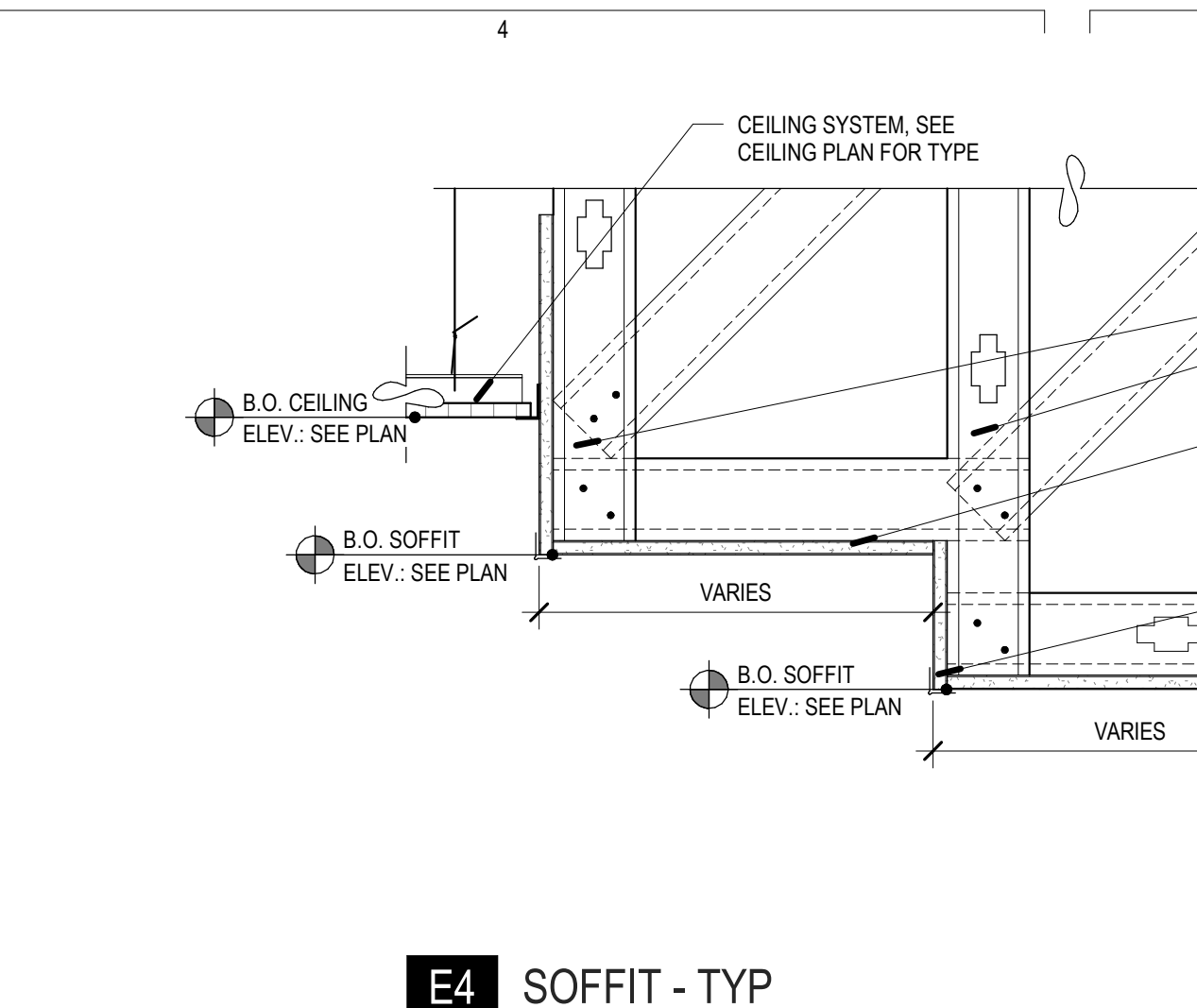
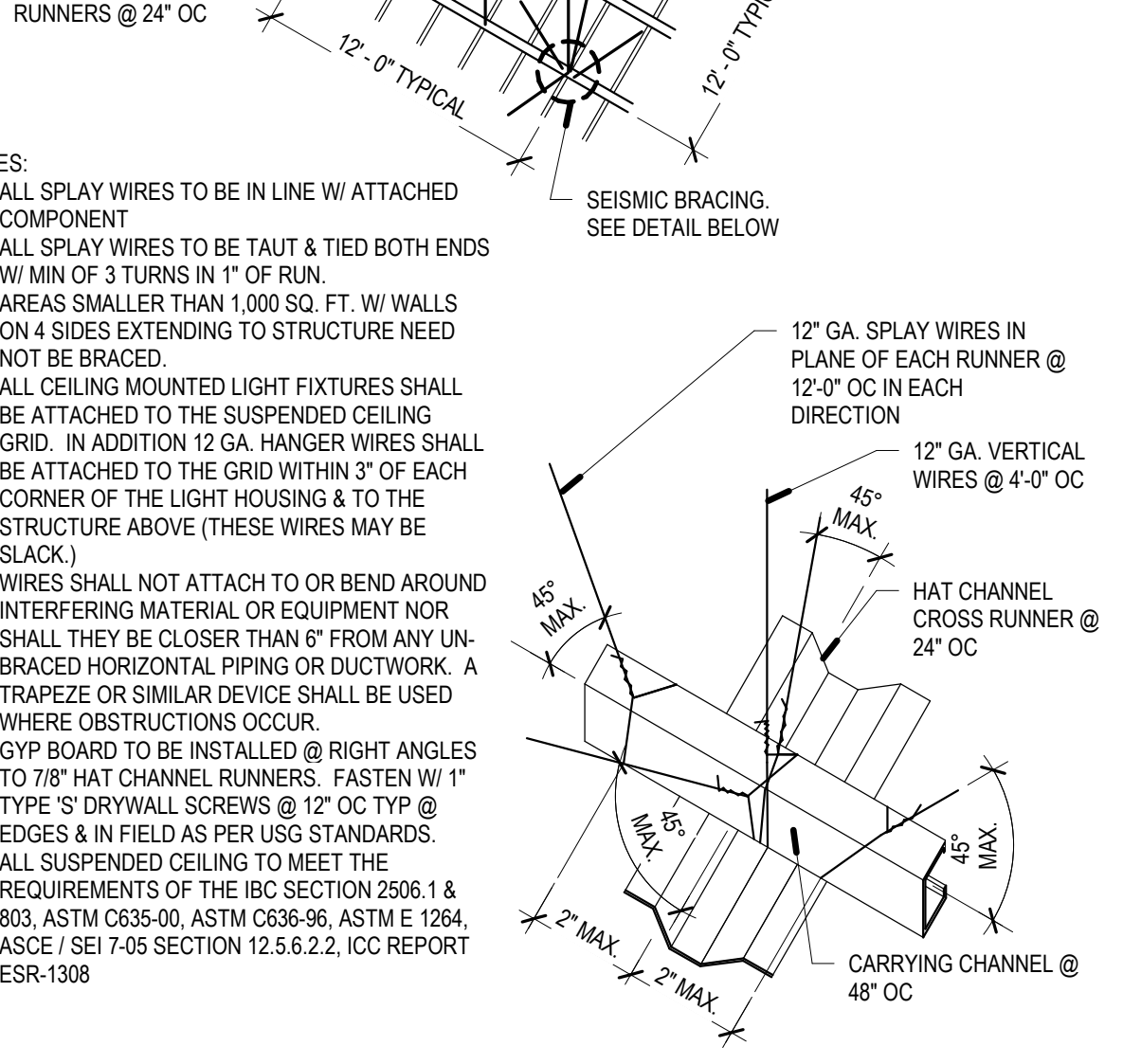
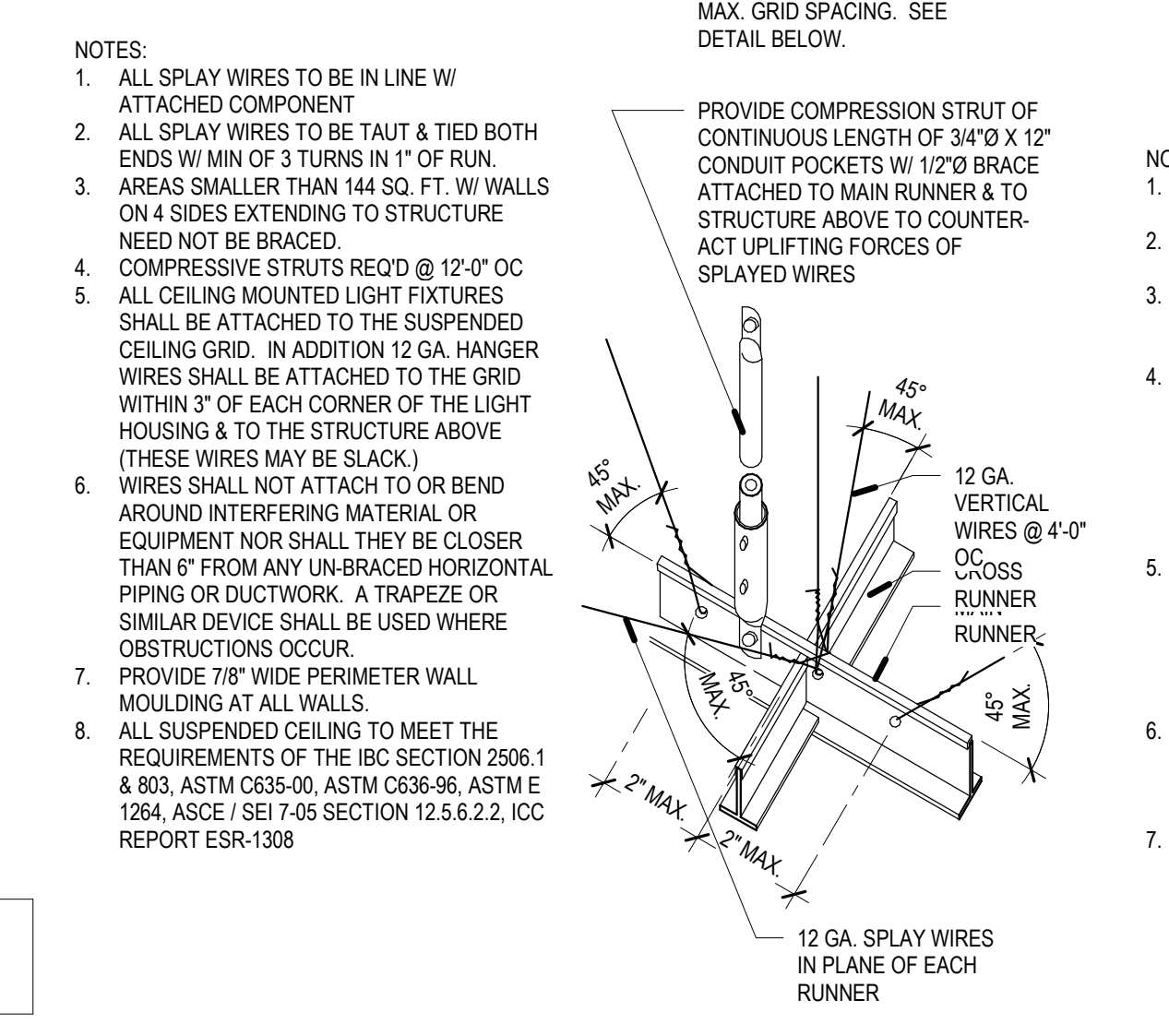
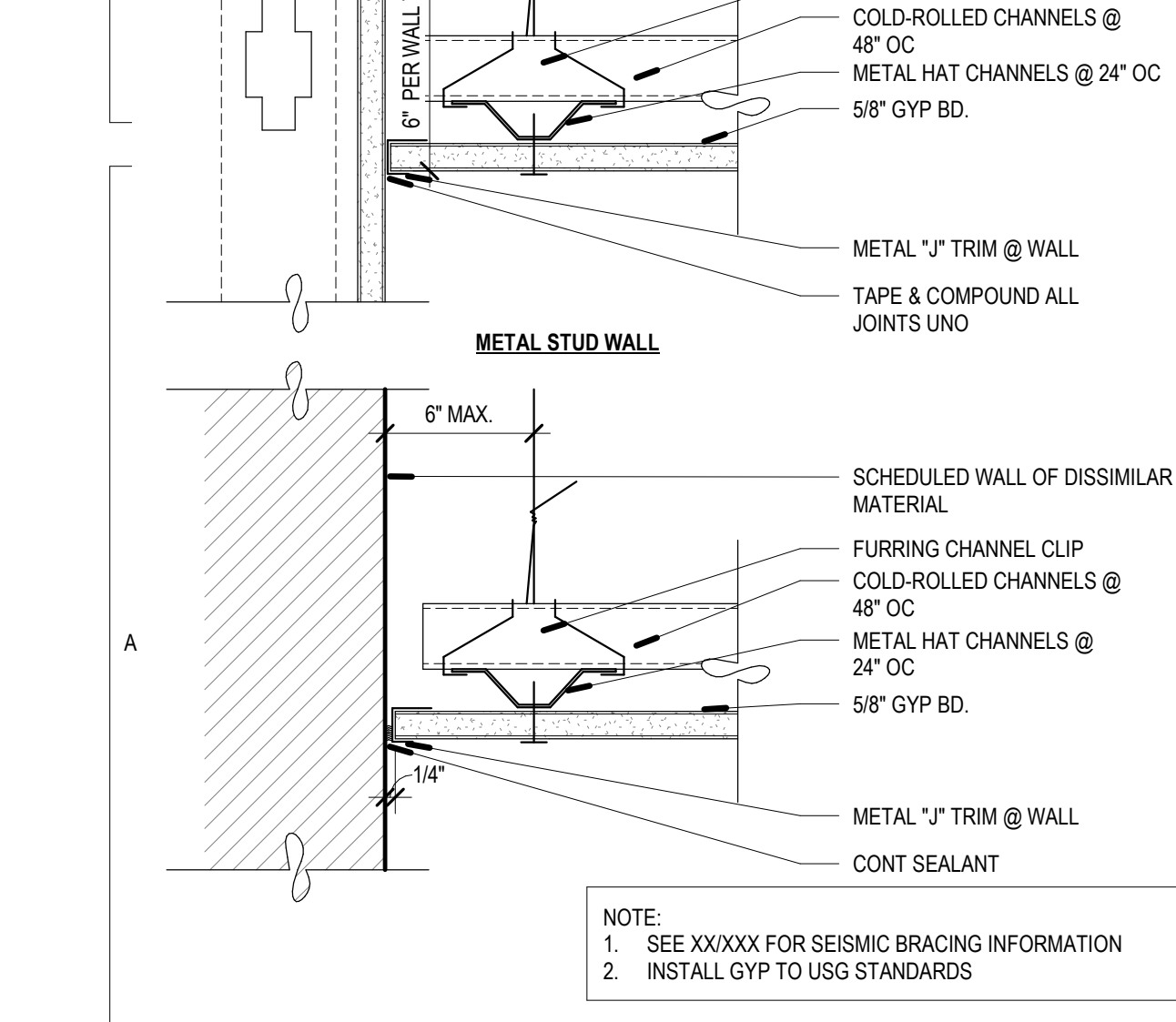
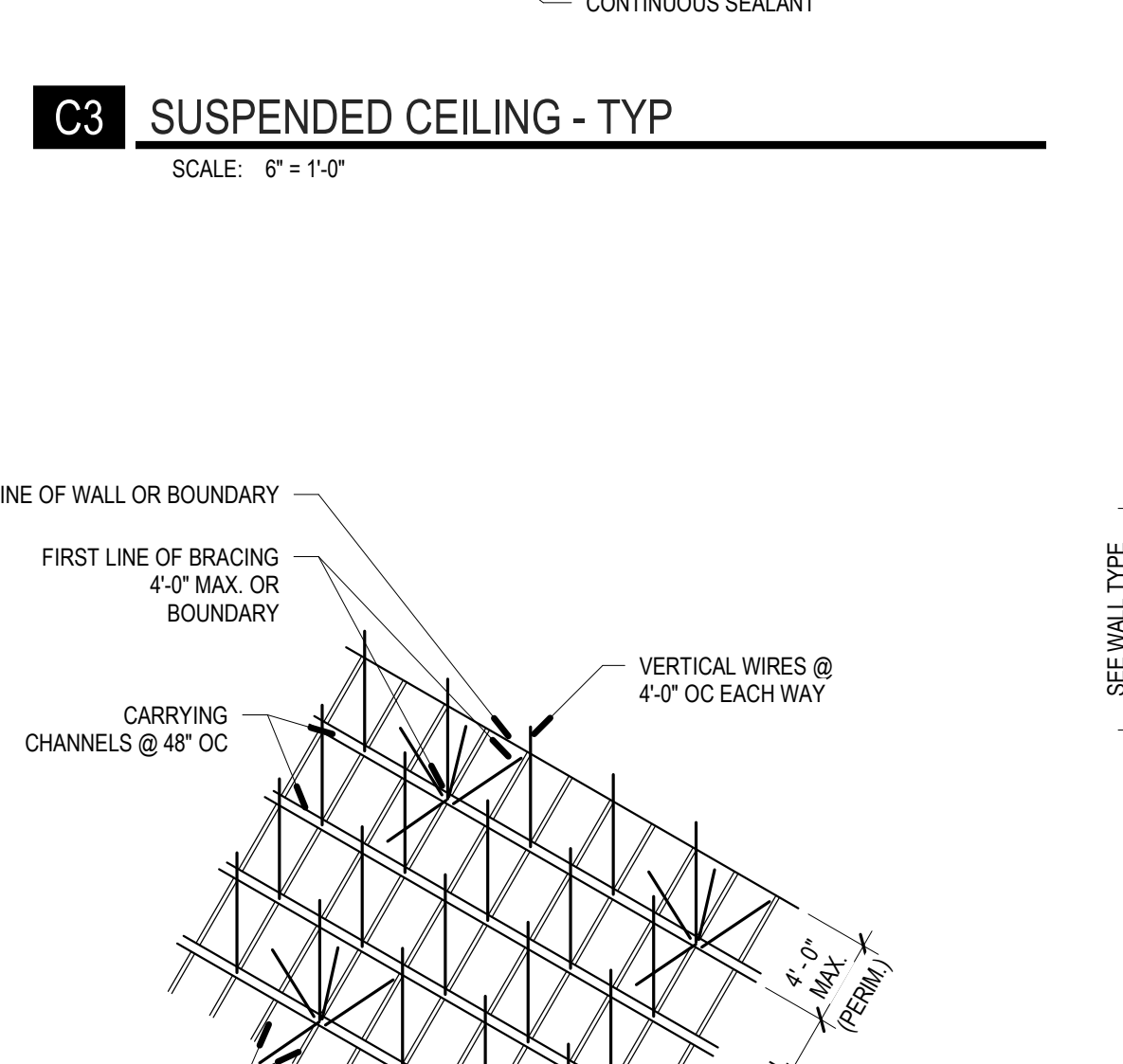
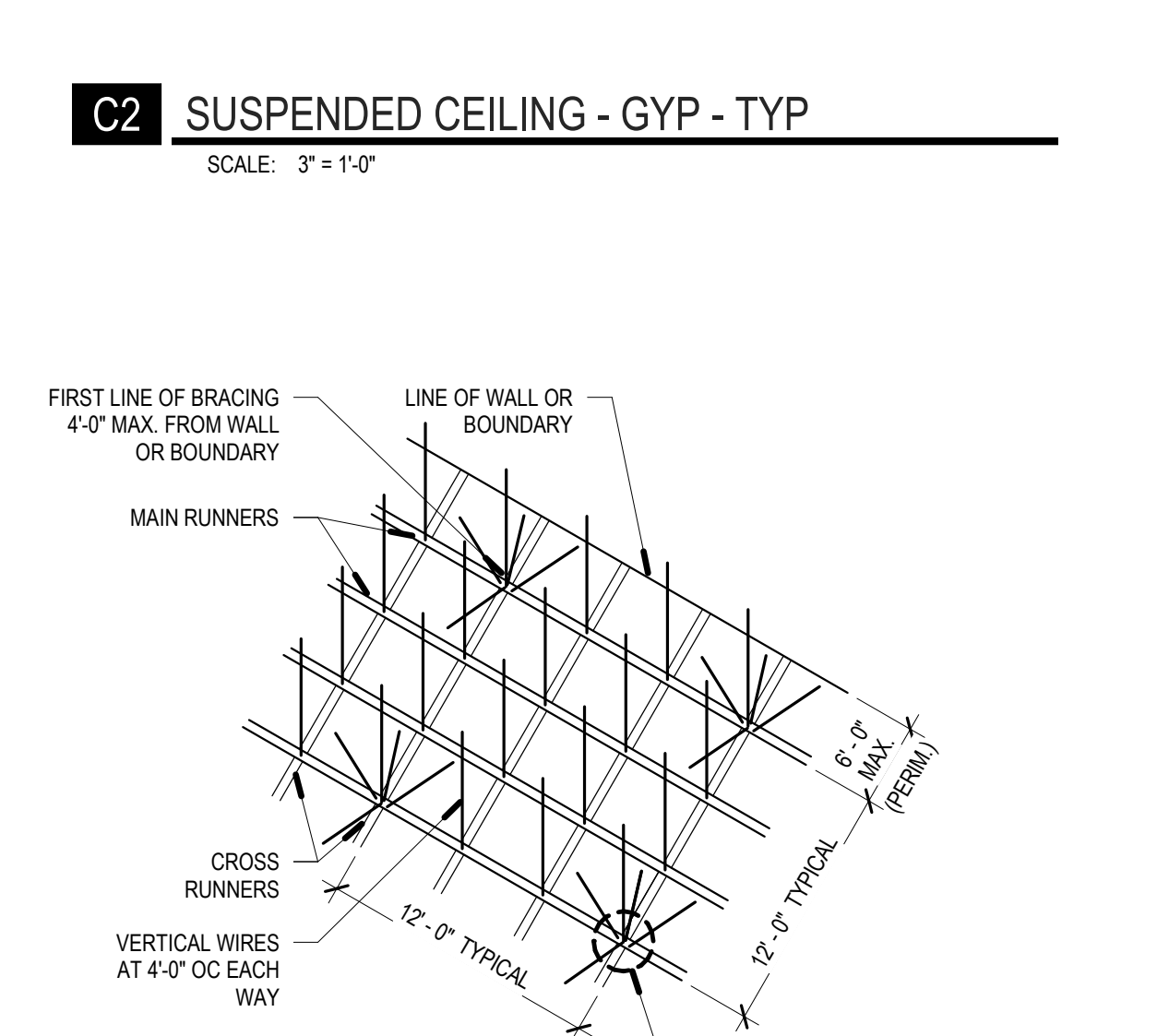
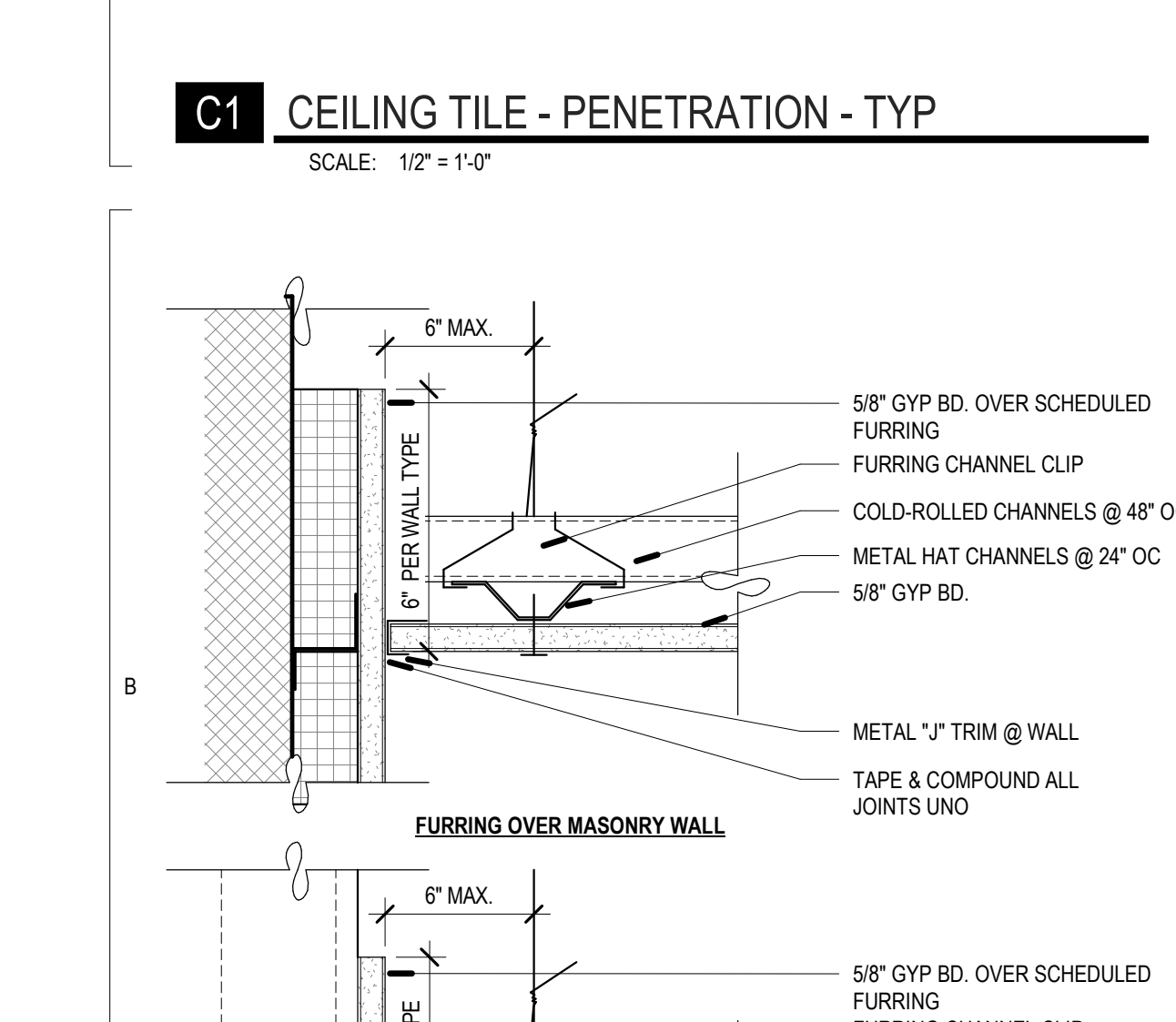
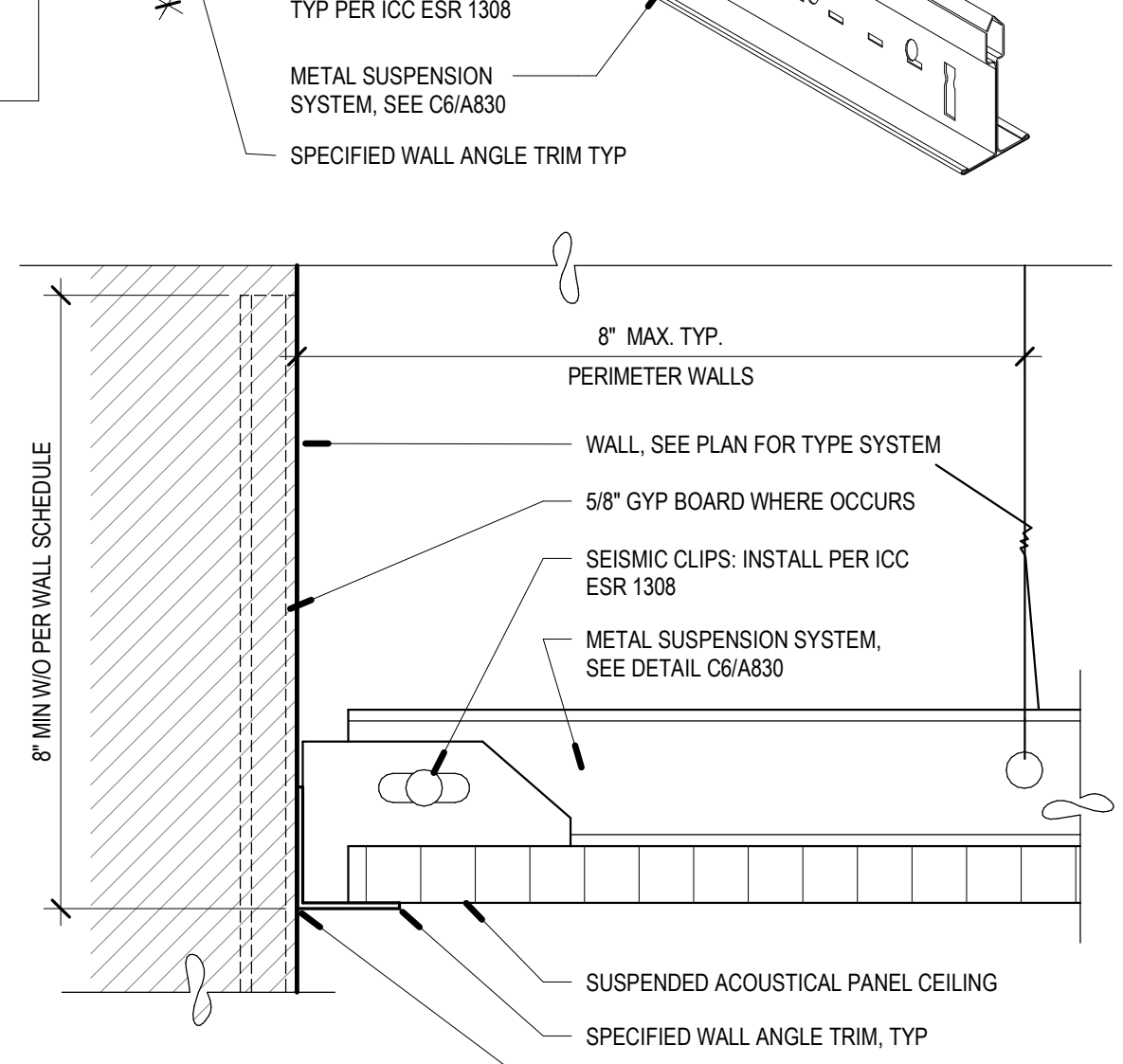
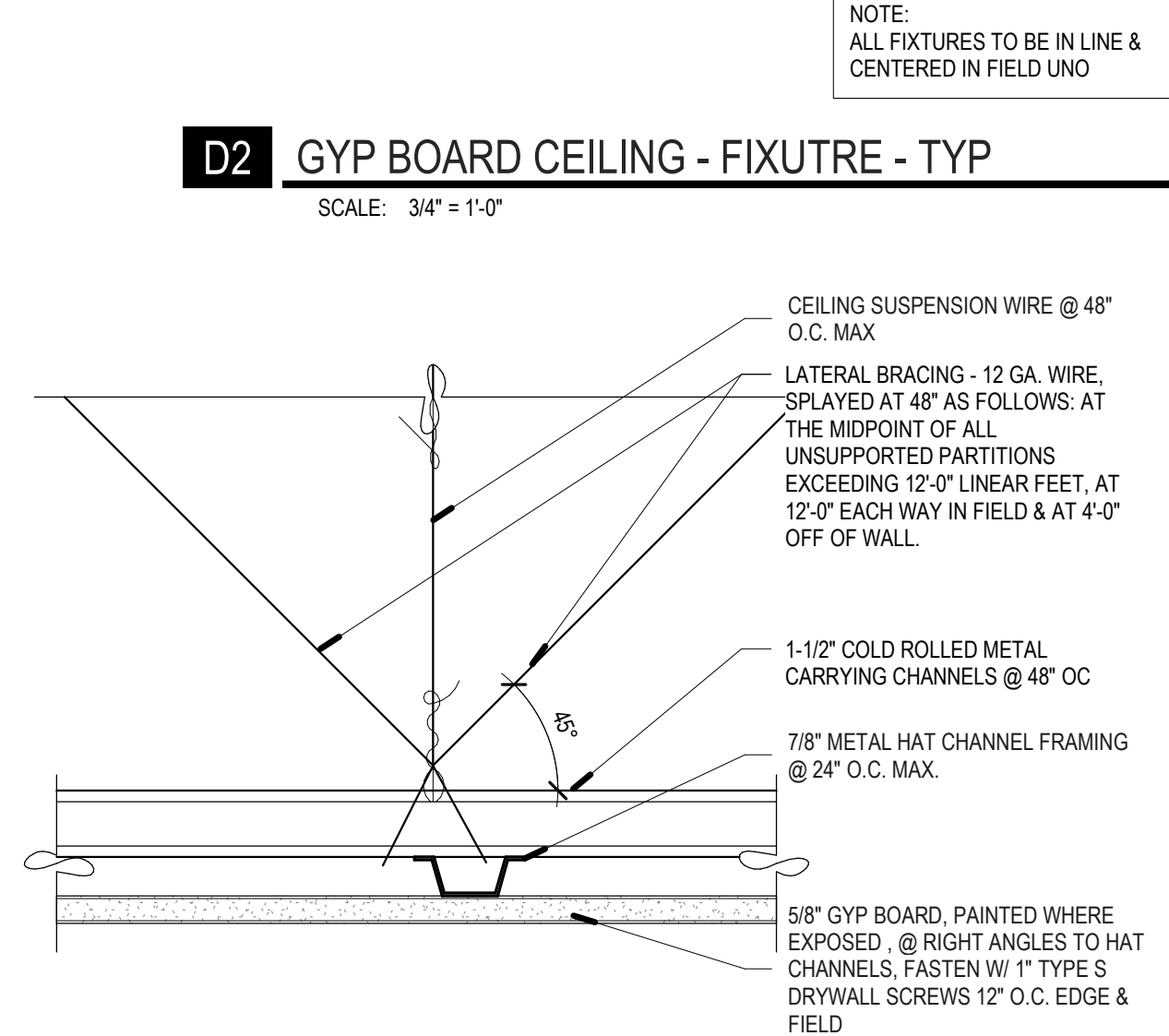
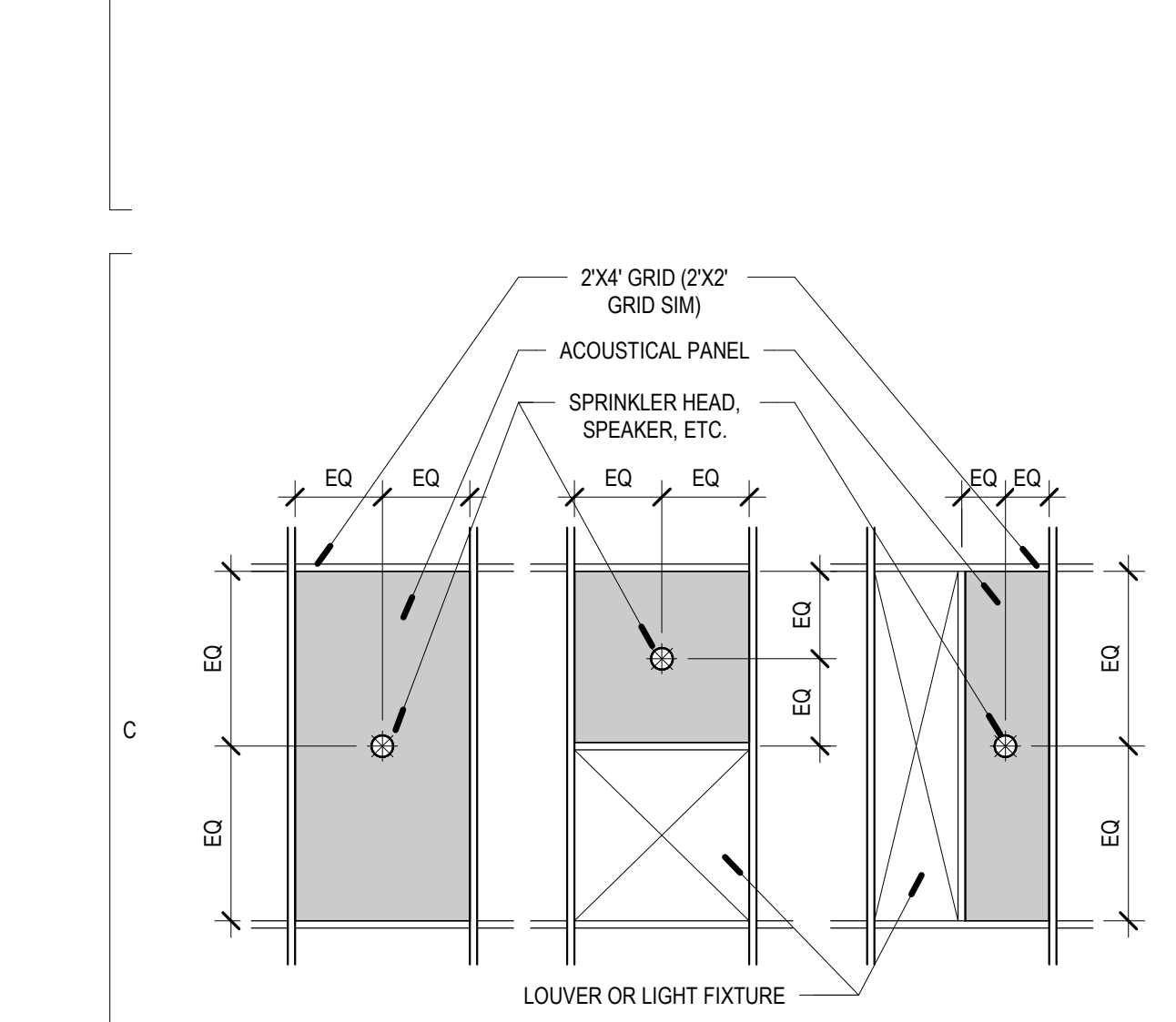
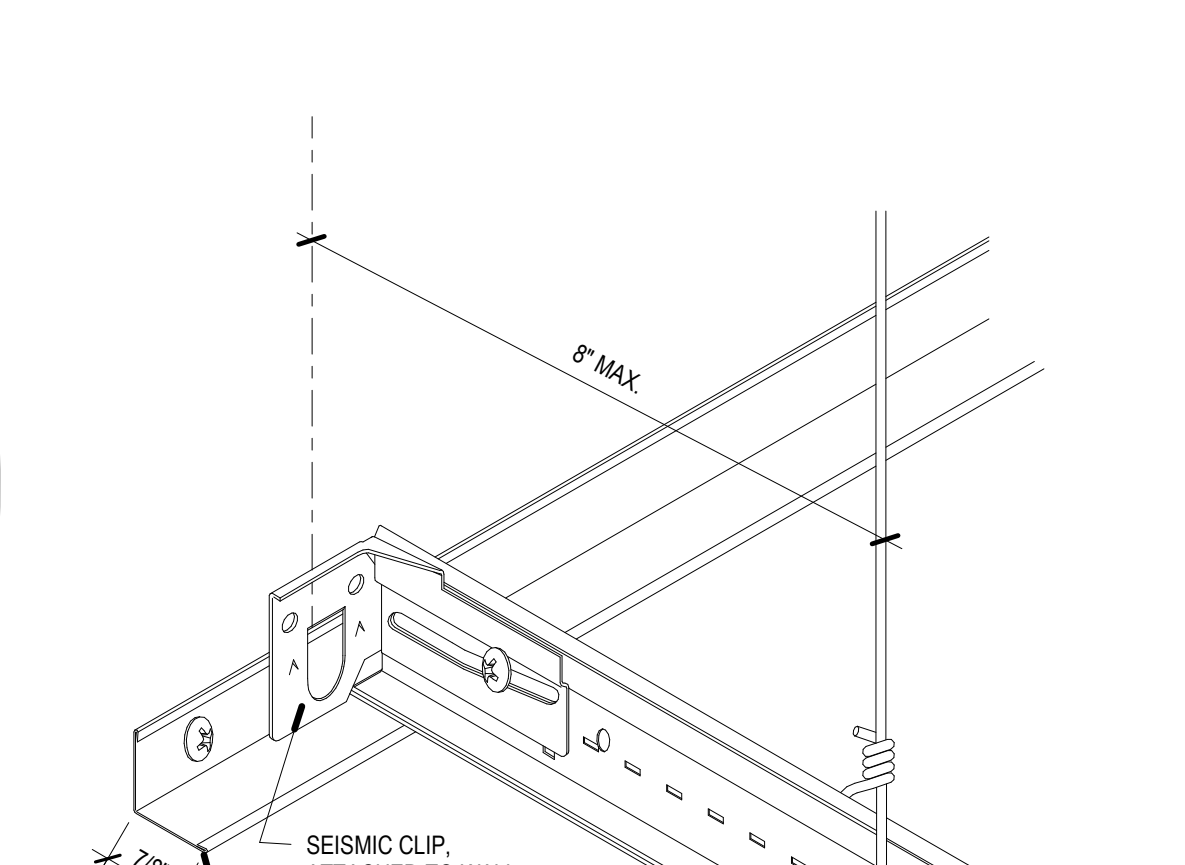
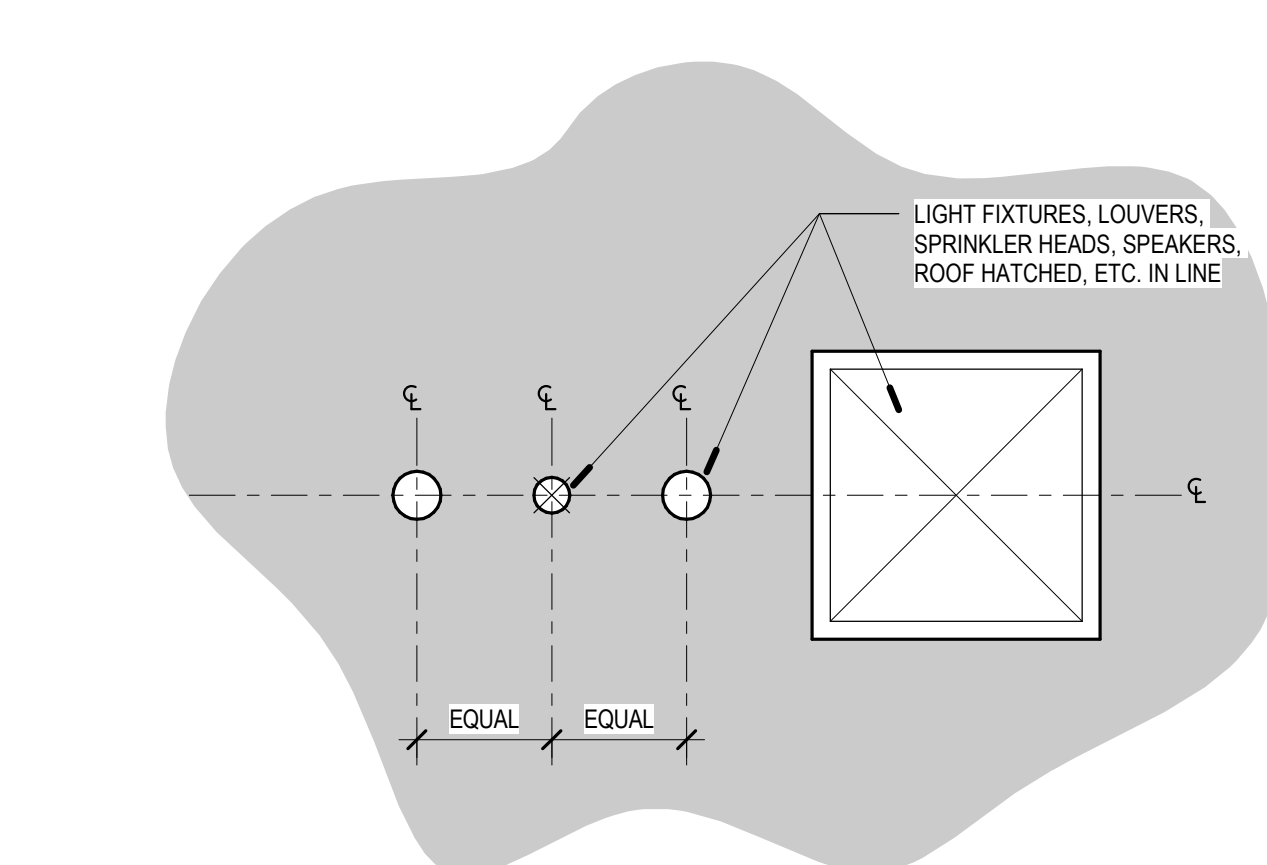
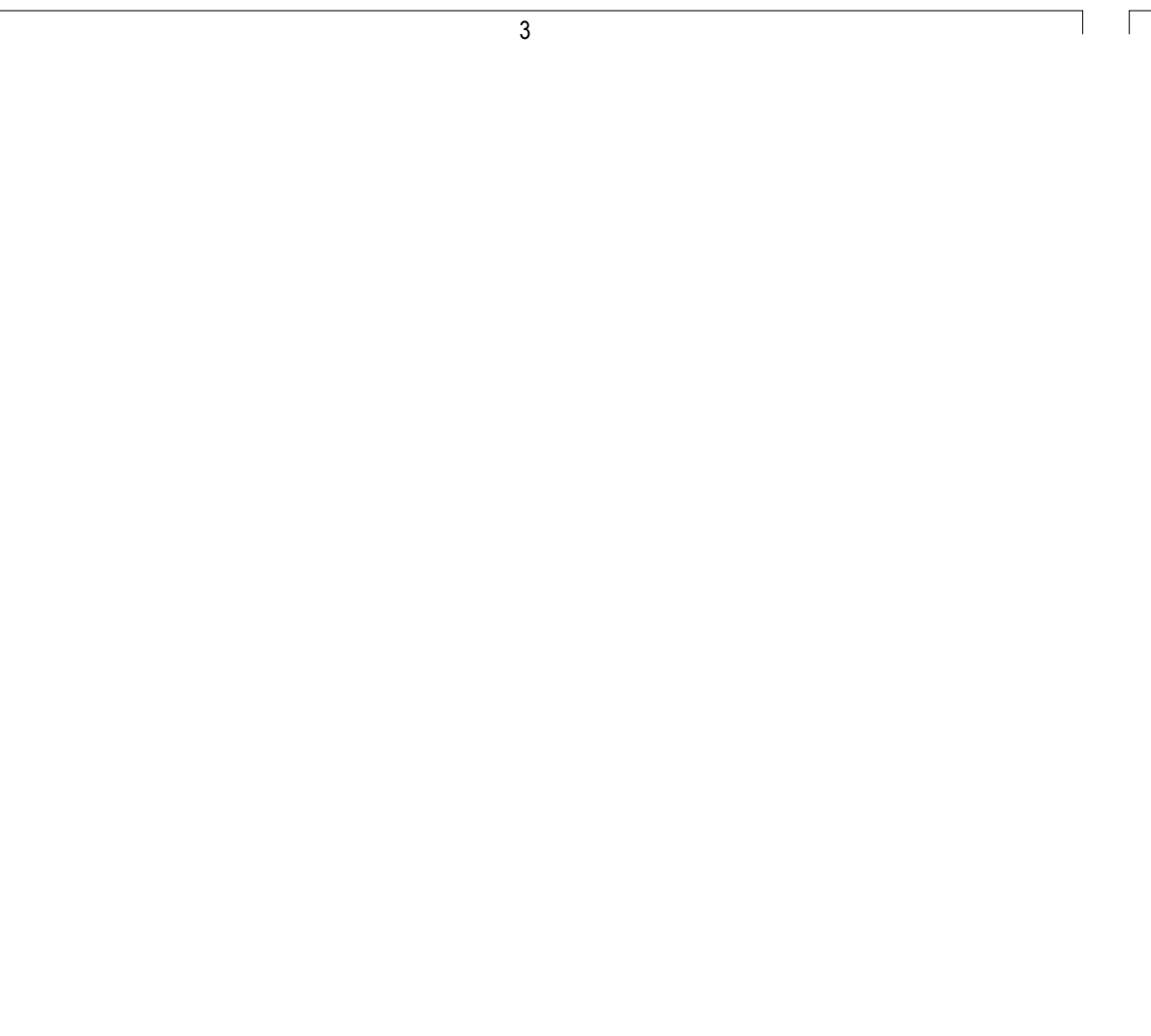
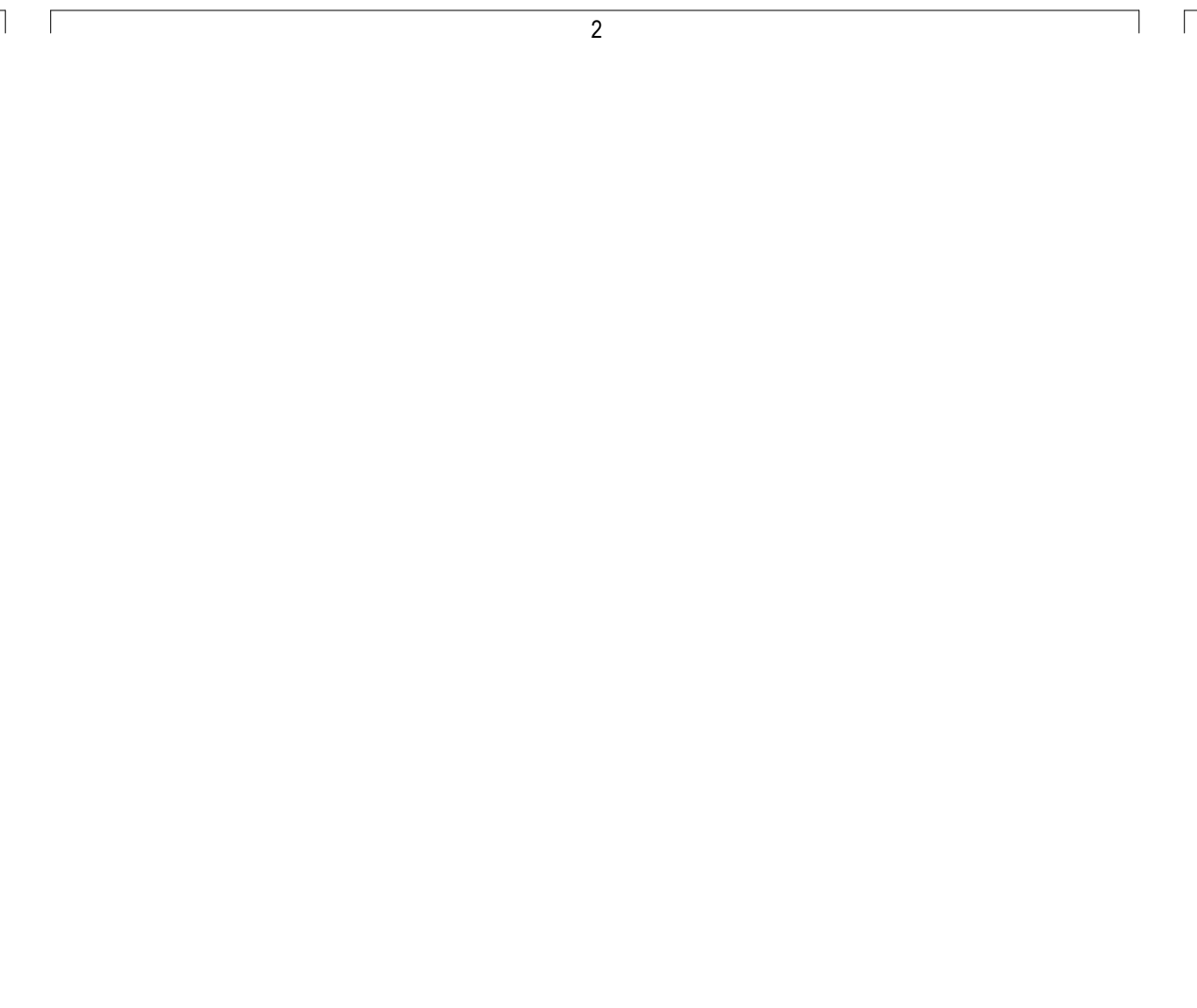
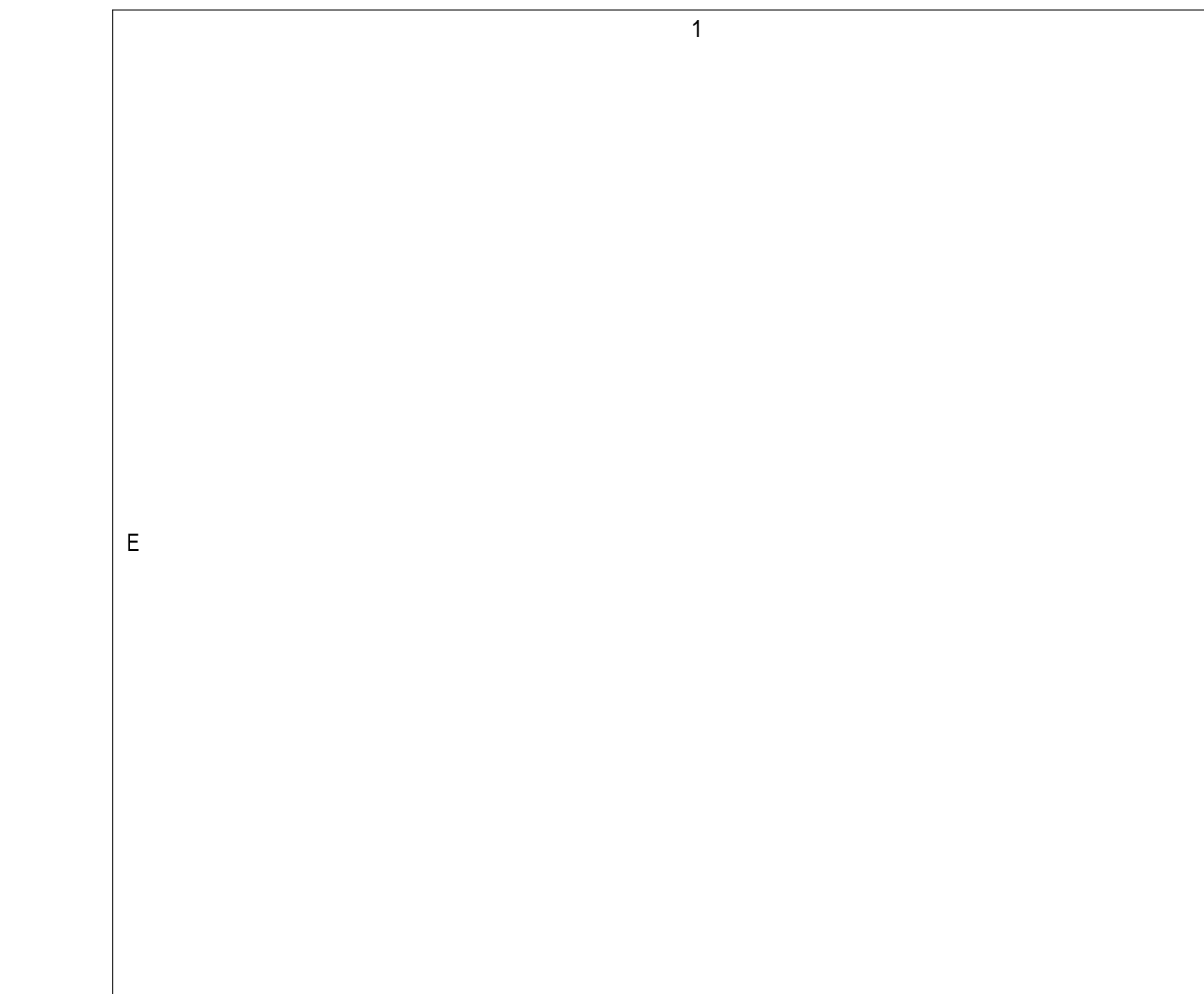
**A2 MRI ROOM - 3D VIEW 1**

SCALE:



**A4 MRI ROOM - 3D VIEW 2**

SCALE:

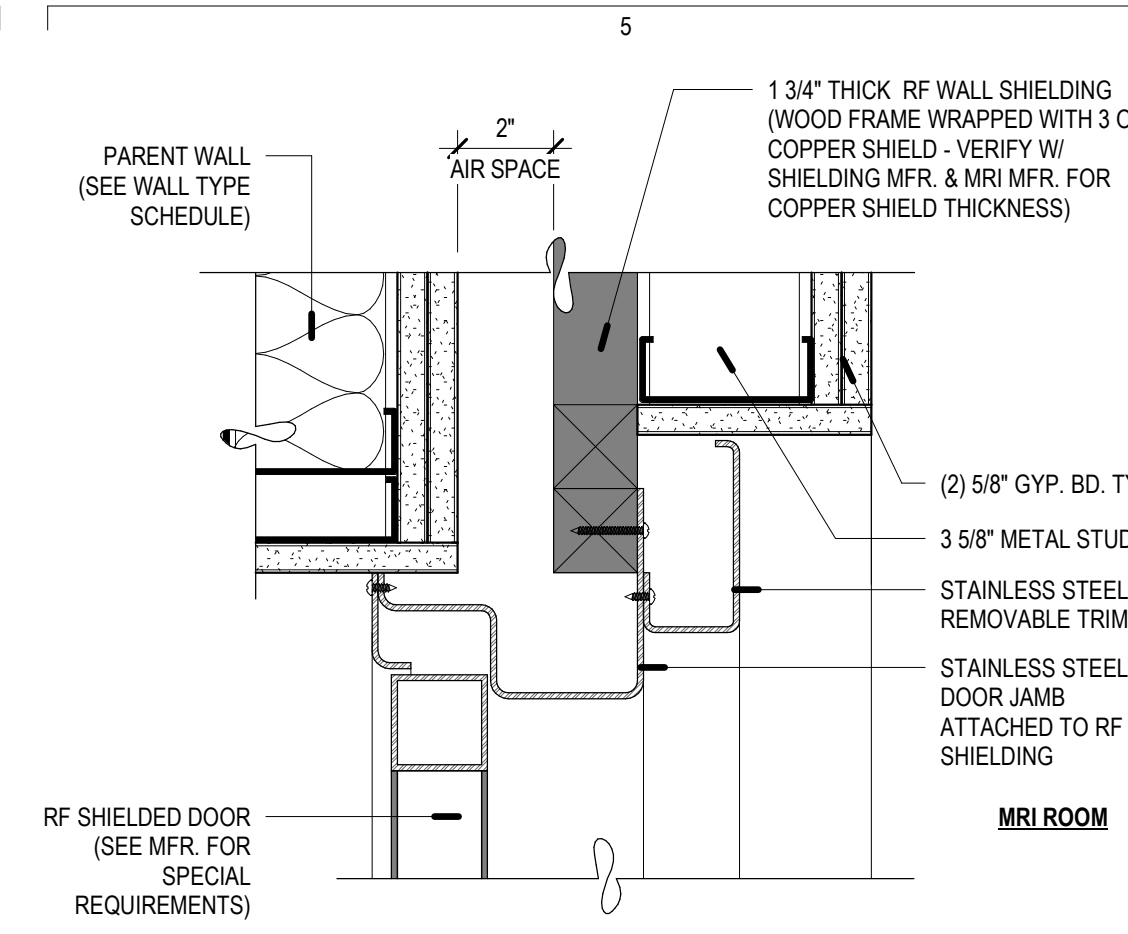


- ### PARTITION + FRAMING GENERAL NOTES
- #### FRAMED WALL PARTITIONS
- PARTITION TYPE INDICATIONS ARE INDEPENDENT OF APPLIED FINISHES. SEE FINISH SHEETS AND INTERIOR ELEVATIONS FOR WALL FINISHES INCLUDING TILE COURSE AND LAYOUT AND/OR THE DESIGNATIONS ON THE PLANS FOR ADDITIONAL INFORMATION REGARDING APPLIED FINISHES.
  - WHERE PARTITION TYPE DESIGNATION ON FLOOR PLANS IS INTERRUPTED BY DOOR OPENING, GLAZED PARTITION, ETC., CONSTRUCTION ABOVE INTERRUPTION (AND WHERE APPLICABLE BELOW) IS TO BE THE SAME AS THAT DESIGNATED FOR THE PARTITION IN WHICH THE INTERRUPTION OCCURRED.
  - THE MINIMUM REQUIREMENTS FOR CONSTRUCTION OF EACH PARTITION TYPE AS EXPRESSED BY THE INDICATED REFERENCE ARE INCORPORATED BY REFERENCE AND ARE APPLICABLE TO THE WORK OF THIS PROJECT. HOWEVER, ADDITIONAL AND/OR MORE RESTRICTIVE REQUIREMENTS MAY BE INDICATED BY THE SPECIFICATIONS AND DRAWINGS. SUCH REQUIREMENTS ALSO APPLY AND SHALL GOVERN. SUCH REQUIREMENTS INCLUDE BUT ARE NOT LIMITED TO:
    - USE 5/8" THICK GYPSUM BOARD THROUGHOUT UNLESS NOTED OTHERWISE.
    - USE 16" OC MAX STUD SPACING UNLESS NOTED OTHERWISE IN THESE DOCUMENTS. THE SPACING STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MAX SPACING IF ALLOWED IN THESE DOCUMENTS.
    - USE STUDS OF GAUGE INDICATED ON THE DRAWINGS OR IN THE SPECIFICATIONS. THE GAUGE STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MINIMUM GAUGE TESTED. 30 GA (30 MILS) IS THE MINIMUM ALLOWED IN THESE DOCUMENTS.
  - USE STUDS OF DEPTH INDICATED BY THIS SET OF DOCUMENTS. THE DEPTH STATED BY THE REFERENCED APPROVAL OR TEST REPORT IS THE MINIMUM DEPTH TESTED DEPTH ALLOWED IN THESE DOCUMENTS. SEE STRUCTURAL DOCUMENTS FOR ADDITIONAL INFORMATION PERTAINING TO THE CONSTRUCTION OF CONCRETE, MASONRY AND STUD WALLS.
  - PROVIDE FIRE RATED CONSTRUCTION ASSEMBLIES WHERE INDICATED ON SHEETS G100S AND FLOOR PLAN DRAWINGS.
  - ALL DIMENSIONS ARE CENTER OF STUD OR FACE OF CONCRETE, MASONRY OR ROUGH OPENING UNLESS NOTED OTHERWISE. FACE OF FINISHED WALL WILL BE NOTED AS FOLLOWS:
  - AT ALL INTERIOR WALLS, STUDS, INSULATION AND GYPSUM BOARD ARE TO EXTEND TO THE DECK ABOVE. UNLESS NOTED OTHERWISE.
  - WALL TYPES NOT NOTED ARE ASSUMED TO MATCH ADJACENT ROOMS. SEE SHEETS FOR FINISHES, NOTIFY ARCHITECT OF ANY DISCREPANCIES.
  - ALL METAL STUD PARTITIONS ARE CONSIDERED ACOUSTIC PARTITIONS AND ARE TO RECEIVE A TYPE 1 SOUND ATTENUATION BLANKET. THICKNESS TO MATCH STUD DEPTH, UNLESS NOTED OTHERWISE.
  - REFER TO SHEET XXXX FOR TYPICAL INTERIOR WALL CONDITIONS ASSOCIATED WITH ALL METAL STUD PARTITIONS.
  - PROVIDE CONTROL JOINTS IN METAL FRAMED WALLS AT APPROXIMATELY 30 FEET ON CENTER. LOCATE AT CORNER ABOVE DOORS OR INSIDE CORNER OF PLASTERS OR OTHER INCONSPICUOUS LOCATION WHERE POSSIBLE. CONSULT WITH ARCHITECT PRIOR TO COMMENCING FRAMING. INSTALL PER DETAILS XX, XX AND XX, XXXX FOR CONTROL JOINTS.
  - AT WALL OPENINGS FOR PENETRATION OF PIPES, DUCTS, DEVICES, ETC., GYPSUM BOARD IS TO BE CUT TO MATCH THE SHAPE AND DIMENSION OF THE PENETRATING OBJECT AND THE GAP BETWEEN THE OBJECT AND THE WALL IS TO BE SEALED W/ ACOUSTICAL OR FIRE SEALANT ON ALL SIDES WITH A 3/4" JOINT AT ALL SIDES. MAXIMUM THE OPENING FOR DUCTS OR LARGE PENETRATIONS SHALL BE FRAMED WITH A HEADER, ADD AN ANGLED CORNER BRACE IF THE GAP EXCEEDS 3" FROM FRAMING TO THE OPENING.
  - PROVIDE BLOCKING / BACKING FOR ALL WALL MOUNTED EQUIPMENT. SEE FLOOR PLANS AND INTERIOR ELEVATIONS FOR CABINETS, GRAB BARS ETC. INSTALL BLOCKING AS DETAILED OR AS REQUIRED TO MOUNT SUCH DEVICES. ALL BLOCKING IS TO BE FIRE RETARDANT TREATED. INSTALL PER SHEET XXXX.
  - WHERE THERE IS LIMITED WATER EXPOSURE: INSTALL ONE LAYER OF 5/8" TYPE 'X' WATER RESISTANT GYPSUM BOARD PER ASTM C1396 (WHERE GYPSUM BOARD OCCURS) OF BASIC PARTITION AT THE FOLLOWING LOCATIONS:
    - WITHIN 2 FEET HORIZONTALLY AND 4 FEET VERTICALLY OF ANITORS SINKS
    - AT OTHER LOCATIONS, I.E. TUB ROOMS AND KITCHENS, AND AS INDICATED ON THE ARCHITECTURAL FINISH PLANS AND ELEVATIONS.
  - INSTALL ONE LAYER OF 5/8" CLASS MAT TILE BACKER BOARD IN LIEU OF GYPSUM BOARD (WHERE GYPSUM BOARD OCCURS) OF BASIC PARTITION WHERE THERE IS NO FIRE RATING AND OVER GYPSUM BOARD FACE LAYER AT FIRE RATED PARTITIONS AT THE FOLLOWING LOCATIONS:
    - WHERE CERAMIC TILE FINISHES ARE INDICATED PER THE FINISH PLANS AND/OR INTERIOR ELEVATIONS.
    - AT OTHER LOCATIONS AS INDICATED BY THE ARCHITECTURAL FINISH PLANS AND ELEVATIONS.
  - WHERE NEW WALLS OR FURRING ARE INDICATED TO BE DIMENSIONED OFF OF AN EXISTING WALL, THE NEW WALL SHALL BE STRAIGHT AND PLUMB REGARDLESS OF THE CONDITION OF THE EXISTING WALL.
  - ALL EXTERIOR STUD WALLS TO HAVE CONTINUOUS INSULATION, VAPOR BARRIER AND AIR INFILTRATION BARRIER FOR THE FULL HEIGHT AND LENGTH OF THE WALL SEAL ALL PENETRATIONS. SEE DETAILS ON SHEET XXXX FOR TYPICAL TOP OF WALL CONDITION.
  - THE AIR INFILTRATION BARRIER IS TO WRAP ALL WINDOW AND DOOR OPENINGS.
  - SEE DETAIL XX AND XX ON SHEET XXXX FOR TYPICAL FIRE EXTINGUISHER CABINET INSTALLATION DETAILS

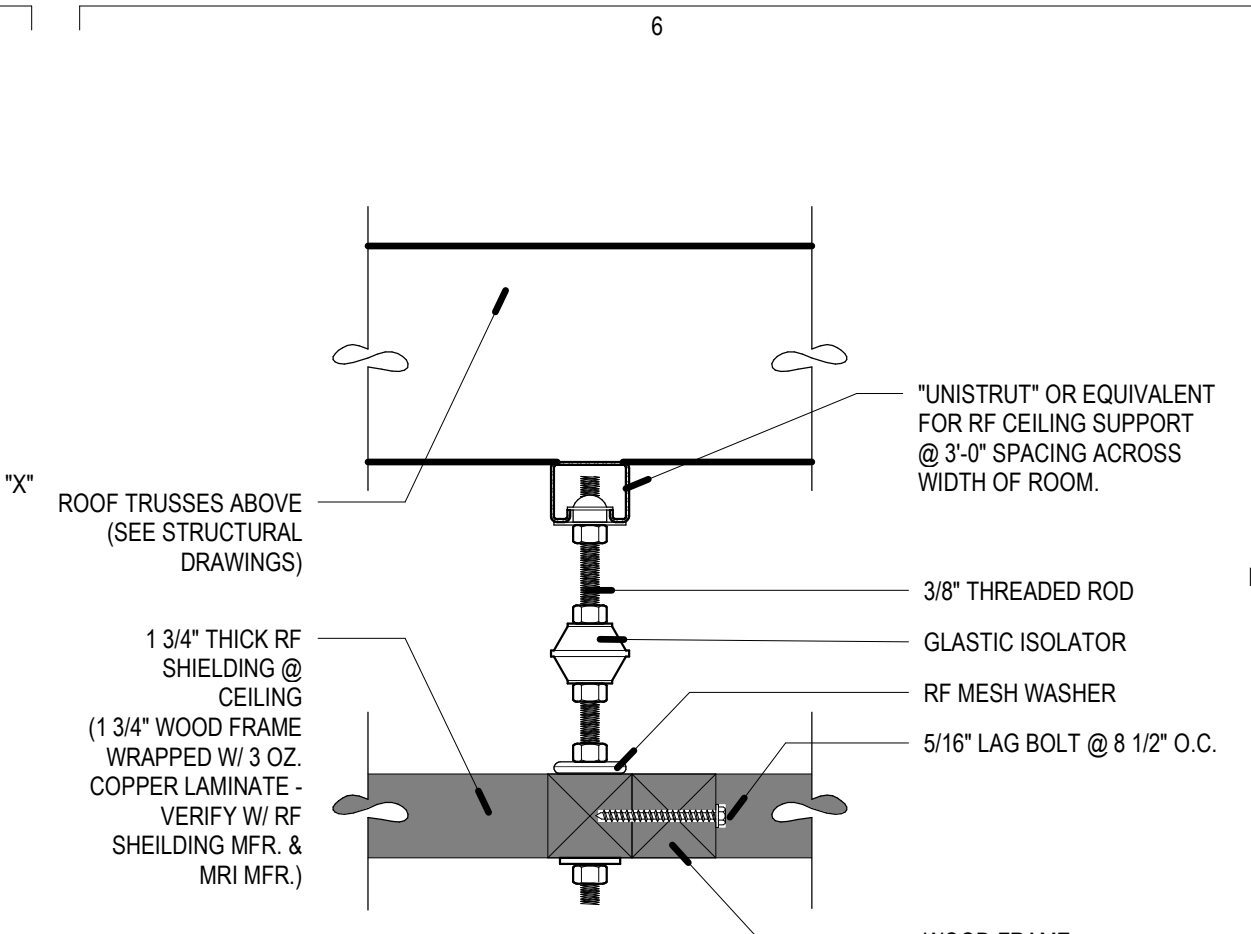
- #### MASONRY OR CONCRETE WALLS
- SEE STRUCTURAL PLANS FOR ADDITIONAL CONCRETE AND MASONRY WALL INFORMATION.
  - SEE EXTERIOR ELEVATIONS FOR COURSEING, MASONRY TYPES AND METAL PANEL ORIENTATION PER XX ELEVATION SHEETS.
  - ALL MASONRY WALLS ARE TO BE REINFORCED AND ARE TO BE SET ON REINFORCED FOOTINGS. SEE THE XX ELEVATION SHEETS FOR LOCATION OF CONTROL JOINTS. WHERE NOT NOTED, CONTROL JOINTS TO BE LOCATED AS PER THE REQUIREMENTS FOUND IN THE STRUCTURAL DOCUMENTS BUT ARE NOT TO EXCEED 30' OC. SEE THE STRUCTURAL DRAWINGS FOR REINFORCING AND OTHER DETAILS PERTAINING TO MASONRY WALLS. IF NOT OTHERWISE NOTED, LOCATE CONTROL JOINTS AT CORNER ABOVE DOORS, INSIDE CORNER OF PILASTERS OR OTHER INCONSPICUOUS LOCATION WHERE POSSIBLE. CONSULT WITH ARCHITECT PRIOR TO INSTALLING PER DETAIL XX, XXXX.
  - SEE IBC 2009, CHAPTER 7 FOR FIRE RESISTIVE REQUIREMENTS ON NEW CONCRETE AND CONCRETE MASONRY UNIT WALLS.
    - CMU WALLS (IBC TABLE 720.1(2), ITEM 3)
    - CAST IN PLACE CONCRETE WALLS (IBC TABLE 721.2.1.2(1))
  - REFER TO DETAIL SHEET XXXX FOR TYPICAL WALL CONDITIONS ASSOCIATED WITH ALL AND MASONRY PARTITIONS.
  - AT WALL OPENINGS FOR PENETRATION OF PIPES, DUCTS, DEVICES, ETC., MASONRY IS TO BE CUT TO MATCH THE SHAPE AND DIMENSION OF THE PENETRATING OBJECT AND THE GAP BETWEEN THE OBJECT AND THE WALL IS TO BE SEALED W/ ACOUSTICAL OR FIRE SEALANT ON ALL SIDES WITH A 3/4" JOINT AT ALL SIDES, MAXIMUM.
  - PROTECTION OF MASONRY:** DURING CONSTRUCTION, COVER TOPS OF WALLS, PROJECTIONS, AND SILLS WITH WATERPROOF SHEETING AT END OF EACH DAY'S WORK. EXCEPT WHEN THE AMBIENT TEMPERATURE IS EXPECTED TO REMAIN ABOVE 40°F AND NO PRECIPITATION IS FORECAST FOR THE NEXT 24 HOURS. (THIS IS TO PREVENT CONDENSATION FROM COVERED WALLS CAUSING A MOISTURE PROBLEM.) COVER PARTIALLY COMPLETED MASONRY EACH DAY THAT CONSTRUCTION IS NOT IN PROGRESS. WALLS ARE TO BE PROTECTED UNTIL THEY ARE PERMANENTLY PROTECTED BY THE ROOFING MEMBRANE OVER THE CAP PLATE. THE GENERAL CONTRACTOR IS TO PROVIDE TEMPORARY PROTECTION IMMEDIATELY FOLLOWING THE TOPPING OUT OF EACH SECTION OF WALL BY INSTALLING WATERPROOF SHEETING OVER A CONTINUOUS CAP PLATE UNTIL THE ROOFING MEMBRANE IS INSTALLED. A SOLID GROUTED TOP BOND BEAM SHALL NOT BE CONSIDERED ADEQUATE PROTECTION FOR THE WALL.
  - IT IS ACCEPTABLE TO PLACE NON-INTEGRAL COLORED CMU IN PORTIONS OF WALLS INDICATED TO BE CONSTRUCTED OF INTEGRAL COLOR CMU IF THE DOCUMENTS SHOW THESE PORTIONS OF WALL PAINTED OR COVERED WITH TILE. STUD FURRING ABOVE CEILING OR UNDER ROOFING MEMBRANE. IT IS NOT ACCEPTABLE TO UTILIZE NON INTEGRAL COLORED CMU BEHIND CABINETS, FURNISHINGS AND EQUIPMENT INCLUDING BUT NOT LIMITED TO CLIMBING WALLS AND LOCKERS.
  - AT ALL SPLIT FACE AND PAINTED CMU THE HORIZONTAL AND VERTICAL MORTAR JOINTS ARE TO BE CONCAVE. AT ALL HONEY COMB THE HORIZONTAL MORTAR JOINT IS TO BE A WEATHER JOINT AND ALL VERTICAL JOINTS ARE TO BE RAKE.
  - PROVIDE A 3/4" CHAMFER ALL INTERIOR EXPOSED VERTICAL MASONRY CORNERS FROM 6" AFF TO BOTTOM OF MASONRY UNTIL NO UNLETTED CORNER OR UNLETTED CHAMFER IS OBSERVED FROM BELOW CEILING. NOTE THAT THIS CHAMFER IS NOT TO BE PROVIDED AT CORNERS SHOWN IN THESE DOCUMENTS AS COVERED WITH WALL TILE. SEE DETAIL.
  - PROVIDE SPECIAL SHAPES, SUCH AS 'U' SHAPED CHANNEL FOR UNTELS OR HEADERS AND CAPPING UNITS FOR SASH AND OTHER SPECIAL CONDITIONS.
  - WHERE SPLIT FACE BLOCK IS SHOWN EXTENDING TO THE TOP OF A PARAPET, PROVIDE AN INTEGRAL COLOR SMOOTH FACE BLOCK AT THE TOP COURSE TO ALLOW THE GAP FLASHING TO FIT TIGHT AGAINST THE WALL.
  - CONTRACTOR TO COORDINATE AND PROVIDE SMOOTH MASONRY AT ALL FLASHING, REGLETS, GUTTERS, EDGES OF CEILING AND BASE AND OTHER ITEMS REQUIRING A SMOOTH FINISH THAT ARE HIDDEN. AT VISIBLE LOCATIONS SUCH AS DOOR AND WINDOW FRAMES, PERPENDICULAR WALLS, GRIND SPLIT FACED BLOCK PER DETAIL XX, XXXX.

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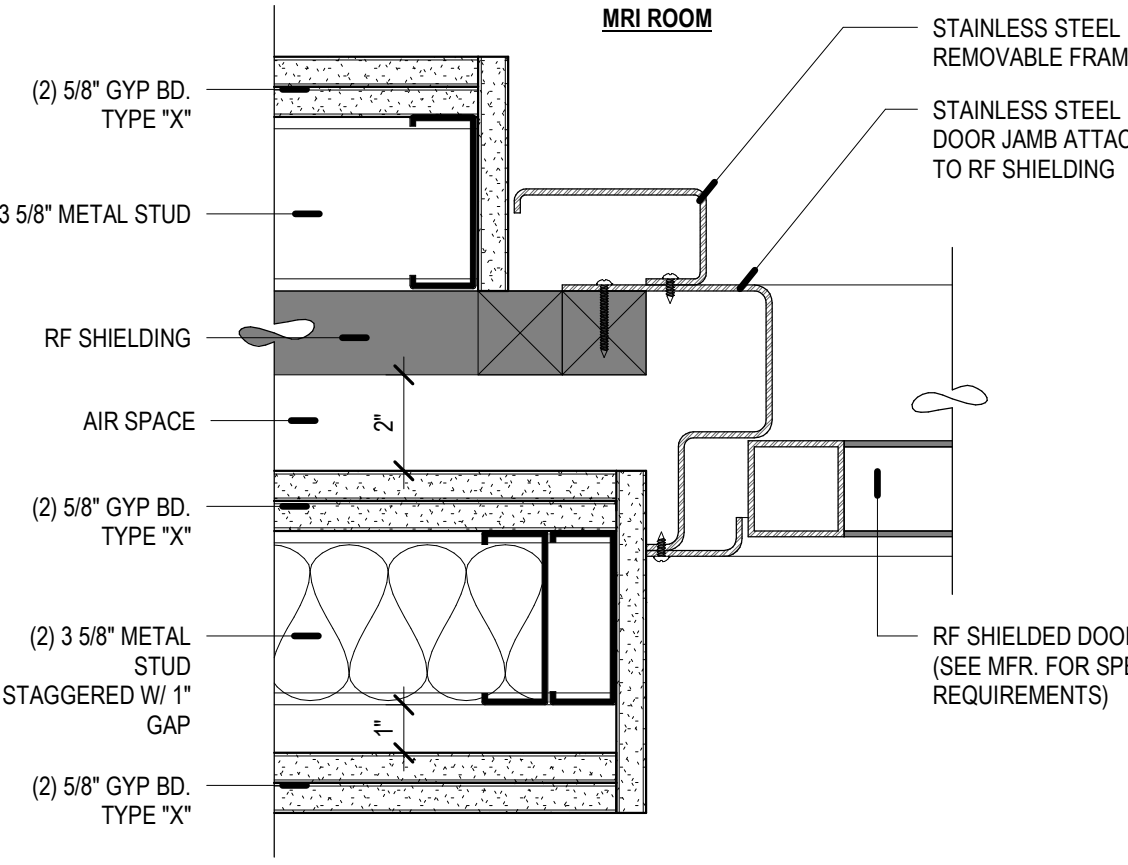
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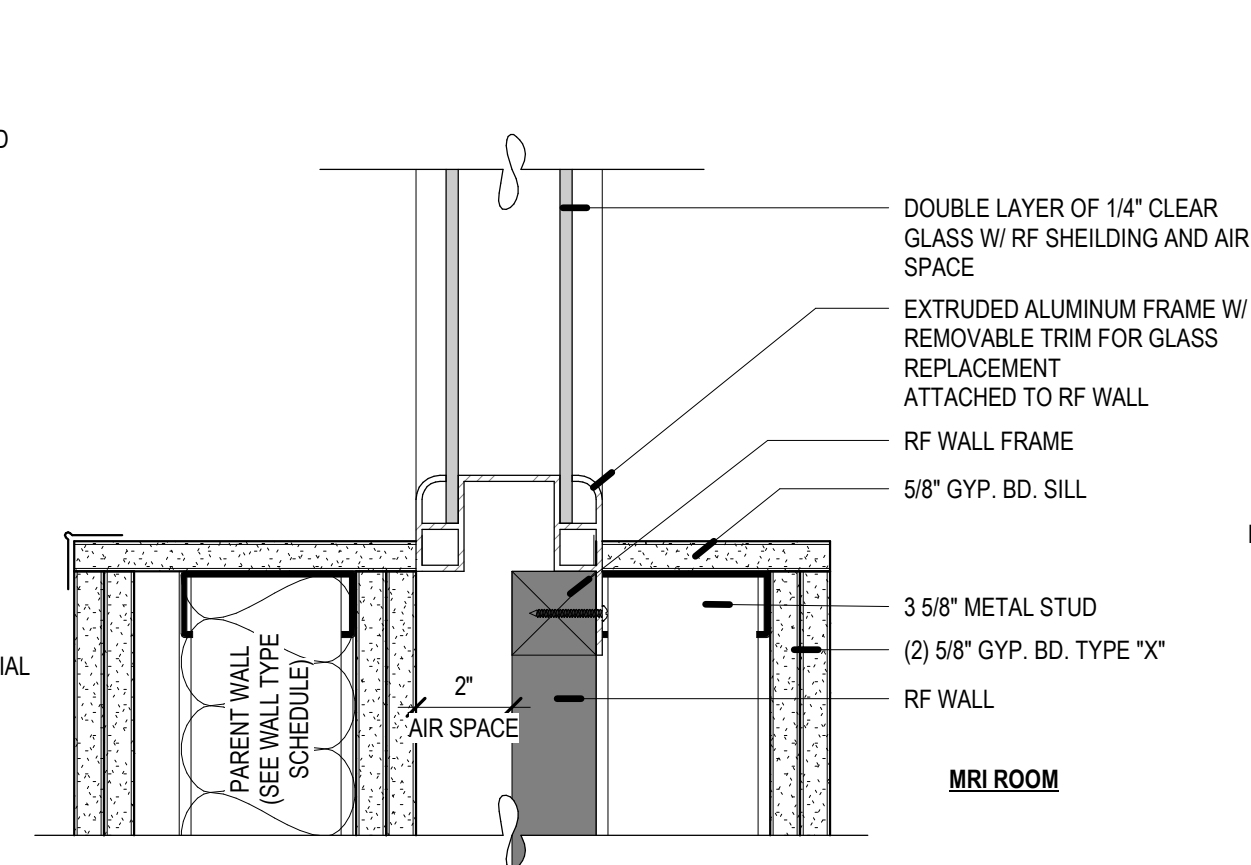
**E5 RF DOOR HEAD DETAIL**  
SCALE: 3" = 1'-0"



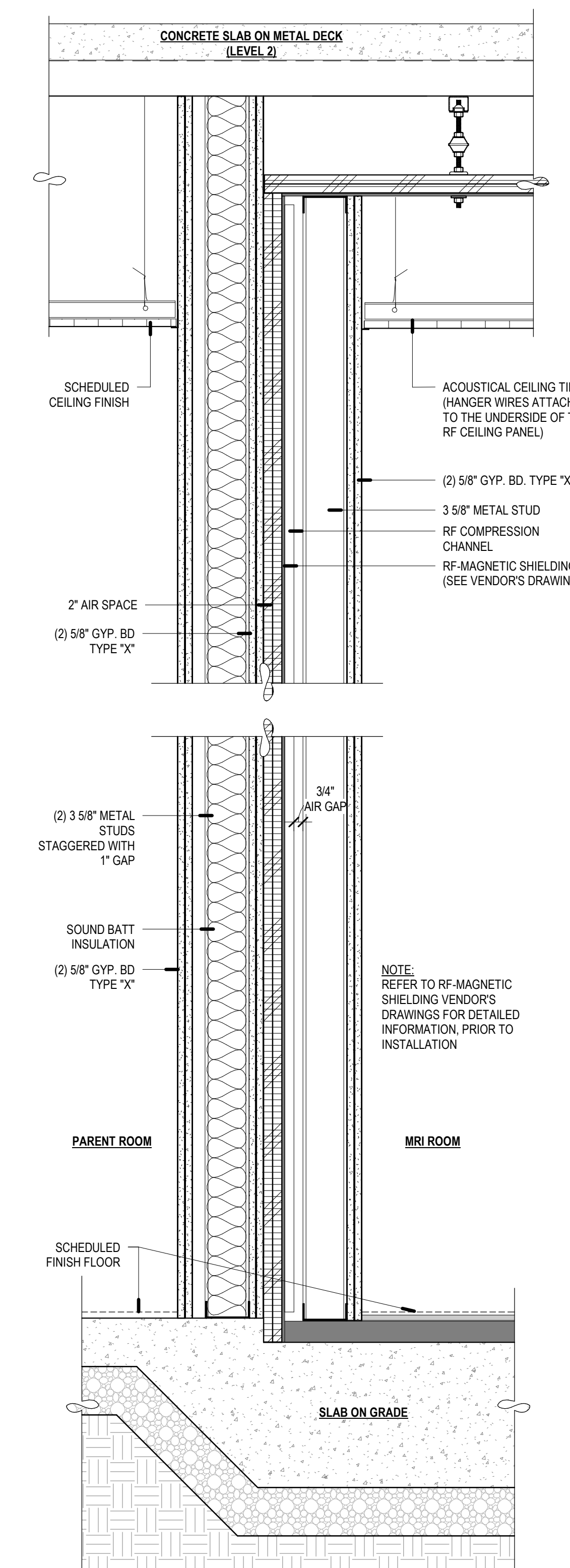
**E6 RF SHIELDING @ CEILING**  
SCALE: 3" = 1'-0"



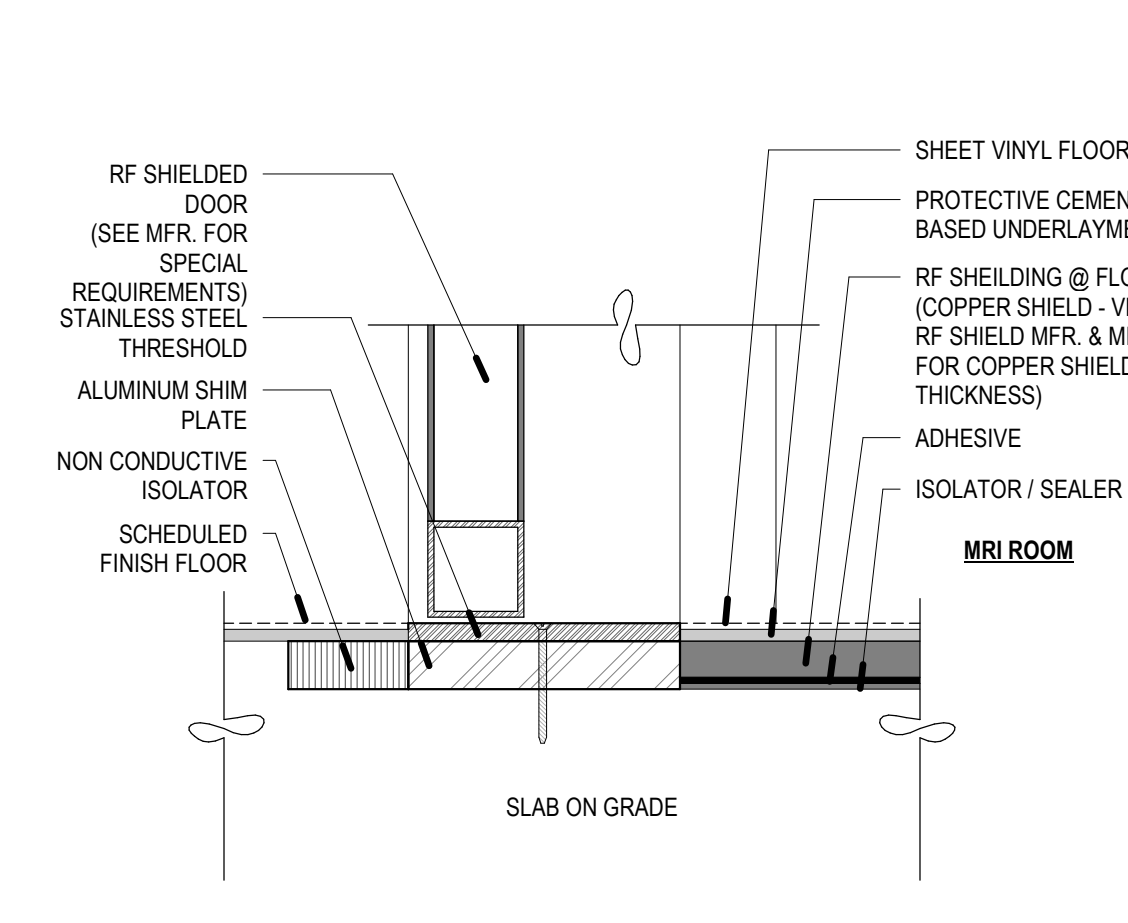
**D5 RF DOOR JAMB DETAIL**  
SCALE: 3" = 1'-0"



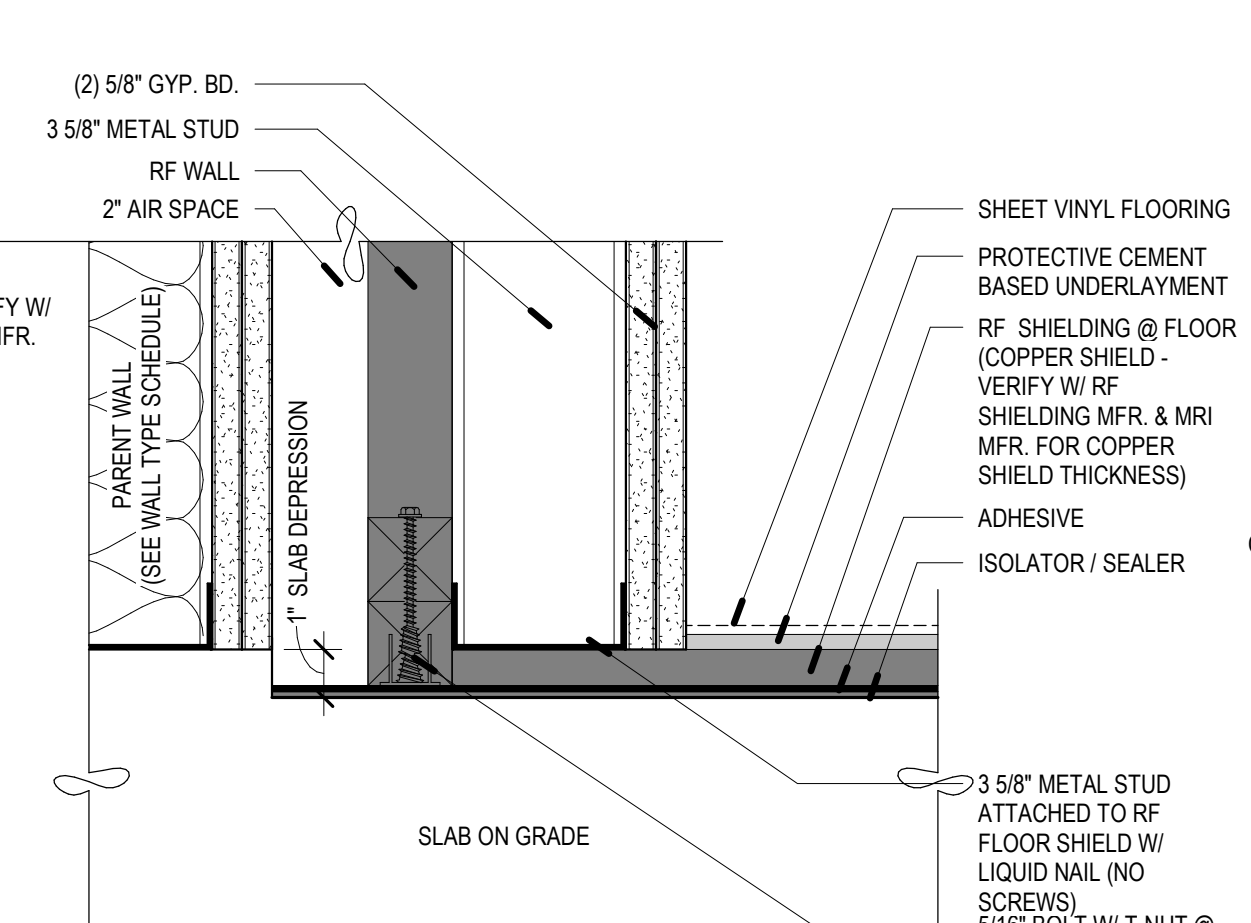
**D6 WINDOW @ MRI ROOM**  
SCALE: 3" = 1'-0"



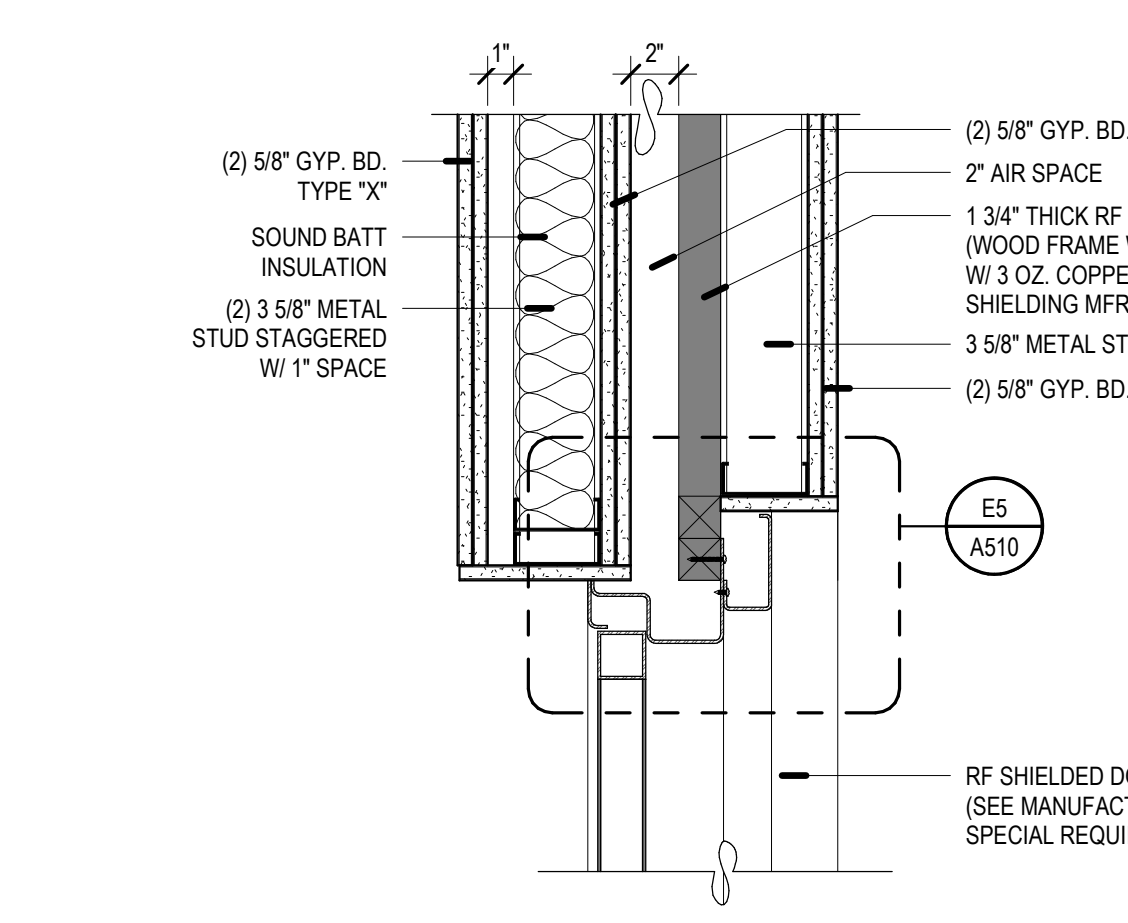
**A4 RF-MAGNETIC SHIELDING - TYPICAL WALL**  
SCALE: 1 1/2" = 1'-0"



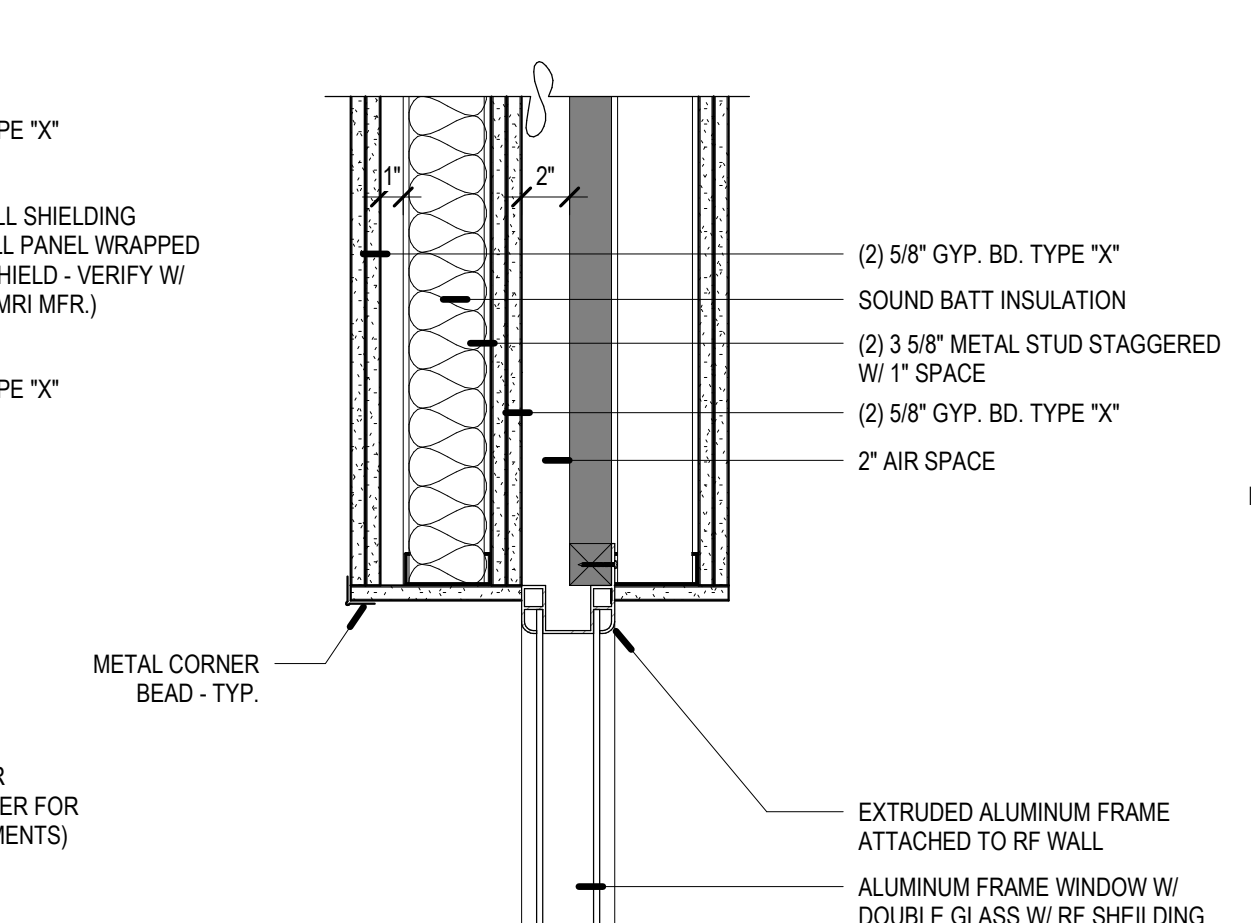
**C5 THRESHOLD @ RF SHIELDED DOOR**  
SCALE: 3" = 1'-0"



**C6 RF SHIELDING @ FLOOR**  
SCALE: 3" = 1'-0"



**A5 TYPICAL PARTITION W/ COPPER PROTECTION @ DOOR**  
SCALE: 1 1/2" = 1'-0"



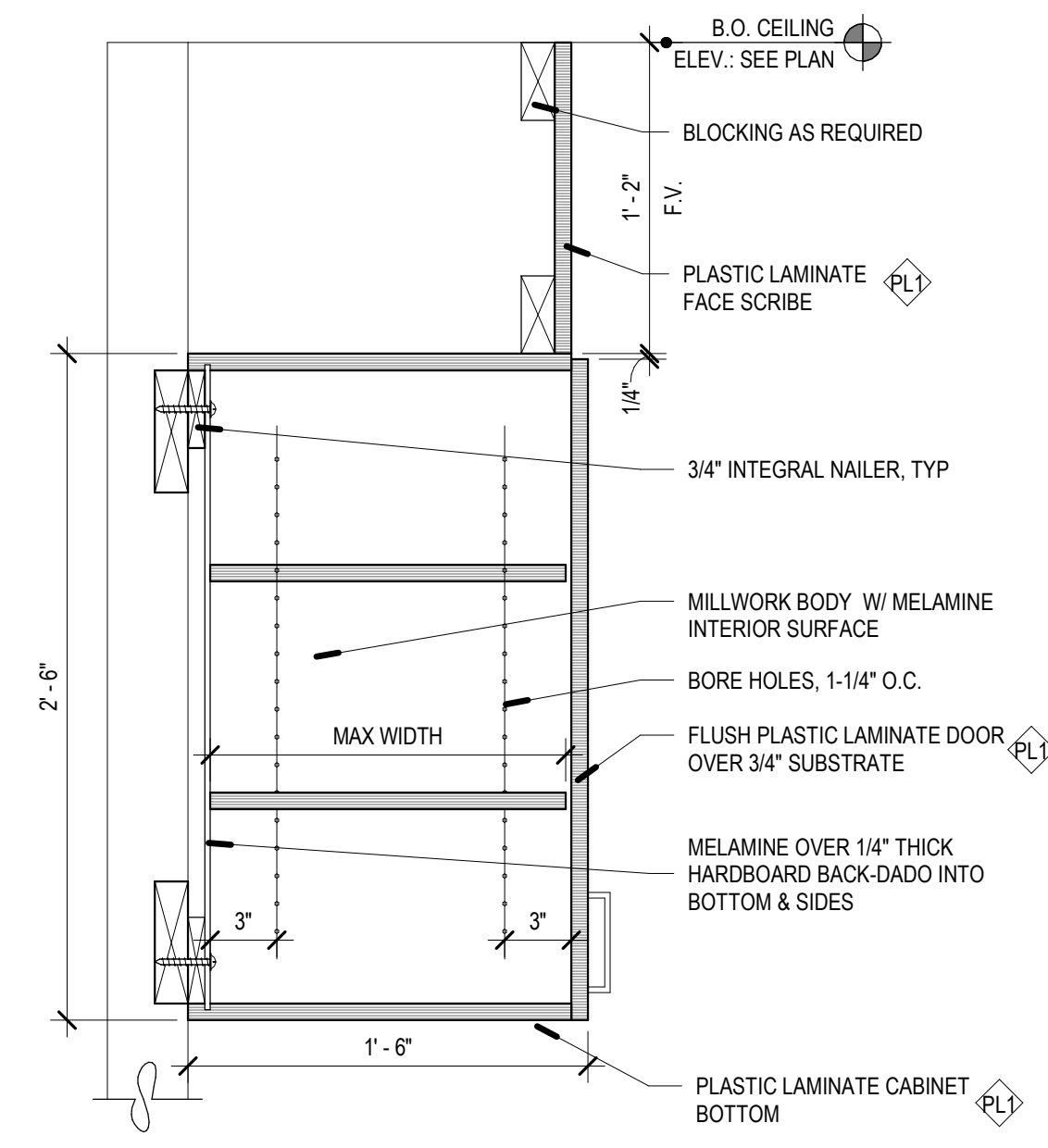
**A6 TYPICAL PARTITION W/ COPPER PROTECTION @ WINDOW**  
SCALE: 1 1/2" = 1'-0"

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |
|     |      |             |

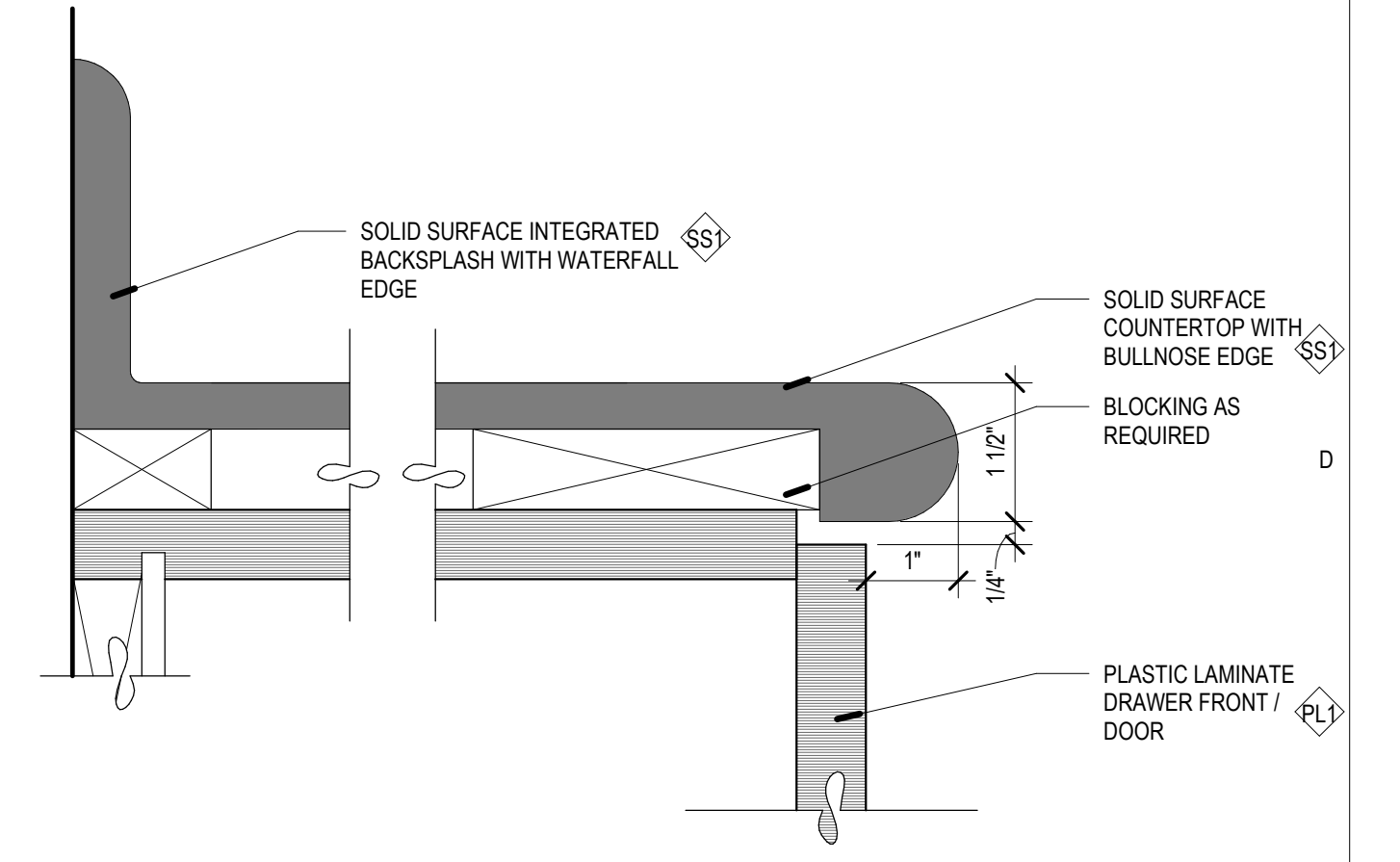
VCBO NUMBER: 19480  
DATE: 07/15/2019

**NOTES:**

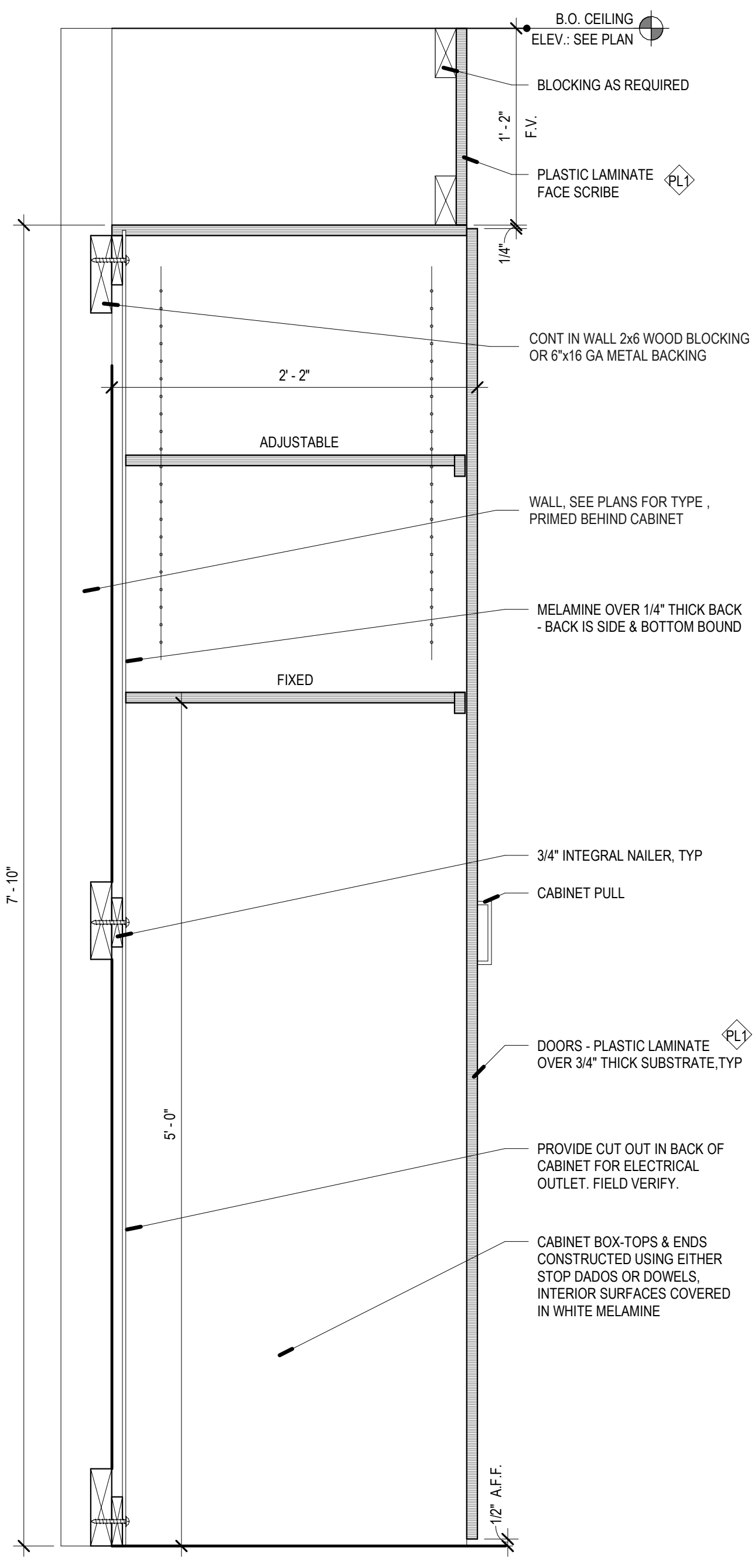
1. ALL METAL COMPONENTS MUST BE NON FERROUS METAL.
2. REFER TO PDC DRAWINGS FOR ADDITIONAL INFORMATION.



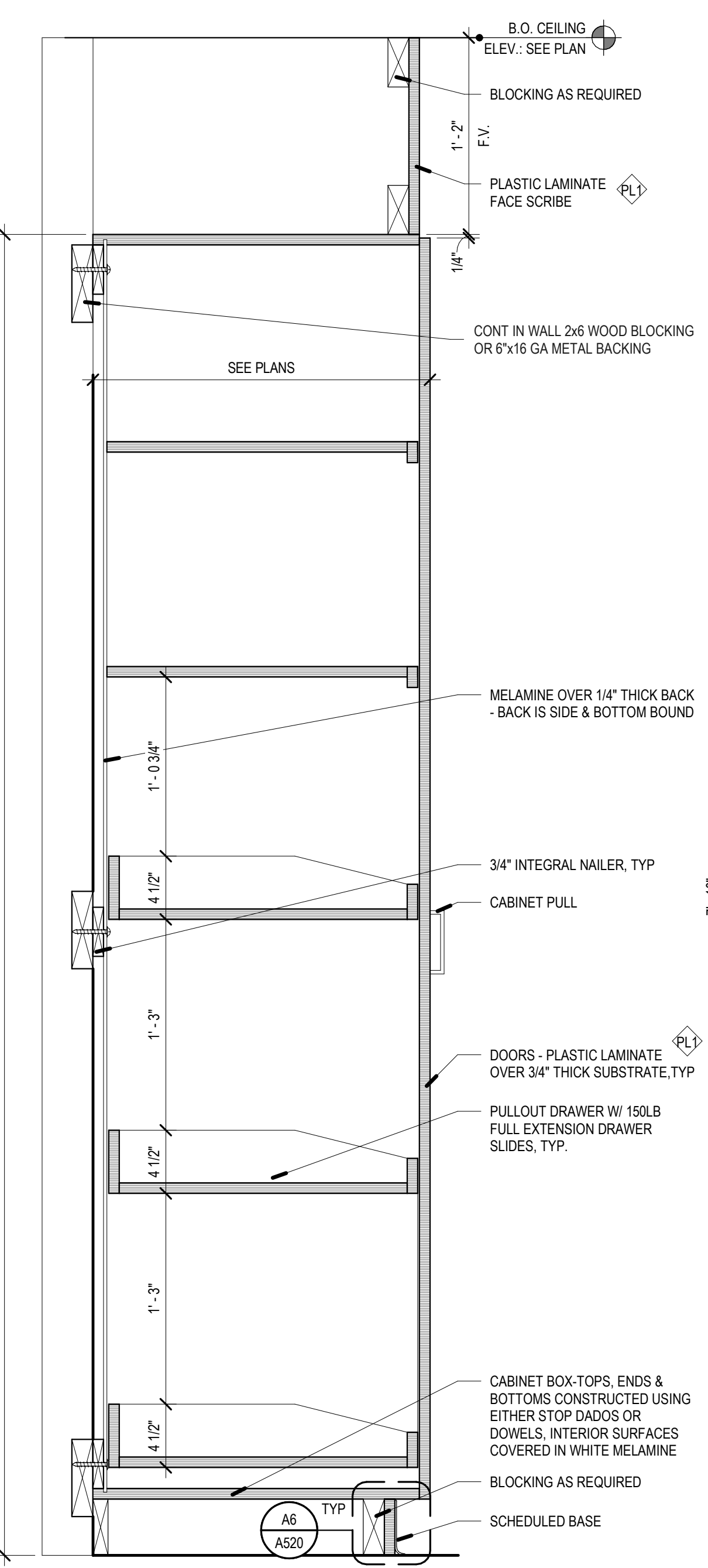
**D5 UPPER CABINET - FULL DOOR**  
SCALE: 1 1/2" = 1'-0"



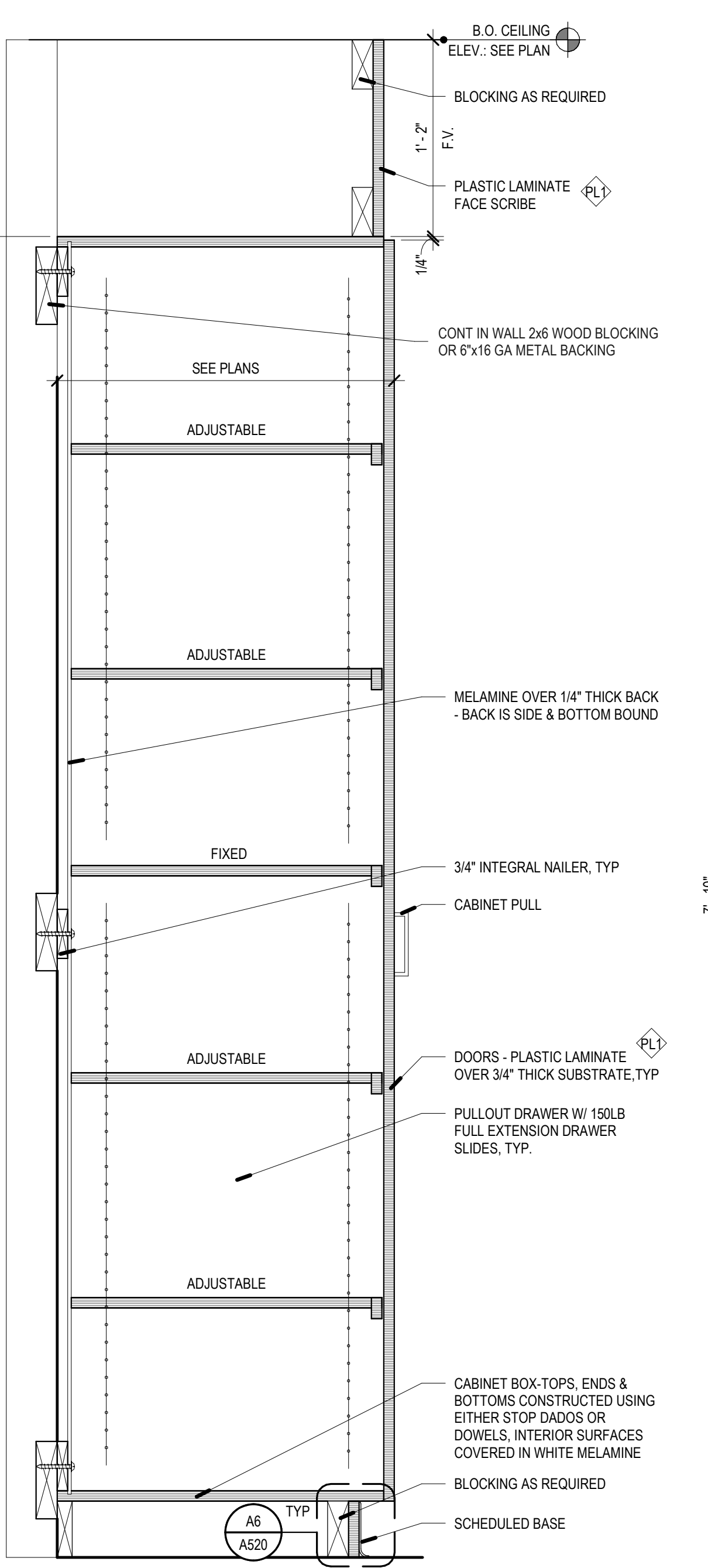
**D6 COUNTERTOP - SOLID SURFACE**  
SCALE: 6" = 1'-0"



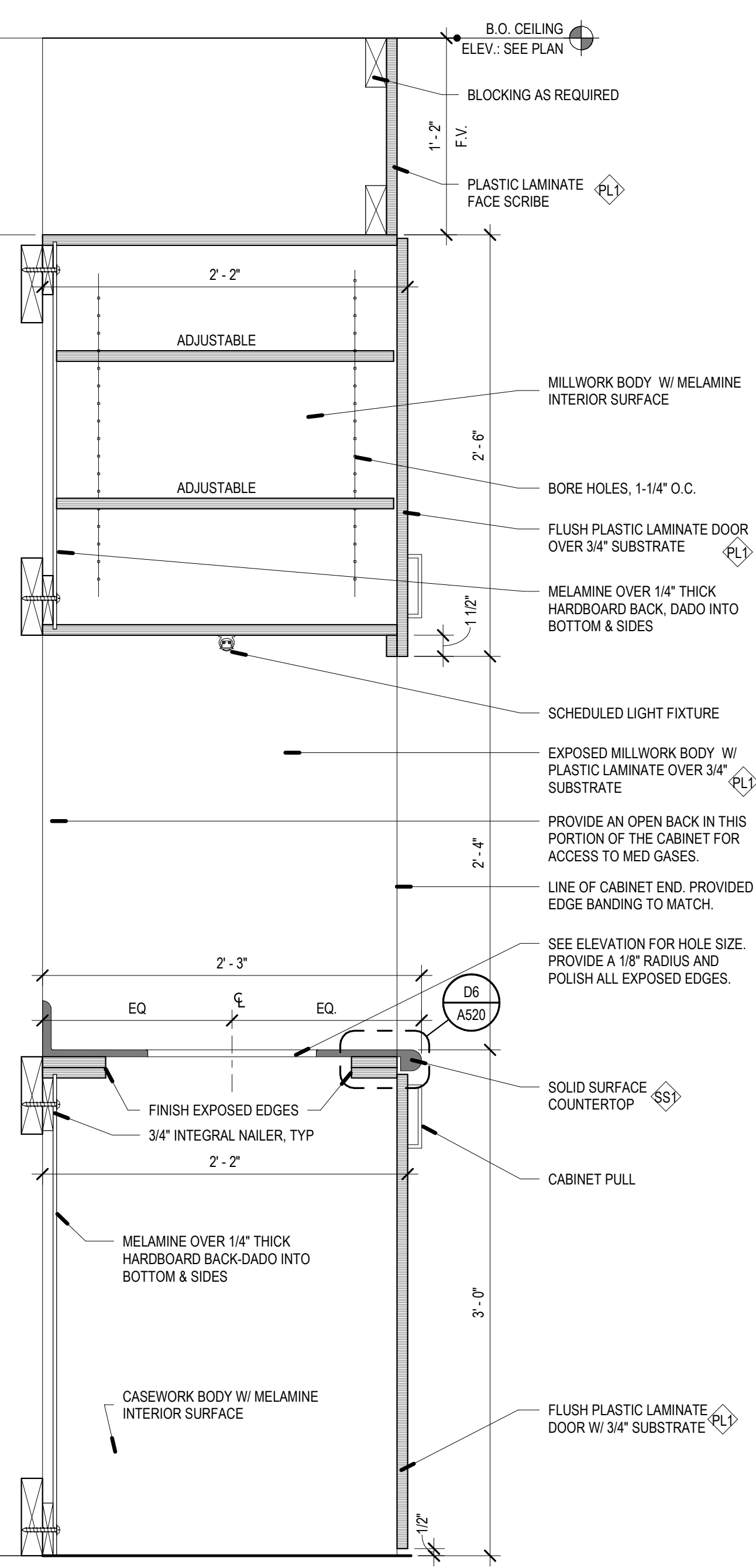
**A2 TALL CABINET - T022 NO BASE**  
SCALE: 1 1/2" = 1'-0"



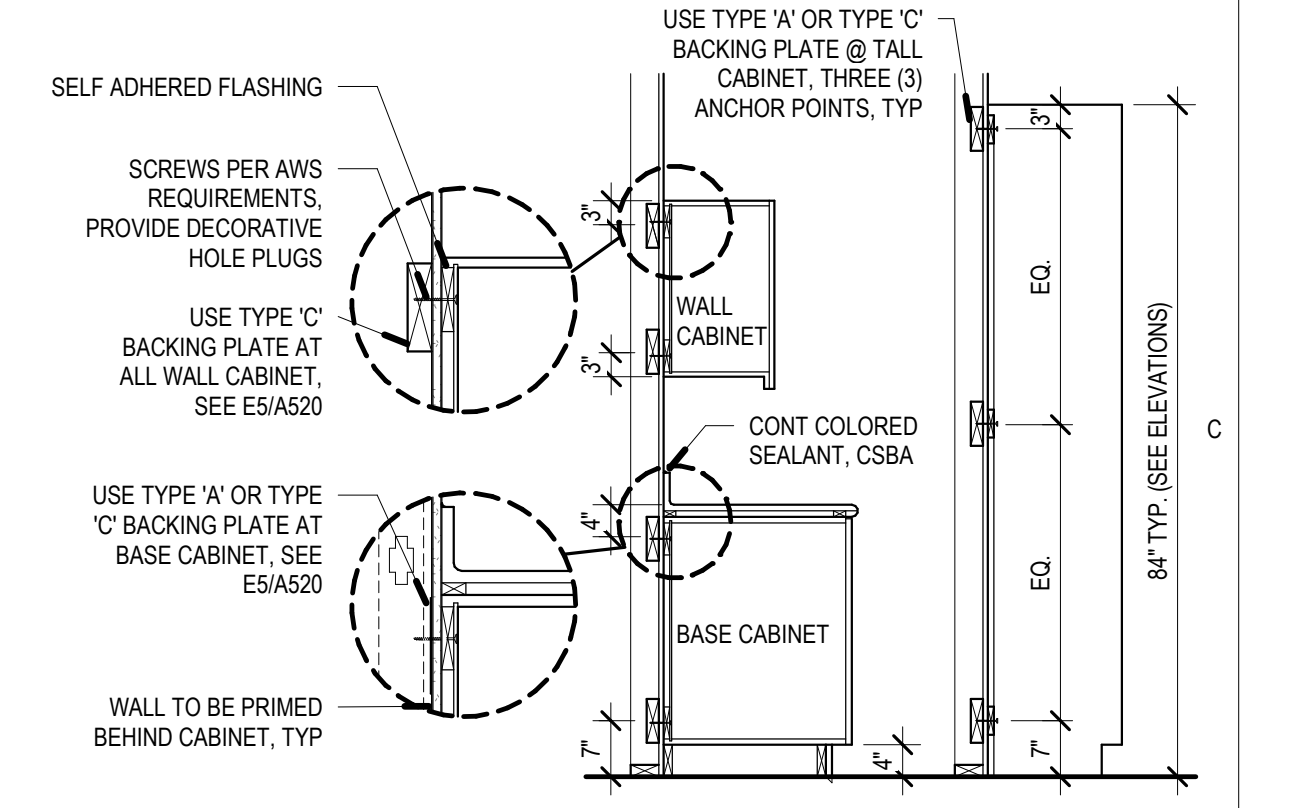
**A3 TALL CABINET - T322**  
SCALE: 1 1/2" = 1'-0"



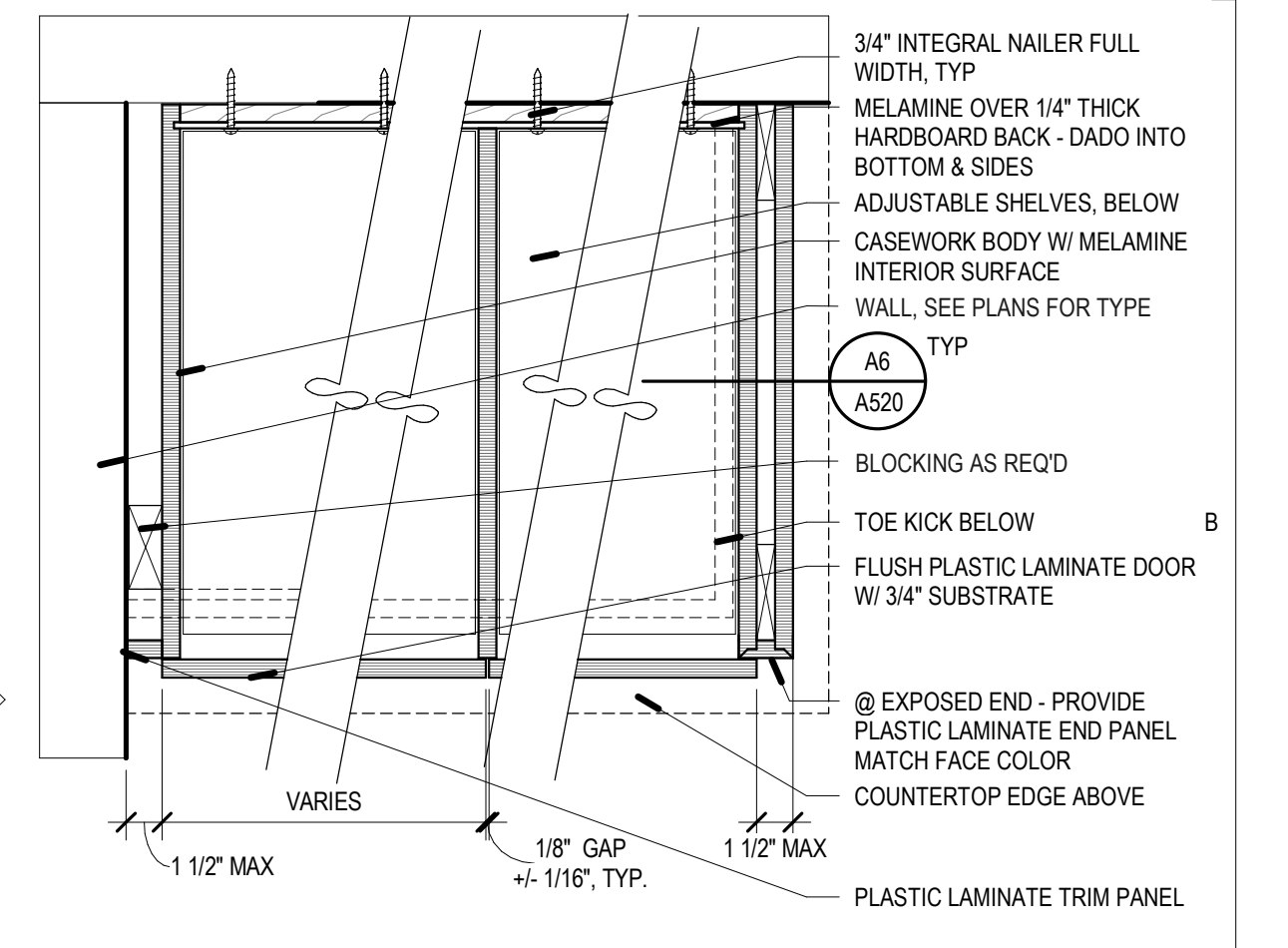
**A4 TALL CABINET - T025**  
SCALE: 1 1/2" = 1'-0"



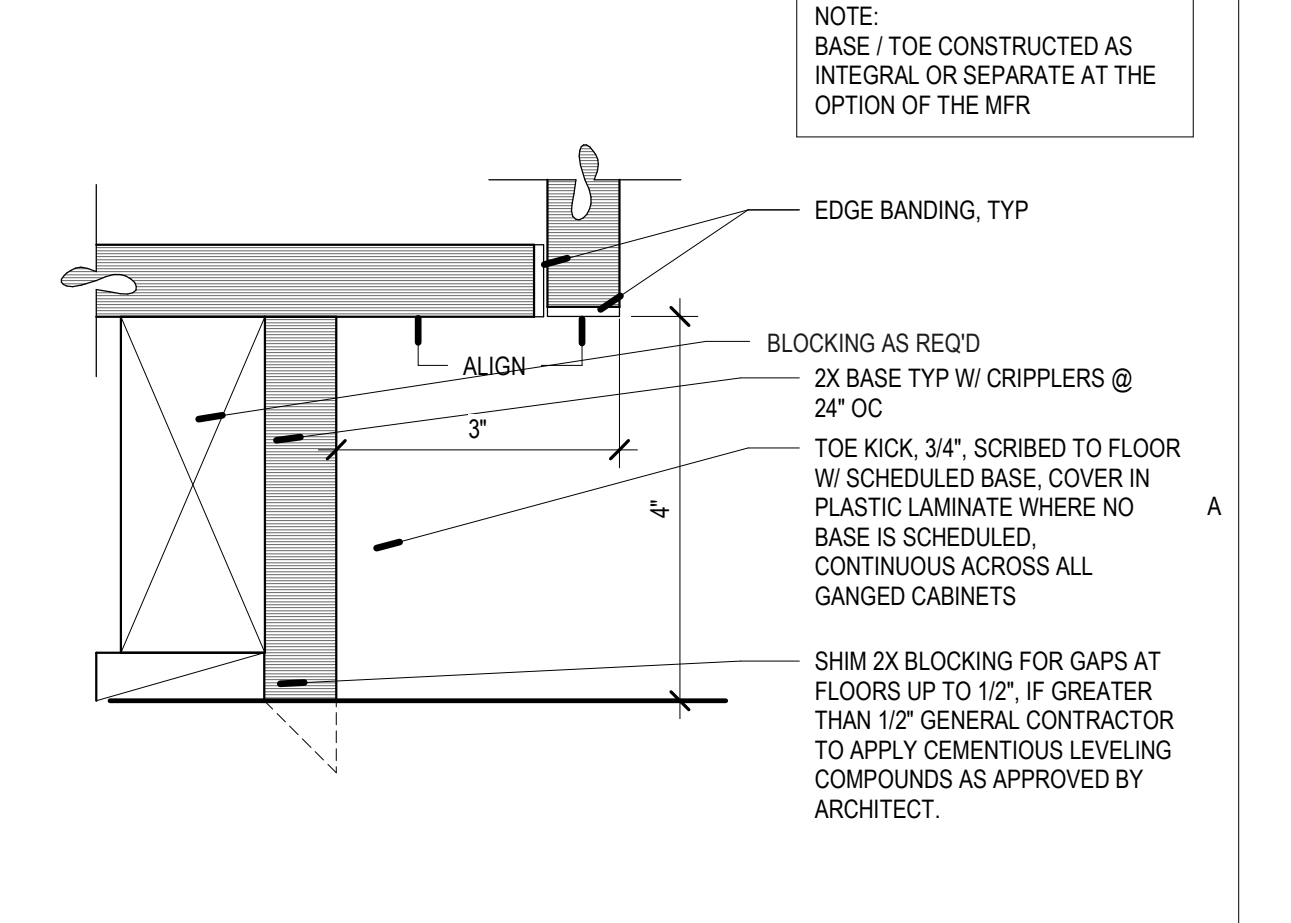
**A5 TALL CABINET @ MED GAS COUNTER**  
SCALE: 1 1/2" = 1'-0"



**C6 MILLWORK ANCHOR - TYP**  
SCALE: 1/2" = 1'-0"



**B6 BASE CABINET - PLAN**  
SCALE: 1 1/2" = 1'-0"



**A6 TOE KICK - TYP**  
SCALE: 6" = 1'-0"

| REV | DATE | DESCRIPTION |
|-----|------|-------------|
|     |      |             |

VCBO NUMBER: 19480  
DATE: 07/15/2019

**IMED BUILDING 5 - MRI CARING SUITE**  
INTERMOUNTAIN HEALTHCARE  
5125 SOUTH COTTONWOOD STREET, MURRAY UT 84107  
BID SET / CONSTRUCTION DOCUMENTS

# LEGEND OF MECHANICAL SYMBOLS AND ABBREVIATIONS

## DUCTWORK/GRILLES

|  |   |
|--|---|
|  | POSITIVE PRESSURE DUCT - RISE   |
|  | POSITIVE PRESSURE DUCT - DROP   |
|  | NEGATIVE PRESSURE DUCT - RISE   |
|  | NEGATIVE PRESSURE DUCT - DROP   |
|  | ROUND DUCT - RISE   |
|  | ROUND DUCT - DROP   |
|  | UNDER FLOOR DUCT  |
|  | TURNING VANES   |
|  | FRESH AIR LOUVER<br>WIDTH X HEIGHT<br>O.A. LOUVER   |
|  | RELIEF AIR OR EXHAUST AIR LOUVER<br>WIDTH X HEIGHT<br>R.A. LOUVER   |
|  | CEILING SUPPLY DIFFUSER<br>12/12 CD-1<br>(2) 200  |
|  | CEILING RETURN REGISTER<br>12/12 RG-1<br>(2) 200  |
|  | CEILING EXHAUST REGISTER<br>12/12 EG-1<br>(2) 200   |
|  | SIDEWALL SUPPLY REGISTER<br>12/12 SWS-1<br>(2) 200  |
|  | SIDEWALL EXHAUST OR RETURN REGISTER<br>12/12 SWR-1<br>(2) 200   |
|  | CEILING SUPPLY DIFFUSER WITH FLEXIBLE DUCT<br>12/12 CD-1<br>(2) 200   |
|  | CEILING AIR GRILLE WITH FLEXIBLE DUCT<br>12/12 RG-1<br>(2) 200  |
|  | CEILING RETURN AIR GRILLE W/ SOUND BOOT<br>12/12 RG-1<br>(2) 200  |
|  | LINEAR DIFFUSER WITH PLENUM AND FLEXIBLE DUCT CONNECTION. TOP: DUCT SIZE, ACTIVE LENGTH, NO. OF SLOTS & SIZE OF SLOT. BOTTOM: TYPE, CFM, RADIUS (IF APPLICABLE).  |
|  | FLEXIBLE DUCT CONNECTION  |
|  | FLEXIBLE DUCT   |
|  | FLAT OVAL DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.<br>12/8 FO   |
|  | RECTANGULAR DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.<br>12/8  |
|  | ROUND DUCT WITH NET INSIDE DIMENSIONS SHOWN IN INCHES.<br>12ø   |
|  | INCLINED RISE   |
|  | INCLINED DROP   |
|  | RW=1. ROUND DUCT SIMILAR TO RECTANGULAR   |
|  | RECTANGULAR TO RECTANGULAR OR ROUND TO ROUND DUCT TRANSFORMATION MAXIMUM 15° INCLUDED ANGLE EXCEPT WHERE SHOWN OTHERWISE.<br>12/12 8/8                            |
|  | RECTANGULAR TO ROUND DUCT TRANSFORMATION<br>BRANCH DUCT SPLIT WITH 6" WIDTH AND MIN. R=WIDTH OF BRANCH DUCT DOWNSTREAM. ELBOW TURNING VANE OPTIONAL.<br>12/12 12ø |
|  | TAP ENTRY AREA EQUALS 150% OF BRANCH AREA<br>150 45° D D  |
|  | HIGH EFFICIENCY FITTING<br>12ø 12/12  |
|  | MANUAL VOLUME DAMPER<br>FD  |
|  | FIRE DAMPER IN DUCT, W/ ACCESS PANEL REQD.<br>FSD   |
|  | COMBINATION FIRE/SMOKE DAMPER W/ ACCESS PANEL<br>SD   |
|  | SMOKE DAMPER W/ ACCESS PANEL<br>BDQ   |
|  | BACK DRAFT DAMPER<br>ATC  |
|  | ATC DAMPER<br>OR  |
|  | ACCESS PANEL IN DUCT OR PLENUM<br>AD  |
|  | HEATING OR COOLING COIL IN DUCT   |
|  | SINGLE DUCT AIR TERMINAL BOX VARIABLE OR CONSTANT VOLUME. MIN. 1-1/2 TERMINAL INLET SIZE STRAIGHT DUCT AT TERMINAL INLET.   |
|  | 4-WAY BLOW PATTERN  |
|  | 3-WAY BLOW PATTERN  |
|  | 2-WAY BLOW PATTERN  |
|  | 2-WAY BLOW PATTERN  |
|  | 1-WAY BLOW PATTERN  |
|  | DUCT SMOKE DETECTOR<br>SD   |

## PIPING

|  |   |
|--|---|
|  | SHUT OFF VALVE  |
|  | BALL VALVE  |
|  | BUTTERFLY VALVE   |
|  | MOTOR OPERATED BUTTERFLY VALVE  |
|  | GATE VALVE  |
|  | GATE VALVE - NON RISING STEM  |
|  | ANGLE VALVE   |
|  | GLOBE VALVE   |
|  | PLUG VALVE  |
|  | SHUT OFF PLUG VALVE FOR USE WITH PRESSURE GAUGE   |
|  | CHECK VALVE   |
|  | LATERAL STRAINER WITH BLOW-OFF VALVE, PROVIDE HOSE END WITH CAP WHERE DISCHARGE IS NOT PIPED TO DRAIN |
|  | F&T=FLOAT & THERMOSTATIC  |
|  | REDUCED PRESSURE BACKFLOW PREVENTOR W/ DRAIN PAN  |
|  | PRESSURE REDUCING VALVE EXTERNAL PRESSURE   |
|  | PRESSURE REDUCING VALVE SELF CONTAINED  |
|  | ATC - 2 WAY VALVE   |
|  | ATC - 3 WAY VALVE   |
|  | SOLENOID VALVE  |
|  | CALIBRATED BALANCING VALVE WITH GPM INDICATED<br>0.0 GPM  |
|  | VENTURI FLOW METER  |
|  | FLOW METER ORIFICE<br>GPM LB/HR   |
|  | RELIEF VALVE  |
|  | FLOW SWITCH   |
|  | PRESSURE SWITCH   |
|  | TEMPERATURE AND PRESSURE TEST PORT  |
|  | THERMOMETER WELL  |
|  | THERMOMETER - TEMP RANGE AS INDICATED   |
|  | PRESSURE GAUGE WITH SHUT OFF PLUG VALVE   |
|  | PRESSURE GAUGE WITH PIGTAIL   |
|  | UNION   |
|  | FLANGE  |
|  | FLEXIBLE EXPANSION JOINT  |
|  | REDUCER   |
|  | ECCENTRIC REDUCER   |
|  | BRANCH - BOTTOM CONNECTION  |
|  | BRANCH - TOP CONNECTION   |
|  | BRANCH - SIDE CONNECTION  |
|  | RISE OR DROP  |
|  | RISER - DOWN (ELBOW)  |
|  | RISER - UP (ELBOW)  |
|  | PIPE CAP  |
|  | ARROW INDICATES DIRECTION OF FLOW IN PIPE   |
|  | LEADER INDICATES DOWNWARD SLOPE   |
|  | VALVE IN RISE   |
|  | 90° ELBOW   |
|  | 45° ELBOW   |
|  | ALIGNMENT GUIDE   |
|  | ANCHOR  |

## PLUMBING

|  |   |
|--|---|
|  | THERMOSTATIC MIXING VALVE                         |
|  | HOSE BIBB   |
|  | FLOOR SINK  |
|  | FLOOR DRAIN                                       |
|  | FLOOR CLEAN-OUT OR CLEAN-OUT TO GRADE<br>FCO COTG |
|  | ROOF DRAIN  |
|  | DOWNSPOUT NOZZLE                                  |
|  | VENT THRU ROOF                                    |
|  | WATER HAMMER ARRESTOR                             |
|  | CLEAN-OUT   |
|  | FILL PORT   |
|  | DRAIN PAN AND P-TRAP                              |
|  | FIXTURE FROM LEVEL ABOVE<br>(NAME)                |
|  | DEMOLITION  |

## EQUIPMENT

|  |             |
|--|-------------|
|  | UNIT HEATER |
|  | INLINE PUMP |
|  | INLINE PUMP |
|  | FAN         |

## FIRE

|  |                                 |
|--|---------------------------------|
|  | HOSE VALVE                      |
|  | NRS GATE VALVE WITH SUPERVISION |
|  | FLOW SWITCH                     |
|  | FIRE RISER                      |
|  | SPRINKLER HEAD                  |
|  | FIRE SPRINKLER WATER            |

## ANNOTATIONS

|  |   |
|--|---|
|  | PLUMBING FIXTURES   |
|  | POINT OF CONNECTION   |
|  | SECTION TAG - TOP FIGURE IS SECTION NO. BOTTOM FIGURE IS SHEET NO.<br>A M-101 |
|  | DETAIL TAG - TOP FIGURE IS DETAIL NO. BOTTOM FIGURE IS SHEET NO.<br>A M101    |
|  | EQUIPMENT IDENTIFICATION  |
|  | KEYED NOTE IDENTIFICATION   |
|  | SWITCH  |
|  | SENSOR  |
|  | THERMOSTAT  |
|  | NIGHT THERMOSTAT  |

## LINETYPES

|  |                                      |
|--|--------------------------------------|
|  | ACID VENT                            |
|  | ACID WASTE                           |
|  | BOILER BLOW DOWN                     |
|  | BOILER FEED WATER                    |
|  | BRINE                                |
|  | CARBON DIOXIDE                       |
|  | COMPRESSED AIR                       |
|  | CHEMICAL FEED                        |
|  | CHILLED WATER SUPPLY                 |
|  | CHILLED WATER RETURN                 |
|  | CONDENSER WATER SUPPLY               |
|  | CONDENSER WATER RETURN               |
|  | DOMESTIC COLD WATER (DCW)            |
|  | DOMESTIC HOT WATER (DHW)             |
|  | DOMESTIC HOT WATER RETURN (DHW)      |
|  | DEIONIZED WATER SUPPLY               |
|  | DEIONIZED WATER RETURN               |
|  | EXISTING PIPING                      |
|  | EXISTING PIPING TO BE REMOVED        |
|  | GLYCOL HEAT RECOVERY PIPING          |
|  | GLYCOL PIPING SOLUTION               |
|  | FUEL OIL RETURN                      |
|  | FUEL OIL SUPPLY                      |
|  | FUEL OIL VENT                        |
|  | FLUSH VALVE SUPPLY                   |
|  | NATURAL GAS                          |
|  | HOT GAS                              |
|  | HELICOPTER FUEL RETURN               |
|  | HELICOPTER FUEL SUPPLY               |
|  | HIGH PRESSURE DOMESTIC WATER         |
|  | HIGH PRESSURE CONDENSATE             |
|  | HIGH PRESSURE STEAM                  |
|  | HEATING HOT WATER RETURN             |
|  | HEATING HOT WATER SUPPLY             |
|  | INSTRUMENT AIR                       |
|  | INSTRUMENT AIR AT PRESSURE INDICATED |
|  | INDUSTRIAL COLD WATER                |
|  | INDUSTRIAL HOT WATER                 |
|  | INDUSTRIAL HOT WATER RETURN          |
|  | INDUSTRIAL SOFT COLD WATER           |
|  | LAB AIR                              |
|  | LAB VACUUM                           |
|  | LOW PRESSURE CONDENSATE              |
|  | LIQUIFIED PETROLEUM GAS              |
|  | LOW PRESSURE STEAM                   |
|  | LAB WATER                            |
|  | LAB WATER RETURN                     |
|  | MEDICAL AIR                          |
|  | MEDICAL AIR AT PRESSURE INDICATED    |
|  | MEDIUM PRESSURE CONDENSATE           |
|  | MEDIUM PRESSURE STEAM                |

## LINETYPES CONT.

|  |                                      |
|--|--------------------------------------|
|  | MAKE UP WATER                        |
|  | MEDICAL VACUUM                       |
|  | NITROGEN                             |
|  | NITROUS OXIDE                        |
|  | MEDICAL OXYGEN                       |
|  | MEDICAL OXYGEN AT PRESSURE INDICATED |
|  | PUMPED CONDENSATE                    |
|  | REVERSE OSMOSIS WATER SUPPLY         |
|  | REVERSE OSMOSIS WATER RETURN         |
|  | ROOF DRAIN                           |
|  | ROOF DRAIN OVERFLOW                  |
|  | REFRIGERANT LIQUID                   |
|  | REFRIGERANT SUCTION                  |
|  | SEWER (BELOW GRADE)                  |
|  | SEWER (ABOVE GRADE)                  |
|  | SOFT DOMESTIC WATER                  |
|  | TEMPERED WATER                       |
|  | TEMPERED WATER RETURN                |
|  | VACUUM                               |
|  | VENT (SEWER)                         |

| Sheet List   |                                 |
|--------------|---------------------------------|
| Sheet Number | Sheet Name                      |
| M000         | MECHANICAL SYMBOLS AND LEGEND   |
| M001         | MECHANICAL GENERAL NOTES        |
| M100         | LL1 MECHANICAL OVERALL          |
| MD101        | MECHANICAL DEMOLITION PLANS     |
| M101         | LL1 MECHANICAL PLAN             |
| M501         | MECHANICAL DETAILS              |
| M601         | SCHEDULES AND SCHEMATIC         |
| MPD102       | LL1 MECHANICAL DEMOLITION PLAN  |
| MP101        | LL2 MECHANICAL PIPING PLAN      |
| MP102        | LL1 MECHANICAL PIPING PLAN      |
| PD101        | LL1 PLUMBING DEMOLITION PLAN    |
| P101         | LL2 PLUMBING PLAN               |
| P102         | LL1 PLUMBING PLAN               |
| PD111        | LL1 MEDICAL GAS DEMOLITION      |
| P111         | LL1 MEDICAL GAS PLAN            |
| FPD101       | FIRE PROTECTION DEMOLITION PLAN |
| FP101        | LL1 FIRE PROTECTION PLAN        |

## MEDICAL GAS GENERAL NOTES

1. MEDICAL GAS PIPING IS TO BE RUN ABOVE THE CEILING, UNLESS NOTED OTHERWISE. COORDINATE PIPING ROUTING WITH ALL OTHER POSSIBLE CONFLICTS SUCH AS DUCTWORK, DIFFUSERS, OTHER PIPING, LIGHTS, CONDUIT, STRUCTURE, ETC.
2. ALL PIPE AND DUCT SIZES SHALL REMAIN THE SAME SIZE SHOWN, IN THE DIRECTION OF FLOW, UNTIL SHOWN OTHERWISE.
3. SLEEVE PIPING THRU WALLS/FOUNDATIONS WHERE REQUIRED.
4. MEDICAL GAS PIPING IS SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
6. MOUNT ALL SERVICE VALVES NEAR CEILING HEIGHT FOR ACCESSIBILITY.

## FIRE PROTECTION GENERAL NOTES

1. NO FIRE PROTECTION LINE SHALL BE DESIGNED OR INSTALLED PRIOR TO CLOSE COORDINATION WITH ALL OTHER DISCIPLINES. DUCTWORK, MECHANICAL PIPING AND PLUMBING TAKE SPACE PRECEDENCE OVER FIRE PROTECTION PIPING. FAILURE TO COMPLY WILL RESULT IN THE FIRE PROTECTION REMOVAL AND REINSTALLATION AT THE FIRE PROTECTION CONTRACTORS EXPENSE.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING SURROUNDING AREA.
3. COORDINATE EXACT LOCATION OF PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND PLUMBING PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.

## PLUMBING GENERAL NOTES

1. UNLESS OTHERWISE NOTED, SLOPE PIPE AS FOLLOWS: WASTE BRANCHES: 1/4" PER FOOT; WASTE MAINS: 1/4" PER FOOT; ROOF DRAIN/ROOF DRAIN OVERFLOW: 1/8" PER FOOT.
2. ALL WORK DONE SHALL BE PERFORMED WITH WATER CONTROL IN MIND. CONTAINMENT OF WATER IS NECESSARY TO PREVENT WATER FROM DAMAGING AREAS ON FLOORS BELOW.
3. PLUMBING DRAWINGS ARE SCHEMATIC IN NATURE. FIELD VERIFY EXACT PIPE ROUTING AND COORDINATE WITH ALL OTHER TRADES.
4. ALL PIPING IN PLUMBING CHASES SHALL BE ARRANGED TO ALLOW MAINTENANCE ACCESS.
5. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
6. COORDINATE FAN ROOM FLOOR DRAIN AND FLOOR SINK LOCATIONS WITH COOLING COIL, EVAPORATIVE SECTION, AND HEATING COIL LOCATIONS.
7. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.
8. PIPING AND ROUTING SHOWN, INCLUDING ALL BELOW FLOOR DECK PIPING, IS APPROXIMATE. IT IS UP TO THE CONTRACTOR TO FIELD VERIFY THE EXACT LOCATION AND SIZE OF ALL PIPING.
9. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS, DIMENSIONS, AND OTHER REQUIREMENTS.
10. CONTRACTOR TO VERIFY CONNECTION SIDE OF ADA FIXTURES AND ADJUST ACCORDINGLY. INSTALL FLUSH VALVES HANDLES ON WIDE SIDE OF ALL FIXTURES.
11. LOCATE ALL VENTS MINIMUM 25' AWAY FROM AIR INTAKES.
12. INSTALL ALL DOMESTIC WATER LINES BELOW DUCTWORK.
13. INSTALL A 24" X 24" ACCESS DOOR BELOW ALL ISOLATION VALVES, BALANCING VALVES AND WATER HAMMER ARRESTORS WHERE MOUNTED ABOVE HARD CEILINGS.
14. MOUNT ALL ISOLATION VALVES, CONTROL VALVES, BALANCING VALVES, ETC. NEAR CEILING HEIGHT FOR ACCESSIBILITY.
15. INSTALL ALL EQUIPMENT WITH SUFFICIENT CLEARANCE FOR MAINTENANCE PER MANUFACTURERS RECOMMENDATION.
16. COORDINATE ALL FLOOR PENETRATIONS WITH STRUCTURAL AND PROVIDE SLEEVES AS NECESSARY.
17. COORDINATE EXACT LOCATION OF PLUMBING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, MECHANICAL PIPING, MEDICAL GASES, FIRE PROTECTION AND OTHER TRADES, TYPICAL.
18. COORDINATE THE LOCATION OF THE FLOOR DRAIN, SHOWER DRAIN, OR FLOOR SINK WITH ARCHITECTURAL AND STRUCTURAL, TYPICAL.
19. ACCESS DOORS SHALL BE PROVIDED TO ALL WATER HAMMER ARRESTORS IN WALLS OR ABOVE CEILINGS.
20. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES OF WASTE, VENT AND DOMESTIC WATER TO/FROM SINGLE FIXTURE.
21. HOSE BIBBS SHOWN AT LAVATORIES ARE TO BE MOUNTED AT AN ACCESSIBLE LOCATION UNDER THE LAVATORY.
22. COORDINATE EXACT LOCATION OF PLUMBING PIPING WITH STRUCTURAL MEMBERS, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUITS, DUCTWORK, MECHANICAL AND FIRE PROTECTION PIPING, AND ALL OTHER TRADES AND ALL EXISTING CONDITIONS.
23. LOCATE CIRCUIT SETTERS, VALVES, WATER HAMMER ARRESTORS, ETC. IN ACCESSIBLE LOCATIONS. PROVIDE 24"x24" ACCESS PANEL WHERE ITEM IS LOCATED ABOVE A HARD CEILING.
24. ALL PIPE AND DUCT SIZES SHALL REMAIN THE SAME SIZE SHOWN, IN THE DIRECTION OF FLOW, UNTIL SHOWN OTHERWISE.
25. INSTALL CLEANOUTS IN DRAIN PIPING AS INDICATED, AND WHERE NOT INDICATED, ACCORDING TO THE FOLLOWING.
  - a. SIZE SAME AS DRAINAGE PIPING UP TO 4" NPS. USE 4" NPS FOR LARGER. DRAINAGE PIPING UNLESS LARGER CLEANOUT IS INDICATED.
  - b. LOCATE AT MINIMUM INTERVALS OF 50 FT FOR PIPING 4" NPS AND SMALLER AND 100 FT FOR LARGER PIPING.
  - c. LOCATE AT THE BASE OF EACH VERTICAL STACK.

## MECHANICAL PIPING GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PIPING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. UNLESS OTHERWISE NOTED, ALL MECHANICAL PIPING IS OVERHEAD TO RUN ABOVE DUCTWORK AND TIGHT TO UNDERSIDE OF STRUCTURE.
3. WHERE VALVING OR EQUIPMENT IS LOCATED ABOVE HARD CEILINGS PROVIDE AN ACCESS DOOR IN CEILING. MINIMUM ACCESS DOOR SIZE OF 24"x24".
4. NO PIPING TO RUN OVER ELECTRICAL PANELS, VFD'S OR MCC'S. PROTECT EQUIPMENT WITH A 42" DEEP ZONE IN FRONT OF PANELS, VFD'S, AND MCC'S.
5. SLEEVE PIPING THRU WALLS/FOUNDATIONS WHERE REQUIRED.
6. INSTALL PIPING SO THAT ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
7. ALL VALVES SHALL BE INSTALLED SO THAT VALVE REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON EQUIPMENT SIDE OF VALVE IS REMOVED.
8. PROVIDE AN AIR VENT AT THE HIGH POINT OF EACH DROP IN THE HEATING AND CHILLED WATER PIPING SYSTEM.
9. INSTALL ALL PIPING WITHOUT FORCING OR SPRINGING.
10. ALL VALVES SHALL BE ADJUSTED FOR SMOOTH AND EASY OPERATION.
11. PROVIDE ISOLATION VALVES AT EACH EXIT/ENTRANCE INTO SHAFT WHETHER OR NOT SHOWN.
12. ALL PIPE AND DUCT SIZES SHALL REMAIN THE SAME SIZE SHOWN, IN THE DIRECTION OF FLOW, UNTIL SHOWN OTHERWISE.
13. COORDINATE LOCATION OF THERMOSTAT WITH ARCHITECTURAL FURNISHING PLANS. MOUNT THERMOSTAT AT HEIGHT AS SPECIFIED ON ARCHITECTURAL.
14. CONTRACTOR TO PROVIDE VALVE IDENTIFICATION AND LOCATION ON ALL CEILING TILES WHERE VALVES ARE LOCATED.

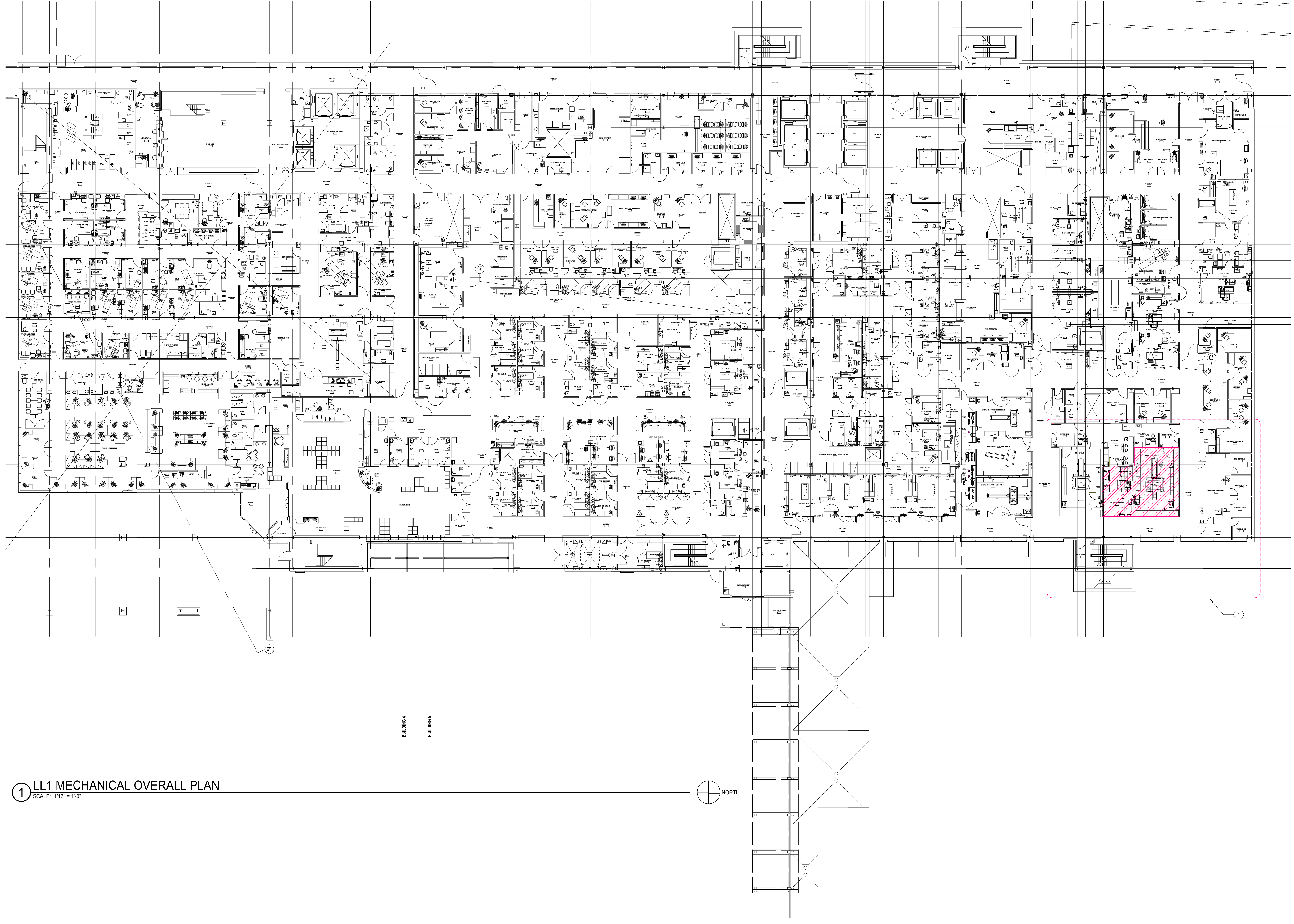
## MECHANICAL GENERAL NOTES

1. COORDINATE EXACT PLACEMENT OF DIFFUSERS, GRILLES, AND REGISTERS WITH ARCHITECTURAL REFLECTED CEILING PLAN, TYPICAL.
2. SEE DETAIL FOR DIFFUSER CONNECTIONS TO DUCTWORK, TYPICAL.
3. BRANCH DUCTWORK SHALL BE SIZED TO MATCH THE NECK INLET SIZE OF THE DIFFUSERS, REGISTER OR GRILLE IT SERVES UNLESS NOTED OTHERWISE, TYPICAL.
4. COORDINATE EXACT MOUNTING LOCATION OF ALL THERMOSTATS WITH LATEST REVISION OF ARCHITECTURAL ELEVATION AND FURNISHINGS PLANS, TYPICAL.
5. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CAULKING AND SEALING ALL PENETRATIONS IN FIRE AND SMOKE RATED PARTITIONS TO MAINTAIN RATINGS. SEE SPECIFICATION, TYPICAL.
- 6.
7. THE MECHANICAL CONTRACTOR SHALL PROVIDE FIRE, SMOKE OR COMBINATION FIRE/SMOKE DAMPERS AT ALL LOCATIONS SHOWN ON THE CONTRACT DOCUMENTS AND AS REQUIRED TO MEET THE INTEGRITY OF ALL SMOKE AND FIRE PARTITIONS. THE CONTRACTOR SHALL REFER TO THE LATEST ARCHITECTURAL LIFE SAFETY PLANS FOR ALL FIRE AND SMOKE PARTITION LOCATIONS. DAMPERS ARE TO BE PROVIDED WITH SHUTOFF/TEST SWITCH AT EACH LOCATION.
8. PROVIDE AND INSTALL TURNING VANES IN ALL SQUARE LOW PRESSURE DUCTWORK AT ELBOWS OR TEES, TYPICAL.
9. INSTALL ALL TERMINAL BOXES IN EASILY ACCESSIBLE AND SERVICEABLE LOCATIONS, MEETING ALL MANUFACTURERS REQUIRED CLEARANCES ON EACH SIDE, SEE DETAILS, TYPICAL.
10. CONTRACTOR SHALL OFF-SET, TRANSITION AND PROVIDE CHANGES AS REQUIRED FOR COORDINATION WITH OTHER TRADES, TYPICAL.
11. DUCTWORK SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS. REFER TO MECHANICAL SPECIFICATIONS FOR EXTENT OF DUCT INSULATION AND LINER.
12. PROVIDE AND INSTALL REMOTE DAMPER OPERATORS FOR ALL DAMPERS INSTALLED ABOVE INACCESSIBLE CEILINGS. SEE MECHANICAL SPECIFICATIONS FOR EQUIPMENT REQUIREMENTS, TYPICAL.
13. PROVIDE AND INSTALL HIGH EFFICIENCY TAKE-OFF FITTINGS AND BALANCING DAMPER AT ALL BRANCH CONNECTIONS TO LOW PRESSURE DUCTWORK.
14. PROVIDE AND INSTALL HIGH EFFICIENCY OR CONICAL TAKE-OFFS AT ALL BRANCH CONNECTIONS TO MEDIUM PRESSURE DUCTWORK.
15. WHERE DUCTWORK CROSSES, SUPPLY DUCTWORK IS USUALLY BELOW RETURN AND EXHAUST DUCT. RETURN DUCTWORK IS USUALLY BELOW EXHAUST DUCTS.
16. AT LOCATIONS WHERE DIFFUSERS OR GRILLES ARE UNDER DUCTWORK, CONTRACTOR TO FABRICATE TRANSITION BOOT FROM FLEX CONNECTION TO DIFFUSER OR GRILLE WITH BALANCING DAMPER, TYPICAL.
17. THE MECHANICAL CONTRACTOR SHALL PROVIDE CEILING MOUNTED ACCESS DOORS FOR ALL FIRE, SMOKE AND COMBINATION FIRE/SMOKE DAMPERS INSTALLED ABOVE INACCESSIBLE CEILING. FIELD VERIFY EXACT INSTALLATION LOCATIONS PRIOR TO COMMENCING WORK AND COORDINATE INSTALLATIONS WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS.
18. MECHANICAL CONTRACTOR SHALL ENSURE THAT ALL EQUIPMENT IS PROVIDED AND INSTALLED WITH CLEARANCES PER MANUFACTURERS RECOMMENDATIONS. THE CONTRACTOR SHALL MAINTAIN PROPER SERVICE SPACE FOR COIL PULLS, BAS DEVICES, MAINTENANCE ACCESS, ETC.
19. ALL VAV BOXES TO HAVE REHEAT COILS, EXCEPT AS NOTED. PROVIDE A MINIMUM OF TWO DUCT DIAMETERS OF STRAIGHT ROUND DUCT TO INLET OF VAV BOX. BOX SHALL BE HARD CONNECTED (CONICAL) TO MEDIUM PRESSURE DUCT, TYPICAL.
20. PROVIDE ACCESS DOORS TO ACCESS VAV BOX CONTROLS ABOVE HARD CEILINGS. PROVIDE MIN. 24" X 24".
21. ALL PIPE AND DUCT SIZES SHALL REMAIN THE SAME SIZE SHOWN, IN THE DIRECTION OF FLOW, UNTIL SHOWN OTHERWISE.
22. ALL DUCTWORK ABOVE HARD CEILINGS SHALL BE EXTENDED ALL THE WAY TO THE SUPPLY DIFFUSERS, RETURN GRILLS OR EXHAUST GRILLS WHETHER OR NOT HARD DUCT OR FLEX DUCT IS SHOWN ON PLANS. FLEX DUCT WILL NOT BE ALLOWED TO DIFFUSERS OR GRILLS ABOVE HARD CEILINGS. FLEX DUCT WILL BE REQUIRED IN AREAS ABOVE T-BAR CEILINGS.
23. NEW DUCTWORK, PIPING AND EQUIPMENT SHALL BE COORDINATED WITH STRUCTURE, LIGHTS, REFLECTED CEILING PLANS, CABLE TRAY, ELECTRICAL CONDUIT, PLUMBING, MECHANICAL AND FIRE PROTECTION PIPING, MEDICAL GASES, ALL OTHER TRADES AND ALL OTHER EXISTING CONDITIONS.
24. THE CONTRACTOR SHALL INFORM THE DESIGNER OF ANY PROPOSED DEVIATIONS FROM THE CONTRACT DOCUMENTS.
25. PROVIDE ACCESS TO ALL TEMPERATURE CONTROLS ABOVE CEILING. LOCATE IN ACCESSIBLE LOCATION WHERE THERE ARE HARD CEILINGS. THE CONTRACTOR SHALL PROVIDE 24"x24" ACCESS DOOR.

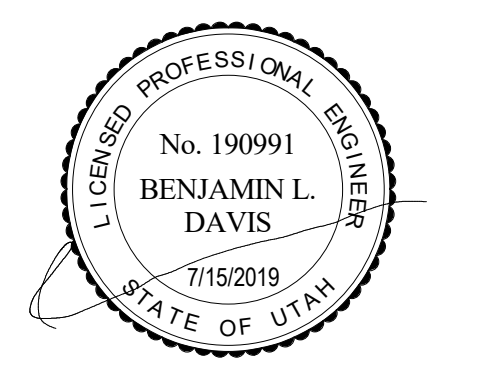


# KEYED NOTES

1. SEE ENLARGED VIEWS FOR DETAILS.



1 LL1 MECHANICAL OVERALL PLAN  
SCALE: 1/16" = 1'-0"



**VR** VAN BOERUM & FRANK ASSOCIATES, INC.  
CONSULTING ENGINEERS  
WWW.VBFA.COM  
Salt Lake City: Logan - St. George - Temple  
330 South 300 East 801.530.3148 T  
Salt Lake City, UT 84111 801.530.3150 F  
VBFA Project Number: 19303

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CLIENT NUMBER:  
DATE: 07/15/2019

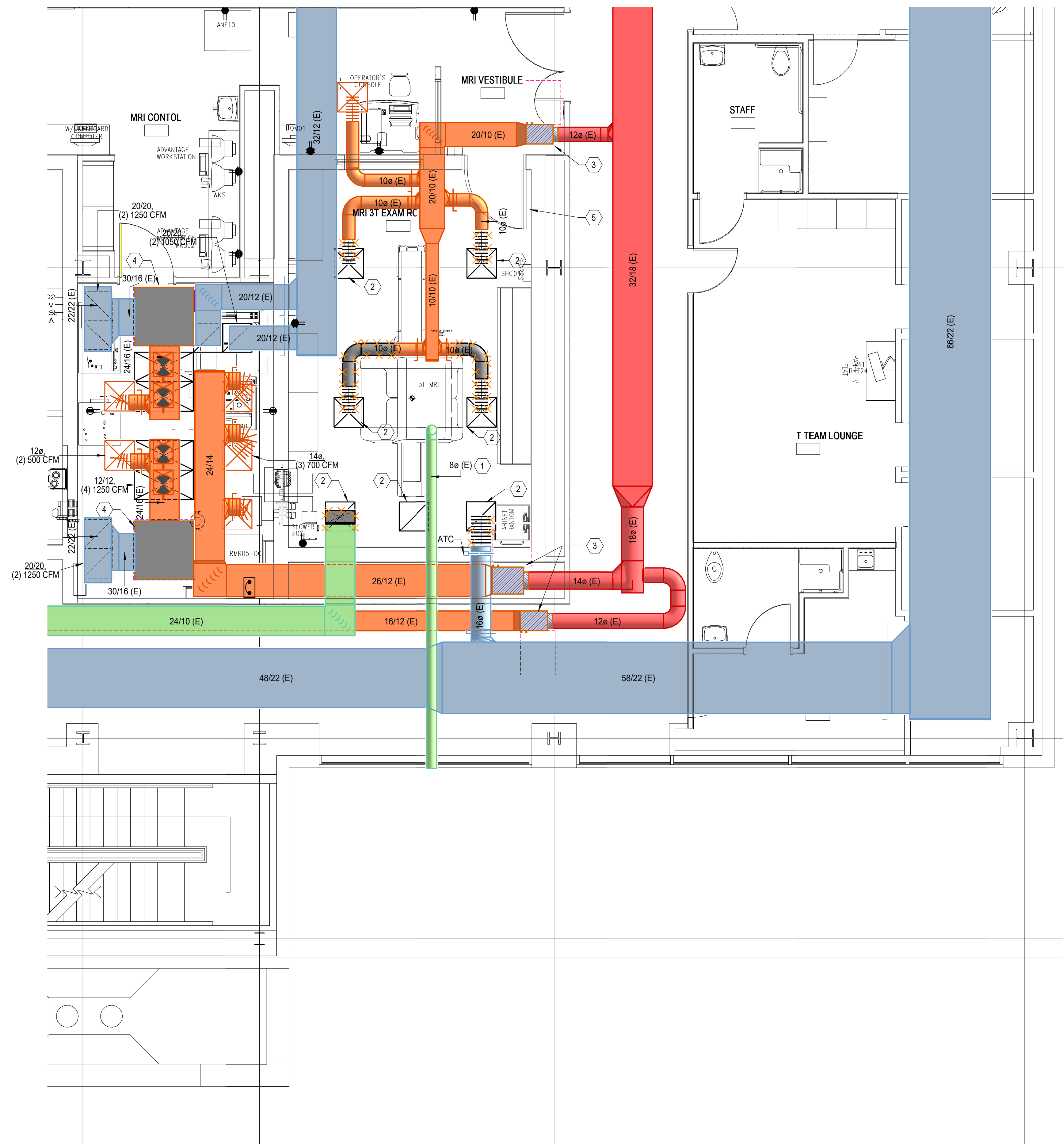
**IMED BUILDING 5 - MRI CARING SUITE**  
INTERMOUNTAIN HEALTHCARE  
5125 SOUTH COTTONWOOD STREET, MURRAY UT 84107  
BID SET / CONSTRUCTION DOCUMENTS

LL1 MECHANICAL OVERALL

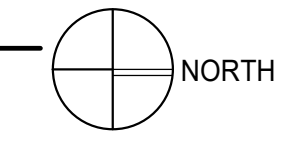


# KEYED NOTES

1. CRYOGEN VENT TO REMAIN CONNECTED TO EXISTING MAGNET.
2. EXISTING GRILLES TO BE REMOVED AND RELOCATED TO NEW CEILING LAYOUT.
3. EXISTING VAV BOX AND ASSOCIATED DUCTWORK TO REMAIN.
4. EXISTING CRU AND ASSOCIATED DUCTWORK TO REMAIN.
5. EXISTING WALL EXHAUST FAN SWITCH TO REMAIN. RELOCATE AS NEEDED WITH NEW CABINET LAYOUT. SEE ARCHITECTURAL SHEETS.



1 LL1 Mechanical Demolition Plan  
SCALE: 1/4" = 1'-0"

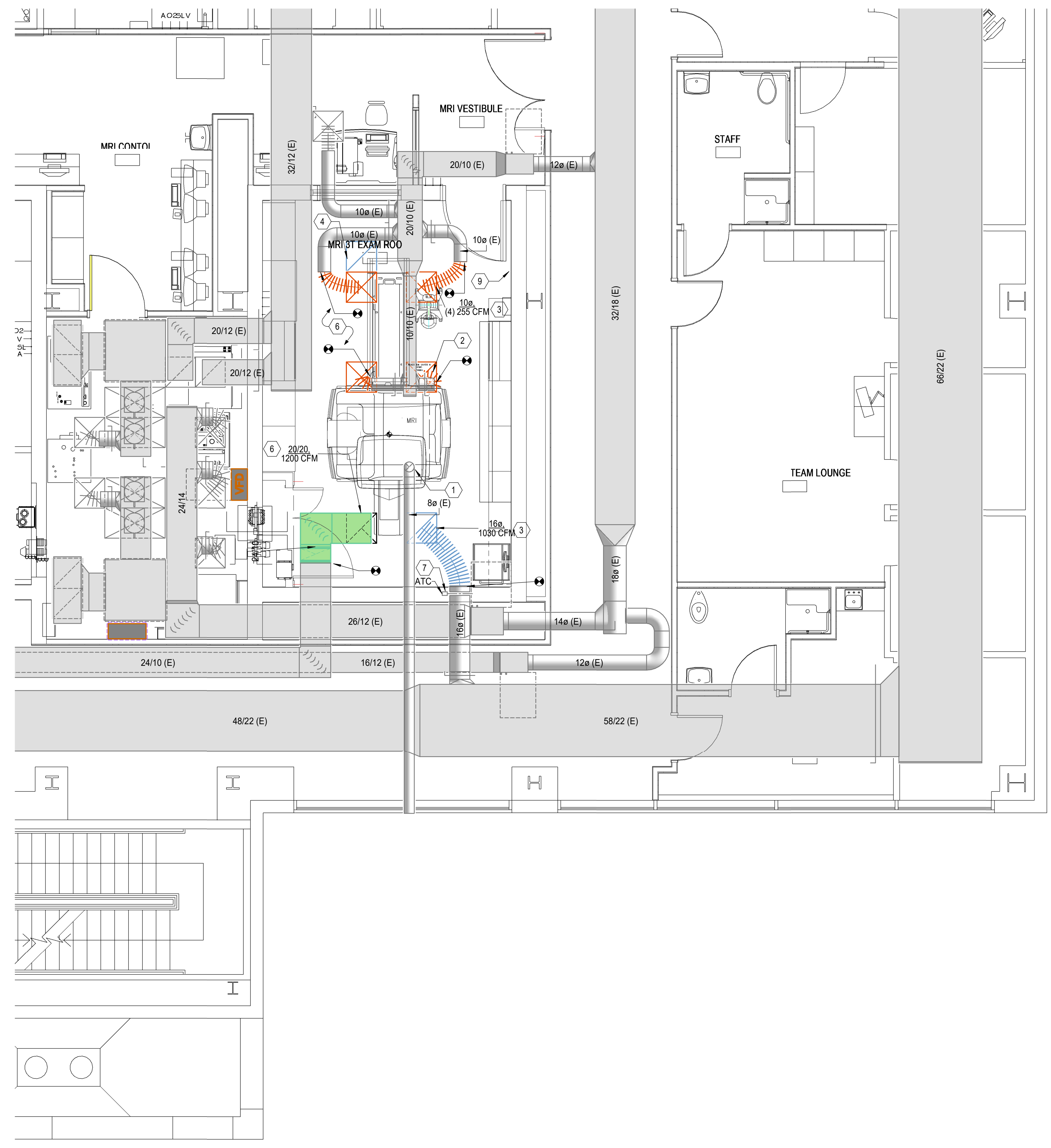


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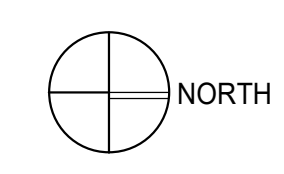
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CLIENT NUMBER:  
DATE: 07/15/2019

# KEYED NOTES

1. RECONNECT CRYOGEN VENT TO NEW MRI.
2. NEW FLEX DUCT TO BE RATED FOR USE IN MRI, THERMAX FLEX PHD OR EQUAL, TYPICAL.
3. RE-BALANCE GRILLE TO AIRFLOW SHOWN.
4. REUSED 24" x 24" RETURN DIFFUSER USED AS PRESSURE EQUALIZING GRID FOR WAVE GUIDE VENT. EQUALIZING GRID MUST BE OF ALL ALUMINUM CONSTRUCTION.
5. COORDINATE DUCTWORK, DIFFUSERS, AND REGISTERS WITH RF SHIELD AND STRUCTURE, TYPICAL.
6. SPECIAL CONSTRUCTION AREA:
  - A. ALL DUCTWORK, PIPING HANGERS, BRACKETS, VALVES, DIFFUSERS, GRILLES, DAMPERS, THERMOSTATS, VENTS, ETC., WITHIN THE LIMITS OF SPECIAL CONSTRUCTION AREA SHALL BE COMPRISED OF NON-FERROUS AND APPROVED MATERIALS.
  - B. ALL PENETRATIONS OF RF SHIELD TO BE ELECTRICALLY ISOLATED.
    - B.A. PENETRATIONS - THE SHIELD ENCLOSURE WILL HAVE SPECIAL WAVE GUIDE PENETRATIONS TO RECEIVE ALL REQUIRED MECHANICAL LINES, SUCH AS WATER, GAS, AIR OR WASTE. FROM THE OUTSIDE, THE MECHANICAL LINES, SUCH AS WATER, GAS, AIR OR WASTE, FROM THE OUTSIDE, THE MECHANICAL LINES SHALL HAVE DIELECTRIC CONNECTORS AND THEN SHALL BE ATTACHED TO THE WAVE GUIDE PENETRATIONS ON THE INSIDE OF THE ENCLOSURE CAN BE PERFORMED IN A CONVENTIONAL MANNER.
    - B.B. ALL PIPING TO THE ROOM IS TO BE BROUGHT THROUGH WAVE GUIDE PENETRATIONS. WAVE GUIDE PENETRATIONS WILL BE PROVIDED BY THE RF SHIELD SUPPLIER. DIELECTRIC COUPLINGS ARE TO BE USED BEFORE ATTACHING PIPES TO WAVE GUIDE PARTITION.
    - B.C. ALL DUCTWORK TO THE SHIELDED ROOM IS TO BE ATTACHED TO THE RF ISOLATORS WHICH ARE PROVIDED BY THE RF SHIELD SUPPLIER BY USE OF NONMETALLIC FLEXIBLE DUCT CONNECTORS.
7. CHECK OPERATION OF EMERGENCY EXHAUST. VERIFY AIR BALANCE OF 1200 CFM.
8. VERIFY OPERATION OF ATC DAMPER TO CLOSE WHEN EMERGENCY EXHAUST IS ACTIVATED.
9. EMERGENCY EXHAUST CONNECTED TO EXISTING WALL SWITCH. RELOCATE WALL SWITCH CLOSER TO THE DOOR TO ALLOW FOR NEW CABINET INSTALLATION. COORDINATE WITH ARCHITECTURAL ELEVATIONS. VERIFY OPERATION OF EXISTING PARALLEL FAN SWITCH IN CONTROL ROOM.

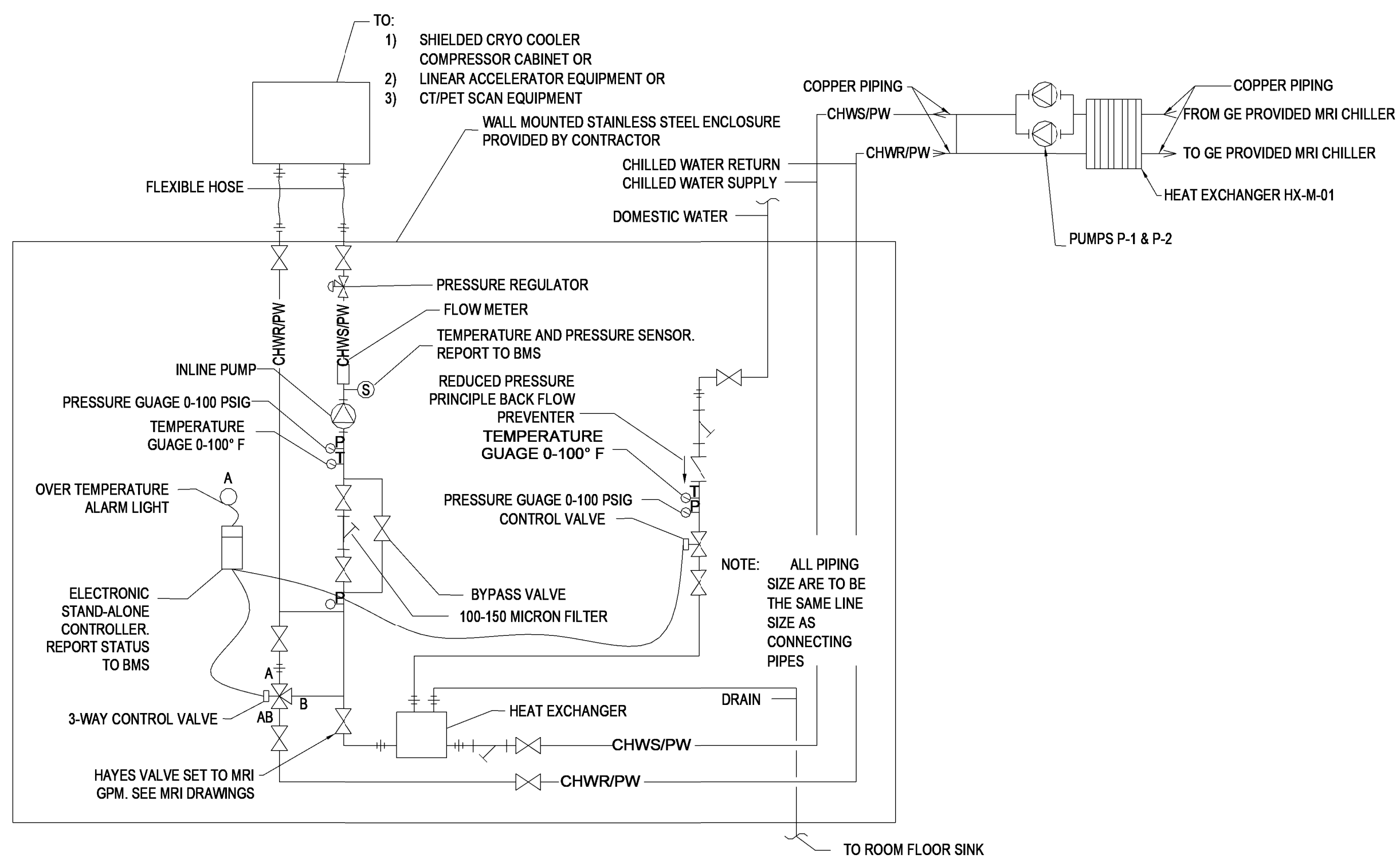


1 - LL1 Mechanical Plan  
SCALE: 1/4" = 1'-0"

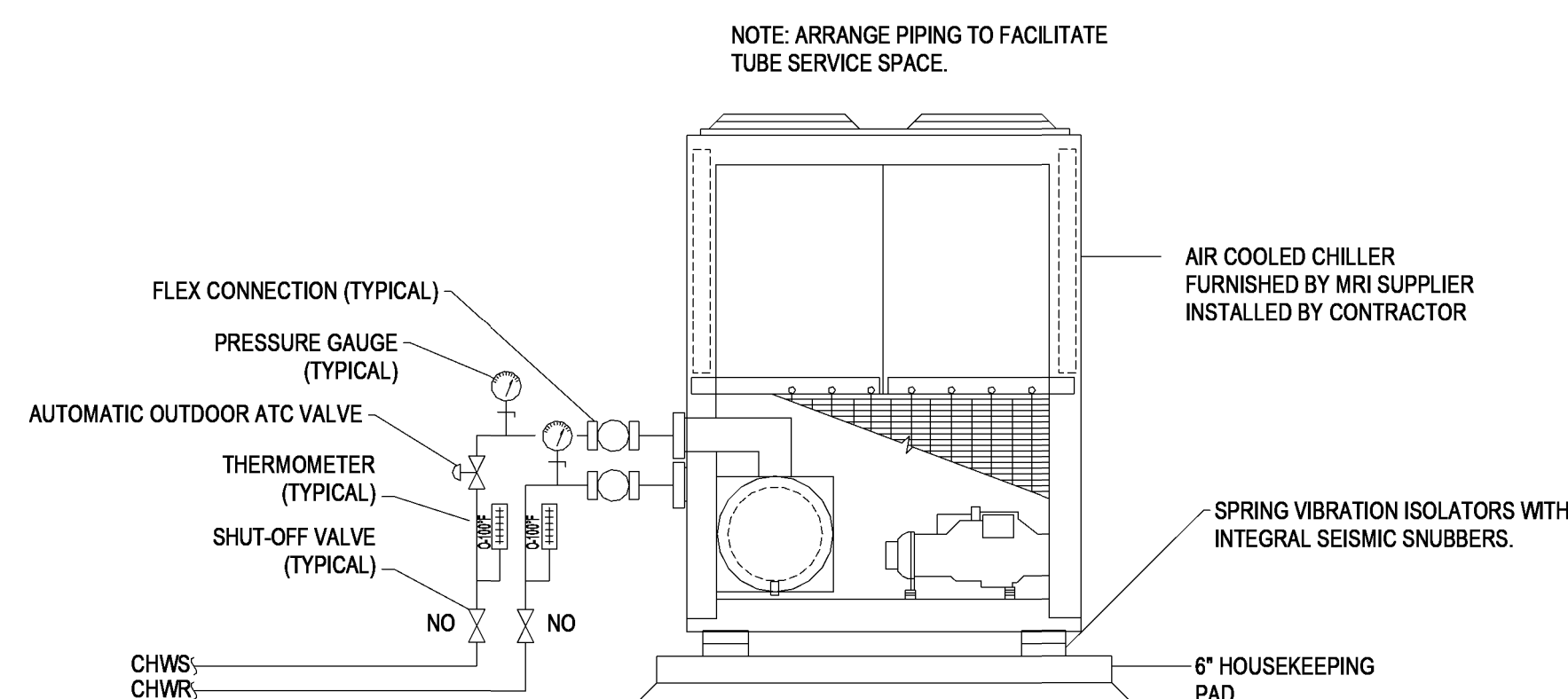


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5 PIPING TO EQUIPMENT ENCLOSURE  
M501 NO SCALE



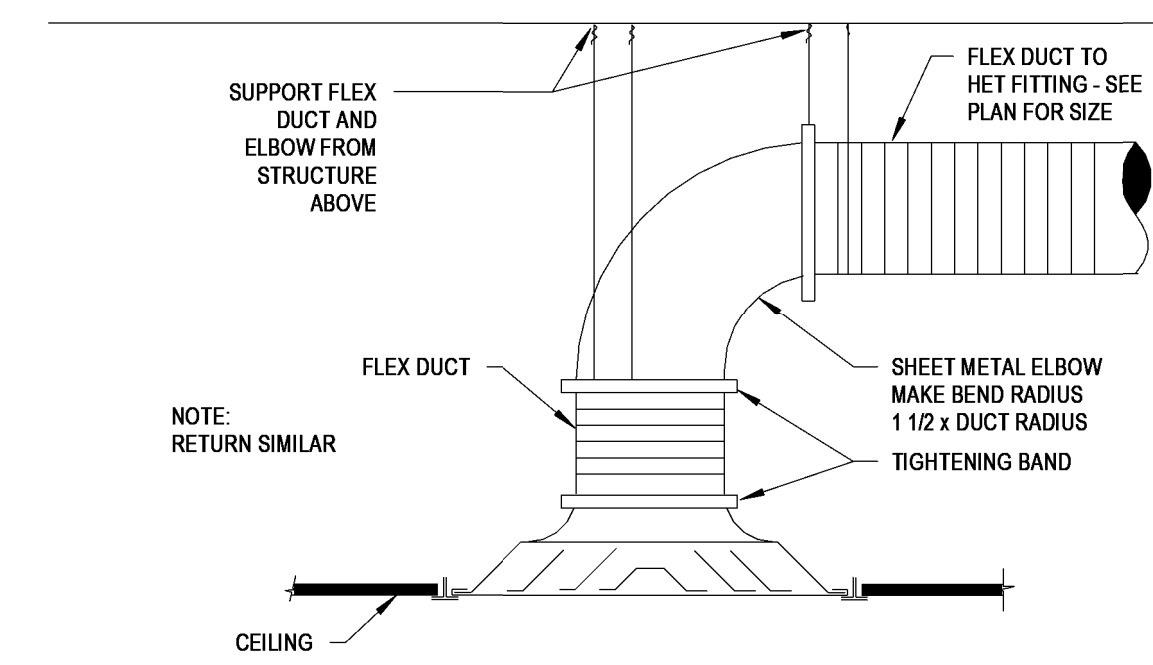
6 CHILLER PIPING DETAIL  
M501 NO SCALE

NOTE: THE SEISMIC DETAILS SHOWN HERE ARE FOR REFERENCE ONLY TO ILLUSTRATE TYPICAL SEISMIC REQUIREMENTS. REFER TO SPECIFICATIONS FOR REQUIRED SEISMIC DESIGN AND APPLICATION.

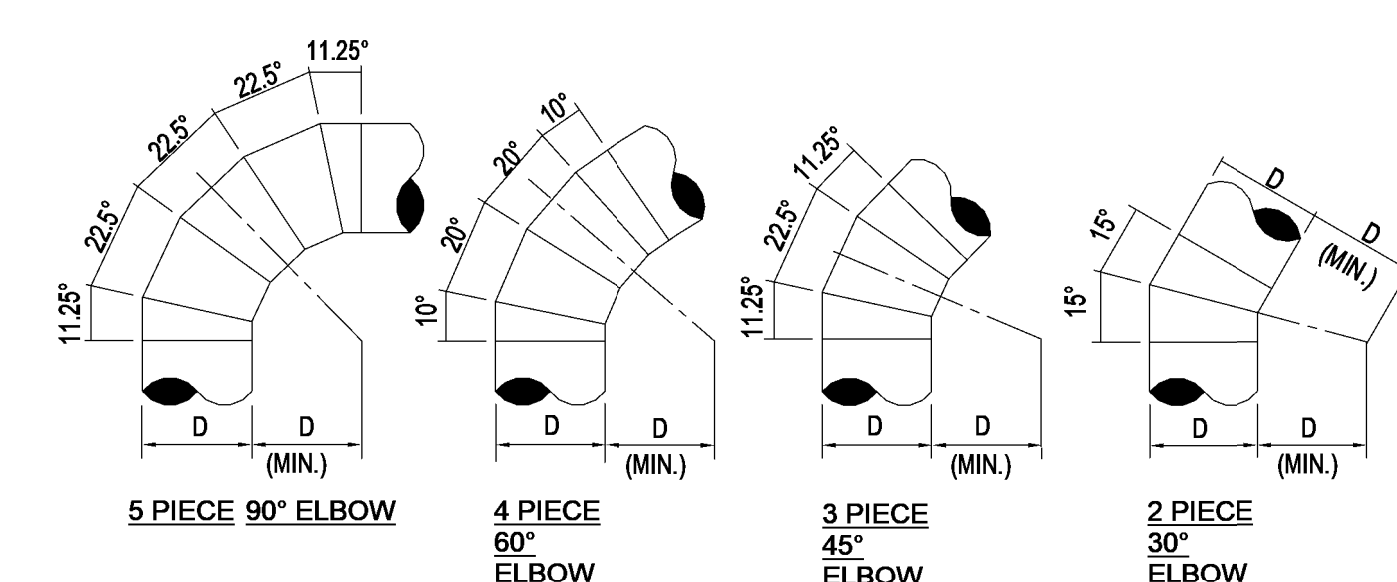
PIPE BRACING GENERAL NOTES

- DETAILS SHOWN PROVIDE GENERAL GUIDELINES FOR A LATERAL BRACING SYSTEM. A TYPICAL VERTICAL SUPPORT SYSTEM MUST ALSO BE USED.
- BRACE ALL PIPES 1-1/2" I.D. AND LARGER.
- CABLE RESTRAINTS AND BRACING NOT TO EXCEED 30'-0" CENTERS AND SHALL BE PROVIDED AT ALL CHANGES IN DIRECTION OF PIPE. ALL DROPS TO EQUIPMENT, AND ON EACH SIDE OF FLEXIBLE CONNECTIONS. BRACE POINTS SHALL NOT EXCEED 15'-0" FROM FLEXIBLE CONNECTION.
- ALL HOLES IN ANGLES ARE TO BE 1/16 INCH OVERSIZED. PLACE STANDARD CUT WASHERS BETWEEN SHEET METAL ANGLES AND NUT.
- EQUIPMENT WHICH ATTACHES TO THE PIPING SYSTEM SHALL BE BRACED INDEPENDENTLY OF THE PIPES.
- ALL SHEET METAL FOR BRACING TO BE FY-33 KSI MINIMUM. GAUGE FOR SHEET METAL BRACING SHALL BE AS FOLLOWS:  
16 GA = (0.0598 INCH)  
14 GA = (0.0747 INCH)  
12 GA = (0.1046 INCH)
- MINIMUM DISTANCE FROM EDGE OF ANGLE TO BOLTS SHALL BE AS FOLLOWS:  

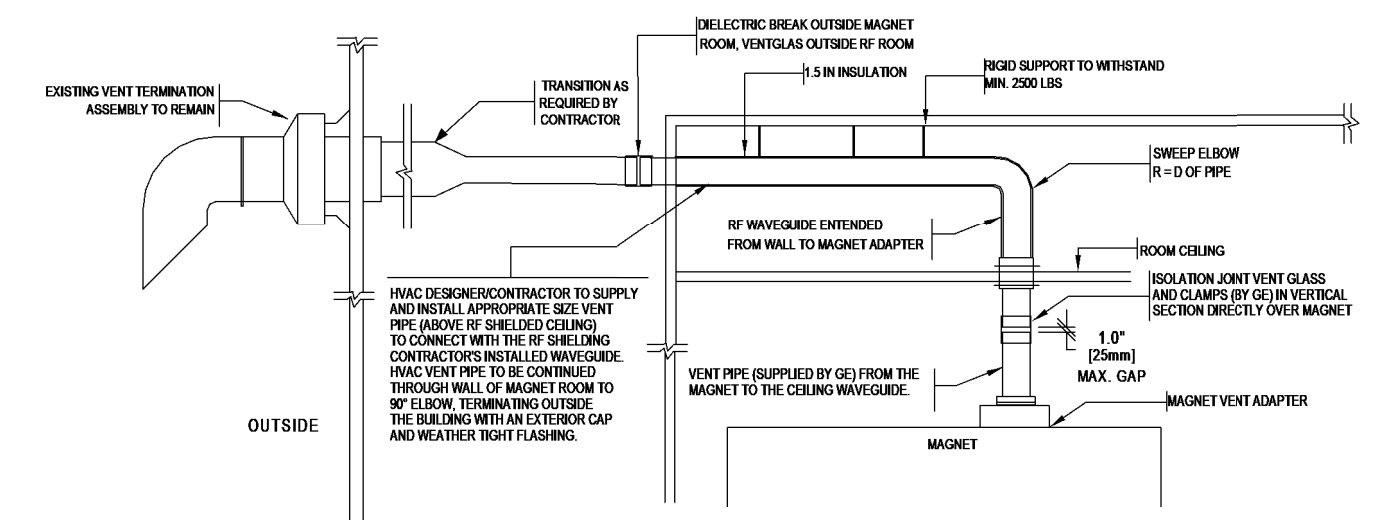
| BOLT DIAMETER | DISTANCE FROM EDGE |
|---------------|--------------------|
| 1/4"          | 1"                 |
| 5/8"          | 1 1/8"             |
| 3/4"          | 1 1/4"             |
| 7/8"          | 1 1/2"             |
- DO NOT FASTEN RESTRAINT SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF.
- PROVIDE LARGE ENOUGH PIPE SLEEVES THROUGH WALLS OR FLOORS TO ALLOW FOR ANTICIPATED DIFFERENTIAL MOVEMENTS.
- DO NOT FASTEN ONE RIGID PIPING SYSTEM TO TWO DISSIMILAR PARTS OF A BUILDING THAT MAY RESPOND IN A DIFFERENT MODE DURING AN EARTHQUAKE. FOR EXAMPLE, A WALL AND A ROOF.
- BRACING DETAILS, SCHEDULE AND NOTES ARE TO BE USED WITH THE FOLLOWING TYPES OF PIPE: STEEL PIPE SCHEDULE 40 AND 80, COPPER PIPE TYPE K, L, M (ONLY SILVER SOLDERED BRAZED JOINTS TO BE USED WITH COPPER PIPE).
- FOR GAS PIPING, THE BRACING DETAILS, SCHEDULES AND NOTES MAY BE USED EXCEPT THAT RESTRAINTS SHALL BE INSTALLED AT EVERY 20'-0" O.C. ALSO ALL PIPE 1 INCH AND LARGER SHALL BE BRACED.
- WASTE, VENT AND ROOF DRAINAGE PIPING SYSTEMS ARE EXCLUDED FROM THE RESTRAINT GUIDELINES.
- ALTERNATE EVERY OTHER CABLE RESTRAINT IN OPPOSITE DIRECTION (SHOWN DOTTED).



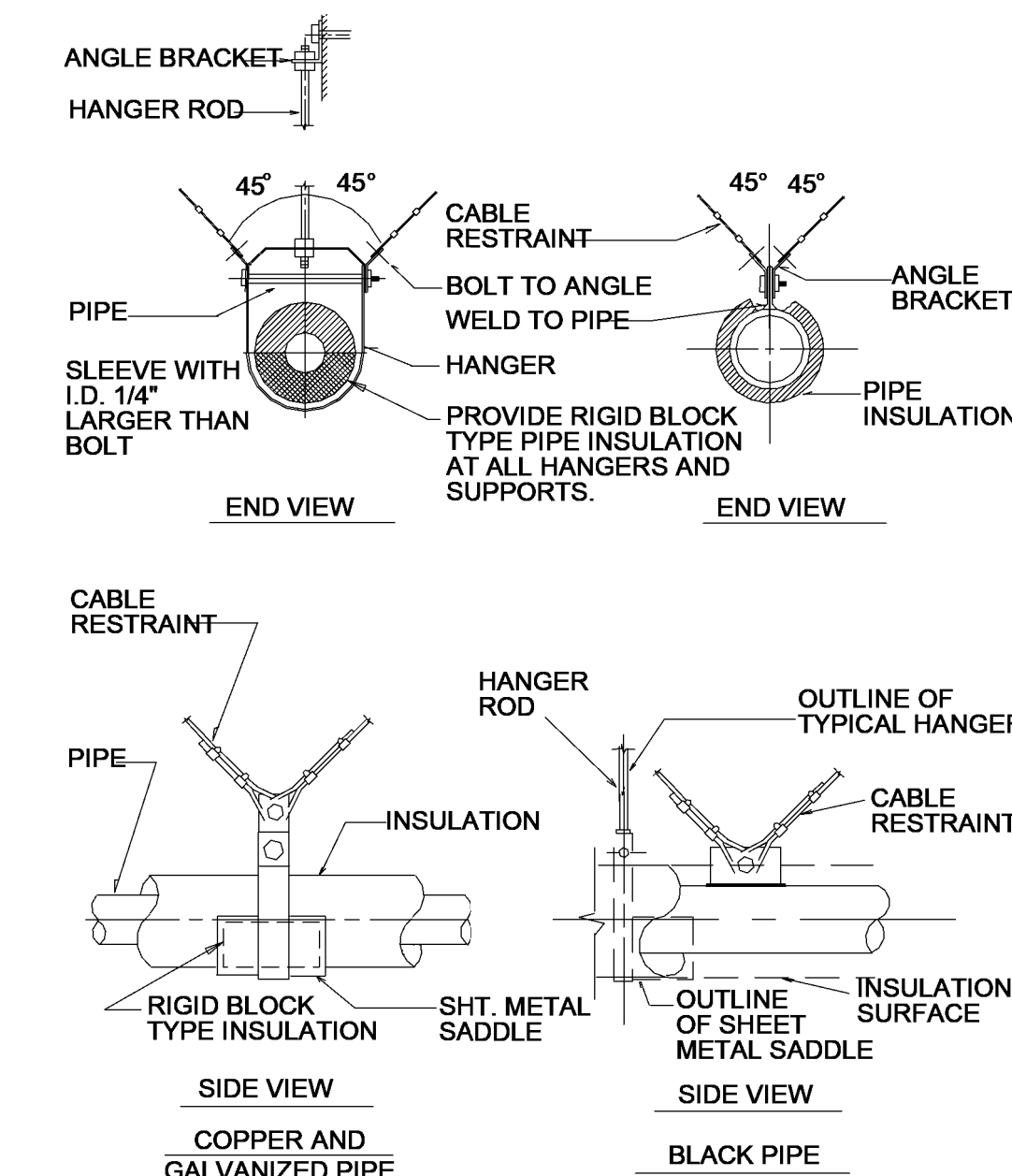
1 DIFFUSER CONNECTION DETAIL  
M501 NO SCALE



2 ROUND DUCT ELBOW DETAILS  
M501 NO SCALE



3 TYPICAL CRYOGEN VENT PIPE DETAIL  
M501 NO SCALE



4 PIPING RESTRAINT DETAIL  
M501 NO SCALE

| PROJECT SCHEDULE      |             |                            |                          |               |       |
|-----------------------|-------------|----------------------------|--------------------------|---------------|-------|
| NAME                  | LOCATION    | HEATING SEASON DBRH (°F/%) | COOLING SEASON DBRW (°F) | ALTITUDE (FT) | NOTES |
| IMED MRI CARING SUITE | MURRAY UTAH | 0/10                       | 101/664.3                | 4225          |       |

| AIR SEPARATOR SCHEDULE |                               |          |                            |                 |               |                |                        |                  |       |
|------------------------|-------------------------------|----------|----------------------------|-----------------|---------------|----------------|------------------------|------------------|-------|
| ID                     | MANUFACTURER AND MODEL NUMBER | LOCATION | TYPE                       | FLUID           |               |                | PHYSICAL               |                  |       |
|                        |                               |          |                            | FLOW RATE (GPM) | WORKING FLUID | HEAD LOSS (FT) | SYSTEM PRESSURE (PSIG) | DIA/ HEIGHT (IN) | NOTES |
| AS-1                   | TACO 4RXADT-5                 | CHILL RM | TANK - HIGH EFF (AIR/DIRT) | 29.1            | WATER         | 3              | 60                     | 11.627.1         | 1     |

1. ASME CERTIFIED

| 2-WAY CONTROL VALVE SCHEDULE |                               |          |                                      |              |              |               |                 |               |                |            |           |                   |       |
|------------------------------|-------------------------------|----------|--------------------------------------|--------------|--------------|---------------|-----------------|---------------|----------------|------------|-----------|-------------------|-------|
| ID                           | MANUFACTURER AND MODEL NUMBER | LOCATION | TYPE                                 | CONSTRUCTION | CONTROL TYPE | ACTUATOR TYPE | FLUID           |               |                | ELECTRICAL |           | PHYSICAL          |       |
|                              |                               |          |                                      |              |              |               | FLOW RATE (GPM) | WORKING FLUID | HEAD LOSS (FT) | CV         | VOLTPH/Hz | CONNECT SIZE (IN) | NOTES |
| CV-CH-03-2                   | BRAY NYL-2-020                | CHW      | ACTUATED BUTTERFLY DUCTILE IRON DISC | CAST IRON    | 2-POSITION   | ELECTRIC      | 29.1            | 3             | 25.5           | 241/80     | 2         | 1                 |       |
| CV-CH-03-4                   | BRAY NYL-2-020                | CHW      | ACTUATED BUTTERFLY DUCTILE IRON DISC | CAST IRON    | 2-POSITION   | ELECTRIC      | 29.1            | 3             | 25.5           | 241/80     | 2         | 1                 |       |

| EXPANSION TANK SCHEDULE |                               |          |                   |               |                        |                            |                                 |                              |                |                  |                  |       |
|-------------------------|-------------------------------|----------|-------------------|---------------|------------------------|----------------------------|---------------------------------|------------------------------|----------------|------------------|------------------|-------|
| ID                      | MANUFACTURER AND MODEL NUMBER | LOCATION | TYPE              | FLUID         |                        |                            |                                 | PHYSICAL                     |                |                  |                  |       |
|                         |                               |          |                   | WORKING FLUID | MIN. TANK VOLUME (GAL) | MINIMUM FILL VOLUME (PSIG) | MAXIMUM WORKING PRESSURE (PSIG) | RELIEF VALVE PRESSURE (PSIG) | TANK SIZE (IN) | DIA/ HEIGHT (IN) | NPT FITTING (IN) | NOTES |
| ET-1                    | TACO CA90                     | CHILL RM | VERT BLADDER FULL | WATER         | 4.9/1.1                | 38.7                       | 54                              | 60                           | 23             | 2029.1           | 0.5              |       |

1. ASME CERTIFIED

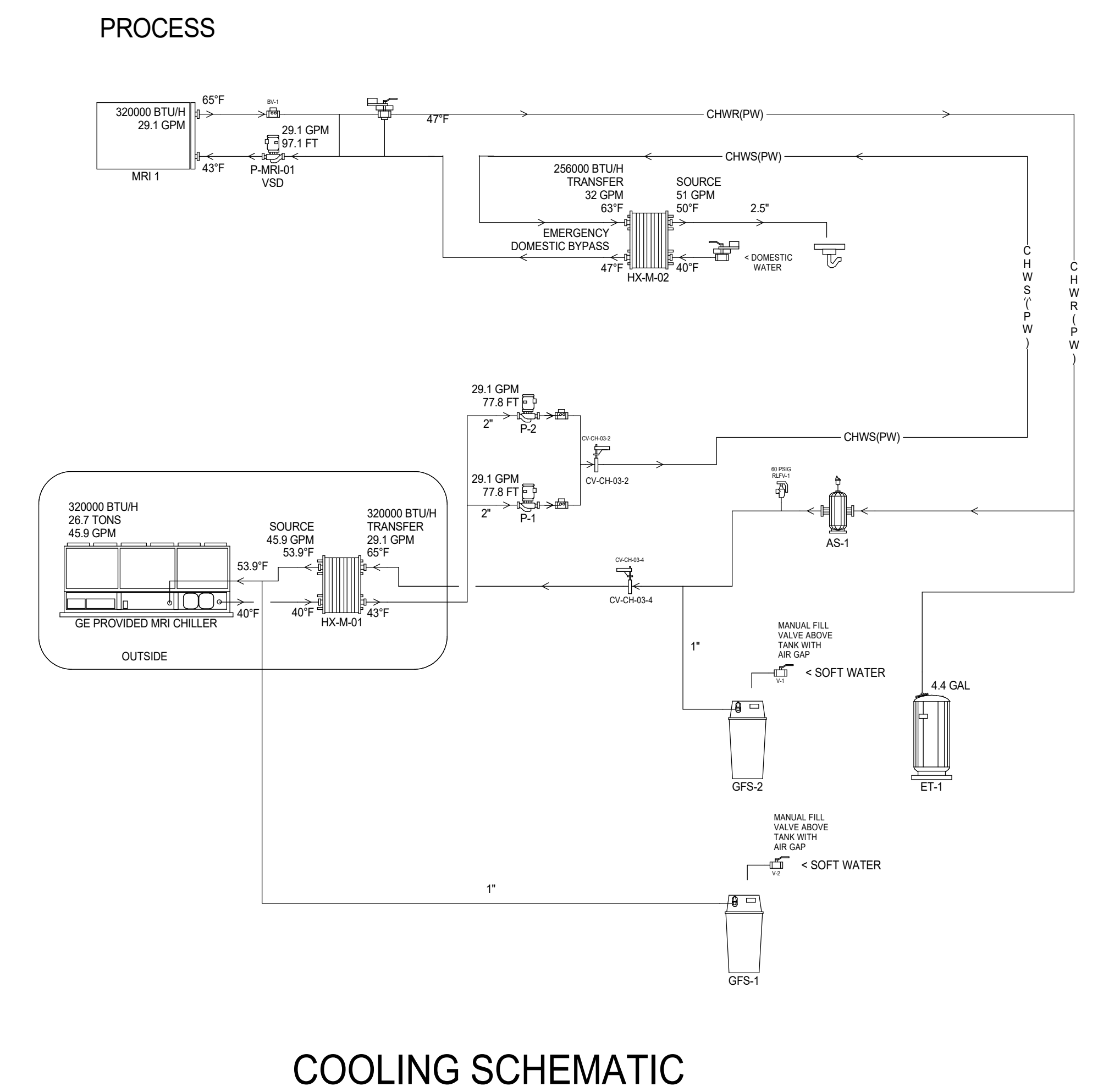
| GLYCOL FEED SYSTEM SCHEDULE |                               |          |          |               |                    |                             |                        |           |             |                            |                  |                 |
|-----------------------------|-------------------------------|----------|----------|---------------|--------------------|-----------------------------|------------------------|-----------|-------------|----------------------------|------------------|-----------------|
| ID                          | MANUFACTURER AND MODEL NUMBER | LOCATION | TYPE     | FLUID         |                    |                             | ELECTRICAL             |           |             | PHYSICAL                   |                  |                 |
|                             |                               |          |          | WORKING FLUID | TOTAL VOLUME (GAL) | STATIC FILL PRESSURE (PSIG) | PRESSURE RATING (PSIG) | VOLTPH/Hz | ALARM PANEL | LENGTH/ WIDTH/ HEIGHT (IN) | NPT FITTING (IN) | TANK SIZE (GAL) |
| GFS-1                       | AXKOM SF100                   | MECH RM  | STANDARD | WATER         | 426                | 10.5                        | 15                     | 120/180   |             | 2422/449                   | 0.5              | 56              |
| GFS-2                       | AXKOM SF300                   | MECH RM  | STANDARD | WATER         | 279.6              | 10.5                        | 60                     | 120/180   |             | 11.8/11.8/56               | 0.5              | 17              |

| HYDRONIC-TO-HYDRONIC HEAT EXCHANGER SCHEDULE |                               |          |              |         |              |                          |                             |               |                            |                 |                             |               |                |  |       |   |
|--|-------------------------------|----------|--------------|---------|--------------|--------------------------|-----------------------------|---------------|----------------------------|-----------------|-----------------------------|---------------|----------------|--|-------|---|
| ID   | MANUFACTURER AND MODEL NUMBER | LOCATION | TYPE         | USAGE   | LOAD (BTU/H) | SOURCE MEDIUM (HYDRONIC) |                             |               | TRANSFER MEDIUM (HYDRONIC) |                 |                             | PHYSICAL      |                |  |       |   |
|  |                               |          |              |         |              | FLOW RATE (GPM)          | ENTERING/ LEAVING TEMP (°F) | WORKING FLUID | HEAD LOSS (FT)             | FLOW RATE (GPM) | ENTERING/ LEAVING TEMP (°F) | WORKING FLUID | HEAD LOSS (FT) | DIA/ LENGTH/ NO PLATES/ SURFACE AREA (IN/ IN/ (ININ)/ (FT²)) | NOTES |   |
| HX-M-01                                      | TACO TFP10X20-1302-102(TMPF)  | MRI-1    | BRAZED PLATE | COOLING | 32000        | 45.9                     | 40/53.9                     | WATER         | 15                         | 29.1            | 85/43                       | WATER         | 15             | 26.3/130   | 188   | 1 |
| HX-M-02                                      | TACO TFP10X20-1302-102(TMPF)  | MRI-1    | BRAZED PLATE | COOLING | 26000        | 51                       | 40/59                       | WATER         | 15                         | 32              | 63/47                       | WATER         | 15             | 26.3/80  | 76.13 |   |

1. INSTALL INSULATION ON HEAT EXCHANGER AND COVER WITH ALUMINUM JACKET WEATHER TIGHT

| PUMP SCHEDULE |                               |          |                               |                 |               |                |                |               |                 |            |                   |           |       |
|---------------|-------------------------------|----------|-------------------------------|-----------------|---------------|----------------|----------------|---------------|-----------------|------------|-------------------|-----------|-------|
| ID            | MANUFACTURER AND MODEL NUMBER | LOCATION | TYPE                          | FLUID           |               |                | PUMP           |               |                 | ELECTRICAL |                   |           |       |
|               |                               |          |                               | FLOW RATE (GPM) | WORKING FLUID | HEAD LOSS (FT) | EFFICIENCY (%) | CONSTRUCTION  | MOTOR SIZE (HP) | BHP (HP)   | MOTOR SPEED (RPM) | VOLTPH/Hz | NOTES |
| P-MRI-01      | TACO KV1509                   | MRI      | VERTICAL CLOSE-COUPLED INLINE | 29.1            | WATER         | 97.1           | 32.1           | BRONZE FITTED | 5               | 2.221      | 1760              | 460/3/60  | 1     |
| P-1           | TACO KV1509                   | MECH     | VERTICAL CLOSE-COUPLED INLINE | 29.1            | WATER         | 86.1           | 32.7           | BRONZE FITTED | 5               | 1.924      | 1760              | 460/3/60  | 2     |
| P-2           | TACO KV1509                   | MECH     | VERTICAL CLOSE-COUPLED INLINE | 29.1            | WATER         | 86.1           | 32.7           | BRONZE FITTED | 5               | 1.924      | 1760              | 460/3/60  | 2     |

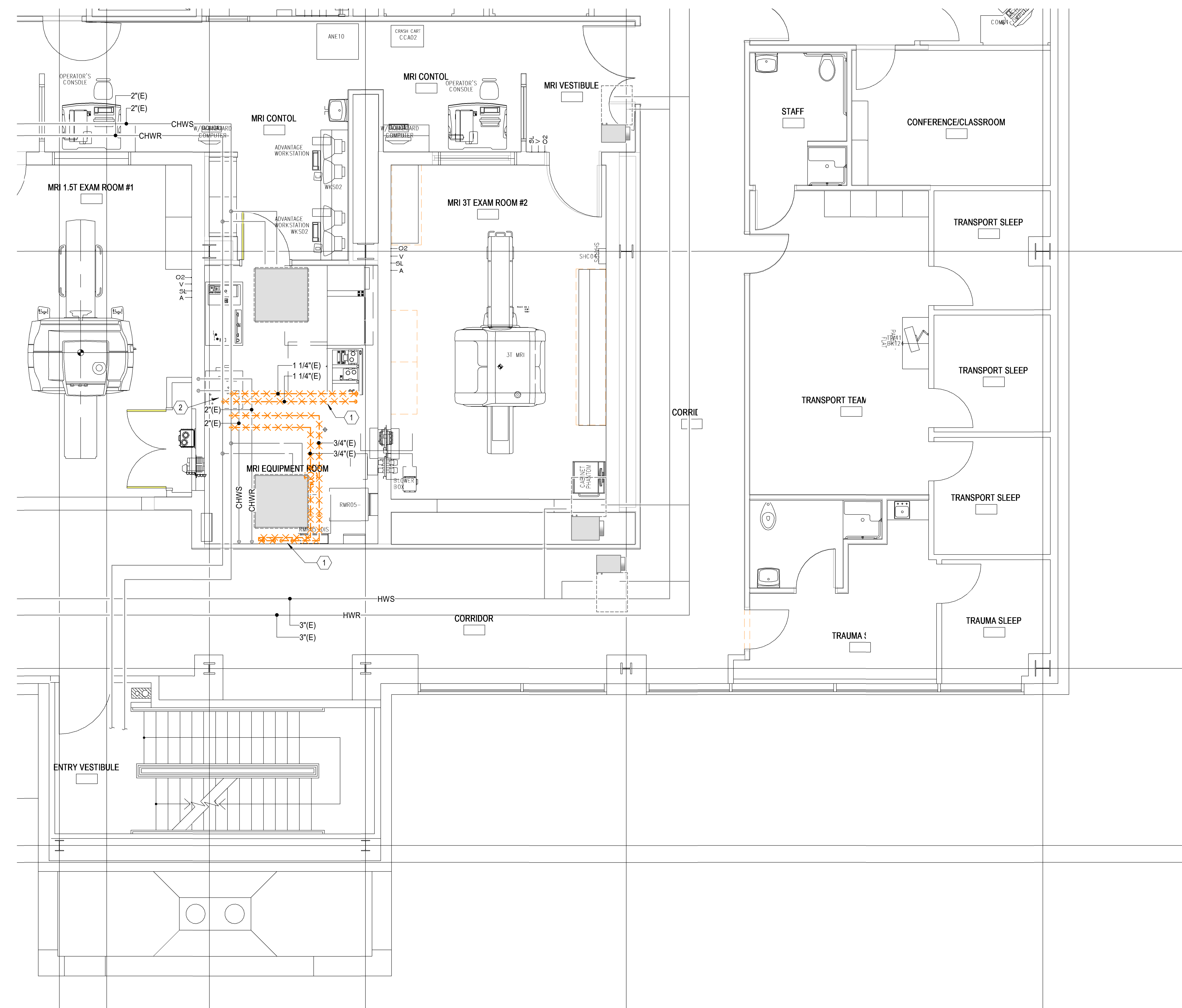
1. PUMP CONTROLLED BY VFD, BY MECHANICAL CONTRACTOR.  
2. PROVIDE WITH TEFC TOTALLY ENCLOSED FAN COOLED MOTOR.



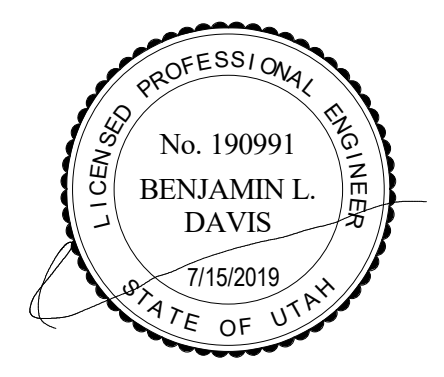
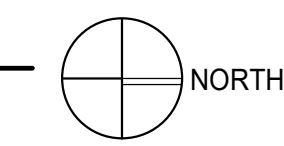
COOLING SCHEMATIC

# KEYED NOTES

1. REMOVE CHILLED WATER PIPING SERVING THE EXISTING MRI BACK TO CHILLED WATER SUPPLY MAIN. RETAIN PRESSURE GAUGES, THERMOMETERS AND FLOW SENSORS IF IN GOOD CONDITION FOR REINSTALLATION IN NEW MRI PIPING.
2. CAP REMOVED BRANCH LINES AT MAIN CHILLER WATER SUPPLY AND RETURN PIPING.



1 LL1 MECHANICAL PIPING DEMOLITION PLAN  
SCALE: 1/4" = 1'-0"



| REV | DATE | DESCRIPTION |
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VCBO NUMBER: 19480  
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