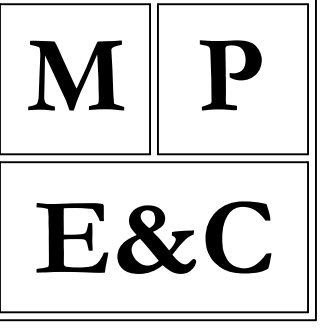


Renovations to Edisto Beach Fire Department

2413 Murray St

Edisto Island, SC 29438



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SHEET INDEX	PROJECT CONTACTS	GENERAL ARCHITECTURAL NOTES
<p>COVER SHEET CS COVER SHEET</p> <p>LIFE SAFETY LS1 LIFE SAFETY/CODE ANALYSIS</p> <p>ARCHITECTURAL A2.1 OVERALL FLOOR PLAN A2.2 FLOOR PLAN-DEMO A2.3 ENLARGED FLOOR PLAN A2.4 REFLECTED CEILING PLAN A3.1 DOOR & WINDOW / FINISH SCHEDULE & DETAILS A3.2 CEILING DETAILS A4.1 BUILDING ELEVATIONS</p> <p>STRUCTURAL S1.1 STRUCTURAL GENERAL NOTES S2.1 FRAMING PLAN S3.1 STRUCTURAL DETAILS S3.2 STRUCTURAL DETAILS</p> <p>MECHANICAL M1.1 MECHANICAL GENERAL NOTES M1.2 MECHANICAL SYMBOLS M1.3 MECHANICAL SCHEDULES M2.1 HVAC PLAN M3.1 MECHANICAL DETAILS</p> <p>ELECTRICAL E1.1 ELECTRICAL NOTES E1.2 ELECTRICAL SYMBOLS E2.1 POWER PLAN E2.2 LIGHTING PLAN E3.1 ELECTRICAL DETAILS</p> <p>PLUMBING P1.1 GENERAL PLUMBING NOTES P1.2 PLUMBING SYMBOLS P2.1 PLUMBING DEMO PLAN P2.2 PLUMBING SUPPLY PLAN P2.3 PLUMBING WASTE PLAN P3.1 PLUMBING DETAILS</p>	<p>OWNER</p> <p>TOWN OF EDISTO BEACH Attn: Denny Connley, Fire Chief 2414 Murray Street Edisto Beach, SC 29438 843-869-2505 OFFICE 843-869-3855 FAX</p> <p>ARCHITECTURAL STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING</p> <p>M. PADGETT ENGINEERING & CONSTRUCTION, LLC. P.O. BOX 6996 FLORENCE, SC 29502 843-908-4569 OFFICE 866-384-7749 FAX mp.eng.con@gmail.com www.mpadgettengineering.com</p>	<ol style="list-style-type: none"> GENERAL CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS AND DETERMINE THE EXTENT OF WORK PRIOR TO ANY AND ALL CONSTRUCTION. NOTIFY OWNER OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL CONDITIONS. COMPLY WITH ALL LOCAL, STATE, AND FEDERAL CODES, LAWS AND REGULATIONS. REQUIRED PERMITS AND FEES FOR INSPECTIONS ARE TO BE BY THE GENERAL CONTRACTOR. GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL MATERIALS, CONSTRUCTION METHODS AND CRAFTSMANSHIP. ALL NEW WORK IS TO BE PLUMB, LEVEL, AND SQUARE. VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE PROJECT MANAGER OF ANY DISCREPANCIES BETWEEN THE DRAWINGS AND ACTUAL CONDITIONS. THE CONTRACTOR IS RESPONSIBLE TO BRING DISCREPANCIES OR CONFLICTS BETWEEN DRAWINGS AND SPECIFICATIONS TO THE IMMEDIATE ATTENTION OF THE PROJECT MANAGER BEFORE BID OPENING FOR RESOLUTION. DO NOT ASSUME CORRECTNESS OF ONE DOCUMENT OR THE OTHER. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WORK WITH OTHER TRADES AND THE OWNER'S SELF-PERFORMED WORK WHEREVER AND WHENEVER THEY OVERLAP. COORDINATE CONSTRUCTION ACTIVITIES WITH OWNER'S SCHEDULE. DO NOT SCALE DRAWINGS. UNLESS NOTED OTHERWISE, ALL DIMENSIONS ARE TO FACE OF NEW FINISH OR FACE OF EXISTING WALL. ALL EXISTING CONDITIONS TO REMAIN SHALL BE PROTECTED DURING DEMOLITION AND CONSTRUCTION OPERATIONS. PROTECT ADJACENT AREAS FROM DUST AND DEBRIS. MINIMIZE DAMAGE TO EXISTING LANDSCAPING AND PAVING. DAMAGED LANDSCAPING AND PAVING MUST BE REPLACED IN KIND. MAINTAIN A CLEAN, SAFE WORK ENVIRONMENT AT ALL TIMES. PROVIDE PEDESTRIAN PROTECTION AROUND THE CONSTRUCTION AREAS. PROVIDE FLAGGERS AND ADDITIONAL PEDESTRIAN PROTECTION AS REQUIRED WHEN MOVING EQUIPMENT OR VEHICLES ON THE PEDESTRIAN SPINE. COORDINATE THESE EFFORTS WITH PROJECT MANAGER. EXISTING UTILITIES AND IRRIGATION LINES ARE TO REMAIN UNLESS OTHERWISE NOTED. PATCH AND REPAIR OR REPLACE EXISTING PAVING, FINISHES, ETC. WHERE AFFECTED BY NEW CONSTRUCTION. GENERAL CONTRACTOR IS RESPONSIBLE TO COORDINATE INSPECTION SERVICES PROVIDED BY ANY STATE INSPECTOR. CONTRACTOR STORAGE AREA: A SMALL STORAGE AREA FOR TOOLS AND MATERIALS NEAR THE PROJECT SITE WILL BE PROVIDED. COORDINATE STORAGE AREA WITH PROJECT MANAGER. TRASH AND RECYCLING: CONTRACTOR TO PROVIDE DUMPSTER AND RECYCLING PICKUP FOR PROJECT. COORDINATE DUMPSTER LOCATION WITH UCCS PROJECT MANAGER. TEMPORARY TOILET FACILITIES: CONTRACTOR TO PROVIDE PORTABLE TOILET(S) FOR CONTRACTOR USE DURING THE PROJECT. COORDINATE TOILET LOCATION WITH PROJECT MANAGER.

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COVER SHEET

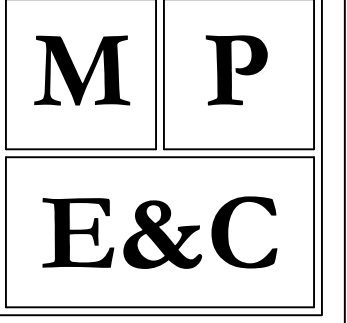
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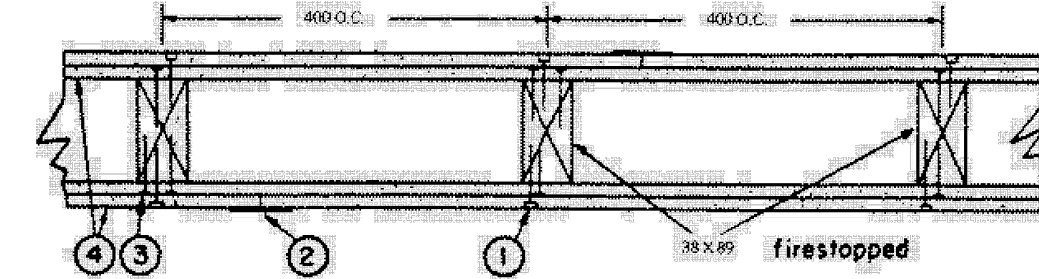


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Design No. U301
 February 12, 2019

Assembly Rating - 2 h

Load Restricted — Assembly evaluated in accordance with Working Stress Design methods, for use under Limit States Design methods; refer to information under Guide **BXUV.C**.



Bearing Wall - Combustible Construction
 (Finish Rating - 66 minutes)

- Nailheads** — Exposed or covered with joint finisher.
 - Joints** — Exposed or covered with tape and joint finisher.
 - Nails** — 51 mm, cement-coated flathead.
 - Gypsum Board** — (CKNXC), 15.9 mm thick applied in two layers. Base layer placed vertically with joints butted over studs and nailed to studs 150 mm OC. Face layer applied horizontally with joint finisher cement and nailed 300 mm OC temporarily to base layer until cement sets. All joints in face layers staggered with joints in base layers and with joints on opposite sides.
- CGC INC** — Types SCX, SGX, AR, WRX, IP-X1, IP-AR, SHX, C, IP-X2, WRC, ULX
- UNITED STATES GYPSUM CO** — Types SCX, SGX, AR, WRX, IP-X1, IP-AR, SHX, C, IP-X2, WRC, ULX
- GEORGIA-PACIFIC GYPSUM L L C** — Types 9, X, DGG, DS, GuardGF-2, C, TR-AR, GF-6, DAP
- NATIONAL GYPSUM CO** — Types FSW, FSW-30

2 UL ASSEMBLY - 301 NTS

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LIFE SAFETY PLAN/ CODE ANALYSIS

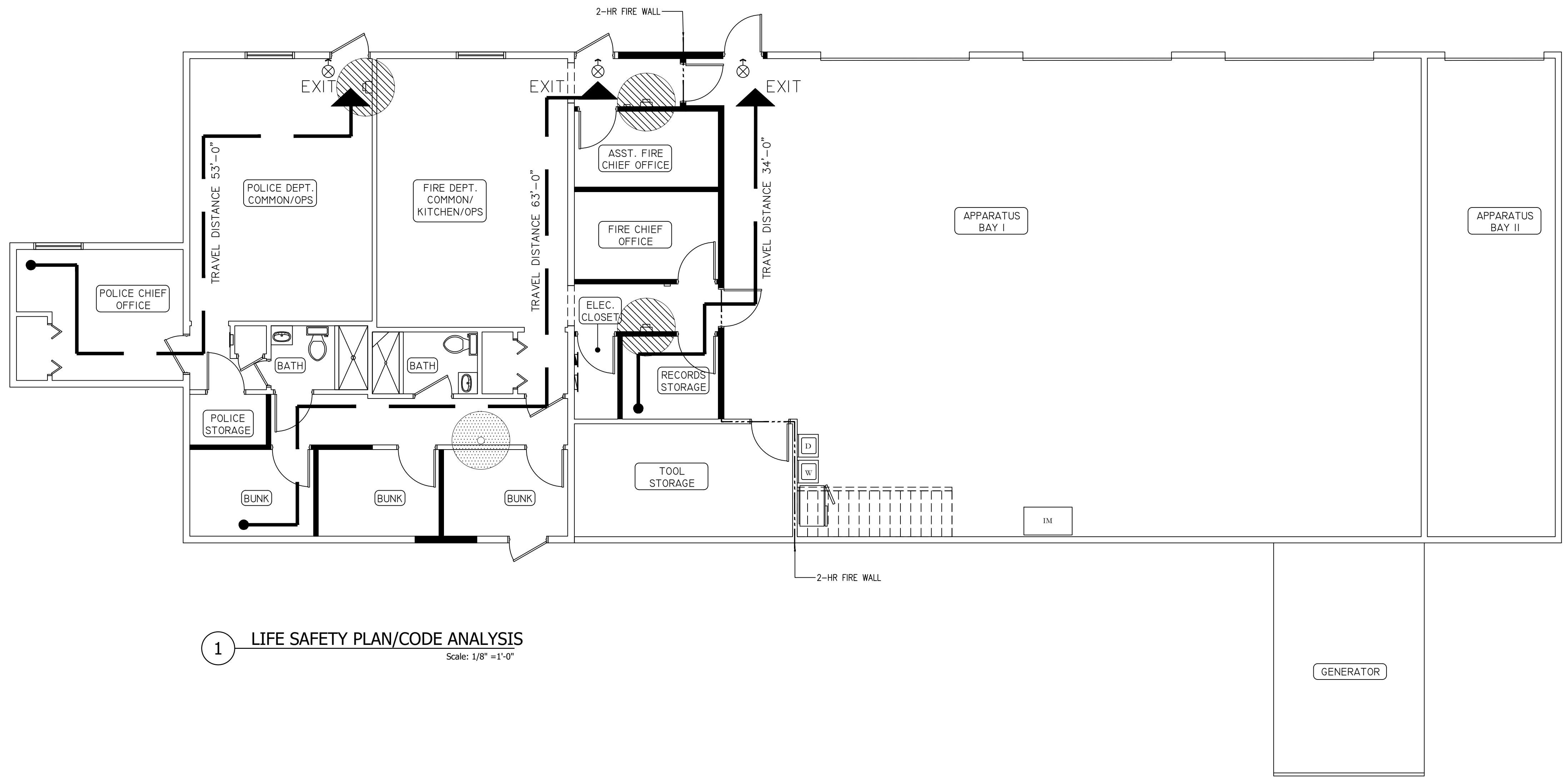
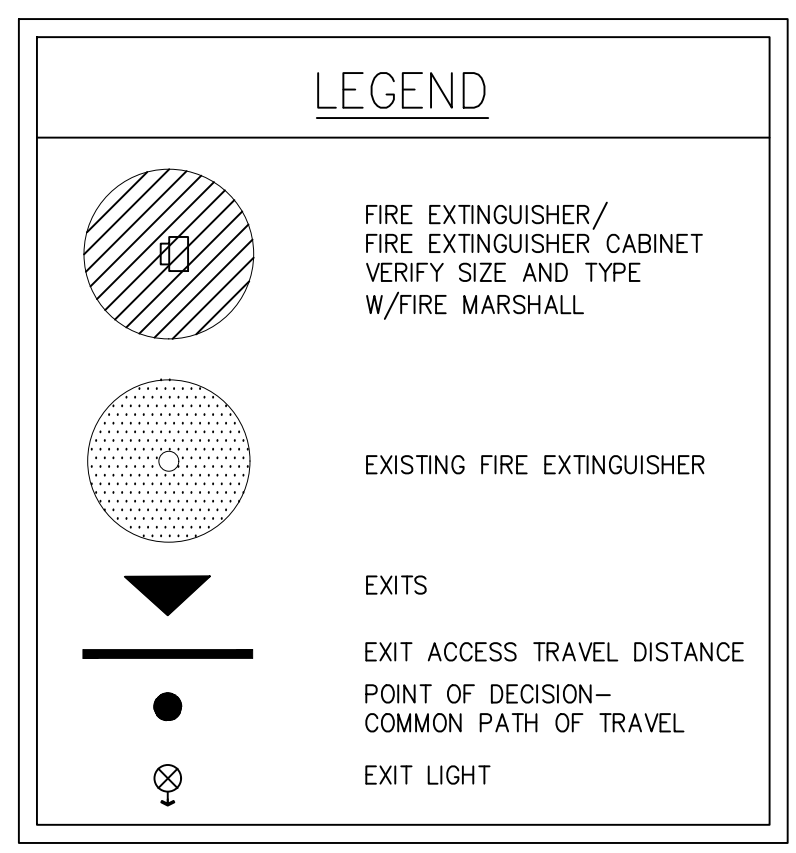
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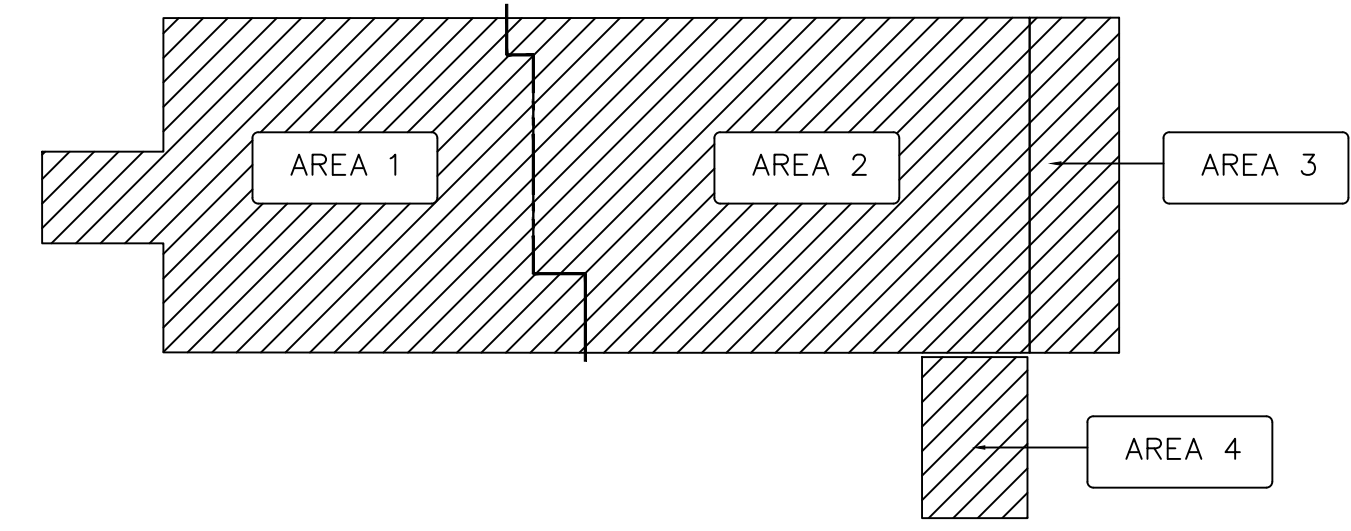
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Proj#: J1870

LS1



1 LIFE SAFETY PLAN/CODE ANALYSIS
 Scale: 1/8" = 1'-0"

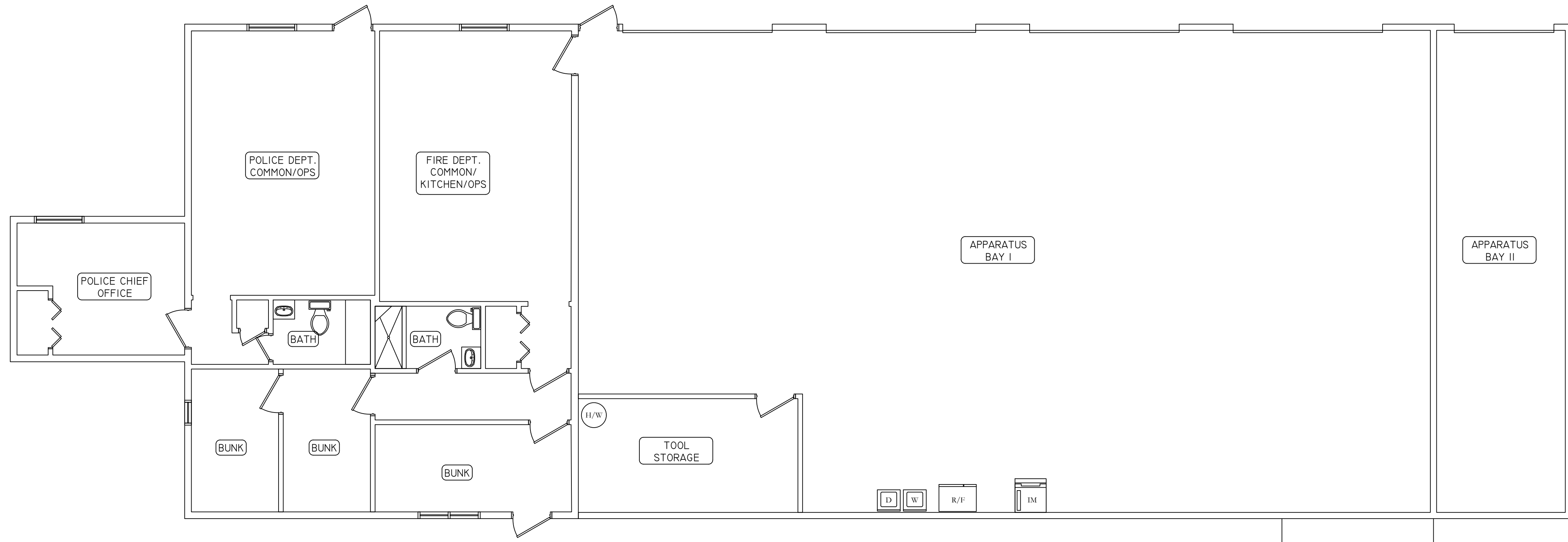


CODE SUMMARY - FIRE AREA 1

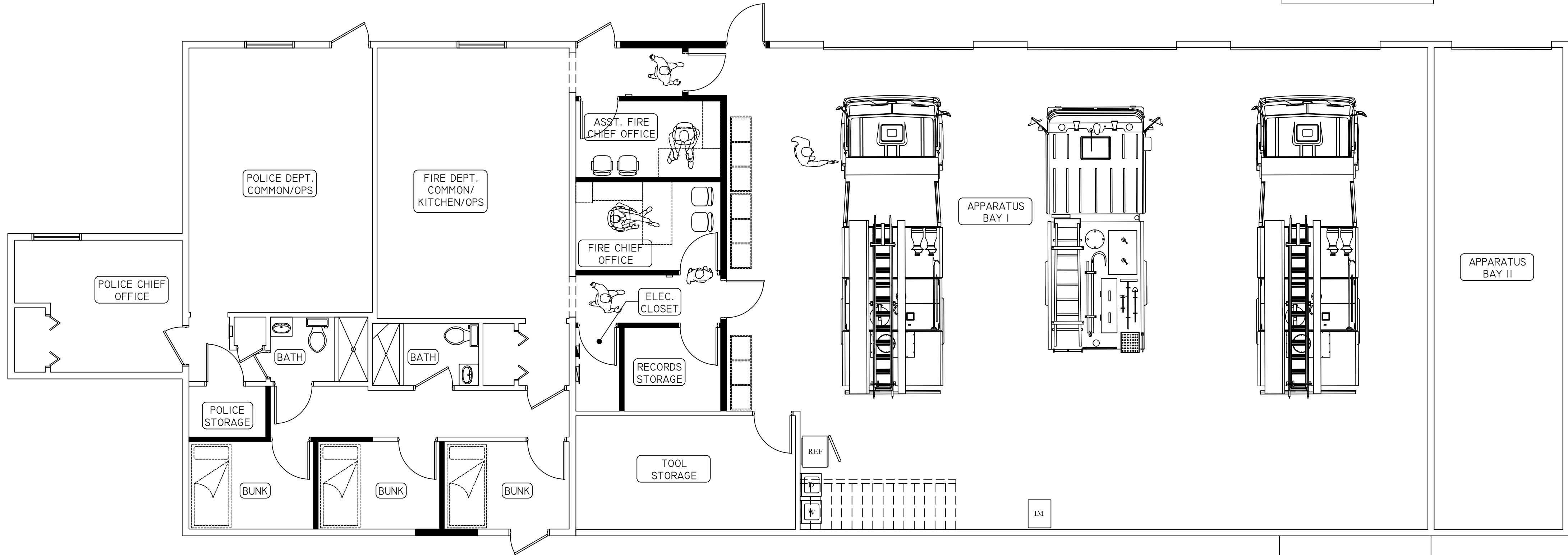
Item	Requirement	Determination/Proposed
Occupancy Group	B	B
Occupant Load	-	85 MAX (8,427/100 sq)
Construction Type	II - B	II - B
Height Limitation	55'-0"/3 Stories	35'-0"/1 Story
Area Limitation	23,000 SF	1,838 SF
Fire Resistance Rating	-	2-HR
Exit Access Travel Distance	75' Max	< 75'
Number of Exits	-	3
Egress Path Width	-	25.5" (req.) 144" (provided)
Fire Alarm System	-	-
Fire Sprinkler System	-	Required
Exit Lighting	At Exits	At Exits
Emergency Lighting	1 Candlewatt/SF	At Exits, Typical, > 1 CW/SF
Fire Extinguishers	Per NFPA 10	3 (provided)
Electrical	Exterior Shut Off	Exterior Shut Off

CODE SUMMARY - FIRE AREA 2 (NOT INCLUDED IN SCOPE OF PROJECT)
 CODE SUMMARY - FIRE AREA 3 (NOT INCLUDED IN SCOPE OF PROJECT)
 CODE SUMMARY - FIRE AREA 4 (NOT INCLUDED IN SCOPE OF PROJECT)

1. Applicable Building Codes and Regulations:
- IBC 2015 w/ SC Modifications
 - IFC 2015 w/ SC Modifications
 - IEBC 2015 w/ SC Modifications
 - IPMC 2015 w/ SC Modifications
 - IMC 2015 w/ SC Modifications
 - IPC 2015 w/ SC Modifications
 - IFGC 2015 w/ SC Modifications
 - NEC 2014 (NFPA 70) w/ SC Modifications
 - ICC/ANSI A117.1-2017 w/ SC Modifications
 - See International Code Council for more information: <http://www.iccsafe.org/>
 - See National Fire Protection Association for more information: <http://www.nfpa.org/>
 - Other Relevant & Current Adopted Codes
 - 1.13.1. As Required
 - 1.14. Zoning & Ordinances:
 - 1.14.1. City of Florence, SC



1 OVERALL FLOOR PLAN-EXISTING
Scale: 3/16" = 1'-0"



2 OVERALL FLOOR PLAN-NEW
Scale: 3/16" = 1'-0"

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OVERALL
FLOOR PLAN
EXIST/NEW

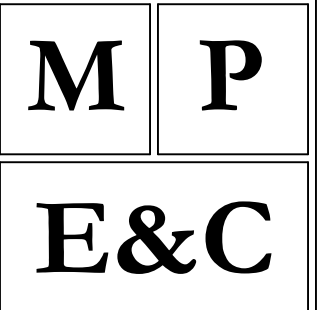
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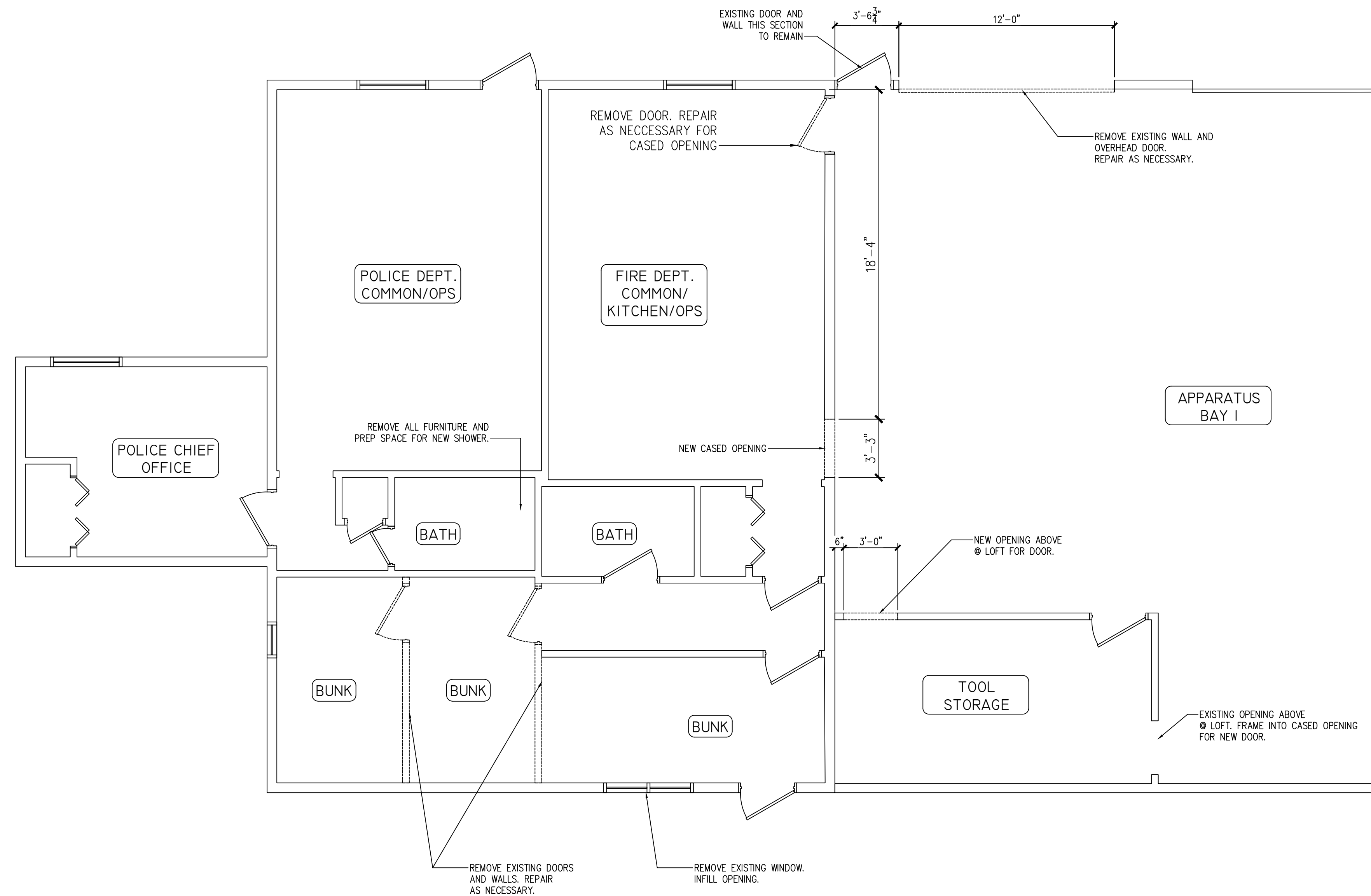
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A2.1



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1 FLOOR PLAN-DEMO
Scale: 3/16" = 1'-0"

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DEMOLITION
FLOOR PLAN

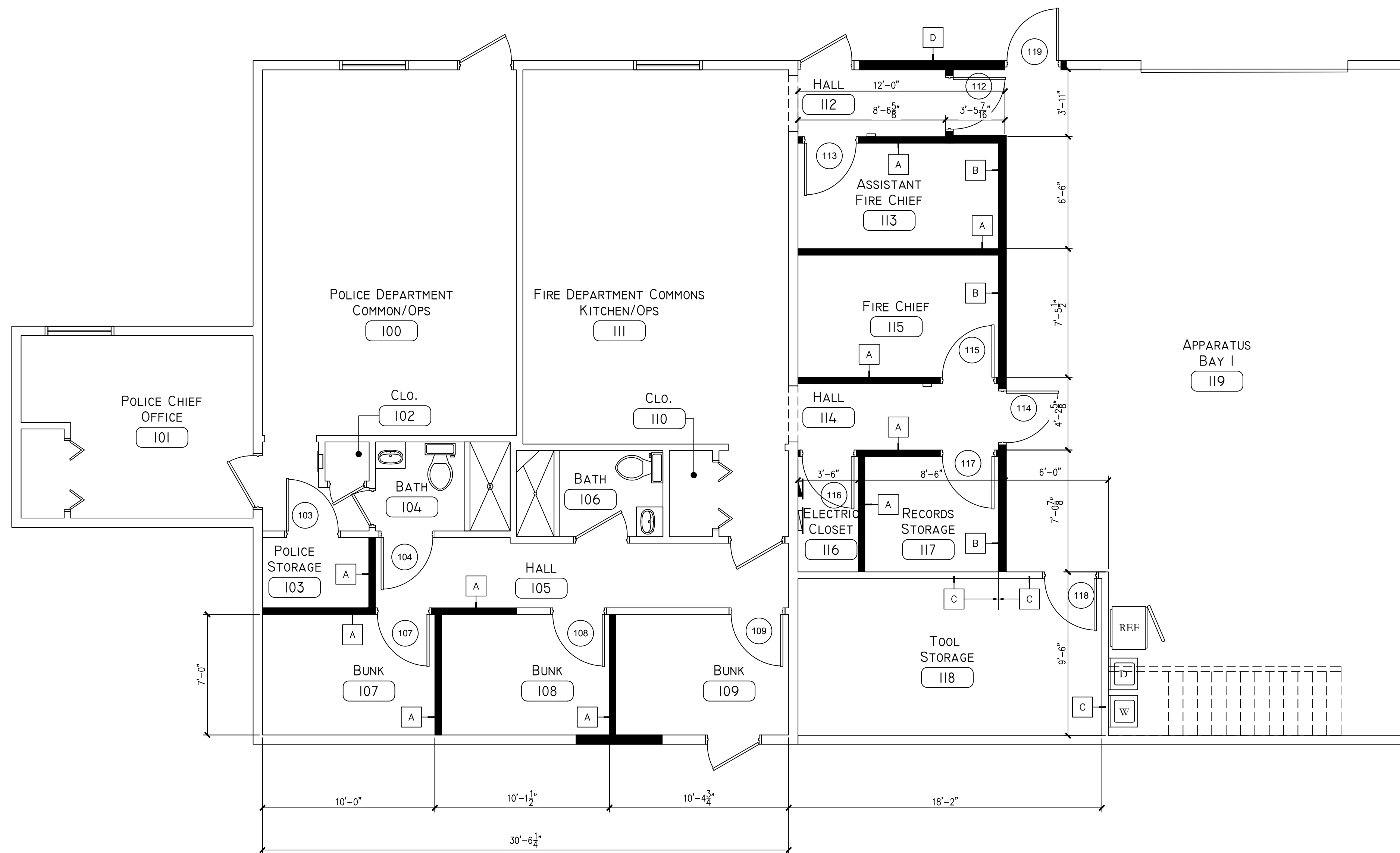
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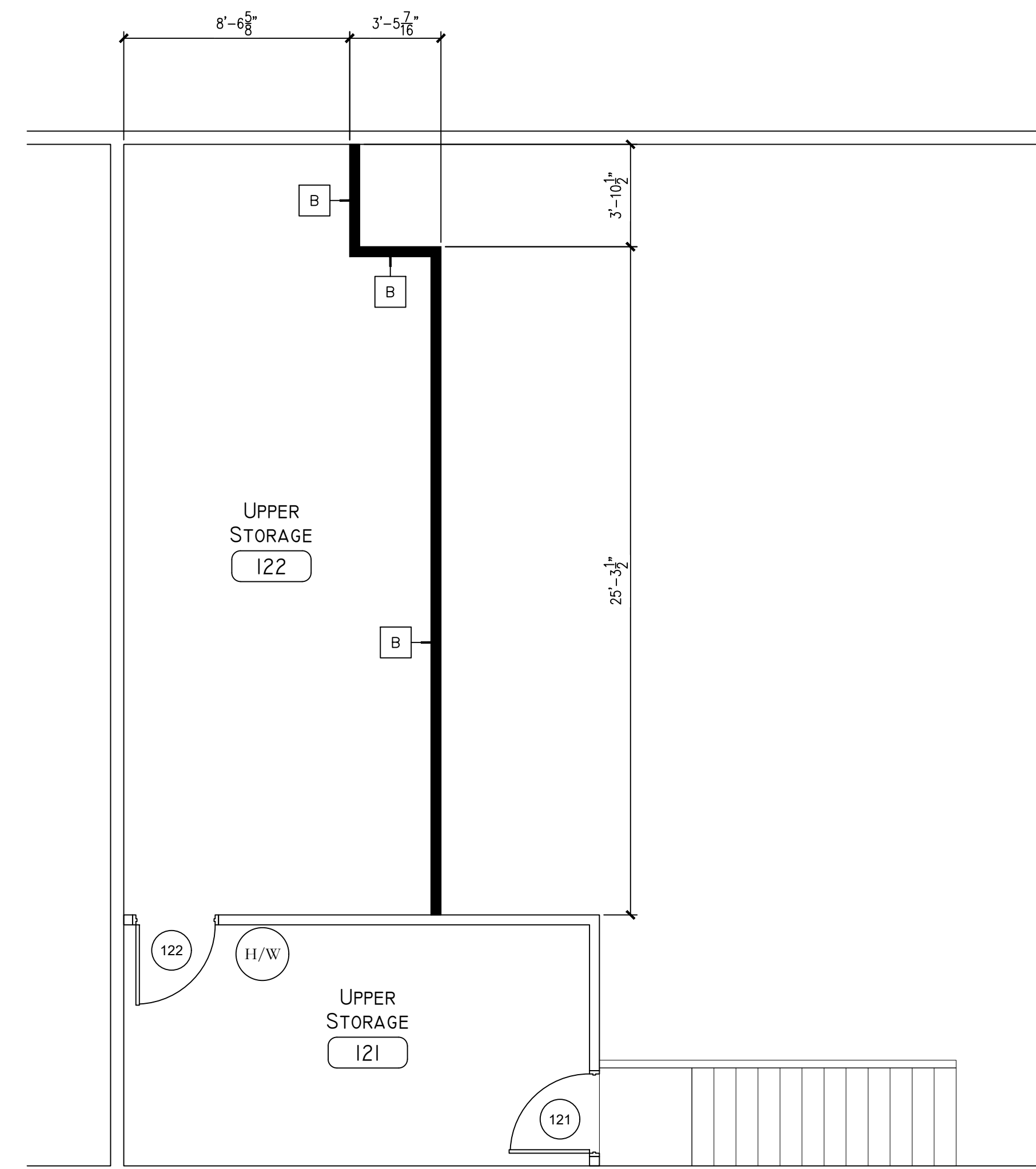
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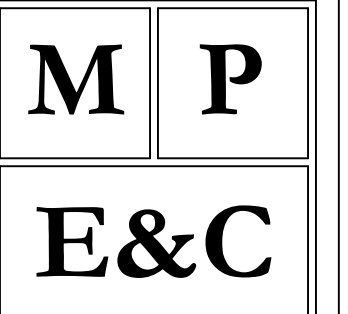


1 ENLARGED FLOOR PLAN-1ST FLOOR
Scale: 3/16" = 1'-0"



2 ENLARGED FLOOR PLAN-LOFT
Scale: 3/16" = 1'-0"

? WALL TYPE. REFER TO SHEET A2.3



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ENLARGED
FLOOR PLAN

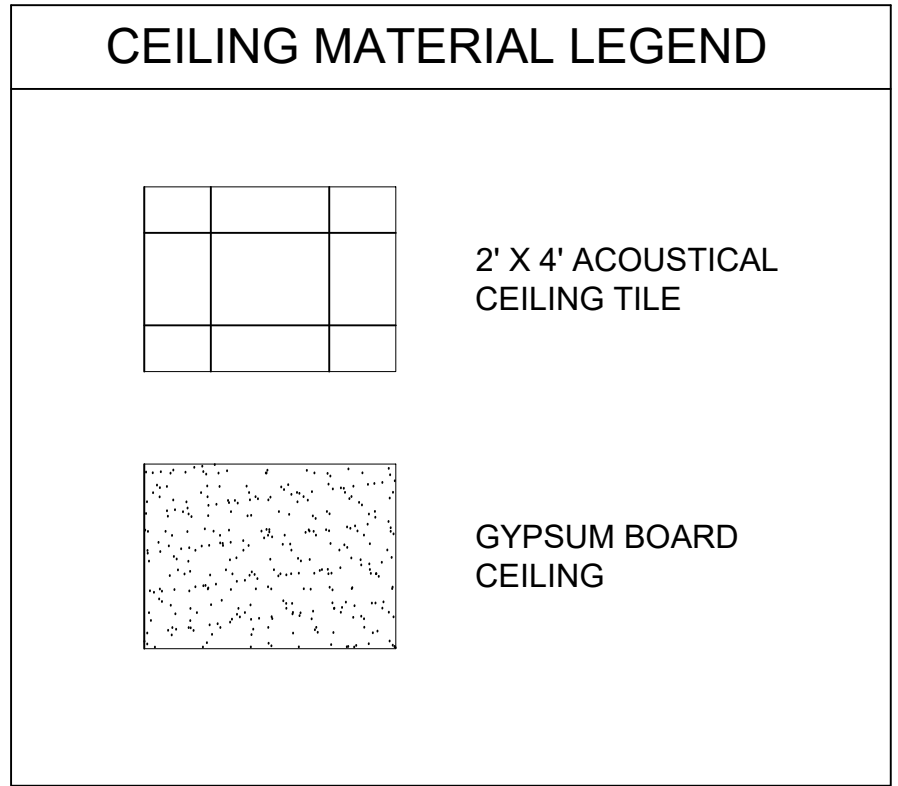
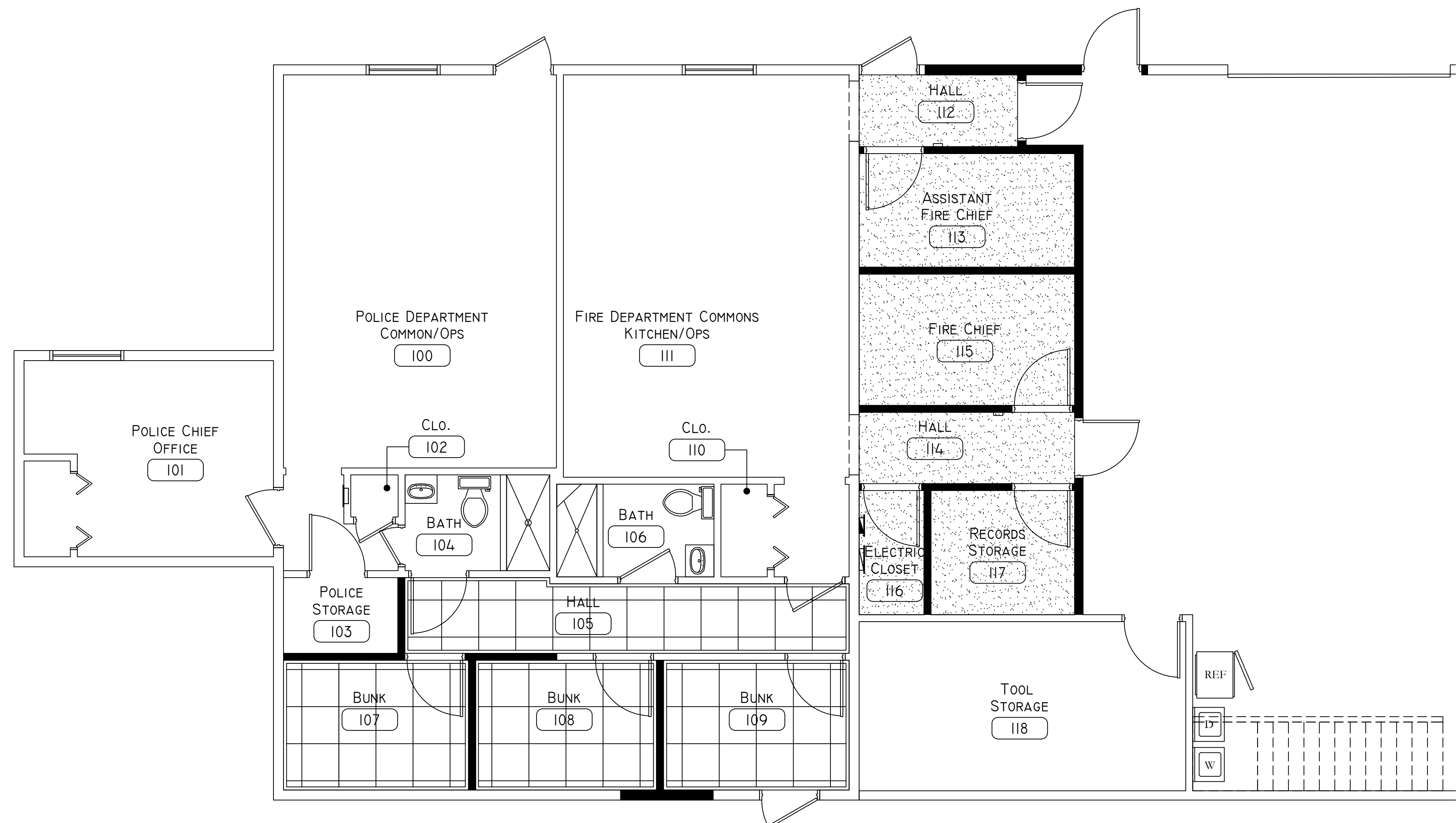
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Drawn: TMH

Check: MP

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A2.3



M P
E&C

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REFLECTED
CEILING PLAN

Scale: NTS

Drawn: TMH

Check: MP

Proj#: J1870

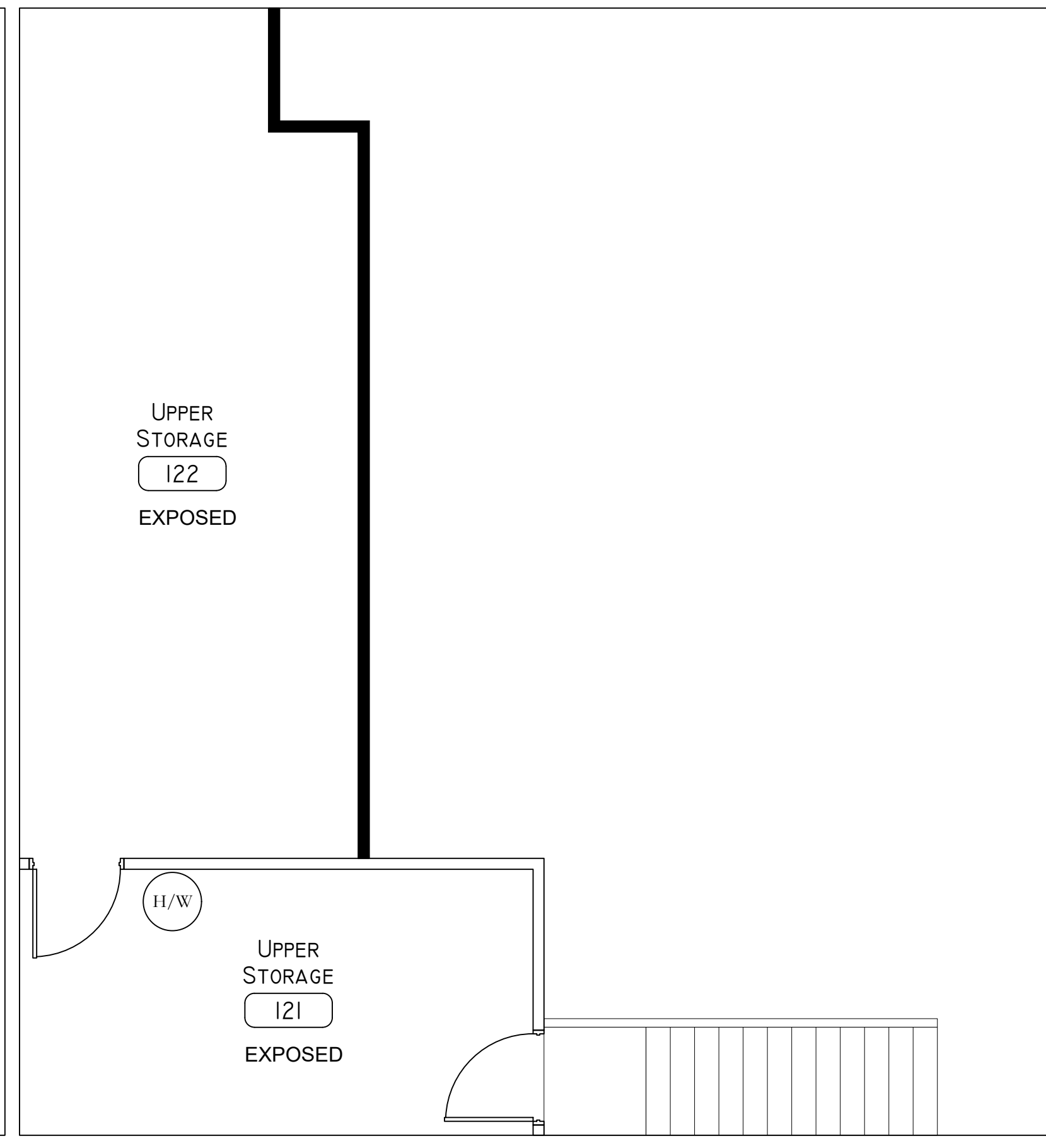
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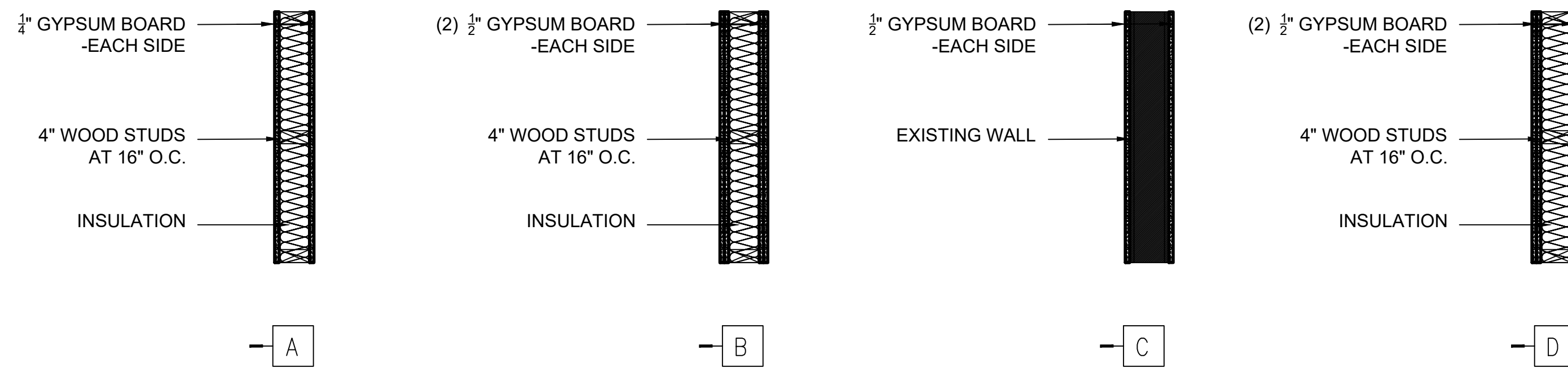
1 REFLECTED CEILING PLAN
Scale: 3/16" = 1'-0"

GENERAL NOTES

1. VERIFY LOCATIONS OF ALL LIGHT FIXTURES, AIR SLOTS, AIR SUPPLY AND RETURN GRILLES WITH PLANS AND COORDINATE INSTALLATION WITH MECHANICAL AND ELECTRICAL CONTRACTORS. NOTIFY ARCHITECT OF ANY CONFLICTS PRIOR TO INSTALLATION.
2. AT ACOUSTICAL PANEL CEILINGS, LOCATE ELECTRICAL OR LIFE SAFETY FIXTURES AND DEVICES IN CENTER OF PANEL, UNLESS OTHERWISE NOTED.
3. SUPPORT FINISH EDGES OF CEILING WITH EDGE ANGLES ATTACHED TO WALL.
4. PAINT ALL MECHANICAL SLOTS, GRILLES OR ACCESS PANELS TO MATCH SURFACE ON WHICH THEY OCCUR, UNLESS OTHERWISE NOTED.
5. SEE MECHANICAL DWGS. FOR ALL DIFFUSERS, RETURNS AND EXHAUST FANS.
6. CONTRACTOR IS TO PROVIDE ALL MISCELLANEOUS MTL STUD FRAMING REQUIRED TO PROVIDE SOFFITS AND BULKHEADS AS GRAPHICALLY DEPICTED ON THE REFLECTED CEILING PLAN, SECTIONS AND ELEVATIONS.
7. CONCEAL ALL DUCTS, REFRIGERATION LINES, CONDENSATE LINES AND ANY OTHER PIPING, MECHANICAL AND ELECTRICAL CONDUIT IN AREAS WHERE CEILING DECK IS EXPOSED.
8. VERTICAL DIMENSIONS ARE INDICATED FROM THE FLOOR ELEVATION TO FACE OF FINISHED MATERIAL AT THE DIMENSION POINT, UNLESS NOTED ABOVE FINISH FLOOR "-AFF".
9. CEILING HEIGHTS ARE INDICATED FROM THE FLOOR ELEVATION TO THE FACE OF SUSPENDED CEILING SYSTEM OR FACE OF FINISH MATERIAL AS SCHEDULED.

2 ENLARGED FLOOR PLAN-LOFT
Scale: 3/16" = 1'-0"





1 WALL PARTITION TYPE, TYPICAL

Scale: 3/4" = 1'-0"

ROOM FINISH SCHEDULE						
NO.	ROOM	FLOOR		WALL		CEILING
		BASE	FINISH	MAT.	FIN.	
103	POLICE STORAGE	RB	VCT	DW	PT	ACT
107	BUNK	RB	VCT	DW	PT	ACT
108	BUNK	RB	VCT	DW	PT	ACT
109	BUNK	RB	VCT	DW	PT	ACT
112	HALL	RB	VCT	DW	PT	GYP.
113	ASST. FIRE CHIEF	RB	VCT	DW	PT	GYP.
114	HALL	RB	VCT	DW	PT	GYP.
115	FIRE CHIEF	RB	VCT	DW	PT	GYP.
116	ELEC. CLOSET	RB	VCT	DW	PT	GYP.
117	RECORDS STORAGE	RB	VCT	DW	PT	GYP.
121	UPPER STORAGE	RB	VCT	DW	PT	GYP.
122	UPPER STORAGE	RB	VCT	DW	PT	GYP.

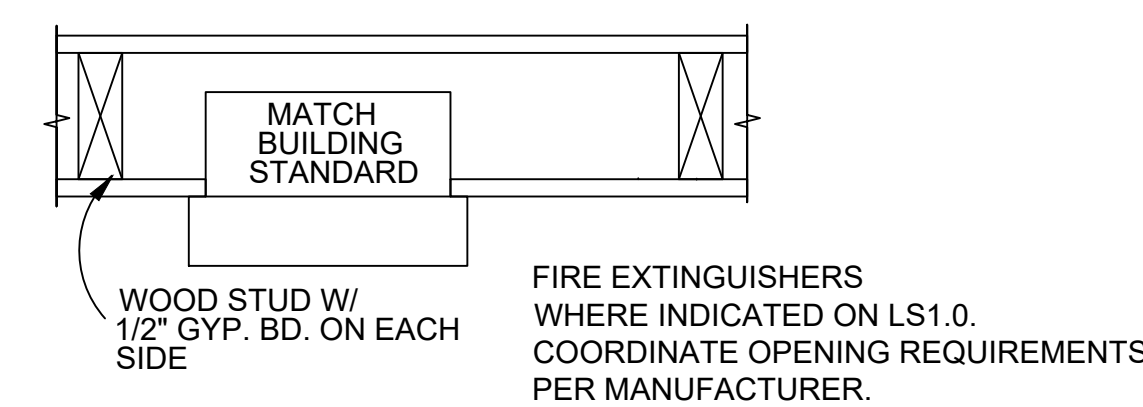
LEGEND							
ACT	ACOUSTIC TILE	DW	DRYWALL	P	PLYWOOD	VS	VINYL SHEET TILE
CPT	CARPET	RB	RUBBER BASE	PT	PAINT	VCT	VINYL COMPOSITION TILE
QT	QUARRY TILE	FRP	FIBERGLASS REINFORCED PLASTIC	M	MDF BOARD	CT	CERAMIC TILE

DOOR & FRAME SCHEDULE							
NO.	SIZE	DOOR			FRAME		HARDWARE
		MAT.	CORE	FINISH	MAT.	FINISH	
103	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
104	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
107	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
108	2-36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
109	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
112	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
113	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
114	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
115	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
116	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
117	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
118	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
119	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
121	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER
122	36"x84"x1-3/4"	W	SC	PT	W	PT	PER OWNER

LEGEND							
AL	ALUMINUM	HM	HOLLOW METAL	PRE	PRE-FINISHED	W	WOOD
BB	BALL BEARING BOLTS	IN	INSULATED	PT	PAINT	WS	WEATHERSTRIPPING
C	CHAIN	LPRS	LEVER PRIVACY SET	SC	SOLID CORE	FF	FACTORY FINISH
CL	CLOSER	LS	LOCK SET	ST	STAIN		
DB	DEAD BOLT	NRP	NON REMOVABLE PIN	ST	STOP		
GL	GLAZING	PB	PANIC BAR	TH	ALUMINUM THRESHOLD		

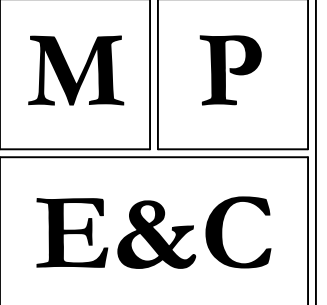
2 ROOM FINISH AND DOOR SCHEDULES

Scale: 3/4" = 1'-0"



3 SOLID BLOCKING DETAIL-TYPICAL

Scale: 3/4" = 1'-0"



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DOOR
 SCHEDULE

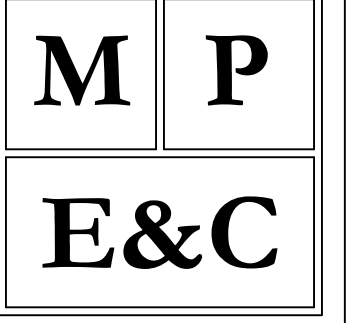
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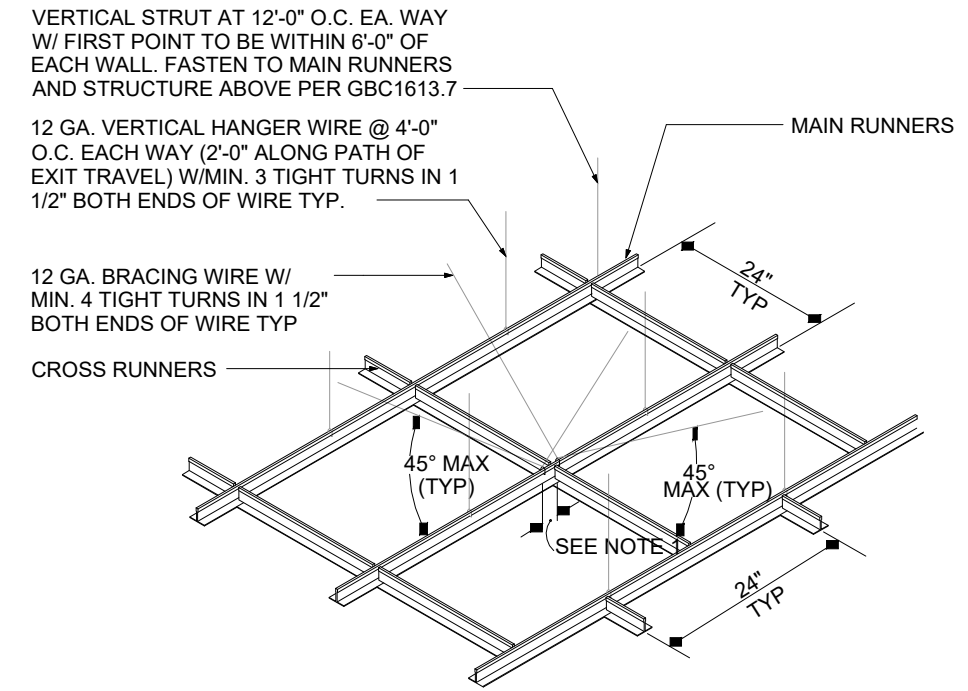
A3.1



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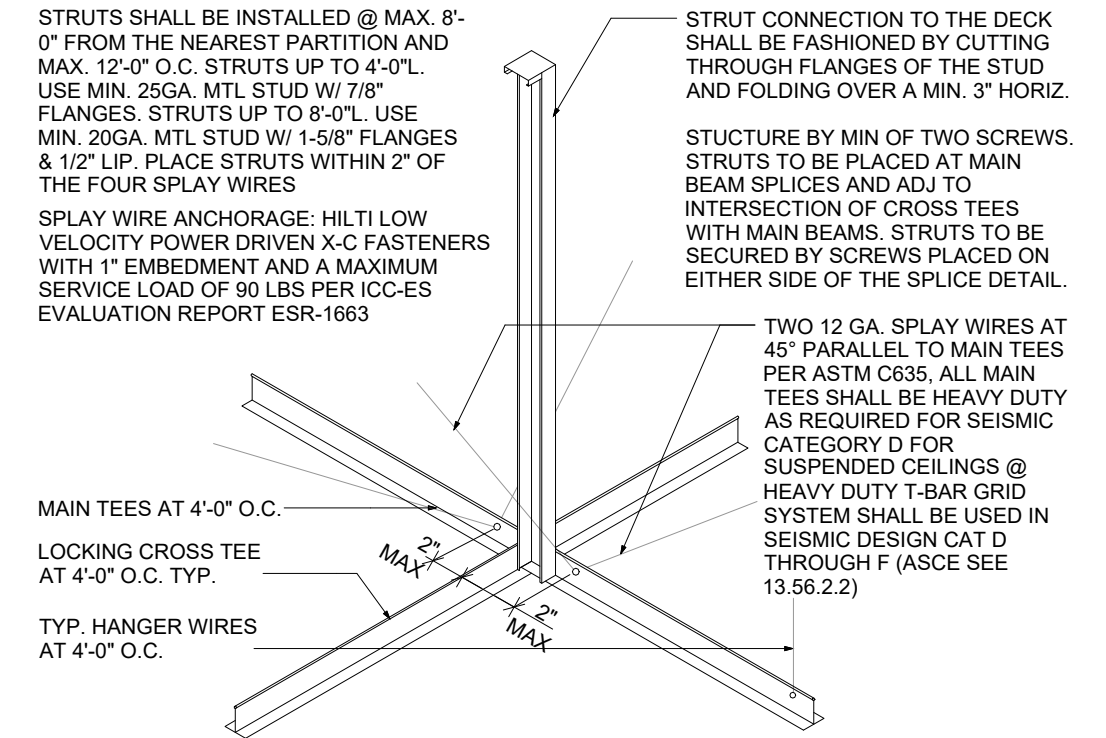
NOTES

*CEILINGS MUST COMPLY WITH IBC 2015
 SECTION 808 ACOUSTICAL CEILING SYSTEMS
 808.1 Acoustical ceiling systems.
 The quality, design, fabrication and erection of metal suspension systems for acoustical tile and lay-in panel ceilings in buildings or structures shall conform to generally accepted engineering practice, the provisions of this chapter and other applicable requirements of this code.
 808.1.1 Materials and installation.
 Acoustical materials complying with the interior finish requirements of Section 803 shall be installed in accordance with the manufacturer's recommendations and applicable provisions for applying interior finish.
 808.1.1.1 Suspended acoustical ceilings.
 Suspended acoustical ceiling systems shall be installed in accordance with the provisions of ASTM C635 and ASTM C636.
 808.1.1.2 Fire-resistance-rated construction.
 Acoustical ceiling systems that are part of fire-resistance-rated construction shall be installed in the same manner used in the assembly tested and shall comply with the provisions of Chapter 7.

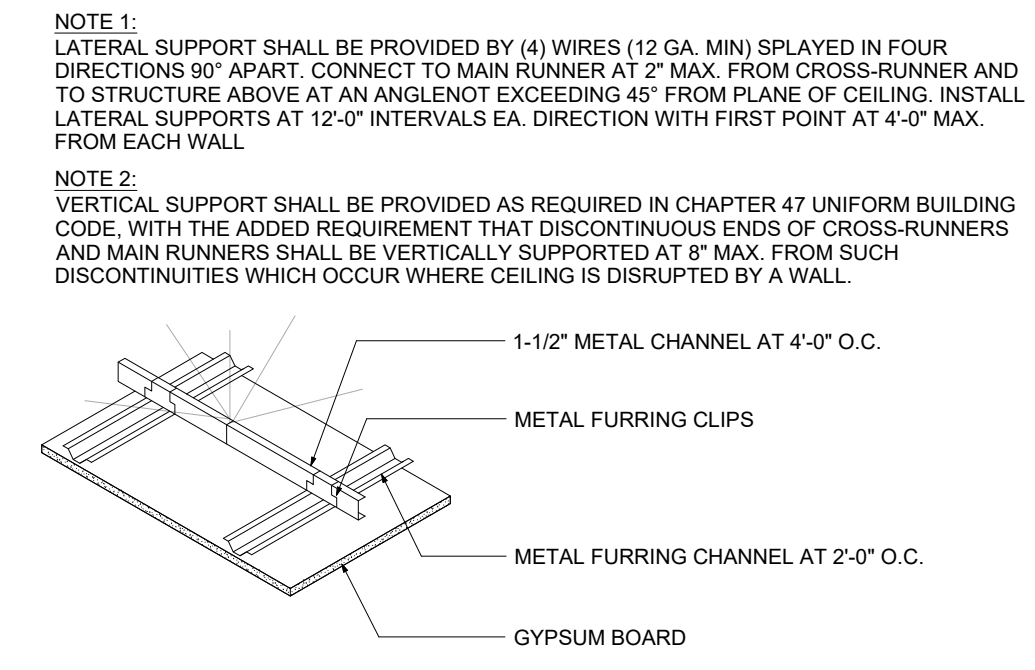


NOTE 1: 2" MAX. FROM BRACING WIRES TO CROSS RUNNERS
 NOTE 2: SUSPENDED CEILING ATTACHMENT IN ACCORDANCE WITH IBCO REPORT ER-4071

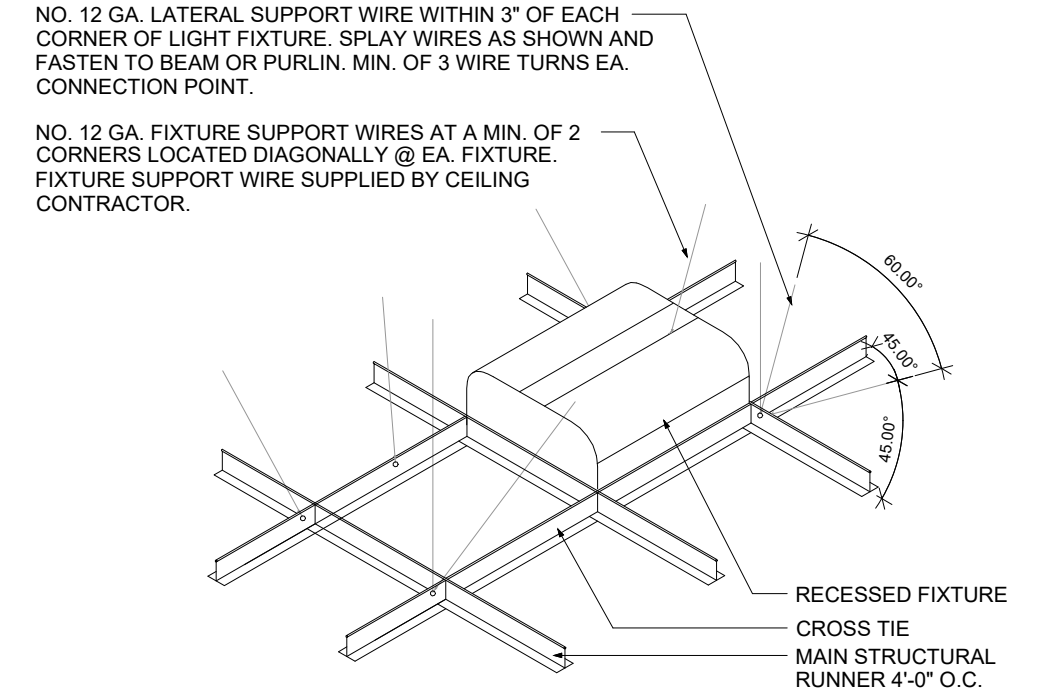
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 Scale: NTS



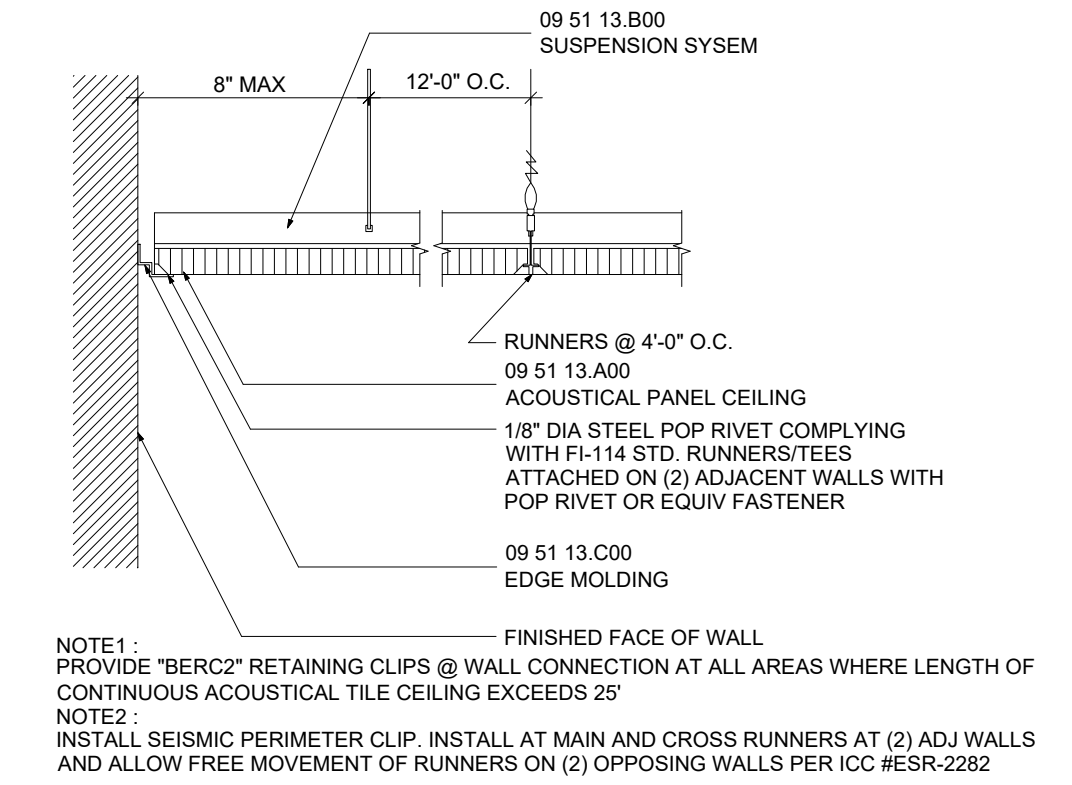
2 CEILING COMPRESSION STRUCT-TYPICAL
 Scale: NTS



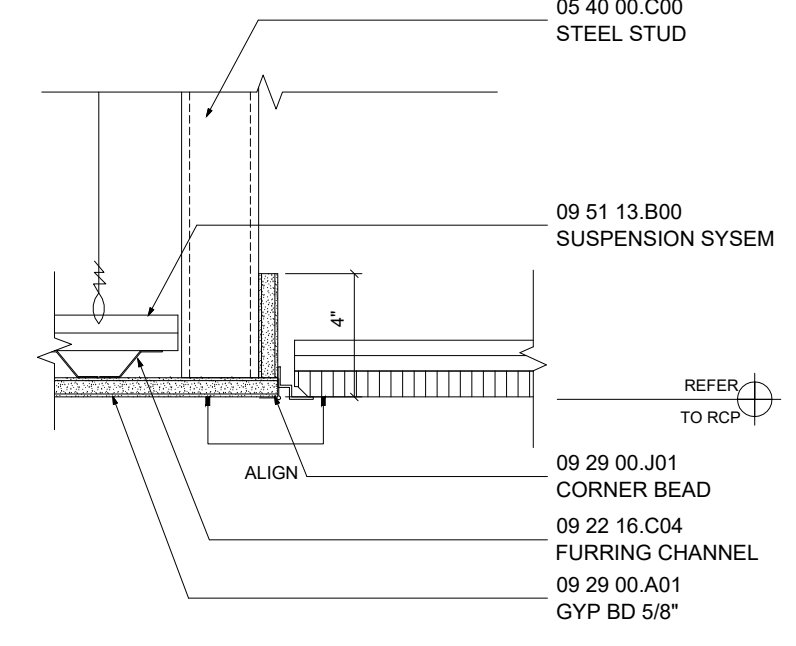
3 SUSPENDED GYP. CEILING AXONOMETRIC-TYPICAL
 Scale: NTS



4 CEILING GRID LIGHT FIXTURE-TYPICAL
 Scale: NTS



5 WALL CONNECTION AT ACOUSTICAL CEILING TILE-TYPICAL
 Scale: NTS



6 FLUSH GWB TO ACOUSTICAL CEILING TRANSITION-TYPICAL
 Scale: NTS

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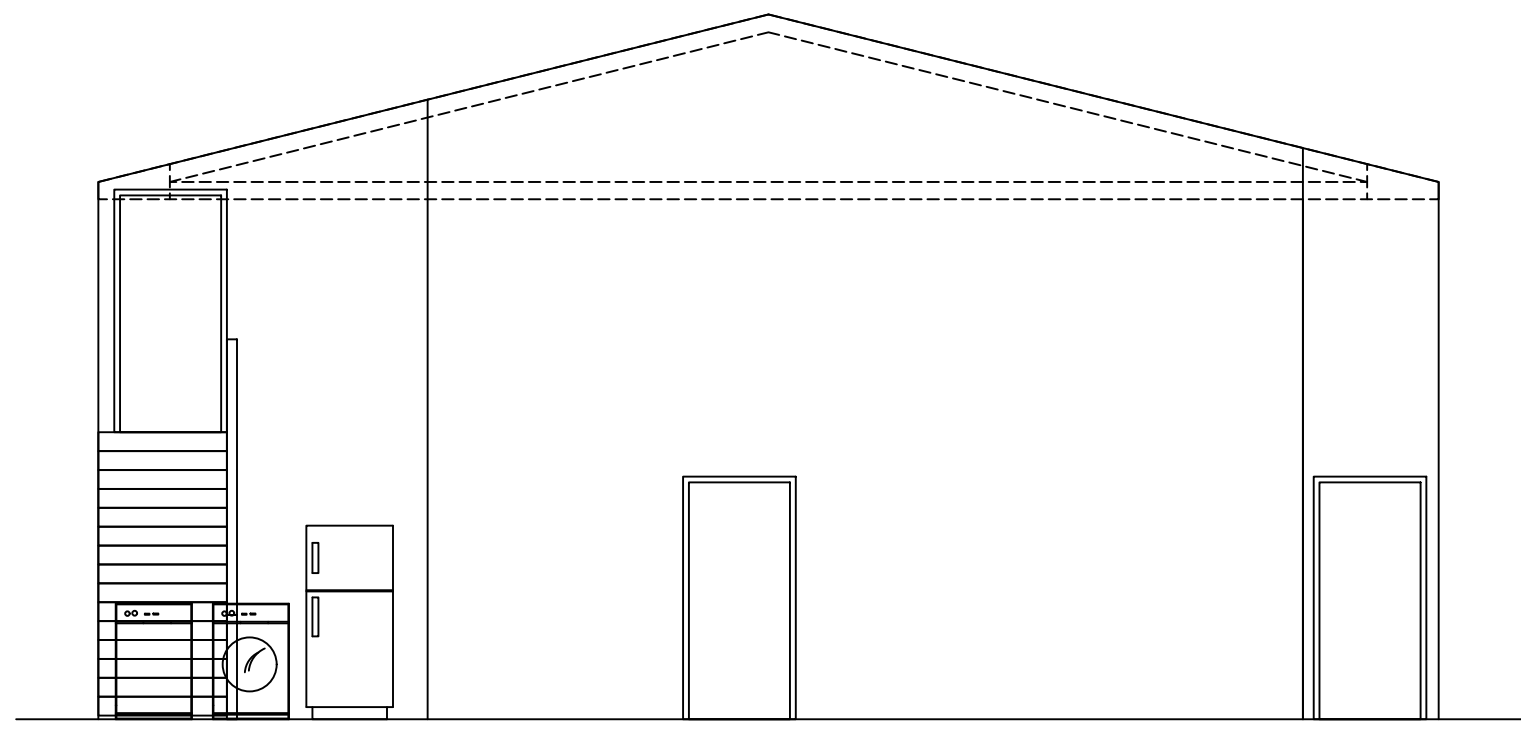
Project:

Renovations to Edisto Beach
 Fire Department
 2413 Murray St.
 Edisto Island, SC 29438

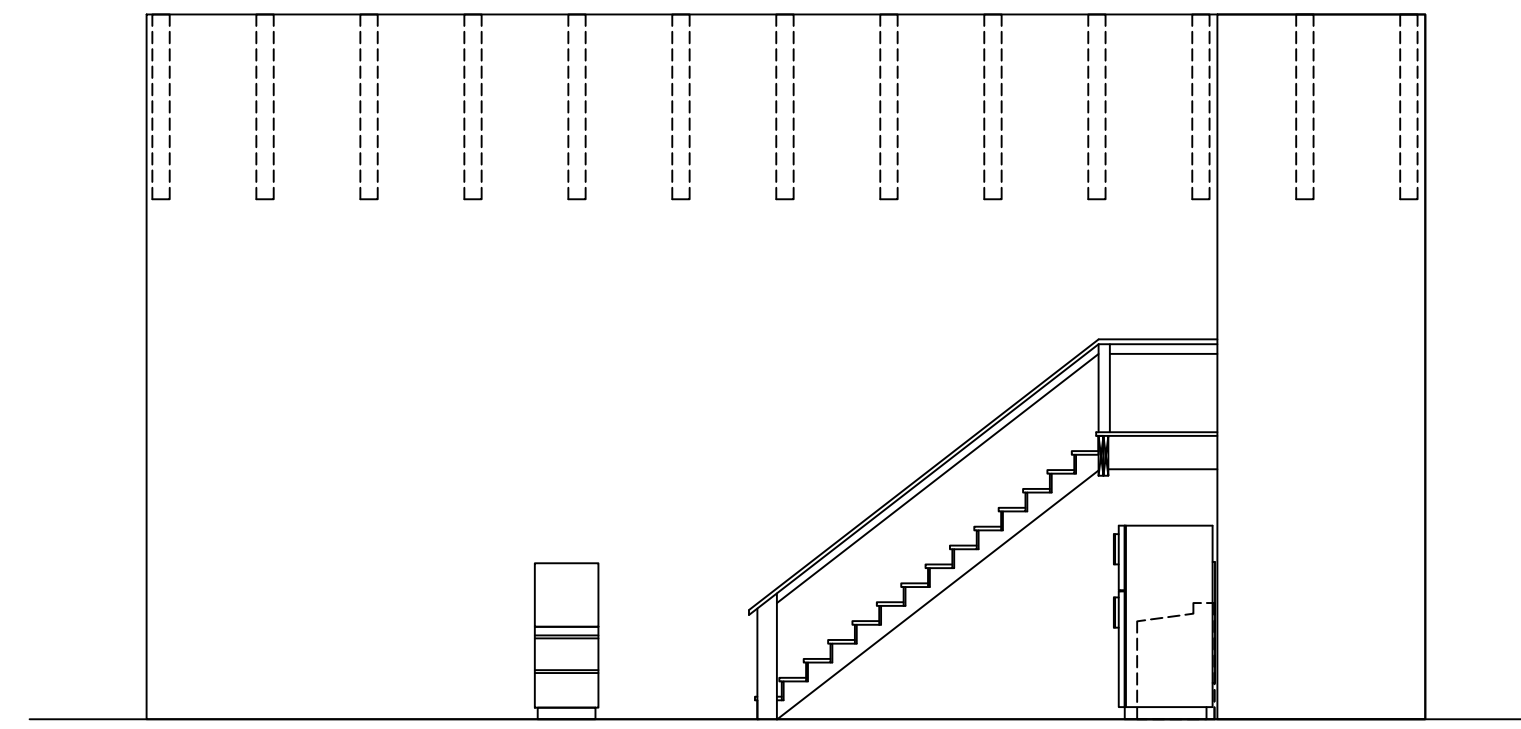
ACOUSTICAL CEILING TILE DETAILS

Scale: NTS
 Drawn: TMH
 Check: MP
 Proj#: J1870

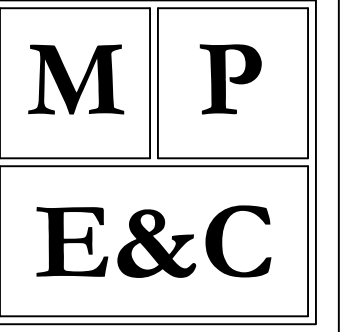
A3.2



1 INTERIOR ELEVATIONS
Scale: 3/16" = 1'-0"



2 INTERIOR ELEVATIONS
Scale: 3/16" = 1'-0"



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Project:

Renovations to Edisto Beach
Fire Department
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Edisto Island, SC 29438

ELEVATIONS
SECTIONS

Scale: NTS

Drawn: TMH

Check: MP

Proj#: J1870

A4.1

Structural Notes:

Notes listed below and herein are where applicable for this project. Some notes may not be relevant.

General Notes:

- The requirements of these general notes shall apply to all structural work. Installation shall be in accordance with the current building code, state and local codes and the latest amendments thereto.
- The work covered by this contract consists of furnishing all labor, equipment, materials and service necessary for and reasonably incidental to the proper completion of all work shown on the drawings and specified. Materials or products specified by trade name, manufacturer's name or catalog number shall be interpreted as establishing a standard of quality and design. Substitutions shall not be allowed unless they are submitted for review to use and approved by the engineer and/or architect.
- Contractor shall fully brace and otherwise protect all work in progress until the building is completed.
- Furnish copies of shop drawings for approval prior to purchasing.
- Contractor and sub-contractors shall coordinate with architectural, civil, structural, mechanical, electrical, fire protection, plumbing and all other trades for pipe routing and equipment placement. Avoid interference with architectural features, beams, footings, windows, etc. Notify architect immediately of any conflicts. Sleeves shall be installed where piping passes through structure. All openings through fire rated walls or floors shall be sealed with U.L. listed penetration and shall maintain the fire rated integrity of the wall or floor. The contractor shall verify fire ratings with architectural drawings prior to installation. Submit U.L. penetration details with shop drawings for engineer's review. Minimum ratings shall be as follows: walls - F=1, T=0; floor - F=1, T=1.
- Contractor shall keep a record of the locations of all concealed work and upon completion of the job, shall supply as-built drawings showing in colored pencil on black line prints any deviation from the original drawings. These drawings shall indicate dimensions of buried utility lines from building walls. The structural drawings shall be used in conjunction with the specifications and the architectural and mechanical drawings. If there is a discrepancy between drawings, it is the contractor's responsibility to notify the architect prior to performing work. In case of conflict the most stringent condition shall apply.
- All dimensions must be coordinated with architectural drawings and with equipment manufacturer (i.e. window, door, air handler, etc.). Contractor must obtain an architectural directive in case of any conflict. Refer to architectural drawings for dimensions not shown in structural drawings.
- All work shall be guaranteed, both material and installation, for a period of one year from acceptance by owner.
- All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.
- Drawings are not to be scaled. All dimensions are to be read or calculated.
- Work not indicated as part of drawings but reasonably implied to be similar to that at corresponding places shall be repeated.
- All sections and details are typical at similar locations and where applicable.
- The dimensions on this project are considered as nominal dimensions. The shape and actual size of member units shall be considered in the building and layout plan.
- Framing materials and members and similar components specified in common sizes unless specifically noted.
- These plans are the property of MPE&C only. Any unauthorized use, reproduction, or otherwise is prohibited. Doing so is subject to prosecution.
- These plans are site specific to this particular project, site, and location only.

Structural Notes Continued:

Concrete and Reinforcing:

- All concrete work shall conform to the latest ACI "building code requirements for reinforced concrete, ACI-318".
- All concrete shall have a minimum 28-day compressive strengths as indicated below:

Concrete Max Strength /	Water Cement Ratio /	Aggregate /	Location
4000 psi	/ 0.45	/ Stone	/ Concrete U.N.O.
3000 psi	/ 0.52	/ Stone	/ Slab on Grade Foundations
- All reinforcing steel shall be intermediate grade, new billet steel, deformed bars, conforming to ASTM a-615, grade 60. All bars shall be securely supported and wired in place. Prior to pouring concrete. All reinforcing steel to be welded shall conform to ASTM a-706.
- All welded wire fabric (W.W.F.) in flat sheets only and shall conform to ASTM a-185.
- Unless noted, all bars marked continuous shall be spliced at all lap points and corners and developed at non-continuous ends as per typical details. Splice continuous top bars at center between supports and splice continuous bottom bars at supports.
- Concrete cover for reinforcing bars shown in typical details.
- Unless noted, temperature reinforcing (ASTM a-615-60) to be 0.0018 x concrete area.
- Provide #4 @ 12" O.C., with standard hook, top bars in all slabs at discontinuous ends unless otherwise noted on plans. Length of bars 1/4 of span, minimum 3'-0". Unless otherwise noted provide #4 @ 12" O.C. in all cantilevers. Bar length shall be cantilever span plus 10'-0" plus standard hook at cantilever ends.
- Where pipe sleeves (up to 2" in diameter) pass through concrete beams, provide additional stirrup each side of sleeve, sleeves for pipes 2" in diameter or larger must be steel or cast iron, and the location must be approved by the structural engineer.
- All construction joints shall be thoroughly cleaned just before placing new concrete in accordance with the building code.
- Provide 1"x1" chamfer of exposed corners of beams and/or columns.
- Contractor shall coordinate placement of, or box out for, all pipe sleeves, openings, etc., required for various trades.
- Contractor shall coordinate and notify other trades in sufficient time to allow them to set anchors, inserts, bolts, hangers, etc., as required for their use.
- See architectural drawings for details of flashing reglets, fascia details, etc.
- Under no circumstances shall concrete be pumped through aluminum pipes. Concrete shall not be placed in contact with aluminum, aluminum mixing drums, truck mixers, buggies, chutes, conveyors, tremie pipes, and other equipment made of aluminum shall not be used on this project.
- Slumps of over 4 inches will not be permitted unless the HRWR admixture (super plasticizer) is used. Maximum slump is then 8 inches unless otherwise directed by the engineer.
- No admixture shall be used in concrete except with the permission of the engineers and after laboratory design mix approval. All admixtures shall contain no more chloride ions than are present in municipal drinking water.
- Water reducing admixture shall conform to the ASTM C-494, Type A, and shall be used in all concrete.
- Air entraining admixture shall conform to ASTM C260. Air content of concrete shall be used as follows:
 - For concrete exposed to soil and/or weather, 5%.
 - For interior walls, columns, and slabs, 3%.
- Fly ash - ASTM C618, type c or type f should be used but not to exceed 20% cementitious content.
- All exposed concrete slabs shall receive a curing compound. The curing compound shall conform to ASTM C309 and shall have 30% solids minimum. Water/blanket curing as per ACI recommendation may be used as alternate.

Structural Notes Continued:

Masonry:

- Design and construction shall conform to building code requirements for masonry structures (ACI 530-11 ASCE 7-10) / TMS 402-11 and specifications for masonry structures ACI 530.1-11 / ASCE 7-10.
- Minimum net compressive strength of block assembly shall be 2000 psi (F'M) mortar for masonry shall be type "S" or "N".
- For all exterior and interior bearing, bed joints are to cover 100% of the masonry surfaces and all head joints are to cover 100% of the projected area of the face shells.
- Fill all cells as required with 3000 psi grout. Slump shall be 8 to 11 inches. Submit design mix for approval.
- Minimum horizontal joint reinforcing shall be 9 gage hot dip galvanized truss or ladder type joint reinforcing at 16" O.C., provide manufacture "T" and "L" shapes for intersections and corners, (minimum lap 8").
- Minimum vertical reinforcing shall be 1-#5 @ 48" or 1-#4 @ 32" O.C., (U.N.O.).
- Provide additional vertical reinforcing bar at every corner, intersection, control joint, and opening edges (U.N.O.).
- Minimum splice for vertical reinforcing is shown in detail 4-023, splice for horizontal joint reinforcing = 12".
- Walls are designed to be braced by floor or roof members, contractor shall provide temporary bracing during construction.
- All cells below first floor finished elevation must be fully grout filled.
- All knock out block horizontal bars shall have corner bars at all corners and wall intersections. Size and number of corner bars shall be same as horizontal bars.
- All intersecting walls and corner walls shall be laid in an overlapping masonry bonding pattern, with alternate units

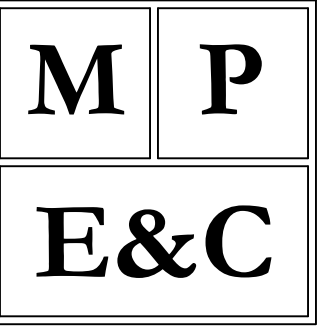
Light Gauge Metal Framing:

- All structural members shall be designed in accordance with American iron and steel institute, "specification for the design of cold formed structural members", 2007 Edition with 2009 supplements. Provide sign and sealed calculations and drawings for all light gauge structural elements of the building, including the exterior metal studs (curtain wall), and all exterior ceilings.
- All structural studs and joists 22, 20, and 18 gauges shall be formed from galvanized steel per ASTM A653, G60 coating meeting the requirements of ASTM C955 with a yield strength of 33,000 psi.
- All structural studs and joists 16, 14, and 12 gauges shall be formed from galvanized steel per ASTM a653, G60 coating meeting ASTM C955, with yield strength of 50,000 psi.
- All structural track and bridging shall be formed from galvanized steel per ASTM A653, G60 coating meeting the requirements of ASTM C595, with yield strength of 33,000 psi.
- With each type of metal framing required, provide manufacturer's standard steel runners (tracks), blocking, lintels, clip angels, shoes, reinforcements, fasteners, and accessories as recommended by manufacturer for applications indicated, as needed to provide a complete metal framing system.
- Provide galvanized finish to metal framing components complying with ASTM A653 for minimum G60 coating. Attach similar components by welding. Attach dissimilar components by welding, bolting or screw fasteners, as standard with manufacturer. All welding shall be performed by welders certified and experienced in light gauge structural steel framing work.
- Install metal framing systems in accordance with manufacturer's printed or written instructions and recommendations, unless otherwise indicated.
- Install continuous tracks sized to match studs.
- Set studs plumb, except as needed for diagonal bracing or required for non-plumb walls or warped surfaced and similar requirements.
- Where stud system abuts structural column or walls, including masonry wall, anchor ends of stiffeners to supporting structure.
- Secure studs to top and bottom runner tracks by either welding or screw fasteners at both inside and outside flanges.

Structural Design Criteria / Property Info:

Information listed below and herein is where applicable for this project. Some items may not be relevant.

- Property/Structure/Site Info:
 - 2414 Murray St, Edisto Island, SC 29438
- Heights/Stories:
 - ~25' / 1
- Weather/Environment:
 - Extreme Frost Depth: 5"
 - Climate Zone: 3
- Classifications:
 - Construction Type: V
 - Occupancy Group: Mixed: R3, B, S-2
 - Occupancy Risk Category: IV
- Wind Zone
 - 157mph
 - Exposure: B
- Seismic:
 - Site Class: D
 - Seismic Design Category: D
 - Importance Factor: 1.5
 - Soil Capacity: Assumed 2000psf
 - Fundamental Harmonic Frequency (T): = 0.224s < 0.5s
 - Acceleration Parameters
 - SS = 0.808, MCER ground motion (period=0.2s)
 - S1 = 0.259, MCER ground motion (period=1.0s)
 - SMS = 0.951, Site-modified spectral acceleration value
 - SM1 = 0.488, Site-modified spectral acceleration value
 - SDS = 0.634, Numeric seismic design value at 0.2s SA
 - SD1 = 0.325, Numeric seismic design value at 1.0s SA
- Flood Zone: AE (EL 9)
- Loads/Deflections:
 - Minimum Design Loads/Deflections: ASCE 7-10
 - Dead & Concentrated Loads: Actual
 - Roof Live Load: 20psf
 - Snow Load: 10 psf
 - Floor Live Load: 100 psf
 - Soil: See Seismic
- Applicable Building Codes and Regulations:
 - IBC 2015 w/ SC Modifications
 - IFC 2015 w/ SC Modifications
 - IEBC 2015 w/ SC Modifications
 - IPMC 2015 w/ SC Modifications
 - IMC 2015 w/ SC Modifications
 - IPC 2015 w/ SC Modifications
 - IFGC 2015 w/ SC Modifications
 - NEC 2014 (NFPA 70) w/ SC Modifications
 - ICC/ANSI A117.1-2017 w/ SC Modifications
 - See International Code Council for more information: <http://www.iccsafe.org/>
 - See National Fire Protection Association for more information: <http://www.nfpa.org/>
 - Other Relevant & Current Adopted Codes
 - As Required
 - Zoning & Ordinances:
 - Town of Edisto Beach, SC



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Edisto Island, SC 29438

GENERAL
STRUCTURAL
NOTES

Scale: NTS

Drawn: TMH

Check: MP

Proj#: J1870

S1.1

Structural Notes Continued:

Structural steel:

1. All structural steel work shall be fabricated and erected in accordance with the latest AISC specifications.
2. Structural steel shall conform to:
 - A. Wide Flange (WF) - ASTM A992 (50 ksi)
 - B. Shapes (L,T,C,PL) - ASTM A36
 - C. Structural Tube (HSS) - ASTM A500 (46 ksi)
 - D. Steel pipe (HSS) - ASTM A500 (42 ksi)
 - E. Anchor Bolts - ASTM F1554 (36ksi) U.N.O.
 - F. Framing Bolts - ASTM A325 or A490
 - G. Shear Studs - ASTM A108
 - H. Welding Electrodes - E70XX
- I. All high strength bolts shall conform to ASTM specification A325 and shall be provided with hardened washers under the turned element (nut or bolt head).
- J. Installation and tightening of all high strength bolts shall conform to the "specification for structural joints using ASTM A325 or A490 bolts".
- K. Shop connections may be welded or high strength bolted. All bolts shall be 3/4" diameter minimum. All connections shall conform to the typical connection details shown on the plans unless specifically approved by the engineer.
- L. All field connections shall be bolted with high strength bolts, slip-critical (friction) type except where slotted holes are specified or where movement of the connected members is expected. In these cases provide oversized washer, hand tighten bolts, and tack weld washer to nut to verify assembly is held together.
- M. All welding shall conform to the American Welding Society Code, ans01.1, all welding shall be performed using E70XX U.N.O.
- N. Cuts, holes, copings, etc. Required in structural steel members for the work of other trades shall be shown in the structural steel shop drawings and shall be made in the shop. Holes shall be reinforced as required by the engineer.
- O. Burning of holes, cuts, etc. In structural steel members in the field will not be permitted, except with the specific approval of the engineer.
- P. All steel members exposed to weather (such as lintels, door jambs, etc.) Shall be hot dipped galvanized.
- Q. For miscellaneous steel, see architectural drawings.
- R. Any steel members required by the electrical or mechanical trades for the support of their equipment, which are not shown on architectural or structural drawings, shall be provided by the trade requiring such support.
- S. See specifications for painting of structural steel. All fabrication and erection marks shall be covered during field touch-up painting.
- T. All connections to be double angle framed beam connection per AISC unless noted otherwise. All bolts to be 3/4" minimum diameter unless noted otherwise. Shop connections may be welded or bolted. Welds are to be equal in strength to bolts.
- U. Design connections for the maximum shear (v in kips) listed in the table 3-6 "maximum total uniform load" at the bottom of each page in the "beam properties" of the 13th edition of the AISC "manual of steel construction. "minimum connection shall consist of two 3/4"o bolts. Reactions shown are based on unfactored loads. Provide signed and sealed drawings and calculations by a professional engineer.
- V. When steel members are welded to embed plates in concrete, welding process should be performed in such way that embed plate does not overheat and expand. Such expansion will crack the concrete surrounding the embed plate and may weaken the structural capacity of the connection. We recommend to provide several single passes to built up the weld size require with cooling off periods to avoid the embed plate expansion. Under no circumstances provide more than 6" of 1/4" weld without allowing a cooling off period.
- W.

Structural Notes Continued:

Foundation Notes:

1. See Design Criteria regarding soils report if applicative. Foundation has been designed in accordance with this or assumed site conditions for contractor to verify.
2. Fill and subgrade preparation shall be in accordance with the geotechnical engineer recommendation if applicable.
3. All column footings shall be centered under column centerlines unless otherwise noted.
4. Backfilling against foundation walls shall be done carefully with small compaction equipment, after slabs on ground are in place and concrete has set. No trucks, bulldozers, etc. Shall be allowed closer than 6'-0" to any foundation wall. Any wall 3'-0" or higher must be braced during the construction process.
5. No foundations shall be placed above 1 vertical on 2 horizontal slopes extended from the closest edge of any undisturbed soil or other foundation structure. Bottom of footings shall not be less than 1'-0" below existing grade (U.N.O.).
6. For foundations size and reinforcing see schedule.
7. Elevator pit dimensions = verify with elevator manufacturers approved shop drawings.
8. Water proofing materials shall be provided on all sides and bottom of elevator core and escalator pit.
9. Contractor shall treat soil beneath building for termites.

Commodity Lumber:

1. All lumber specified in standard nominal dimensions and to be #2 southern pine or better unless otherwise specified. See architectural plans for additional information.
2. All structural wood shall follow the AWC Wood Frame Construction Manual and AWC Material Data Specifications, latest editions.
3. All exposed wood to be pressure treated per AWPA guidelines and applicable building codes. Wood to be treated specifically for above or below ground contact, whichever is in use.

Engineered Lumber, Trusses, Steel Beams:

1. All engineered lumber, where supplied, to be installed per manufacturer's specifications unless specifically stated on plans by engineer.
2. Trusses, where supplied, shall be designed by the manufacturer and installed per manufacturer's specifications.
3. LVL and TJI beams specified in Weyerhaeuser brand unless otherwise stated. Substitution of approved equivalents is acceptable.
4. Trimmable truss-joists specified in TrimJoist brand unless otherwise stated. Substitution of approve equivalentents is acceptable.
5. All structural wood shall follow the AWC Wood Frame Construction Manual and AWC Material Data Specifications, latest editions.

Fasteners, Strapping, Hardware:

1. All strapping, fasteners, hardware, etc. to be Hot Dipped Galvanized or Stainless Steel per ASTM A123 or ASTM 153, unless otherwise specified.
2. Anchor bolts to be minimum ASTM A36. Threaded fasteners to be minimum ASTM A307.
3. All connections per IRC/IBC standard fastening schedules unless otherwise noted.
4. Bolts, Nails and Screw sizes specified in common sizes unless specifically noted.

Masonry:

1. All masonry to conform to ASTM C-90 unless otherwise specified.
2. All masonry to use Type S mortar unless specifically stated otherwise.

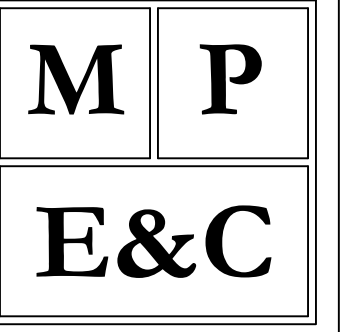
Other:

1. All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.

Structural Notes Continued:

Steel Joist:

1. Steel joist construction shall conform to the latest specifications of, and the joists shall be approved by, the steel joist institute.
2. Unless otherwise noted, bear short span joists minimum of 2-1/2" on steel beams and bear long span joist minimum of 4" on steel supports. In cases where joists bear on beams from one side only, joist seats shall extend a minimum of 1" past the centerline of supporting beam.
3. All joists bearing on beams shall be welded or bolted to those beams.
4. Provide bridging for all joists as shown on plan but not less than what is required by the steel joist institute or the steel joist designer. Bridging shall consist of minimum 1-1/4" x 1-1/4" x 7/64" angles, (U.N.O.).
5. All bridging shall be provided and installed by joist supplier.
6. All clips and connections shall be shop welded.
7. No field welding to bar joists except items specifically shown on structural drawings shall be allowed without specific permission from the engineer.
8. No joist shall be field spliced.
9. Maximum deflection of steel joists = L/240.
10. For painting of steel joist, see specifications.
11. Joist manufacturer shall submit with the shop drawings his catalog used for the manufacture of joists, indicating the load tables and sizes of all members used.
12. No loads exceeding 40 pounds may be hung from joists without specific permission from the structural engineer. Loads less than 40 pounds may be hung at panel points only. Any cost involved in reinforcing of joists shall be borne by the prime contractor requiring added loads.
13. All short span joists, and deep long span joists shall have uniform cross section, with standard dead load camber. Roof pitch is accomplished by sloped joists and support beams. Adjust joist seats as shown on drawings.
14. For specific joist ends, see roof sections.
15. Rigid connections of bottom chords of joists to columns shall be made only after the application of all the dead loads. Provide loose bolted connection of these bottom chords during erection.



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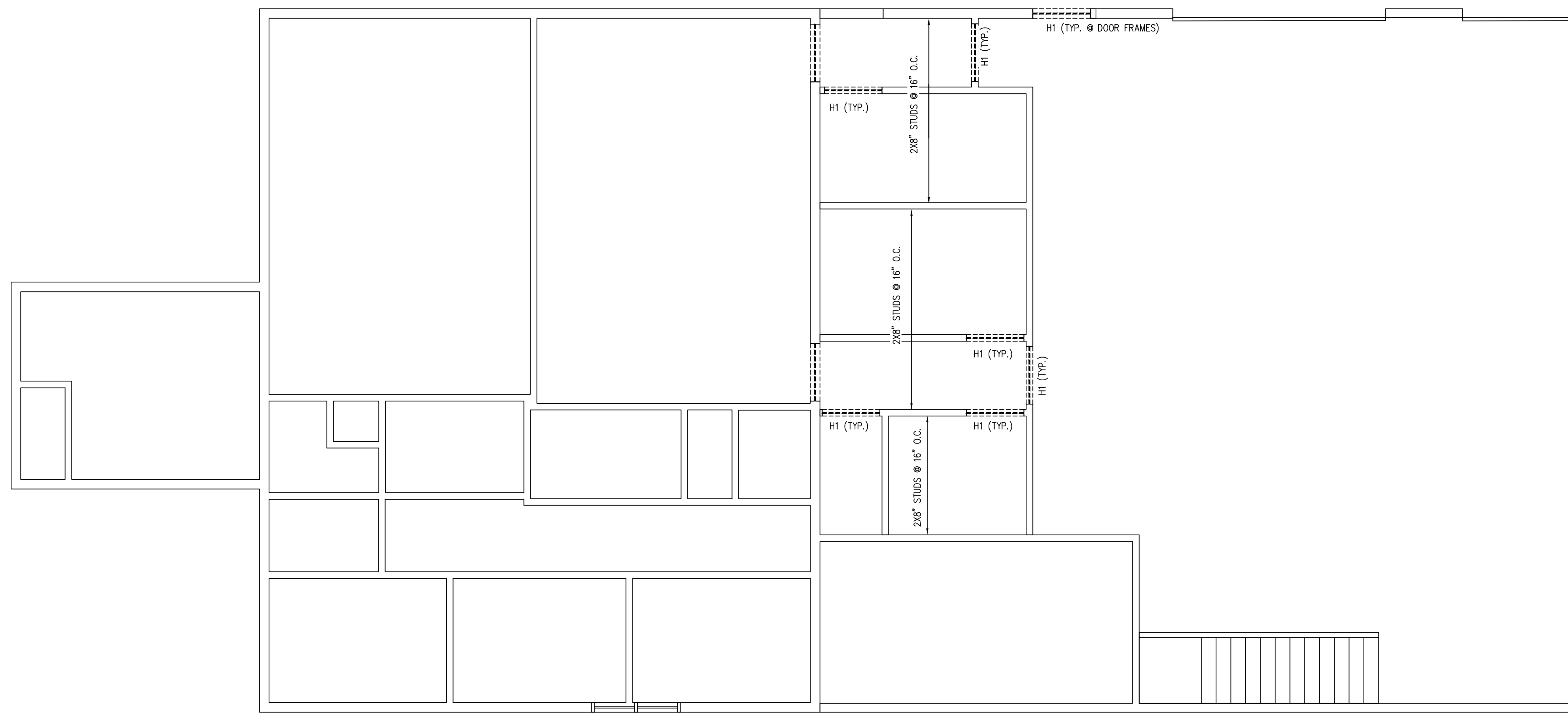
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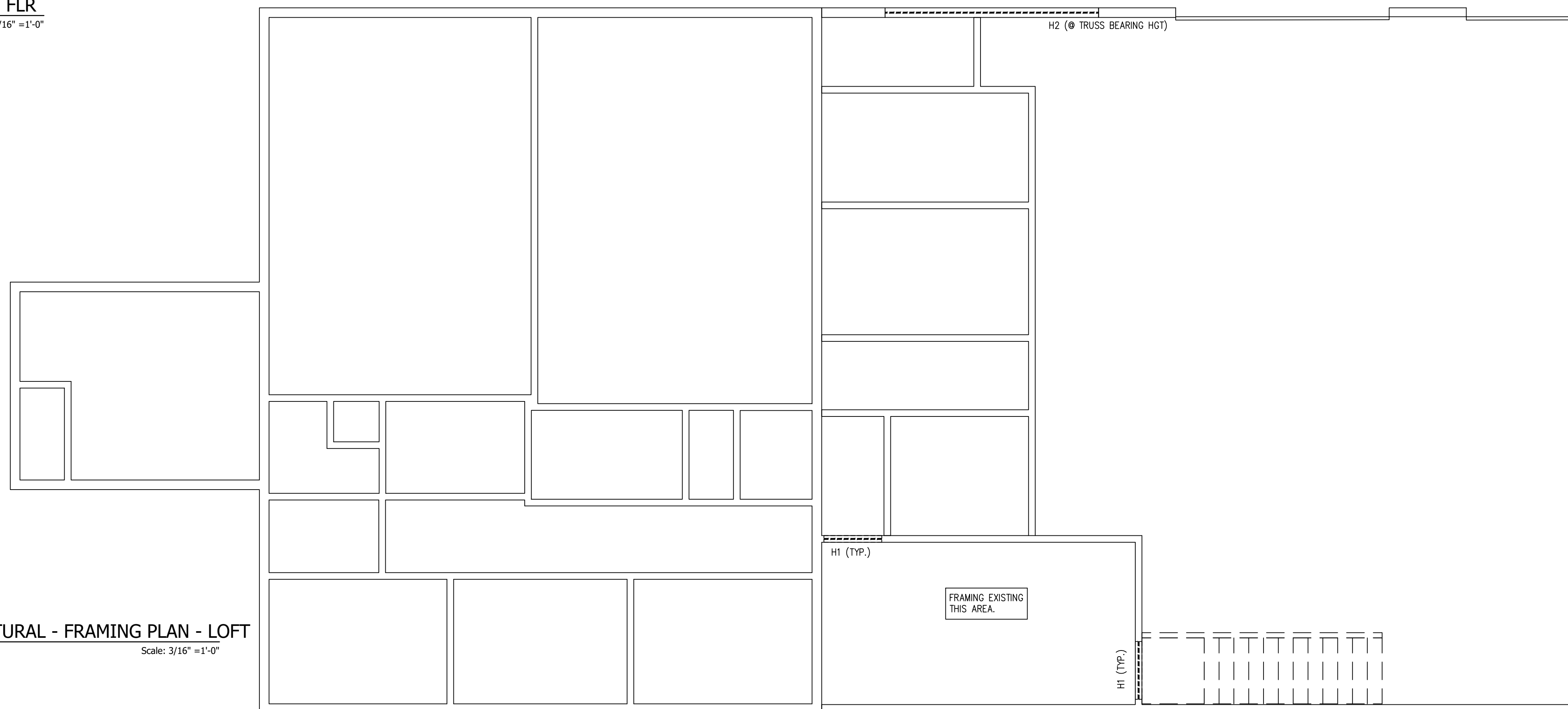
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Proj#: J1870

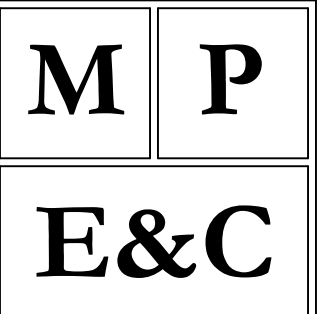
S1.2



1 STRUCTURAL - FRAMING PLAN - 2ND FLR
Scale: 3/16" = 1'-0"



2 STRUCTURAL - FRAMING PLAN - LOFT
Scale: 3/16" = 1'-0"



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FRAMING
PLAN

Scale: NTS

Drawn: TMH

Check: MP

Proj#: J1870

S2.1

WOOD FRAMING

ALL WOOD FRAMING PER IBC2015 & AWC DETAILS FOR CONVENTIONAL WOOD FRAME CONSTRUCTION.

WOOD FRAMING SCHEDULE

Stud Height Schedule

Unsupported Wall Height (ft)	Stud Size & Spacing (SPF#2)
0'-0" to 9'-0"	2"x4" @ 16" OC Or 2"x6" @ 16" OC
9'-1" to 10'-4"	2"x4" @ 12" OC Or 2"x6" @ 16" OC
10'-5" to 15'-0"	(2) 2"x4" @ 16" OC Or 2"x6" @ 16" OC
15'-1" to 16'-7"	2"x6" @ 12" OC Or 2"x8" @ 16" OC
16'-8" to 18'-6"	2"x8" @ 16" OC
18'-7" to 20'-0"	(2) 2"x6" @ 12" OC Or 2"x8" @ 12" OC

Roof Rafter Schedule

2"x6" @ 16" OC up to 8'-0" Unsupported Span
2"x8" @ 16" OC up to 12'-0" Unsupported Span
2"x10" @ 16" OC up to 15'-0" Unsupported Span
2"x12" @ 16" OC up to 18'-0" Unsupported Span

Ceiling Joists for Non-Storage Attic Schedule

2"x6" @ 16" OC up to 8'-0" Unsupported Span
2"x8" @ 16" OC up to 12'-0" Unsupported Span
2"x10" @ 16" OC up to 15'-0" Unsupported Span
2"x12" @ 16" OC up to 18'-0" Unsupported Span
* Center Span Blocking Required @ 8' OC Min

2"x4" @ 16" OC Wall, Door & Window Header Schedule

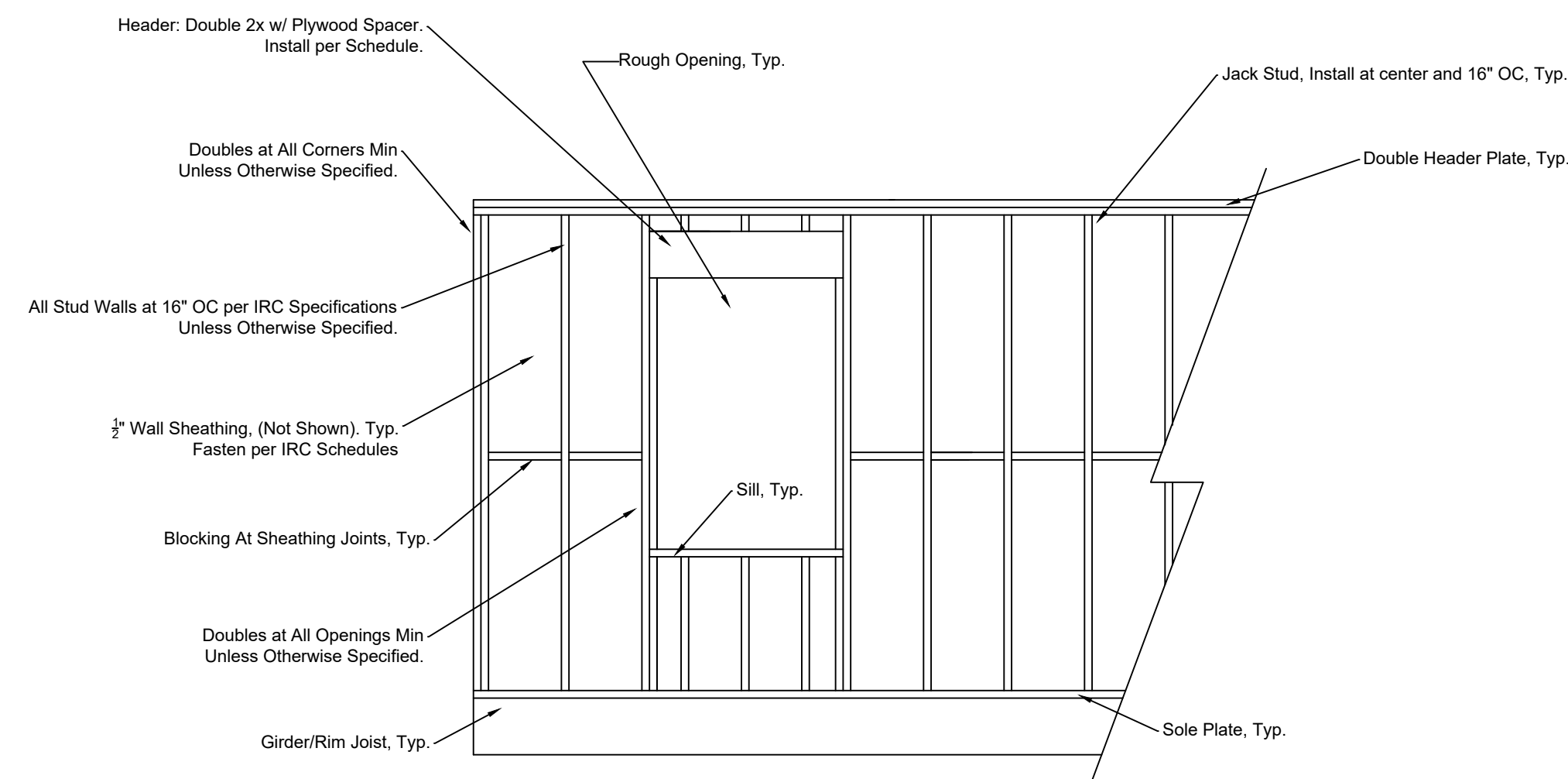
(2) 2"x8" w/ 1/2" Plywood Filler up to 4'-0" Openings
(2) 2"x10" w/ 1/2" Plywood Filler up to 8'-0" Openings
(2) 2"x12" w/ 1/2" Plywood Filler up to 10'-0" Openings
Openings > 10'-0" Require Engineer Sized Members

2"x6" @ 16" OC Wall, Door & Window Header Schedule

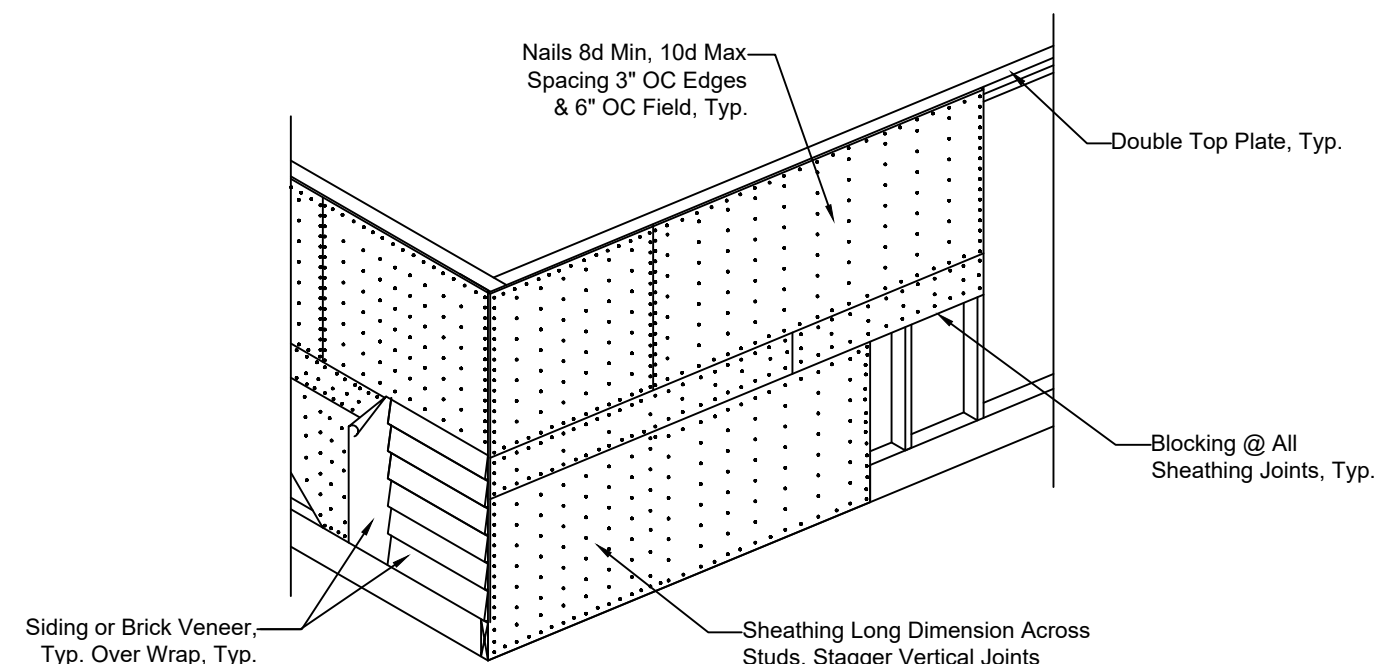
(3) 2"x8" w/ 1/2" Plywood Filler up to 4'-0" Openings
(3) 2"x10" w/ 1/2" Plywood Filler up to 8'-0" Openings
(3) 2"x12" w/ 1/2" Plywood Filler up to 10'-0" Openings
Openings > 10'-0" Require Engineer Sized Members

Minimum Wall & Header Stud Requirements

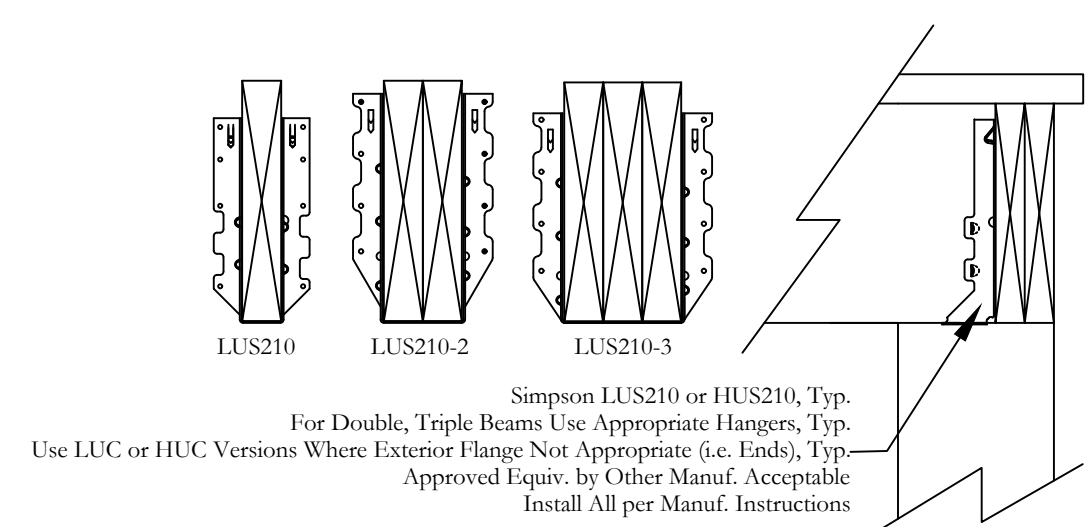
(2) Studs for Headers < 8'-0"
(3) Studs for Headers > 8'-0" Max 16"-0"
* See Shear Wall Framing Detail for Openings Near Corners



1 WALL, HEADER, JACK STUD, OPENING DETAIL NTS



2 WALL SHEATHING DETAIL NTS

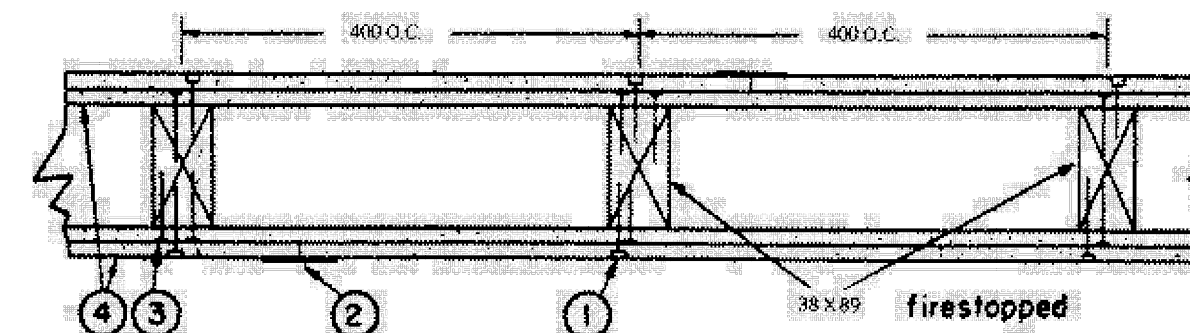


3 JOIST & LEDGER/RIM JOIST CONNECTION NTS

Design No. U301
February 12, 2019

Assembly Rating - 2 h

Load Restricted — Assembly evaluated in accordance with Working Stress Design methods, for use under Limit States Design methods; refer to information under Guide **BXUV.C**.



Bearing Wall - Combustible Construction
(Finish Rating - 66 minutes)

1. **Nailheads** — Exposed or covered with joint finisher.
2. **Joints** — Exposed or covered with tape and joint finisher.
3. **Nails** — 51 mm, cement-coated flathead.
4. **Gypsum Board** — (CKNXC), 15.9 mm thick applied in two layers. Base layer placed vertically with joints butted over studs and nailed to studs 150 mm OC. Face layer applied horizontally with joint finisher cement and nailed 300 mm OC temporarily to base layer until cement sets. All joints in face layers staggered with joints in base layers and with joints on opposite sides.

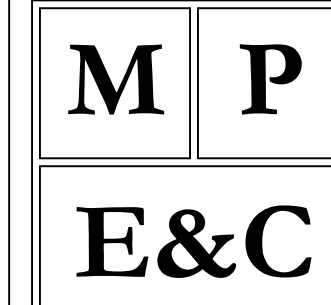
CGC INC — Types SCX, SGX, AR, WRX, IP-X1, IP-AR, SHX, C, IP-X2, WRC, ULX

UNITED STATES GYPSUM CO — Types SCX, SGX, AR, WRX, IP-X1, IP-AR, SHX, C, IP-X2, WRC, ULX

GEORGIA-PACIFIC GYPSUM L L C — Types 9, X, DGG, DS, GuardGF-2, C, TR-AR, GF-6, DAP

NATIONAL GYPSUM CO — Types FSW, FSW-30

4 UL ASSEMBLY - 301 NTS



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Date/Revisions:

2019.09.27

Plan Set

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CONSTRUCTION

Project:

Renovations to Edisto Beach
Fire Department
2413 Murray Sr.
Edisto Island, SC 29438

STRUCTURAL
DETAILS

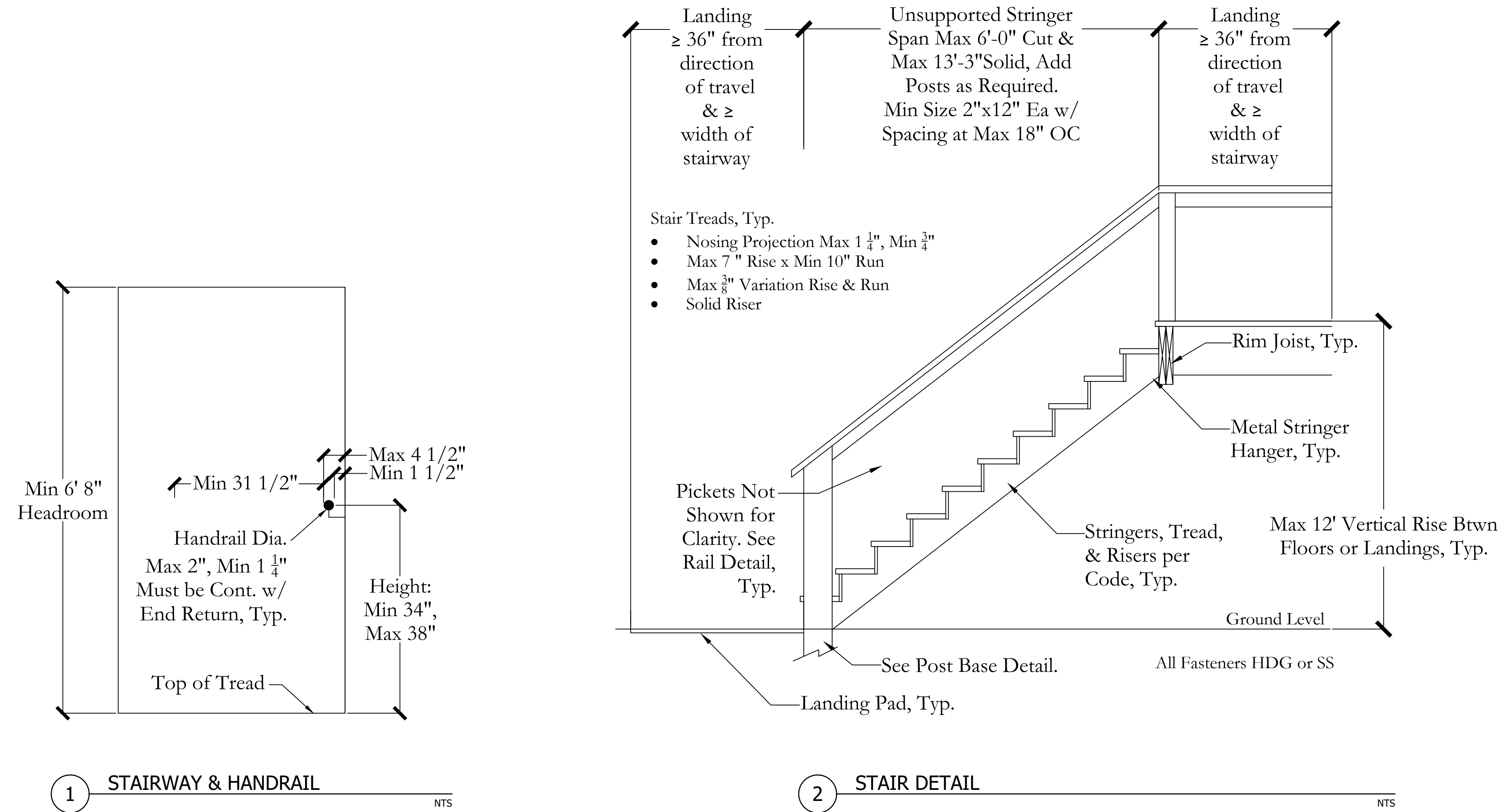
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Drawn: TMH

Check: MP

Proj#: J1870

S3.1



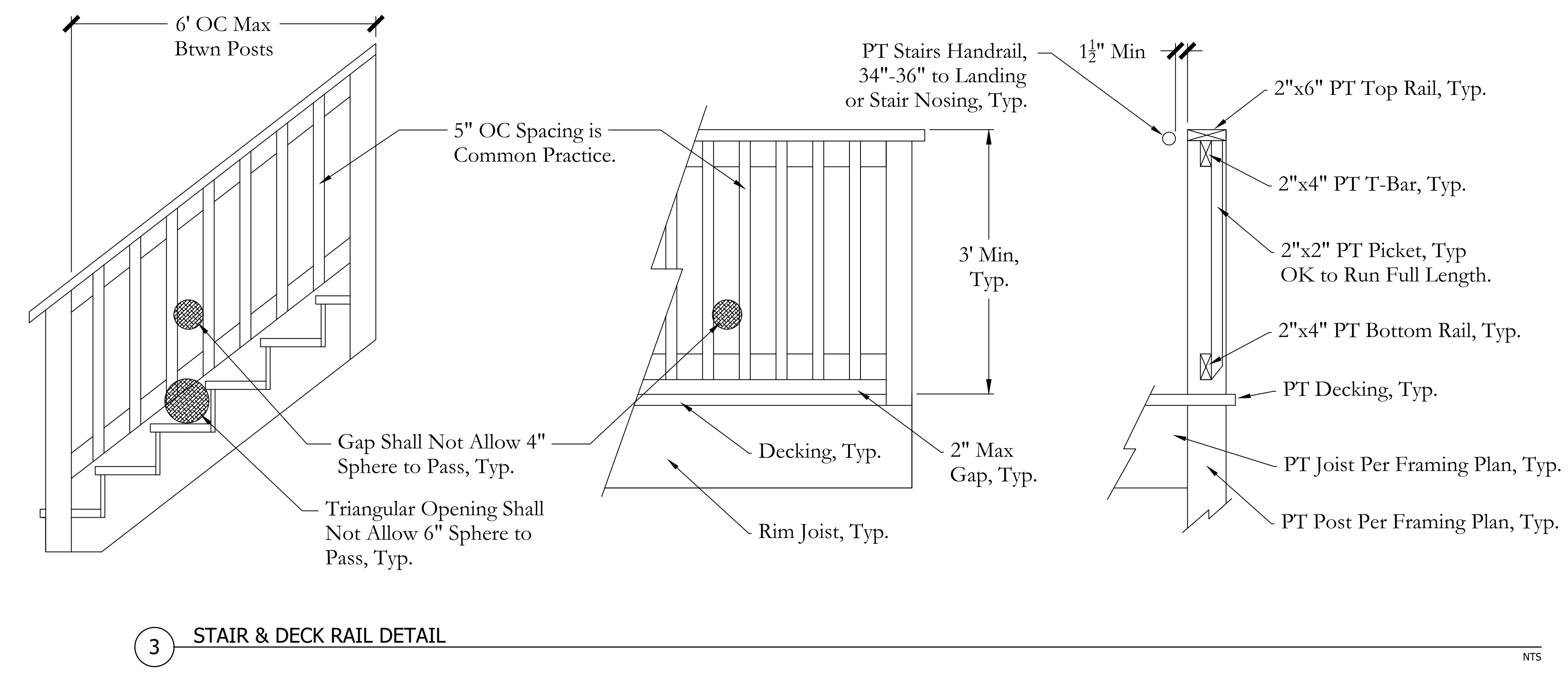
1 STAIRWAY & HANDRAIL NTS

2 STAIR DETAIL NTS

Stair & Rail Notes:

Notes listed below are where applicable for this project. Some notes may not be relevant.

- All stairs & railings to meet current building codes. Other local codes/ordinances may apply. Verify with local building authority.
- Deck & rail systems shown herein are based upon standard commodity lumber and engineered wood products sizes.
- If installing a manufactured rail system (metal, vinyl, etc). Install per manufacturer's specifications. Verify compliancy with building code and local building authority.
- Other deck/rail/picket configurations (not shown) are acceptable if compliant with current building code and approved by owner and local building authority.



3 STAIR & DECK RAIL DETAIL NTS

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Edisto Island, SC 29438

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DETAILS

Scale: NTS

Drawn: TMH

Check: MP

Proj#: J1870

Mechanical Notes:

Notes listed below and herein are where applicable for this project. Some notes may not be relevant.

General Notes:

- The requirements of these general notes shall apply to all mechanical work. Installation shall be in accordance with the current building code, state and local codes and the latest amendments thereto.
- The work covered by this contract consists of furnishing all labor, equipment, materials and service necessary for and reasonably incidental to the proper completion of all mechanical work shown on the drawings and specified. Materials or products specified by trade name, manufacturer's name or catalog number shall be interpreted as establishing a standard of quality and design. Substitutions shall not be allowed unless they are submitted for review to use and approved by the architect.
- Furnish copies of shop drawings of equipment or fixtures for approval prior to purchasing.
- Mechanical contractor shall coordinate with architectural, civil, structural, electrical, fire protection, plumbing and all other trades for pipe routing and equipment placement. Avoid interference with architectural features, beams, footings, windows, etc. Notify architect immediately of any conflicts. Sleeves shall be installed where piping passes through structure. All openings through fire rated walls or floors shall be sealed with U.L. listed penetration and shall maintain the fire rated integrity of the wall or floor. The contractor shall verify fire ratings with architectural drawings prior to installation. Submit U.L. penetration details with shop drawings for engineer's review. Minimum ratings shall be as follows: walls - F=1, T=0; floor - F=1, T=1. Contractor shall keep a record of the locations of all concealed work and upon completion of the job, shall supply as-built drawings showing in colored pencil on black line prints any deviation from the original drawings. These drawings shall indicate dimensions of buried utility lines from building walls.
- All work shall be guaranteed, both material and installation, for a period of one year from acceptance by owner.
- All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.
- Drawings are not to be scaled. All dimensions are to be read or calculated.
- Work not indicated as part of drawings but reasonably implied to be similar to that at corresponding places shall be repeated.
- All sections and details are typical at similar locations and where applicable.
- The dimensions on this project are considered as nominal dimensions. The shape and actual size of member units shall be considered in the building and layout plan.
- Ducts, piping and similar components specified in common sizes unless specifically noted.
- These plans are the property of MPE&C only. Any unauthorized use, reproduction, or otherwise is prohibited. Doing so is subject to prosecution.
- These plans are site specific to this particular project, site, and location only.

Mechanical Notes Continued:

HVAC:

- Do not scale drawing. Rough-in dimensions per equipment manufacturer and architectural drawings.
- Dimensions noted on plans are in inches unless otherwise noted.
- Duct sizes noted on plans are interior dimensions.
- Route condensate drain lines to dry wells as shown on drawings.
- Mechanical contractor shall be responsible for verifying all equipment voltages with the electrical contractor prior to releasing equipment from manufacturer.
- Some refrigerant line lengths and/or vertical lifts may exceed manufacturer's recommendations; mechanical contractor is responsible for insuring the equipment manufacturer sizes for all refrigerant lines for these pieces of equipment.
- Round ductwork shown on drawing is diagrammatic. Actual run shall be shortest possible without sharp bends. Round ductwork shall be galvanized steel with fiberglass duct wrap insulation per IMC specifications.
- Flexible ductwork will be allowed at the end of galvanized steel run outs; maximum length of flexible duct shall not exceed 8'-0". Refer to typical run out detail.
- All supply and return ductwork, unless specifically noted on plans, to be internally lined for 15'-0" from unit.
- All piping and ducts in finished rooms or spaces shall be concealed in furred chases or suspended ceilings, unless otherwise noted.
- Provide access panels or doors in inaccessible ceilings and/or chases for all valves, traps, dampers, cleanouts, coils, fans, controls, etc. They shall be furnished and installed per architectural specifications. Access door rating shall match classification of wall and ceiling fire rating.
- Water pipe connections to water coils shall be made so there will be counter flow between water and air.
- Coordinate the location of all diffusers, grilles, registers, access doors, etc., with the architectural reflected ceiling plan(s).
- All round runouts and drops to diffusers shall be the same nominal size as the scheduled diffuser neck size.
- The first figure of duct size indicates dimension of face shown or indicated. All duct sizes shown on drawings are net inside dimensions. Provide one-inch acoustical lining in low velocity rectangular ductwork unless noted otherwise on the drawings.
- Provide 1/2" manual air vents at all high points of closed system piping and 1/2" manual drain valves with hose connection at low points as required to provide complete system drainage. Where drain valves occur above ceiling areas and in areas outside mechanical range provide hose connection on valve.
- Provide turning vanes in all square elbows, except transfer air sound elbows.
- Refer to the architectural drawings for exact location of all fire rated and/or smoke rated walls and assemblies. Provide approved fire dampers in all required penetrations for ductwork, grilles, registers and diffusers. All pipe and ductwork penetrations of fire, smoke and full height walls shall be caulked airtight to the adjacent structure by means of U.L. approved fire proof caulking material.
- Contractor shall coordinate all ductwork, piping, plumbing and fire protection piping with structural and electrical systems and shall provide necessary offsets to avoid conflicts and to maintain equipment access and serviceability.
- Contractor shall furnish all necessary structures, inserts, sleeves, and hanging devices for installation of mechanical and plumbing equipment, ductwork and piping, etc. Contractor shall coordinate with general contractor and all building trades to avoid conflicts and to maintain equipment access and serviceability.
- Contractor shall be responsible for providing all necessary miscellaneous angles, channels, unistrut, etc., as may be required to adequately support the mechanical piping, ductwork, and equipment in a manner approved by the architect, and compliant with the most current edition of the IMC which will not overload the building structural system.
- Contractor shall provide return air or transfer air openings in full height walls sized at 350 fpm (unless otherwise specifically shown on the drawings) to create and/or maintain a return air path as required. Fire dampers and/or smoke dampers shall be provided in such openings where required by building code.
- Seal all transverse joints, longitudinal seams, duct wall penetrations and fitting connections on all duct systems.
- Mechanical items such as roof drains, floor drains, plumbing fixtures, etc. Shown on the architectural drawings but not shown on the mechanical drawings shall be included in the project. These items shall be brought to the attention of the architect.

Mechanical Notes Continued:

Gas piping

- Gas piping shall be installed in accordance with the current fuel gas code or NFPA-54 where requirements are more stringent.
- All gas equipment shall be AGA approved.
- The installation shall be for natural gas or propane as per plan design specifications.
- The installing subcontractor shall be licensed for the installation of natural gas.
- Above ground gas piping shall be schedule 40, welded and seamless, wrought steel pipe (ASME B36.10) with threaded fittings. Underground gas piping shall be polyethylene (PE) pipe (ASTM D-2513). Provide with tracer wire or magnetic tape.
- Any gas piping, which is exposed, shall be painted with black "Rustoleum" paint verify color with architect.
- Gas piping shall be hung tight to the roof structure, supported with hangers by Grinnell or equal.
- Branch taps must be made off-of the top of the piping.
- Connection to each piece of equipment shall include an inverted trap, a gas cock, a union and a dirt leg. Connections shall be rigid (no flex).
- All gas flues shall be minimum of 10'-0", or as required by code, away from fresh air intakes.

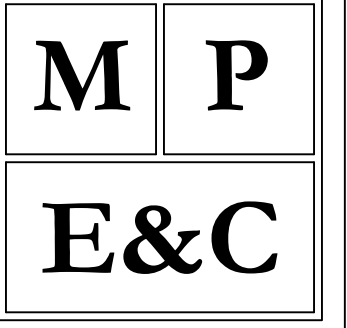
Construction:

- Contractor shall field verify all elevations, dimensions, and locations of existing features before starting work and notify engineer of any discrepancies for justification and/or corrections. The contractor/homeowner shall assume liability for all errors that are not reported. Note, the information provided in these plans is limited to the visual observation and information provided by the contractor and/or homeowner.
- The engineer assumes no liability for any changes or modifications by others made to the plans in whole or in part.
- Contractor is responsible for coordination of all trades involved.
- Contractor to verify with owner all specific makes, models, sizes, etc. of all fixtures, furniture, cabinets, appliances, etc. to be installed.
- Contractor is to review all mechanical systems (including but not limited to electrical, HVAC, plumbing, etc.) with owner prior to construction. This includes type, brand, quality, energy rating, size, etc for each particular system and its components.
- All work shall conform to all local codes, ordinances, and regulations of all appropriate regulating bodies.
- No soils report or site condition information provided to the engineer. Contractor to verify ground and soils conditions are acceptable for construction. Engineer shall not be liable for unforeseen site or soil conditions.
- Contractor to verify if tree conflicts exist prior to construction.
- All construction methods, practices, and materials to follow current building code standards except as noted. These should also be pre-approved by owner or general contractor in charge. Engineer shall not be responsible for methods, techniques, sequences, etc. of construction activities. Supervision of all work is the responsibility of the contractor.
- All construction layout is the responsibility of owner or general contractor in charge.
- In case of conflict between drawings and specifications the more rigid, robust, stronger, etc. to be assumed to prevail unless explicitly specified by engineer.
- Wall, floor, ceiling penetrations to be per current building code standards unless otherwise specified.
- Call P.U.P.S. 811 before digging.

Mechanical Design Criteria / Property Info:

Information listed below and herein is where applicable for this project. Some items may not be relevant.

- Property/Structure/Site Info:
 - Address: Per Architectural
- Electrical Utility
 - Town of Edisto Beach
- Natural Gas Utility
 - Town of Edisto Beach
- Weather/Environment:
 - Extreme Frost Depth: 5"
 - Climate Zone: 3
- IBC Classifications:
 - Construction Type: V
 - Occupancy Group: Per Architectural
- Flood Zone: Per Architectural
- Applicable Building Codes and Regulations:
 - IBC 2015 w/ SC Modifications
 - IFC 2015 w/ SC Modifications
 - IEBC 2015 w/ SC Modifications
 - IPMC 2015 w/ SC Modifications
 - IMC 2015 w/ SC Modifications
 - IPC 2015 w/ SC Modifications
 - IFGC 2015 w/ SC Modifications
 - NEC 2014 (NFPA 70) w/ SC Modifications
 - ICC/ANSI A117.1-2017 w/ SC Modifications
 - See International Code Council for more information: <http://www.iccsafe.org/>
 - See National Fire Protection Association for more information: <http://www.nfpa.org/>
 - Other Relevant & Current Adopted Codes
 - N/A
 - N/A
 - Zoning & Ordinances:
 - Town of Edisto Beach



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Date/Revisions:

2019.09.29
Plan Set

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Project:

Renovations to Edisto Beach
 Fire Department
 2413 Murray St.
 Edisto Island, SC 29438

GENERAL
MECHANICAL
NOTES

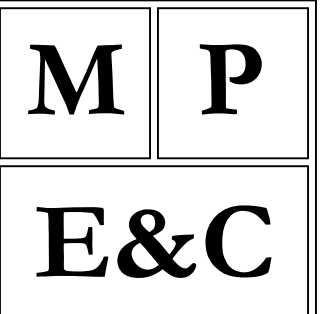
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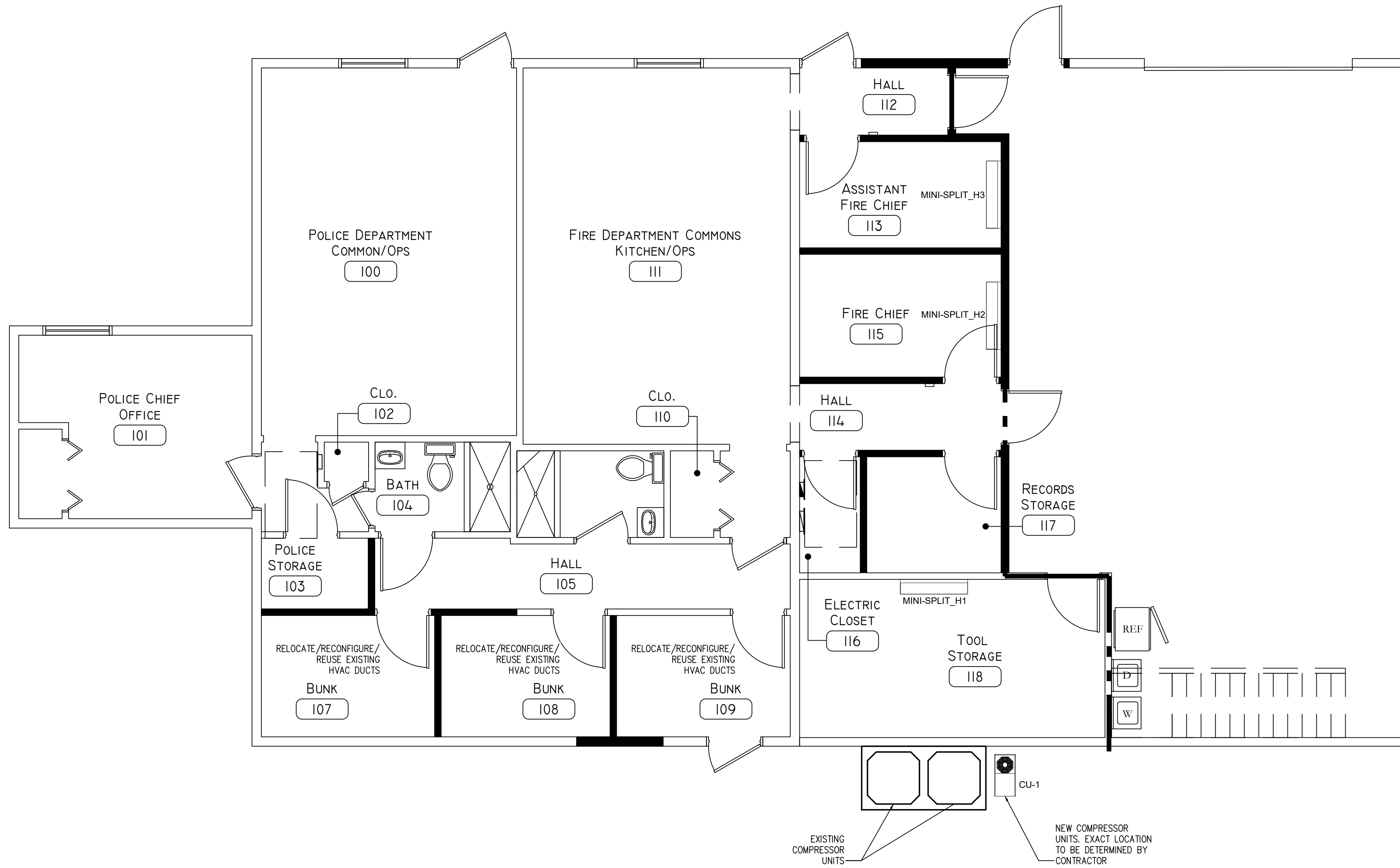
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Proj#: J1870

M1.1



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1 MECHANICAL - HVAC PLAN
Scale: 3/16" = 1'-0"

Date/Revisions:
2019.09.27
Plan Set

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Project:
Renovations to Edisto Beach
Fire Department
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Edisto Island, SC 29438

HVAC PLAN

Scale: NTS
Drawn: TMH
Check: MP
Proj#: J1870

M2.1

Date/Revisions:
2019.09.27
Plan Set

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Project:

Renovations to Edisto Beach
Fire Department
2413 Murray Sr.
Edisto Island, SC 29438

MECHANICAL
DETAILS

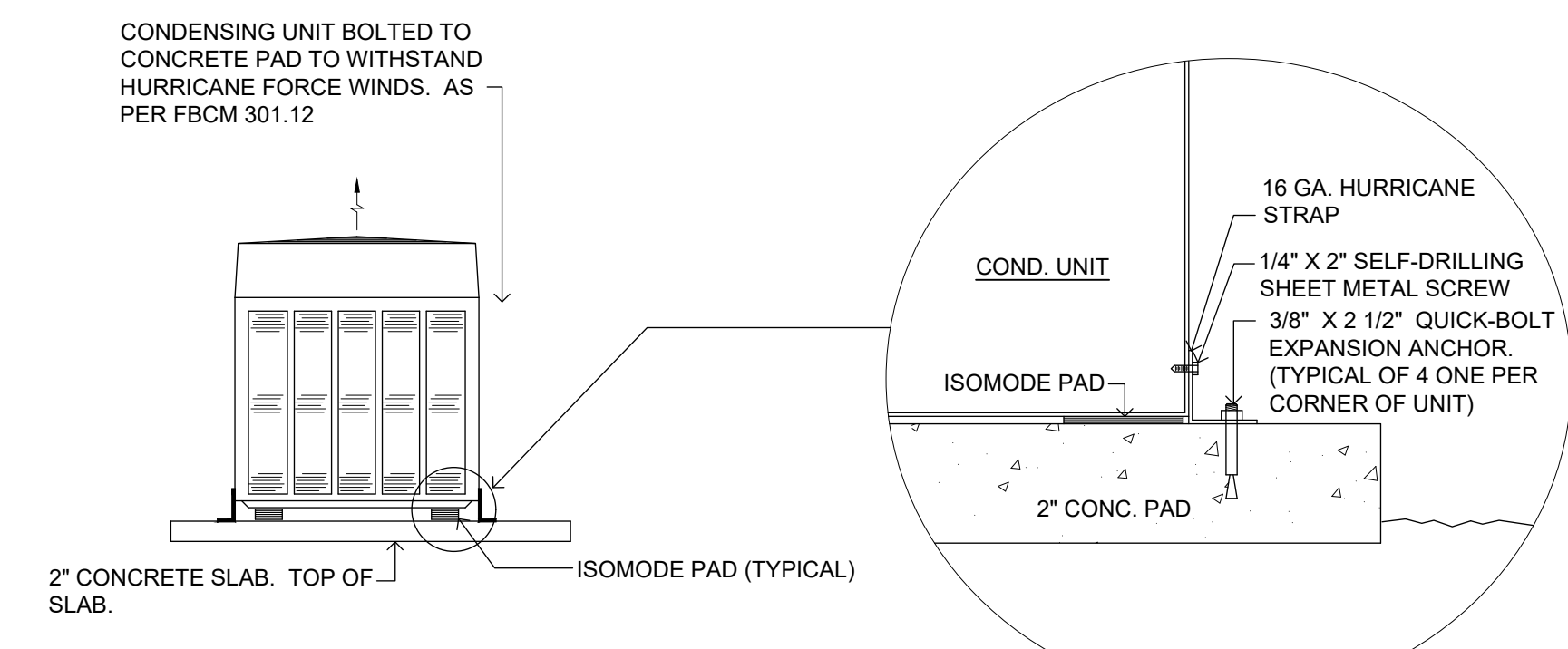
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Check: MP

Proj#: J1870

M3.1

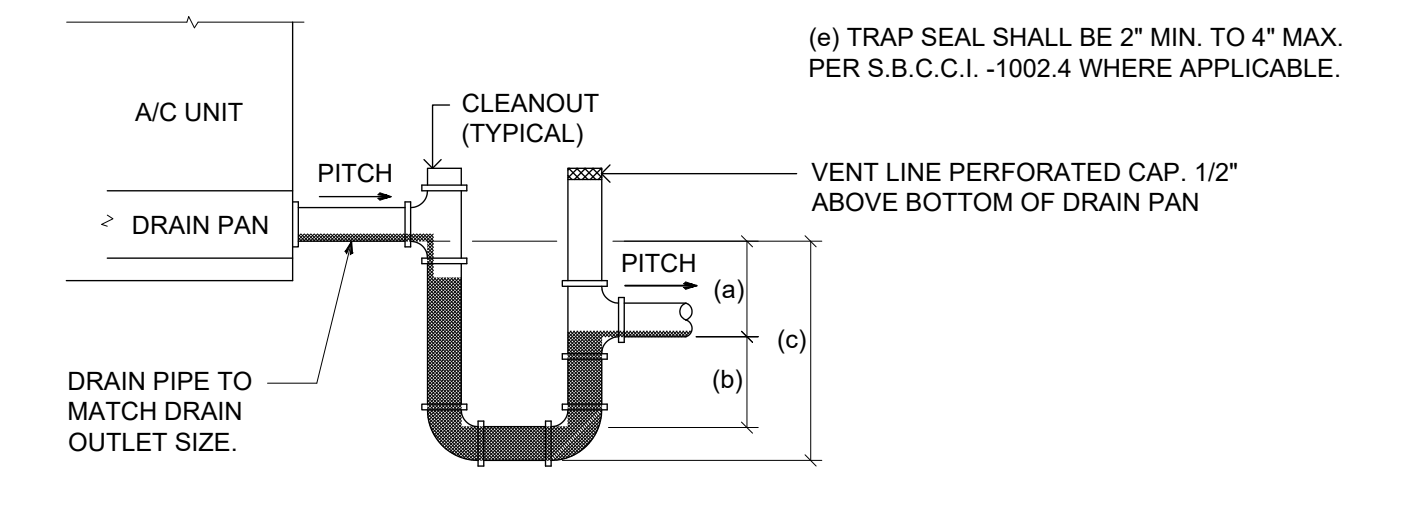


NOTE:
CONDENSING UNITS TO BE INSTALLED ABOVE FLOOD LEVEL CRITERIA.

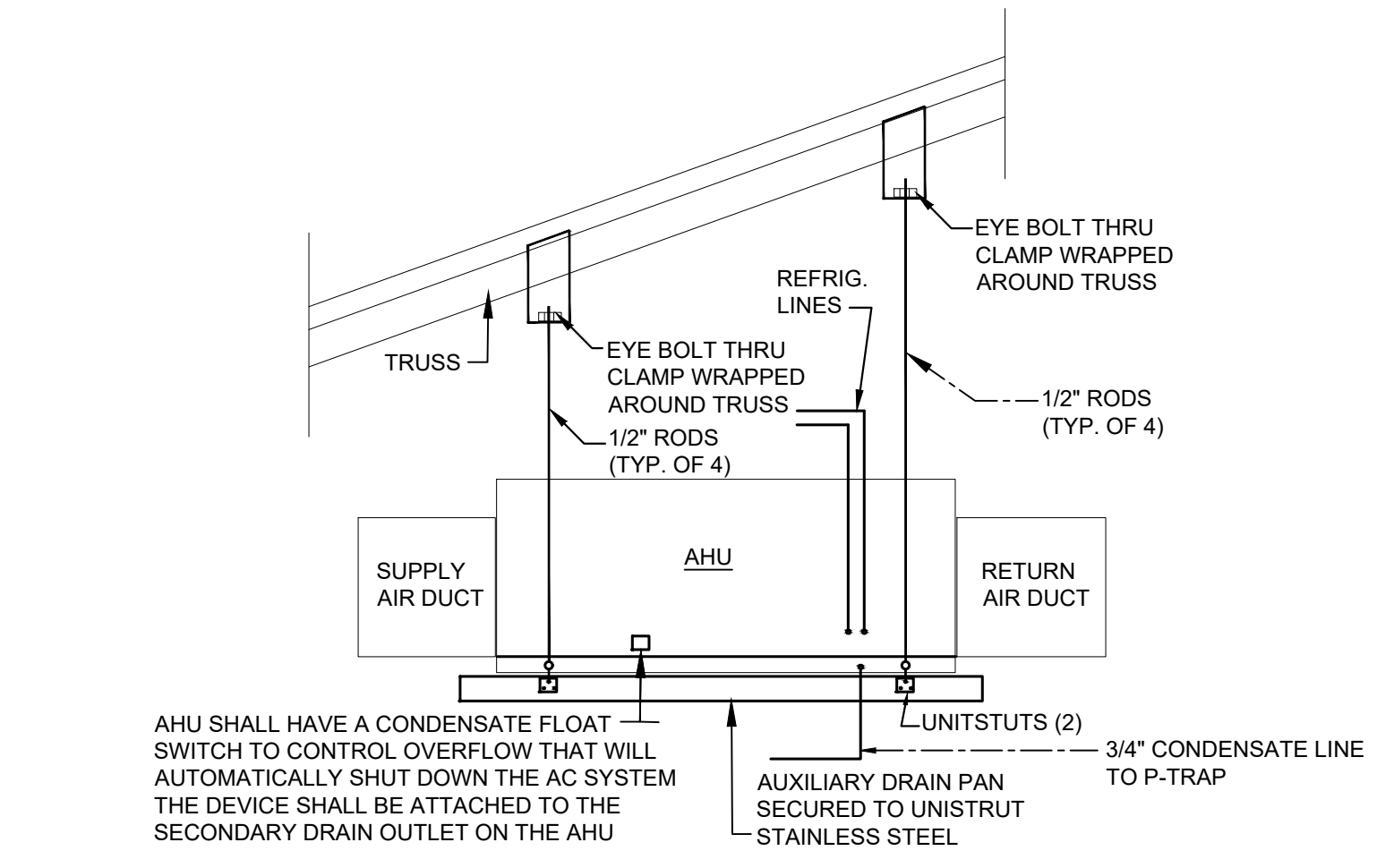
1 CONDENSING UNIT MOUNTING DETAIL
Scale: NTS

NOTES:
1. ALLOW SUFFICIENT SPACE BELOW DRAIN PAN FOR TRAP.
2. PITCH DRAIN FOR PROPER RUNOFF.
3. MANUALLY PRIME FILL TRAP BEFORE START-UP TO FORM INITIAL DRAIN SEAL.
4. SUPPORT LENGTHY DRAIN LINES TO PREVENT SAG AND CONDENSATE OVERFLOW.

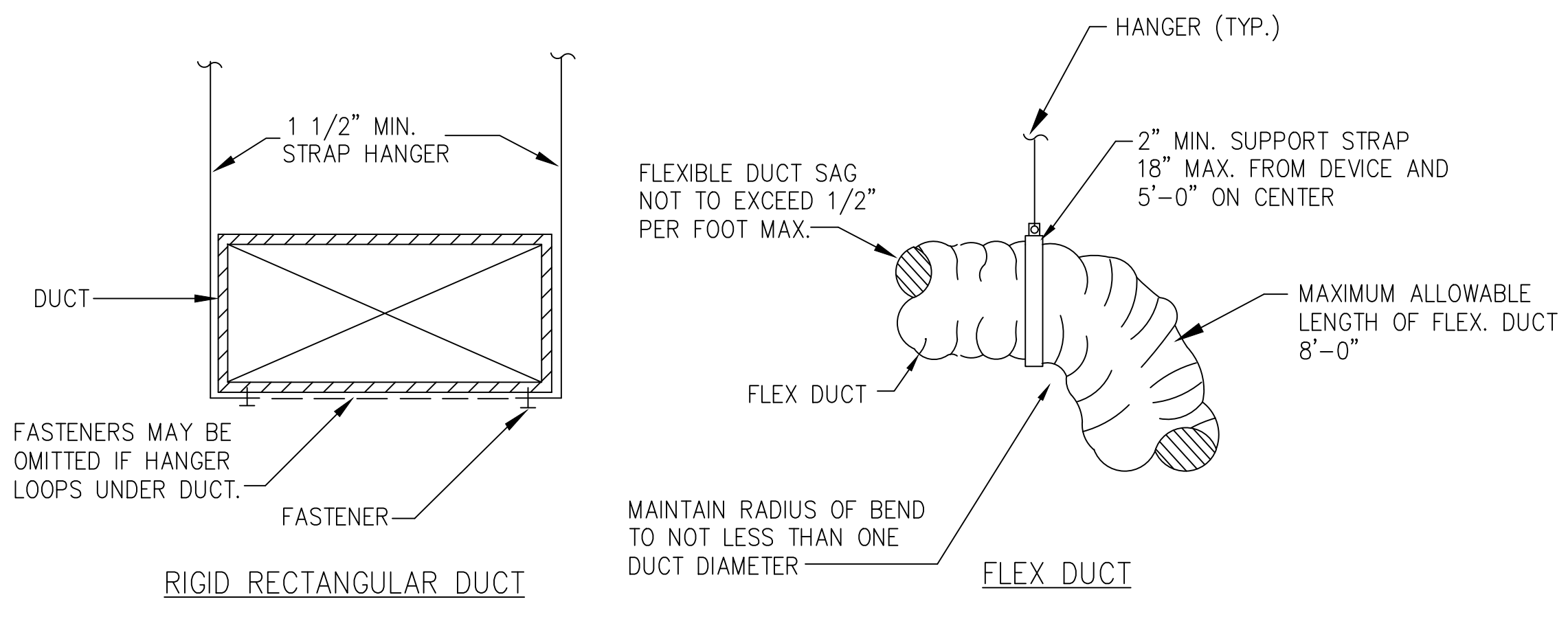
THIS STANDARD DETAIL MUST BE REVIEWED AND SITE ADAPTED BY CONTRACTOR PRIOR TO USE FOR FINAL EQUIPMENT.



2 DRAW THRU UNIT CONDENSATE TRAP
Scale: NTS



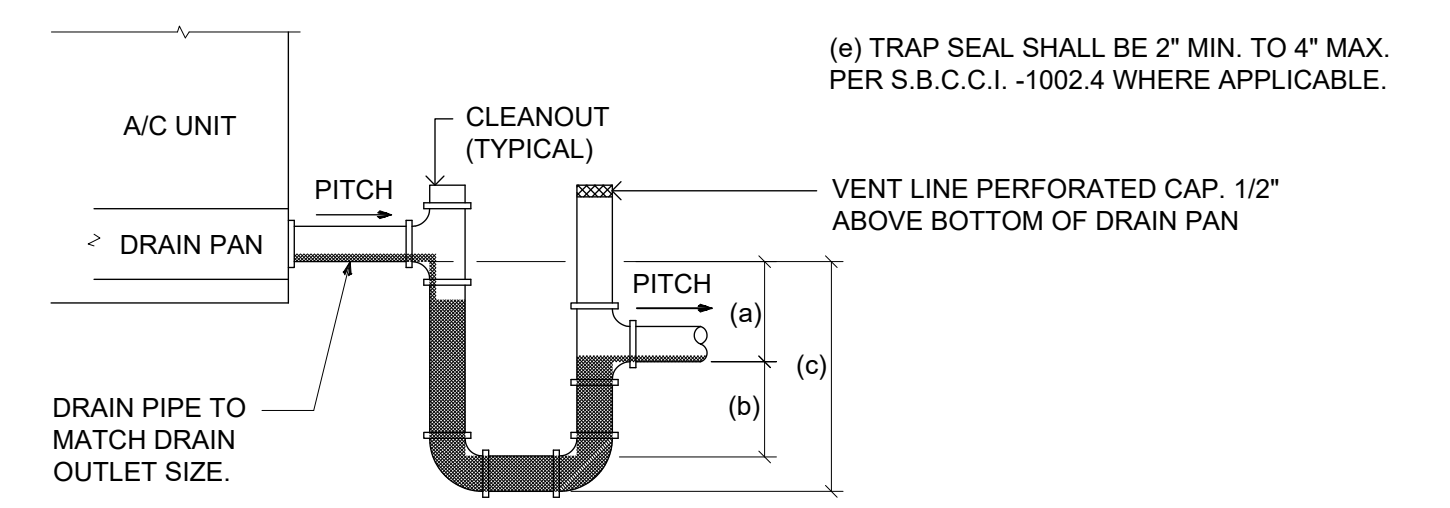
3 AIR HANGING UNIT INSTALLATION DETAILS
Scale: NTS



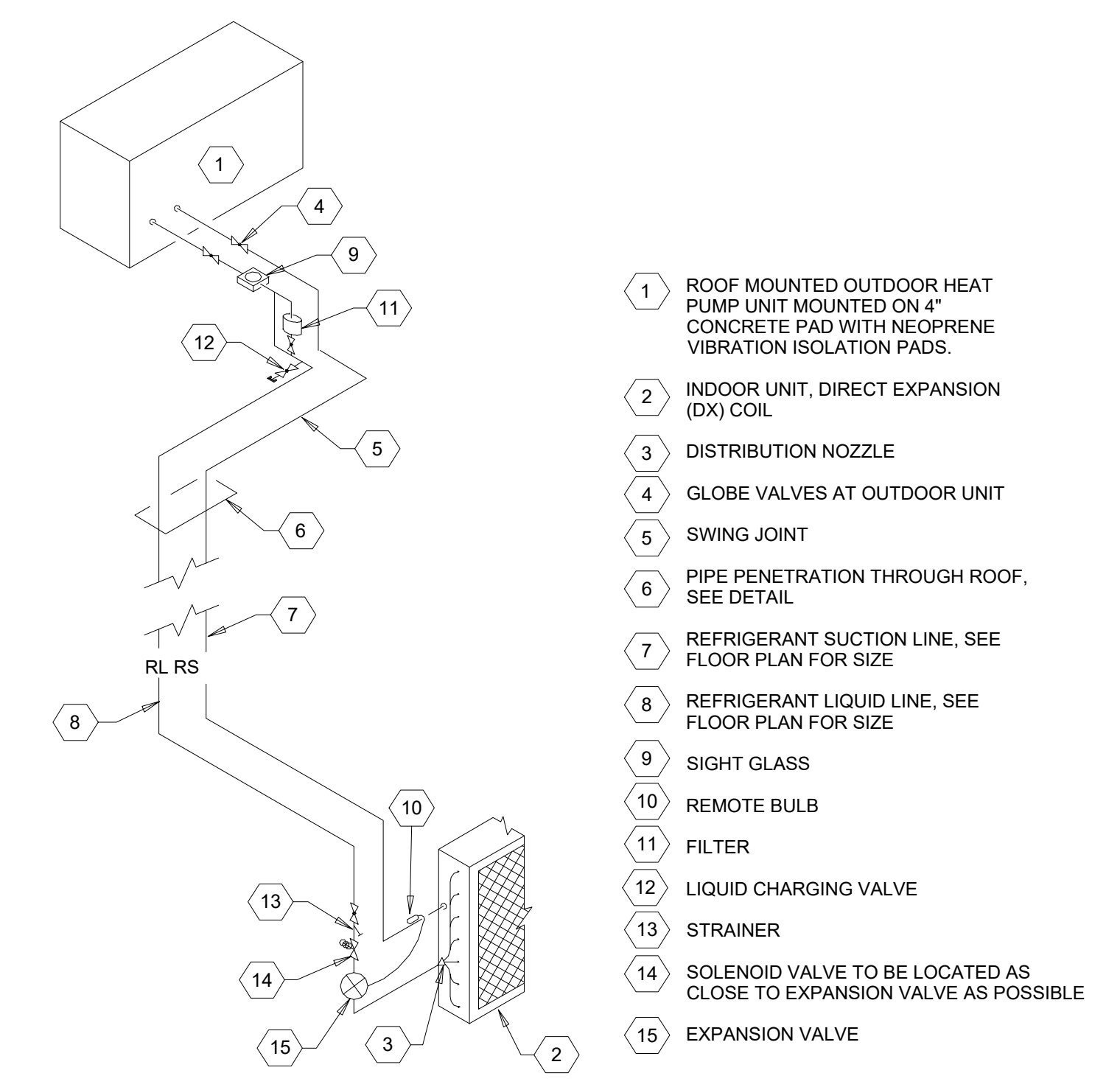
4 DUCTWORK SUPPORT DETAILS
Scale: NTS

NOTES:
1. ALLOW SUFFICIENT SPACE BELOW DRAIN PAN FOR TRAP.
2. PITCH DRAIN FOR PROPER RUNOFF.
3. MANUALLY PRIME FILL TRAP BEFORE START-UP TO FORM INITIAL DRAIN SEAL.
4. SUPPORT LENGTHY DRAIN LINES TO PREVENT SAG AND CONDENSATE OVERFLOW.

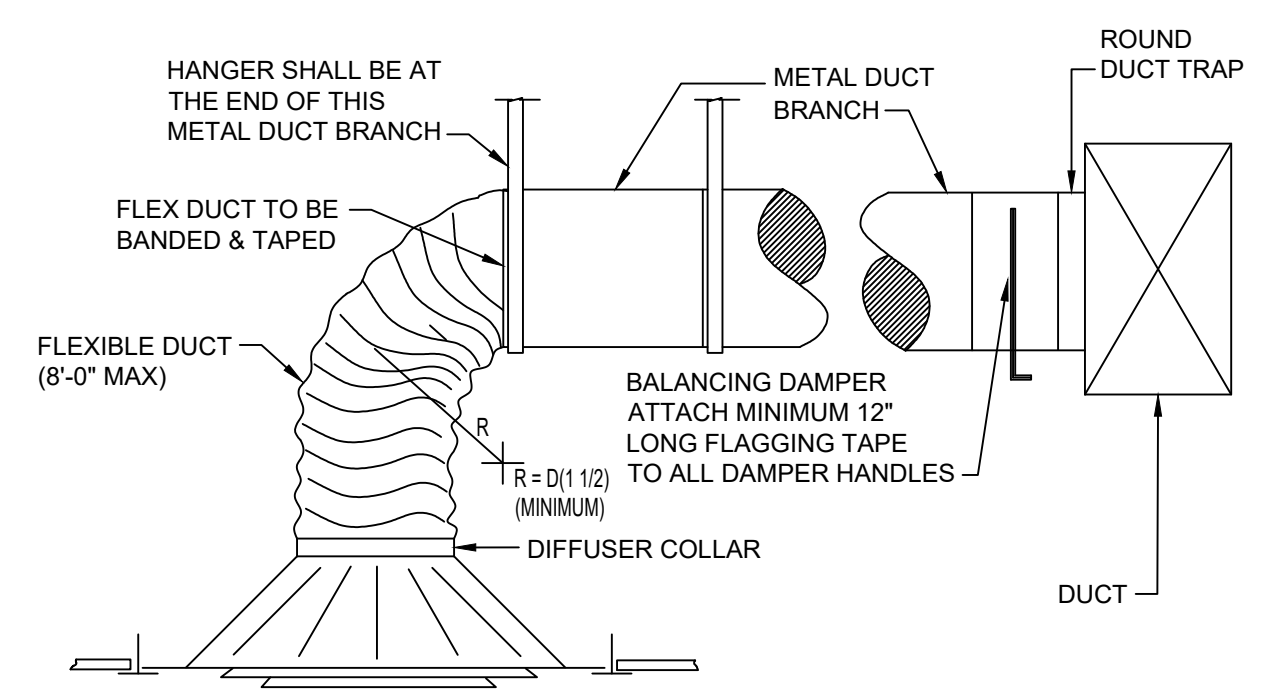
THIS STANDARD DETAIL MUST BE REVIEWED AND SITE ADAPTED BY CONTRACTOR PRIOR TO USE FOR FINAL EQUIPMENT.



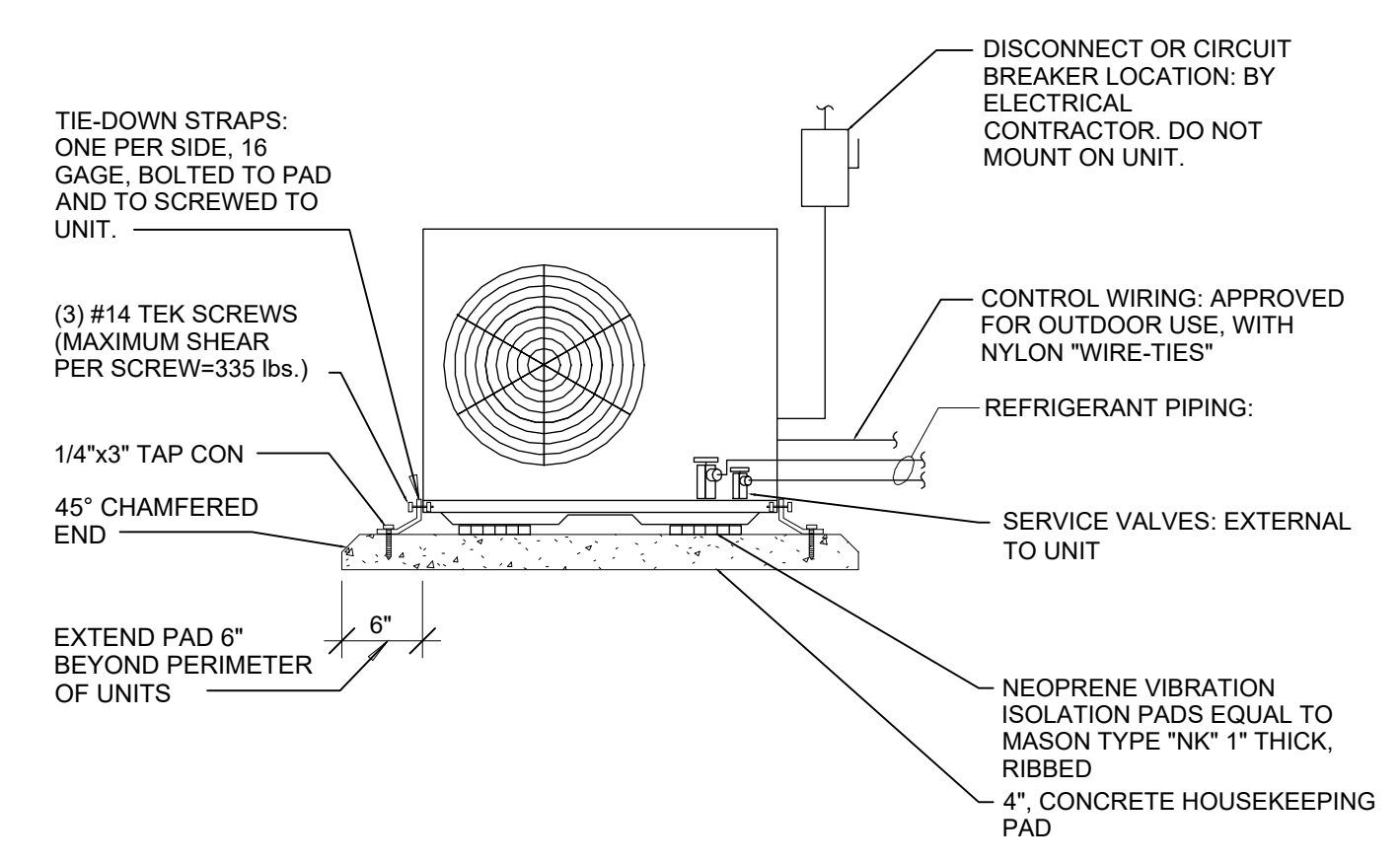
5 DRAW THRU UNIT CONDENSATE TRAP
Scale: NO SCALE



8 SPLIT SYSTEM HEAT PUMP REFRIGERANT PIPING DETAIL
Scale: NO SCALE



6 CEILING DIFFUSER BRANCH DUCTS
Scale: NTS



7 CONDENSING UNIT MOUNTING DETAIL - (TYPICAL)
Scale: NO SCALE

Electrcial Notes:

Notes listed below and herein are where applicable for this project. Some notes may not be relevant.

General Notes:

- The requirements of these general notes shall apply to all electrical and mechanical work. Installation shall be in accordance with the current building code, state and local codes and the latest amendments thereto.
- The work covered by this contract consists of furnishing all labor, equipment, materials and service necessary for and reasonably incidental to the proper completion of all mechanical work shown on the drawings and specified. Materials or products specified by trade name, manufacturer's name or catalog number shall be interpreted as establishing a standard of quality and design. Substitutions shall not be allowed unless they are submitted for review to use and approved by the architect.
- Furnish copies of shop drawings of equipment or fixtures for approval prior to purchasing.
- Contractor and sub-contractors shall coordinate with architectural, civil, structural, electrical, fire protection, plumbing and all other trades for pipe routing and equipment placement. Avoid interference with architectural features, beams, footings, windows, etc. Notify architect immediately of any conflicts. Sleeves shall be installed where piping passes through structure. All openings through fire rated walls or floors shall be sealed with U.L. listed penetration and shall maintain the fire rated integrity of the wall or floor. The contractor shall verify fire ratings with architectural drawings prior to installation. Submit U.L. penetration details with shop drawings for engineer's review. Minimum ratings shall be as follows: walls - F=1, T=0; floor - F=1, T=1. Contractor shall keep a record of the locations of all concealed work and upon completion of the job, shall supply as-built drawings showing in colored pencil on black line prints any deviation from the original drawings. These drawings shall indicate dimensions of buried utility lines from building walls.
- All work shall be guaranteed, both material and installation, for a period of one year from acceptance by owner.
- All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.
- Drawings are not to be scaled. All dimensions are to be read or calculated.
- Work not indicated as part of drawings but reasonably implied to be similar to that at corresponding places shall be repeated.
- All sections and details are typical at similar locations and where applicable.
- The dimensions on this project are considered as nominal dimensions. The shape and actual size of member units shall be considered in the building and layout plan.
- Ducts, piping, conduit and similar components specified in common sizes unless specifically noted.
- These plans are the property of MPE&C only. Any unauthorized use, reproduction, or otherwise is prohibited. Doing so is subject to prosecution.
- These plans are site specific to this particular project, site, and location only.

Electrical Continued:

HVAC:

- Do not scale drawing. Rough-in dimensions per equipment manufacturer and architectural drawings.
- Contractor shall coordinate all ductwork, piping, plumbing and fire protection piping with structural and electrical systems and shall provide necessary offsets to avoid conflicts and to maintain equipment access and serviceability.
- Contractor shall furnish all necessary structures, inserts, sleeves, and hanging devices for installation of electrical equipment, fixtures, conduit etc. Contractor shall coordinate with general contractor and all building trades to avoid conflicts and to maintain equipment access and serviceability.
- These drawings are a part of a complete set of architectural/engineering contract documents. Electrical contractor should refer to the architectural drawings for actual location of items where specified. See said configurations for wall definitions, elevations, casework, reflected ceiling plan, etc. Rough-in installations which are not located according to the architectural elevations shall be relocated at no additional cost.
- Ceiling clearances are critical for this project. General contractor must coordinate all trades to avoid potential interferences. Conflicts between trades shall be referred to the architect for resolution.
- All electrical work shall be done in accordance with the current edition of the NEC and local ordinances. Contractor shall obtain and pay for all necessary permits.
- All panelboards are single phase unless otherwise noted.
- All branch circuit conduit shall be galvanized EMT 1/2" conduit minimum.
- All circuits shown concealed shall be run in furred ceiling spaces and shall be concealed in concrete slab only when no furred ceiling space is provided.
- All conduits crossing expansion joints shall have expansion type fittings.
- All outlet boxes mounted back-to-back in walls shall have fireproof sound insulating material installed between the boxes to prevent sound transmission from one room to the other.
- All flush mounted panels shall have 3-1" empty conduits stubbed out above ceiling for future circuits.
- All wall outlets not provided with a device by this contractor shall be provided with blank wall plates.
- All branch circuits shall include a green covered ground wire sized per NED or as shown. Connect to each device and outlet box on the circuit and to the panelboard ground bus. Multiple wire branch circuits with common neutral require only one ground wire. Number of wires shown on drawings does not include ground wire.
- Final equipment connections - this contractor is responsible for providing all labor & materials required to make final connections to all equipment furnished by this contractor and/or equipment furnished by others. Verify all requirements, conductor size, overcurrent protection, phase, voltage, motor rotation, etc., with equipment supplier prior to rough-in. Provide fused disconnect if required by manufacturer.
- Furnish & install fire alarm system which conforms to all national, state, & local codes. Provide additional devices as required. Provide to architect a complete set of manufacturer's system installation plans including riser diagram, conduit & wiring, interconnection diagrams, device locations and all required connections to equipment furnished by others. Provide conduit & wiring as directed by system supplier.
- Contractor shall provide arc-flash warning labels complying with NEC article 110.16 on new electrical equipment or existing equipment that is modified.
- New panelboards shall be identified to indicate the device or equipment where the power supply originates.
- For 120 or 208v circuits, contractor shall increase wire size from that shown one size A.W.G. for every 100' homerun length, and one size every 200' for 277v or 480v circuits.
- Contractor shall label electrical service equipment with available fault current in accordance with NEC 110.24.
- Contractor shall label electrical panelboards with equipment where feeder originates in accordance with NEC 408.4(b).
-

Electrical Notes Continued:

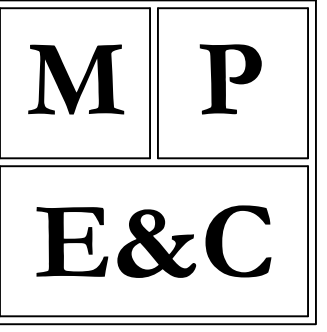
Construction:

- Contractor shall field verify all elevations, dimensions, and locations of existing features before starting work and notify engineer of any discrepancies for justification and/or corrections. The contractor/homeowner shall assume liability for all errors that are not reported. Note, the information provided in these plans is limited to the visual observation and information provided by the contractor and/or homeowner.
- The engineer assumes no liability for any changes or modifications by others made to the plans in whole or in part.
- Contractor is responsible for coordination of all trades involved.
- Contractor to verify with owner all specific makes, models, sizes, etc. of all fixtures, furniture, cabinets, appliances, etc. to be installed.
- Contractor is to review all mechanical systems (including but not limited to electrical, HVAC, plumbing, etc.) with owner prior to construction. This includes type, brand, quality, energy rating, size, etc for each particular system and its components.
- All work shall conform to all local codes, ordinances, and regulations of all appropriate regulating bodies.
- No soils report or site condition information provided to the engineer. Contractor to verify ground and soils conditions are acceptable for construction. Engineer shall not be liable for unforeseen site or soil conditions.
- Contractor to verify if tree conflicts exist prior to construction.
- All construction methods, practices, and materials to follow current building code standards except as noted. These should also be pre-approved by owner or general contractor in charge. Engineer shall not be responsible for methods, techniques, sequences, etc. of construction activities. Supervision of all work is the responsibility of the contractor.
- All construction layout is the responsibility of owner or general contractor in charge.
- In case of conflict between drawings and specifications the more rigid, robust, stronger, etc. to be assumed to prevail unless explicitly specified by engineer.
- Wall, floor, ceiling penetrations to be per current building code standards unless otherwise specified.
- Call P.U.P.S. 811 before digging.

Electrical Design Criteria / Property Info:

Information listed below and herein is where applicable for this project. Some items may not be relevant.

- Property/Structure/Site Info:
 - Per Architectural
- Electrical Service Utility
 - Dominion Energy
- Natural Gas Utility
 - N/A
- Weather/Environment:
 - Extreme Frost Depth: 5"
 - Climate Zone: 3
- Applicable Building Codes and Regulations:
 - IBC 2015 w/ SC Modifications
 - IFC 2015 w/ SC Modifications
 - IEBC 2015 w/ SC Modifications
 - IPMC 2015 w/ SC Modifications
 - IMC 2015 w/ SC Modifications
 - IPC 2015 w/ SC Modifications
 - IFGC 2015 w/ SC Modifications
 - NEC 2014 (NFPA 70) w/ SC Modifications
 - ICC/ANSI A117.1-2017 w/ SC Modifications
 - See International Code Council for more information: <http://www.iccsafe.org/>
 - See National Fire Protection Association for more information: <http://www.nfpa.org/>
 - Other Relevant & Current Adopted Codes
 - As Required
 - Zoning & Ordinances:
 - Town of Edisto Beach



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Plan Set

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 Edisto Island, SC 29438

GENERAL
ELECTRICAL
NOTES

Scale: NTS

Drawn: TMH

Check: MP

Proj#: J1870

E1.1

ELECTRICAL LEGEND (NOTE: NOT ALL SYMBOLS MAY BE APPLICABLE TO THIS PROJECT)

ABBREVIATIONS	
ABBREV.	DEFINITION
A	AMPS, AMPERE, AMPERAGE
AC	ABOVE COUNTER
A/C	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AVAILABLE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ATS	AUTOMATIC TRANSFER SWITCH
A/V	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CL	CLOCK
CO	CONDUIT ONLY
CU	COPPER
D	DIMMING
DC	DIRECT CURRENT
DL	DAY-LIGHTING
DIA	DIAMETER
E	EMERGENCY
EG	ENGINE GENERATOR
EL	EMERGENCY, LIFE SAFETY
EX	EXISTING
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FDR	FEEDER
FMS	FACILITY MANAGEMENT SYSTEM
GEN	GENERATOR
GF	GROUND FAULT INTERRUPTER
G OR GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GFP	GROUND FAULT PROTECTION
GND	GROUND
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KVAR	KILOVOLT AMPS REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND FAULT PROTECTION
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MIN	MINIMUM
MH	MANHOLE
MM	MIXED MEDIA
MTS	MANUAL TRANSFER SWITCH
MVA	MEGAVOLT AMPS
N	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
O/H	OVERHEAD
PA	PUBLIC ADDRESS
PC	PHOTOCELL
PH	PHASE
R	REMOVED/REMOVAL
RC	ROOM CONTROLLER
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP.	TYPICAL
UC	UNDER COUNTER
U/G	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITERS' LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
WG	WEATHERPROOF AND GFCI
WP	WEATHERPROOF
XFMR (TRANSF)	TRANSFORMER

LIGHTING	
REFER TO LUMINAIRE SCHEDULE FOR ALL LUMINAIRE TYPES WHETHER WALL MOUNTED OR CEILING MOUNTED.	
SYMBOL	DESCRIPTION
	INCANDESCENT OR HID RECESSED LIGHT FIXTURE, CEILING TYPE (1)
	INCANDESCENT OR HID RECESSED LIGHT FIXTURE, CEILING TYPE, ON EMERGENCY POWER OR WITH BATTERY PACK (1)
	INCANDESCENT OR HID LIGHT FIXTURE, WALL BRACKET TYPE (1)
	DECORATIVE PENDENT HANGING LIGHT FIXTURE
	2X4 FLUORESCENT LIGHT FIXTURE (1)
	2X4 FLUORESCENT LIGHT FIXTURE ON EMERGENCY POWER OR WITH BATTERY PACK (1)
	1x4 FLUORESCENT LIGHT STRIP (1)
	1X4 FLUORESCENT LIGHT FIXTURE ON EMERGENCY POWER OR WITH BATTERY PACK (1)
	FLUORESCENT STAIRWELL LIGHT FIXTURE ON EMERGENCY POWER OR WITH BATTERY PACK (1)
	FLOODLIGHT, (ARROW SHOWS AIMING) (1)
	LIGHTING TRACK WITH HEADS AS INDICATED (1)
	EXIT LIGHT, ARROW(S) AS INDICATED (1)
	POLE WITH POLE TOP MOUNTED FIXTURE (1)
	POLE WITH ARM MOUNTED FIXTURE (1)
	EMERGENCY LIGHT (BATTERY PACK) (1)
	COMBINATION TWIN HEAD EMERGENCY EXIT LIGHT (1)

FIRE ALARM	
SYMBOL	DESCRIPTION
	FIRE ALARM PULL STATION
	FIRE ALARM HORN/SPEAKER/STROBE- SEE SPEC. 75cd MIN. RATING (HC DENOTES 115cd)
	FIRE ALARM STROBE (VISUAL ONLY) 75cd MIN. RATING (HC DENOTES 115cd)
	SMOKE DETECTOR
	HEAT DETECTOR
	DUCT SMOKE DETECTOR AND SAMPLING TUBE
	FLOW SWITCH
	TAMPER SWITCH
	DOOR HOLD-OPEN DEVICE

SECURITY	
SYMBOL	DESCRIPTION
	CARD READER
	KEY PAD
	EXTERIOR SECURITY CAMERA
	INTERIOR SECURITY CAMERA
	INTERIOR SECURITY CAMERA 180°
	INTERIOR SECURITY CAMERA 360°
	DOOR SWITCH
	MAGNETIC LOCK

BRANCH CIRCUITS	
SYMBOL	DESCRIPTION
	CONCEALED IN CEILING, WALL, OR IN CEILING SLAB.
	CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.
	EXPOSED.
	EMERGENCY.
	RUN IN FLEXIBLE METAL CONDUIT.
	EMPTY CONDUIT, 3/4" UNLESS OTHERWISE NOTED WITH NYLON PULL CORD.
	CONDUIT SEAL FITTING: CROUSE-HINDS #EYS OR APPROVED EQUIVALENT.
	HOMERUN TO PANELBOARD AND 20A, 1P BREAKER, UON. NOTE: SHOWN 2#12 AND 1#12(G)-1/2"C, ---#--- 3#12 AND 1#12(G)-3/4"C ---#--- 4#12 AND 1#12(G)-3/4"C ---10--- 2#10 AND 1#10(G)-3/4"C ---10---#--- 3#10 AND 1#10(G)-3/4"C SIZE CONDUIT PER NEC FOR GREATER NUMBER OF CONDUCTORS OR AS NOTED. THE NUMBER IN THE CIRCUIT INDICATES AWG WIRE SIZE AND HASHMARKS INDICATE NUMBER OF WIRES REQUIRED. GROUND WIRE SHALL BE SIZED IN ACCORDANCE WITH NEC TABLE 250-95. NUMBER OF HASHMARKS DO NOT INCLUDE GROUND WIRE.
	RISER: UP, RUNNING TO SOURCE.
	RISER: DOWN, RUNNING TO SOURCE.
BRANCH CIRCUIT WIRING FOR LIGHTING IS SHOWN SCHEMATICALLY. EACH LUMINAIRE IS TO BE INSTALLED WITH AN INDIVIDUAL FLEXIBLE CONNECTION. FOR EXAMPLE:	
	REQUIRED INSTALLATION

SPECIAL SYSTEMS	
SYMBOL	DESCRIPTION
	4 PORT FLOOR BOX WITH POWER AND DATA
	4 PORT FLOOR BOX WITH A/V. REFER TO J-BOX SCHEDULE ON 600 SERIES SHEETS.
	2 PORT VOICE/DATA OUTLET
	2 PORT VOICE/DATA OUTLET ABOVE COUNTER TOP
	TELEPHONE OUTLET WALL MOUNTED
	INTERCOM CALL SWITCH
	INTERCOM MASTER STATION
	COMMUNICATION HORN
	COMMUNICATION BELL
	WALL SPEAKER
	DURESS ALARM PUSHBUTTON
	LOCK DOWN PUSHBUTTON
	A/V JUNCTION BOX. REFER TO J-BOX SCHEDULE ON 600 SERIES SHEETS.
	A/V J-BOXES STACKED VERTICALLY. REFER TO J-BOX SCHEDULE ON 600 SERIES SHEETS.
	COMBINATION CLOCK/SPEAKER. MOUNTED ABOVE AND CENTER TO WRITING/TACK BOARD
	DIGITAL SIGNAGE VIDEO DISPLAY
	VIDEO PROJECTOR
	CEILING SPEAKER: LOCAL SOUND SYSTEM
	CEILING SPEAKER: INTERCOM SYSTEM
	CABLE TRAY FOR COMMUNICATIONS
	J-HOOK ROUTING PATH
	2 PORT CEILING MOUNTED VOICE/DATA OUTLET
	WIRELESS ACCESS POINT
	CEILING MOUNTED A/V JUNCTION BOX. REFER TO J-BOX SCHEDULE ON 600 SERIES SHEETS.

SWITCHES	
SYMBOL	DESCRIPTION
	20A 120-277V SINGLE POLE SWITCH 48" UP
	20A 120-277V TWO POLE SWITCH 48" UP
	20A 120-277V THREE WAY SWITCH 48" UP
	20A 120-277V FOUR WAY SWITCH 48" UP
	20A 120-277V WEATHERPROOF SWITCH 48" UP
	20A 120-277V SWITCH AND PILOT 48" UP
	120-277V 1 HP (MOTOR RATED) DPST SWITCH SQUARE D #FG2, OR EQUAL.
	PRESET TYPE DIMMING CONTROL FOR LTG. 1000W U.N.O. HUNT, LUTRON, OR EQUAL.
	OCCUPANCY SENSOR, WALL MTD
	OCCUPANCY SENSOR, CEILING MTD

RECEPTACLES	
REFER TO LUMINAIRE SCHEDULE FOR ALL LUMINAIRE TYPES WHETHER WALL MOUNTED OR CEILING MOUNTED.	
SYMBOL	DESCRIPTION
	DUPLEX RECEPTACLE - NEMA 5-20R
	DUPLEX RECEPTACLE - NEMA 5-20R, DEDICATED SERVICE/CIRCUIT
	GROUND FAULT RECEPTACLE - NEMA 5-20R GF
	RECEPTACLE - MTD ABOVE COUNTER - NEMA 5-20R
	ISOLATED GROUND RECEPTACLE - NEMA 5-20R IG
	SIMPLEX RECEPTACLE - NEMA 5-20R
	SPLIT WIRED RECEPTACLE - NEMA 5-20R
	WEATHER PROOF RECEPTACLE - NEMA 5-20R GFCI W/ WET LOCATION COVER
	QUADRUPLEX RECEPTACLE - NEMA 5-20R
	SIMPLEX RECEPTACLE - NEMA 5-20R, DEDICATED SERVICE/CIRCUIT
	QUADRUPLEX RECEPTACLE - MTD ABOVE COUNTER - NEMA 5-20R
	SINGLE RECEPTACLE - EQUIPMENT CONNECTION OR PROVISION
	SINGLE RECEPTACLE - SPECIAL PURPOSE
	SINGLE RECEPTACLE - A=NEMA 5-30R; B=NEMA 6-30R; C=NEMA 14-30R
	SINGLE RECEPTACLE - A=NEMA 5-50R; B=NEMA 6-50R; C=NEMA 14-50R
	MULTI-SERVICE WALL RECEPTACLE
	DUPLEX RECEPTACLE - NEMA 5-20R WITH TWO FULL OUTPUT USB PORTS
	SINGLE RECEPTACLE - TWISTLOCK, AS SPECIFIED.
	SINGLE RECEPTACLE - ELECTRIC WATER COOLER, GFCI.
CEILING MOUNTED	
	DUPLEX RECEPTACLE - NEMA 5-20R
	DUPLEX RECEPTACLE - NEMA 5-20R, DEDICATED SERVICE/CIRCUIT
	SIMPLEX RECEPTACLE - NEMA 5-20R
	SINGLE RECEPTACLE - EQUIPMENT CONNECTION OR PROVISION
	SINGLE RECEPTACLE - SPECIAL PURPOSE

SYMBOL	DESCRIPTION

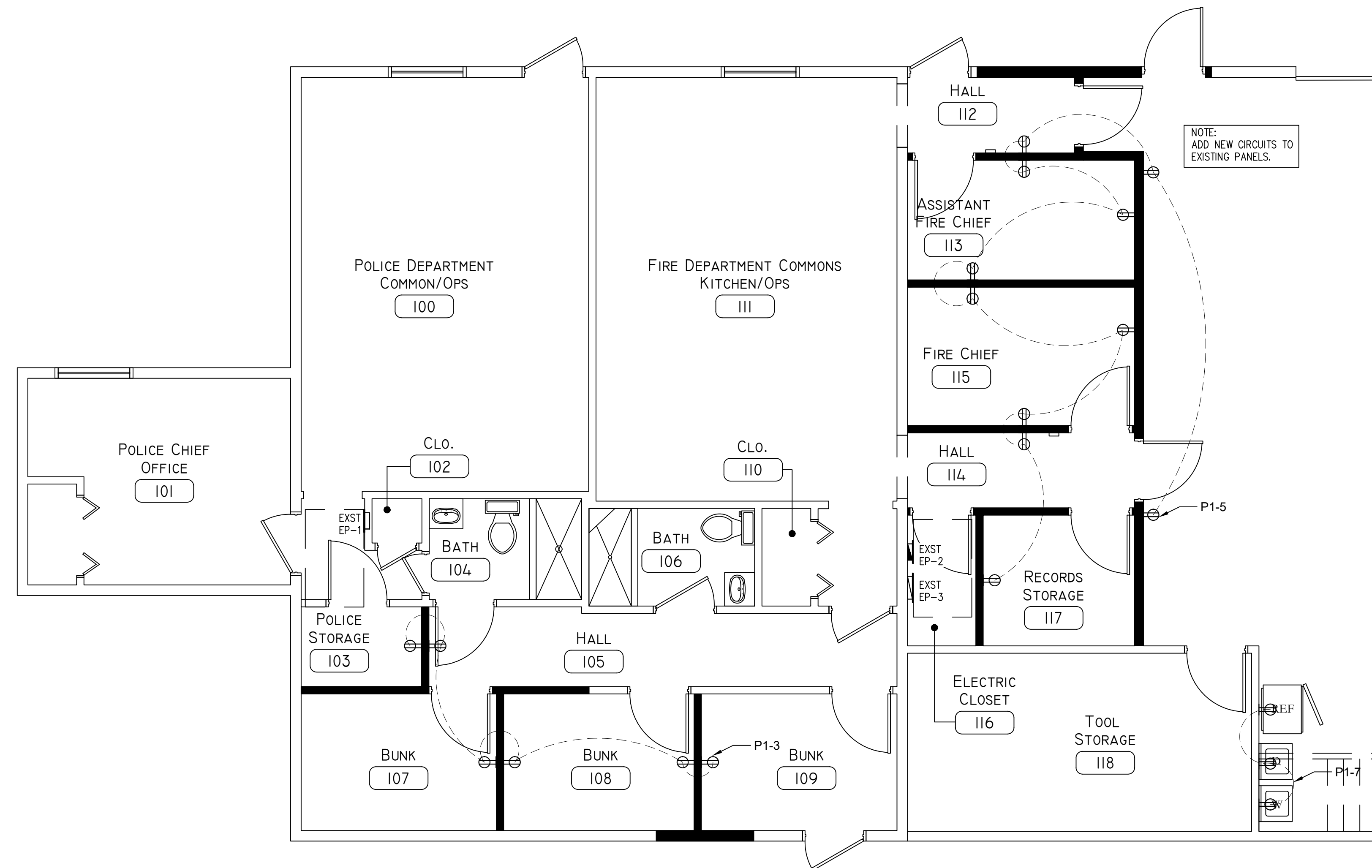
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Date/Revisions:
2019.09.27
Plan Set
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Project:
Renovations to Edisto Beach
Fire Department
2413 Murray St.
Edisto Island, SC 29438

ELECTRICAL SYMBOLS
Scale: NTS
Drawn: TMH
Check: MP
Proj#: J1870

E1.2



1 ELECTRICAL - POWER PLAN
Scale: 3/16" = 1'-0"

Date/Revisions:

2019.09.27
Plan Set

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Project:

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Fire Department
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Edisto Island, SC 29438

ELECTRICAL
POWER PLAN

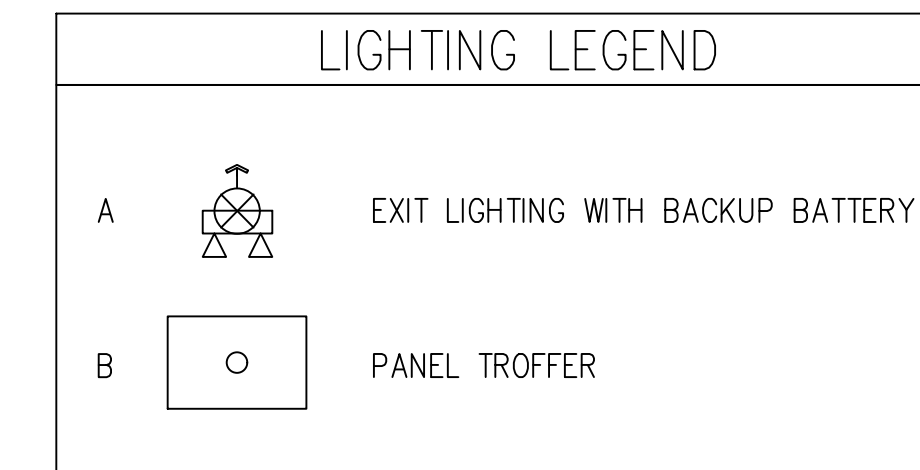
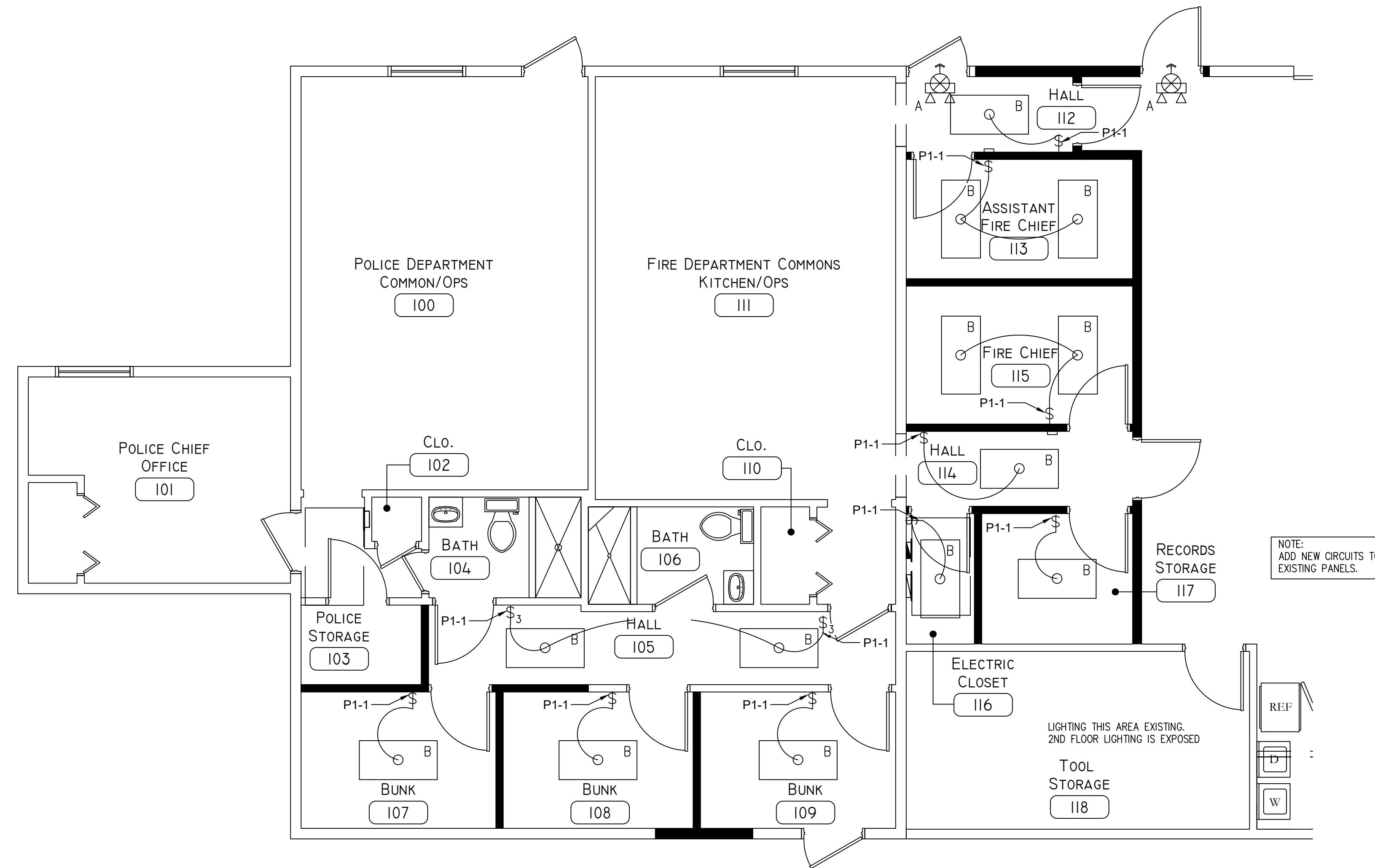
Scale: NTS

Drawn: TMH

Check: MP

Proj#: J1870

E2.1



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Project:
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Fire Department
2413 Murray Sr.
Edisto Island, SC 29438

1 ELECTRICAL - LIGHTING PLAN
Scale: 3/16" = 1'-0"

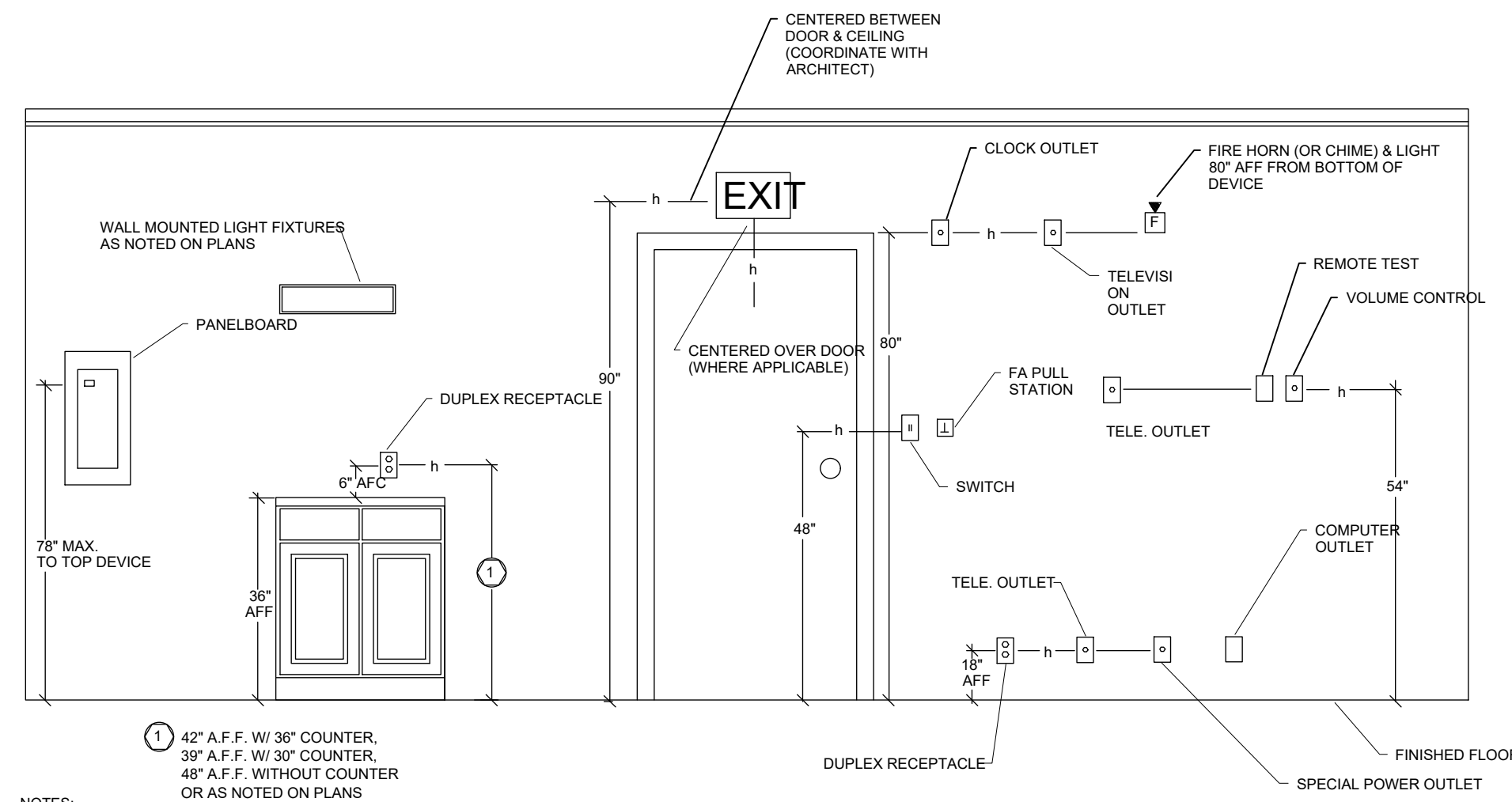
Lighting Schedule

Sym	Qty	Location	Description	Manuf.	Catalog	Mount	V	W	Notes
A	2	112	Emergency Lighting w/ Backup Battery	Lithonia	ELM2L	Wall/Below Ceilin	120	10	1, 3, 7, 8
B	1	105	Exit Light Combo w/ Backup Battery	Lithonia	EXR LED EL M6	Wall/Below Ceilin	120	---	1, 3, 7, 8
C	5	105, 106-109	2x4 LED Panel - Surface Mount	Lithonia	EPANL 2x4 4800LM 80CRI 40K MIN1	Panel	120	39	1, 2, 6, 7, 8, 9
D	8	112-118	2x4 LED Panel - Panel Mount	Lithonia	EPANL 2x4 3000LM 80CRI 50K MIN1, w/ 2X4SMKSH Mount Kit	Celing	120	39	1, 2, 6, 7, 8, 9
E									
F									
G									

- Notes:
- Makes and Models listed for design purposes only. Substitution of equivalent makes and models allowed if code compliant and approved by owner or architect.
 - Emergency Battery Pack or Equivalent on Indicated Fixtures
 - Coordinate Height with Architectural
 - Damp Location Rated
 - Wet Location Rated
 - With compatible Lithonia WSX-D and/or SPOD Occupancy Sensor Switches. Substitution of equivalent makes and models allowed if code compliant and approved by owner or architect.
 - Coordinate Finishes w/ Architectural/Interior Design
 - Contractor to include any accessories/components required to complete full and functional lighting system. I.e. switches, connectors, covers, lenses, bulbs, etc. Check manuf. specifications
 - Dimmer Switch

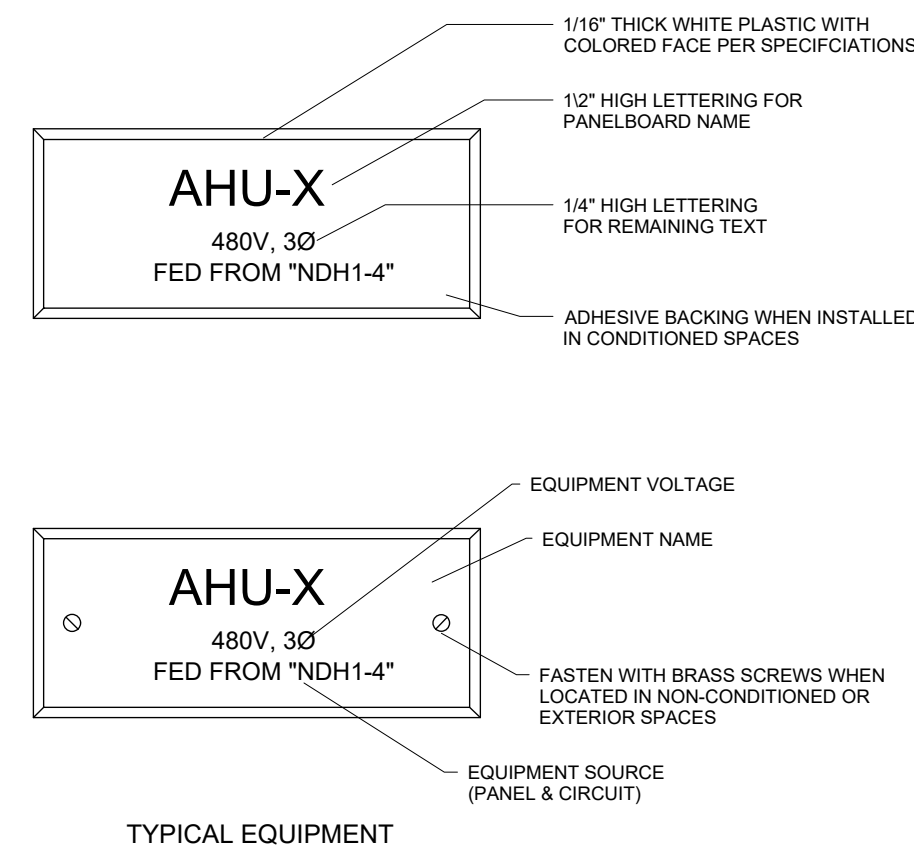
ELECTRICAL
LIGHTING
PLAN
Scale: NTS
Drawn: TMH
Check: MP
Proj#: J1870

E2.2

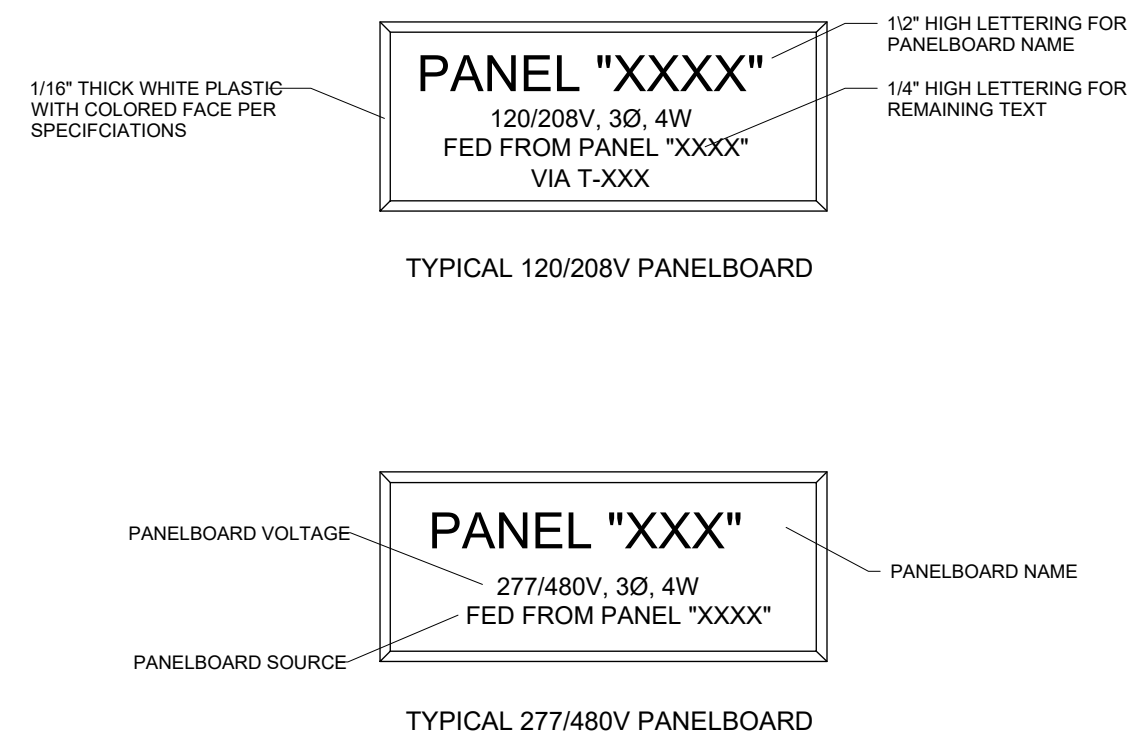


- NOTES:
1. MOUNTING HEIGHTS SHOWN ARE FROM FINISHED FLOOR TO CENTERLINE OF OUTLET, UNLESS OTHERWISE NOTED.
 2. LOCATIONS OF OUTLETS SHOWN ON ARCHITECTURAL ELEVATIONS SHALL TAKE PRECEDENCE OVER THESE MOUNTING HEIGHTS. FIELD LOCATE OUTLETS WITH ARCHITECT DURING ROUGH-IN.
 3. INSTALL OUTLETS THAT ARE IN CLOSE PROXIMITY ON THE SAME CENTERLINE. OUTLETS THAT ARE WITHIN 2\"/>

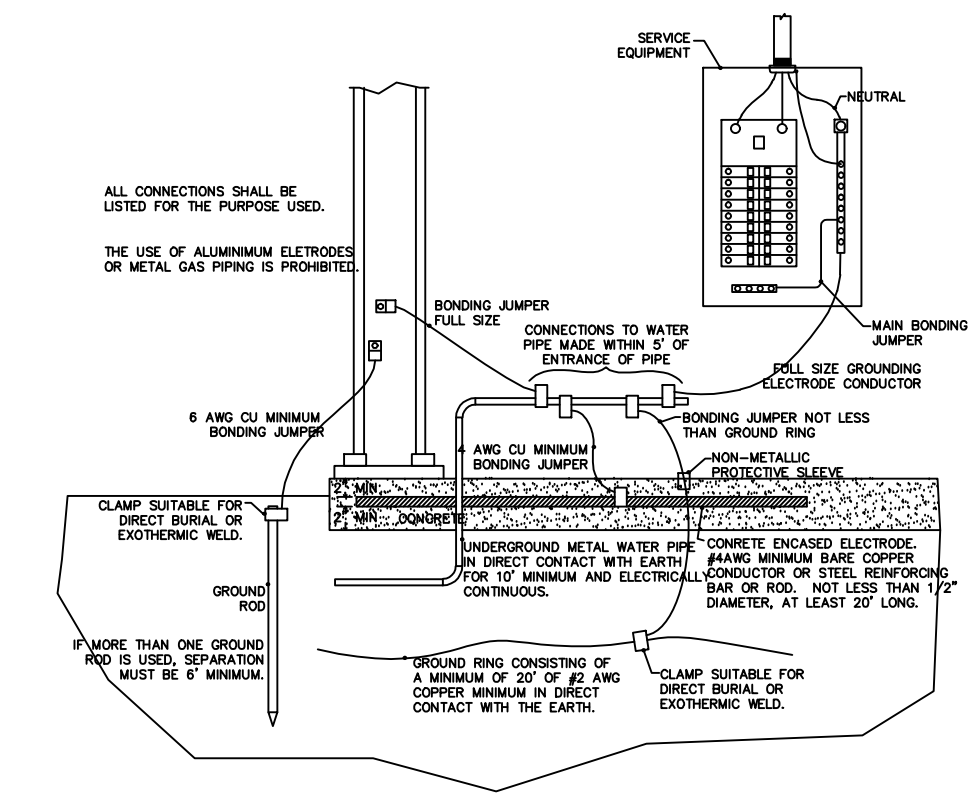
1 ELECTRICAL MOUNTING HEIGHTS DETAIL
Scale: NTS



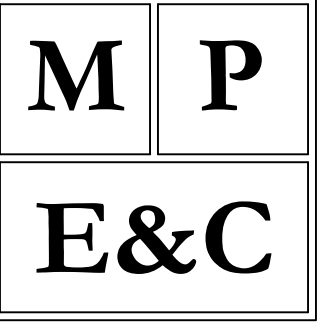
2 EQUIPMENT NAMEPLATE DETAIL
Scale: NTS



3 PANELBOARD NAMEPLATE DETAIL
Scale: NTS



4 TYPICAL GROUNDING DETAIL
Scale: NTS



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Project:

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 Fire Department
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 Edisto Island, SC 29438

ELECTRICAL
 DETAILS

Scale: NTS

Drawn: TMH

Check: MP

Proj#: J1870

E3.1

Plumbing Notes:

Notes listed below and herein are where applicable for this project. Some notes may not be relevant.

General Notes:

- The requirements of these general notes shall apply to all plumbing work. Installation shall be in accordance with the current building code, state and local codes and the latest amendments thereto.
- The work covered by this contract consists of furnishing all labor, equipment, materials and service necessary for and reasonably incidental to the proper completion of all plumbing work shown on the drawings and specified. Materials or products specified by trade name, manufacturer's name or catalog number shall be interpreted as establishing a standard of quality and design. Substitutions shall not be allowed unless they are submitted for review to use and approved by the architect. Fixtures by Eljer, Kohler or American-Standard are approved equal.
- Furnish copies of shop drawings of equipment or fixtures for approval prior to purchasing.
- Plumbing contractor shall coordinate with architectural, civil, structural, electrical, fire protection, mechanical and all other trades for pipe routing and equipment placement. Avoid interference with architectural features, beams, footings, windows, etc. Notify architect immediately of any conflicts. Sleeves shall be installed where piping passes through structure. All openings through fire rated walls or floors shall be sealed with U.L. listed penetration and shall maintain the fire rated integrity of the wall or floor. The contractor shall verify fire ratings with architectural drawings prior to installation. Submit U.L. penetration details with shop drawings for engineer's review. Minimum ratings shall be as follows: walls - F=1, T=0; floor - F=1, T=1. Contractor shall keep a record of the locations of all concealed work and upon completion of the job, shall supply as-built drawings showing in colored pencil on black line prints any deviation from the original drawings. These drawings shall indicate dimensions of buried utility lines from building walls.
- All work shall be guaranteed, both material and installation, for a period of one year from acceptance by owner.
- Provide wall carriers for all wall hung plumbing fixtures. All wall hung plumbing fixtures shall be capable of supporting a 250-pound vertical load.
- Insulate P-trap and supplies under wall hung handicapped lavatory for ADA compliance.
- All other materials not specified elsewhere herein to be of proper design, proper quality and installed per the manufacturer's specifications.
- Drawings are not to be scaled. All dimensions are to be read or calculated.
- Work not indicated as part of drawings but reasonably implied to be similar to that at corresponding places shall be repeated.
- All sections and details are typical at similar locations and where applicable.
- The dimensions on this project are considered as nominal dimensions. The shape and actual size of member units shall be considered in the building and layout plan.
- Piping and similar components specified in common sizes unless specifically noted.
- These plans are the property of MPE&C only. Any unauthorized use, reproduction, or otherwise is prohibited. Doing so is subject to prosecution.
- These plans are site specific to this particular project, site, and location only.

Plumbing Notes Continued:

Storm Piping:

- Storm piping shall be schedule 40 PVC (ASTM-2665 with approved PVC solvent welded fittings. Comply with current building code. PVC piping shall not be run in return air plenum or fire rated assemblies.

Supply Water Piping:

- Water piping shall be PEX or (CPVC) chlorinated polyvinyl chloride plastic pipe and tubing (ASTM-2846) with approved CPVC solvent welded fittings. Comply with current plumbing code.
- The site subcontractor shall provide the backflow preventer and the water meter.
- A service valve shall be provided on the domestic water riser at 5'-0" above finished floor, where water enters the building.
- Provide each fixture with stops and supplies. Exposed stops and supply piping shall be chrome plated, with a chrome plated escutcheon plate.
- Provide unions for all connections to equipment. Provide dielectric type where dissimilar metals are connected.
- Insulate all hot water piping with 1" thick, 3-1/2-pound density, rigid fiberglass insulation. Insulate fittings, valves and all similar items. Insulate water pipe and p-trap below all handicapped lavatories.
- Provide water hammer protection (equal to precision plumbing product "SWA" series) at each fixture or group of similar fixtures. Field fabricated models are not acceptable.
- Provide vacuum breakers as required by code.
- Provide trap primers for all floor drains as required by code.
- Test all water piping at 100-psig for twenty-four (24) hours or as required by code.
- Sterilize all water piping in accordance with health department regulations and American Water Works specifications.
- Support all water piping with pipe hangers by Grinnell or approved equal.
- Provide access panels for valves concealed in walls or ceiling plenums.

Sanitary, Waste and Vent Piping:

- Sanitary, waste and vent piping shall be schedule 40 PVC (ASTM-2665) with approved PVC solvent welded fittings. Comply with current building code. PVC piping shall not be run in return air plenum or fire rated assemblies.
- All soil and waste piping, 2-1/2" and smaller, shall be sloped at 1/4" per foot. Larger waste piping shall be sloped at 1/8" per foot.
- All vents through roof shall be a minimum of 10'-0" or as required by code away from fresh air intakes.
- All vents through roof shall be provided with four (4) pound sheet lead flashing extending upward around the pipe and turned down inside the pipe.
- Exposed waste drains, in toilets, shall be chrome plated brass with matching escutcheons.
- Cleanout shall be provided at the base of each waste or soil stack at 18" A.F.F. minimum, per latest edition of plumbing code.
- Test sanitary, waste and vent piping by a 10' water column for twenty-four (24) hours or as required by the building department.

Plumbing Notes Continued:

Gas piping

- Gas piping shall be installed in accordance with the current fuel gas code or NFPA-54 where requirements are more stringent.
- All gas equipment shall be AGA approved.
- The installation shall be for natural gas or propane as per plan design specifications.
- The installing subcontractor shall be licensed for the installation of natural gas.
- Above ground gas piping shall be schedule 40, welded and seamless, wrought steel pipe (ASME B36.10) with threaded fittings. Underground gas piping shall be polyethylene (PE) pipe (ASTM D-2513). Provide with tracer wire or magnetic tape.
- Any gas piping, which is exposed, shall be painted with black "Rustoleum" paint verify color with architect.
- Gas piping shall be hung tight to the roof structure, supported with hangers by Grinnell or equal.
- Branch taps must be made off-of the top of the piping.
- Connection to each piece of equipment shall include an inverted trap, a gas cock, a union and a dirt leg. Connections shall be rigid (no flex).
- All gas flues shall be minimum of 10'-0", or as required by code, away from fresh air intakes.

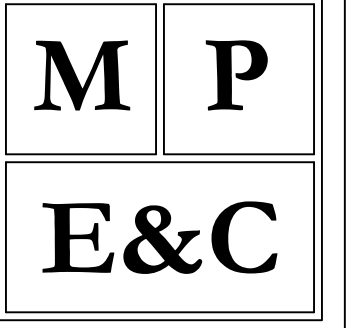
Construction:

- Contractor shall field verify all elevations, dimensions, and locations of existing features before starting work and notify engineer of any discrepancies for justification and/or corrections. The contractor/homeowner shall assume liability for all errors that are not reported. Note, the information provided in these plans is limited to the visual observation and information provided by the contractor and/or homeowner.
- The engineer assumes no liability for any changes or modifications by others made to the plans in whole or in part.
- Contractor is responsible for coordination of all trades involved.
- Contractor to verify with owner all specific makes, models, sizes, etc. of all fixtures, furniture, cabinets, appliances, etc. to be installed.
- Contractor is to review all mechanical systems (including but not limited to electrical, HVAC, plumbing, etc.) with owner prior to construction. This includes type, brand, quality, energy rating, size, etc for each particular system and its components.
- All work shall conform to all local codes, ordinances, and regulations of all appropriate regulating bodies.
- No soils report or site condition information provided to the engineer. Contractor to verify ground and soils conditions are acceptable for construction. Engineer shall not be liable for unforeseen site or soil conditions.
- Contractor to verify if tree conflicts exist prior to construction.
- All construction methods, practices, and materials to follow current building code standards except as noted. These should also be pre-approved by owner or general contractor in charge. Engineer shall not be responsible for methods, techniques, sequences, etc. of construction activities. Supervision of all work is the responsibility of the contractor.
- All construction layout is the responsibility of owner or general contractor in charge.
- In case of conflict between drawings and specifications the more rigid, robust, stronger, etc. to be assumed to prevail unless explicitly specified by engineer.
- Wall, floor, ceiling penetrations to be per current building code standards unless otherwise specified.
- Call P.U.P.S. 811 before digging.

Plumbing Design Criteria / Property Info:

Information listed below and herein is where applicable for this project. Some items may not be relevant.

- Property/Structure/Site Info:
 - Address: Per Architectural
- Domestic Water Supplier
 - Town of Edisto Beach
- Sewer Utility
 - Town of Edisto Beach
- Natural Gas Utility
 - N/A
- Weather/Environment:
 - Extreme Frost Depth: 5"
 - Climate Zone: 3
- IBC Classifications:
 - Construction Type: Per Architectural
 - Occupancy Group: Per Architectural
- Flood Zone: Per Architectural
- Applicable Building Codes and Regulations:
 - IBC 2015 w/ SC Modifications
 - IFC 2015 w/ SC Modifications
 - IEBC 2015 w/ SC Modifications
 - IPMC 2015 w/ SC Modifications
 - IMC 2015 w/ SC Modifications
 - IPC 2015 w/ SC Modifications
 - IFGC 2015 w/ SC Modifications
 - NEC 2014 (NFPA 70) w/ SC Modifications
 - ICC/ANSI A117.1-2017 w/ SC Modifications
 - See International Code Council for more information: <http://www.iccsafe.org/>
 - See National Fire Protection Association for more information: <http://www.nfpa.org/>
 - Other Relevant & Current Adopted Codes
 - N/A
 - N/A
 - Zoning & Ordinances:
 - Town of Edisto Beach



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GENERAL
PLUMBING
NOTES

Scale: ~~NTS~~

Drawn: TMH

Check: MP

Proj#: J1870

P1.1

PLUMBING SYMBOL LEGEND (NOTE: NOT ALL SYMBOLS MAY BE APPLICABLE TO THIS PROJECT)

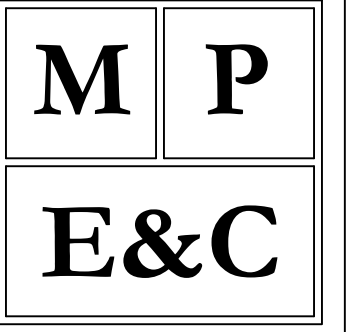
ABBREVIATIONS	
ABBREVIATION	DEFINITION
AFB	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANT	ACID NEUTRALIZING TANK
AVTR	ACID RESISTANT VENT THROUGH ROOF
B.C.	BALANCING COCK
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CWB	CLOTHES WASHER BOX
CFH	CUBIC FEET PER HOUR
CO	CLEANOUT
COTG	CLEANOUT TO GRADE
CP	CIRCULATION PUMP
CWV	COMBINATION WASTE AND VENT
DCO	DOUBLE CLEANOUT
DCOTG	DOUBLE CLEANOUT TO GRADE
DF	DRINKING FOUNTAIN
DN	DOWN
DS	DOWNSPOUT
DSN	DOWNSPOUT NOZZLE
EL	ELEVATION
EW	ELECTRIC WATER HEATER
EWC	ELECTRIC WATER COOLER
EW	EMERGENCY EYEWASH
ES	EMERGENCY SHOWER
ESEW	EMERGENCY SHOWER EYE WASH
F	DEGREES FAHRENHEIT
FCO	FLOOR CLEANOUT
FFE	FINISHED FLOOR ELEVATION
FT	FEET
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT
FV	FLUSH VALVE
GD	GUTTER DRAIN
GI	GREASE INTERCEPTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GWH	GAS WATER HEATER
HB	HOSE BIBB
HD	HEAD
HP	HORSEPOWER
IN	INCHES
INV	INVERT
kW	KILOWATT
MBh	1,000 BTUH
MV	MIXING VALVE
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
No. #	NUMBER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OS&Y	OUTSIDE SCREW AND YOKE
PH	PHASE
Ph	POWERS OF HARDNESS
PSIG	POUNDS PER SQUARE INCH GAUGE
SP	STATIC PRESSURE
TD	TRENCH DRAIN
TYP	TYPICAL
YB	YARD BOX
YH	YARD HYDRANT
WCO	WALL CLEANOUT
WC	WATER CLOSET

SCHEMATIC SYMBOLS	
SYMBOL	ABBREVIATION/DESCRIPTION
	KEYED NOTE
	POINT OF CONNECTION TO EXISTING
	EXISTING PIPE TO BE REMOVED
	NEW PIPING
	EXISTING PIPING TO REMAIN
	NEW CONNECTION TO EXISTING PIPING
	SLOPE OF PIPE
	DIRECTION OF FLOW
	DROP IN PIPE
	RISE IN PIPE
	TOP CONNECTION, 45° OR 90°
	BOTTOM CONNECTION, 45° OR 90°
	CAPPED OUTLET
	SIDE CONNECTION
	UNION
	FLANGED UNION
	ORIFICE UNION
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	PIPE GUIDE
	FLEXIBLE CONNECTION
	UNIVERSAL TEMPERATURE-PRESSURE FITTING (PETE'S PLUG)
	STRAINER WITH BLOWDOWN VALVE & HOSE BIBB
	THERMOMETER
	PRESSURE GAUGE AND GAUGE COCK
	AQUASTAT
	WATER HAMMER ARRESTOR
	TEST PLUG (PRESS/TEMP)
	PENETRATION
	MAV MANUAL AIR VENT (MAV)
	AAV AUTOMATIC AIR VENT (AAV)
	FS/FD/AD FLOOR SINK, FLOOR DRAIN, AREA DRAIN
	FCO/COTG FLOOR CLEANOUT/CLEANOUT TO GRADE
	DCOTG 2-WAY OR DOUBLE CLEANOUT TO GRADE
	RD/OD/DD ROOF/OVERFLOW/DECK DRAIN
	TP TRAP PRIMER WITH ACCESS PANEL
	VTR VENT THROUGH ROOF
	AG AIR GAP FITTING
	(WH) (HB) WALL HYDRANT, HOSE BIBB

PIPING SYMBOLS		
SYMBOL	ABBREVIATION/DESCRIPTION	ABBREVIATION/DESCRIPTION
	AV	ACID VENT
	AW	ACID WASTE
	CA	COMPRESSED AIR
	CD	CONDENSATE DRAIN
	CW	DOMESTIC COLD WATER
	HW	DOMESTIC HOT WATER
	HWR	DOMESTIC HOT WATER RETURN
	HW140	140° DOMESTIC HOT WATER
	HWR140	140° DOMESTIC HOT WATER RETURN
	ROS	REVERSE OSMOSIS SUPPLY
	ROR	REVERSE OSMOSIS RETURN
	MU	MAKE-UP WATER
	NPW	NON-POTABLE WATER
	V	VENT
	DIS	DEIONIZED WATER SUPPLY
	DIR	DEIONIZED WATER RETURN
	SAN	SANITARY SEWER
	GW	GREASE WASTE
	GV	GREASE VENT
	RD	STORM/ROOF DRAIN
	ORD	OVERFLOW ROOF DRAIN
	LPG	LIQUIFIED PETROLEUM GAS
	NG	NATURAL GAS-LOW PRESSURE
	NGM	NATURAL GAS-MEDIUM PRESSURE
	NGH	NATURAL GAS-HIGH PRESSURE
	IRR	IRRIGATION
	SCW	SOFT COLD WATER
	SHW	SOFT HOT WATER
	TWR	TEMPERED WATER RETURN (TEMP °F)
	TW	TEMPERED WATER (TEMP °F)
	PD	PUMPED DISCHARGE LINE
	ICW	INDUSTRIAL COLD WATER
	IHW	INDUSTRIAL HOT WATER
	IHWR	INDUSTRIAL HOT WATER RETURN
	INW	INDUSTRIAL WASTE
	IA	INSTRUMENT COMPRESSED AIR
	IW	INDIRECT WASTE
	LA	LAB COMPRESSED AIR

SITE UTILITY SYMBOLS	
ABBREVIATION	DEFINITION
	S SANITARY SEWER
	W COLD WATER SUPPLY
	F FIRE PROTECTION
	G NATURAL GAS
	SD STORM DRAIN
	IRR IRRIGATION
	VALVE WITH VALVE BOX
	F.H. FIRE HYDRANT
	F.D.C. FIRE DEPARTMENT INLET CONNECTION
	CONSTRUCTION
	THRUST BLOCK
	SAS C.O. CLEANOUT
	PP POWER POLE
	FENCING
	LP LIGHT POLE
	WM WATER METER
	GM NATURAL GAS METER
	GATE VALVE
	VALVE IN RISER
	PIV POST INDICATOR VALVE
	REDUCED PRESSURE BACKFLOW PREVENTER
	SAS M.H. SANITARY MANHOLE
	25' OF 6" @ 0.15% SLOPE SLOPE AND LINEAL FOOTAGE

VALVE SYMBOLS	
SYMBOL	DESCRIPTION
	GATE VALVE
	GLOBE VALVE
	SOLENOID VALVE
	OS&Y VALVE
	BUTTERFLY VALVE
	BALL VALVE
	CHECK VALVE
	PLUG VALVE
	BALANCING VALVE/CIRCUIT MEASURING DEVICE
	WATER PRESSURE REDUCING VALVE
	2-WAY CONTROL VALVE
	3-WAY MODULATING CONTROL VALVE
	FUEL GAS PRESSURE REGULATOR
	PRESSURE RELIEF VALVE
	TEMPERATURE AND PRESSURE RELIEF VALVE
	DRAIN VALVE
	VALVE IN VERTICAL
	FLOW SWITCH
	DIAPHRAGM (PROCESS SYSTEMS)
	REDUCED PRESSURE BACKFLOW PREVENTER (RBPB)
	ATMOSPHERIC VACUUM BREAKER
	PRESSURE STYLE VACUUM BREAKER



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Date/Revisions:

2018.09.27
 Plan Set

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Project:

Renovations to Edisto Beach
 Fire Department
 2413 Murray St.
 Edisto Island, SC 29438

PLUMBING SYMBOLS

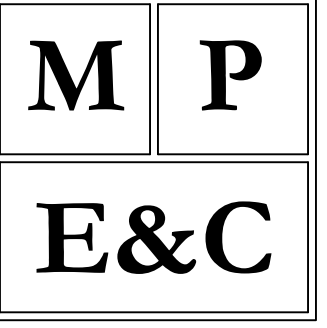
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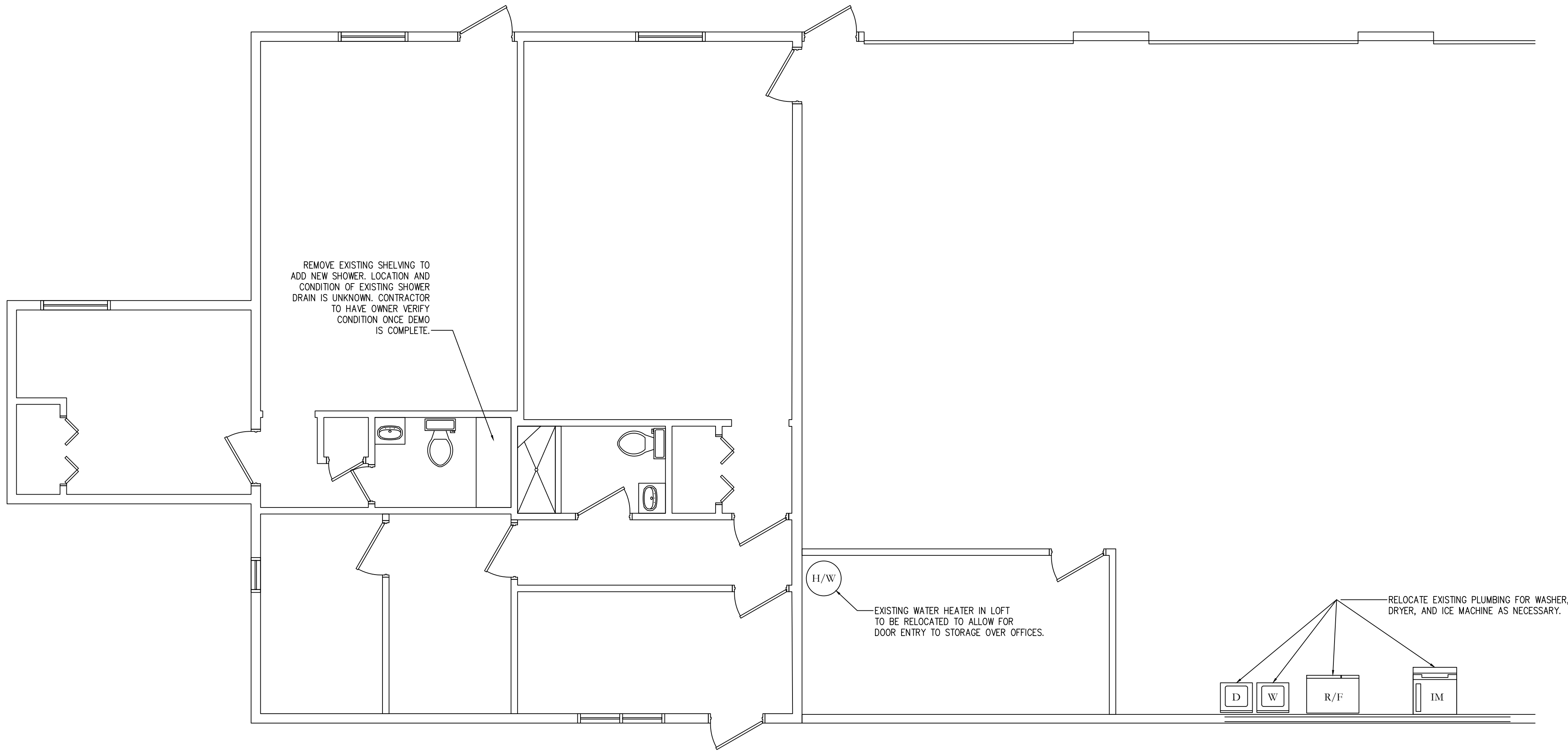
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P1.2



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1 PLUMBING - DEMO PLAN
Scale: 3/16" = 1'-0"

Date/Revisions:

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PLUMBING
DEMO PLAN

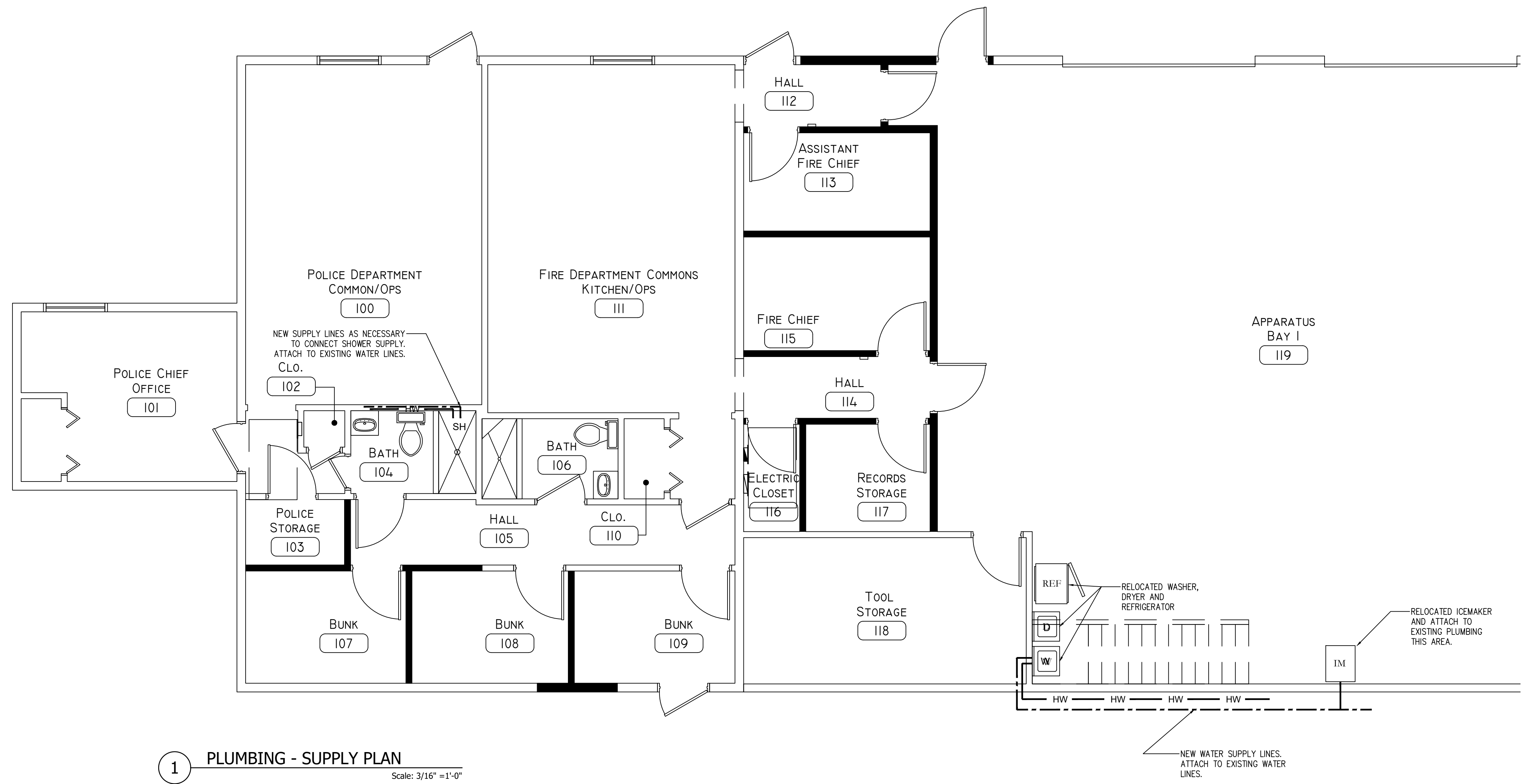
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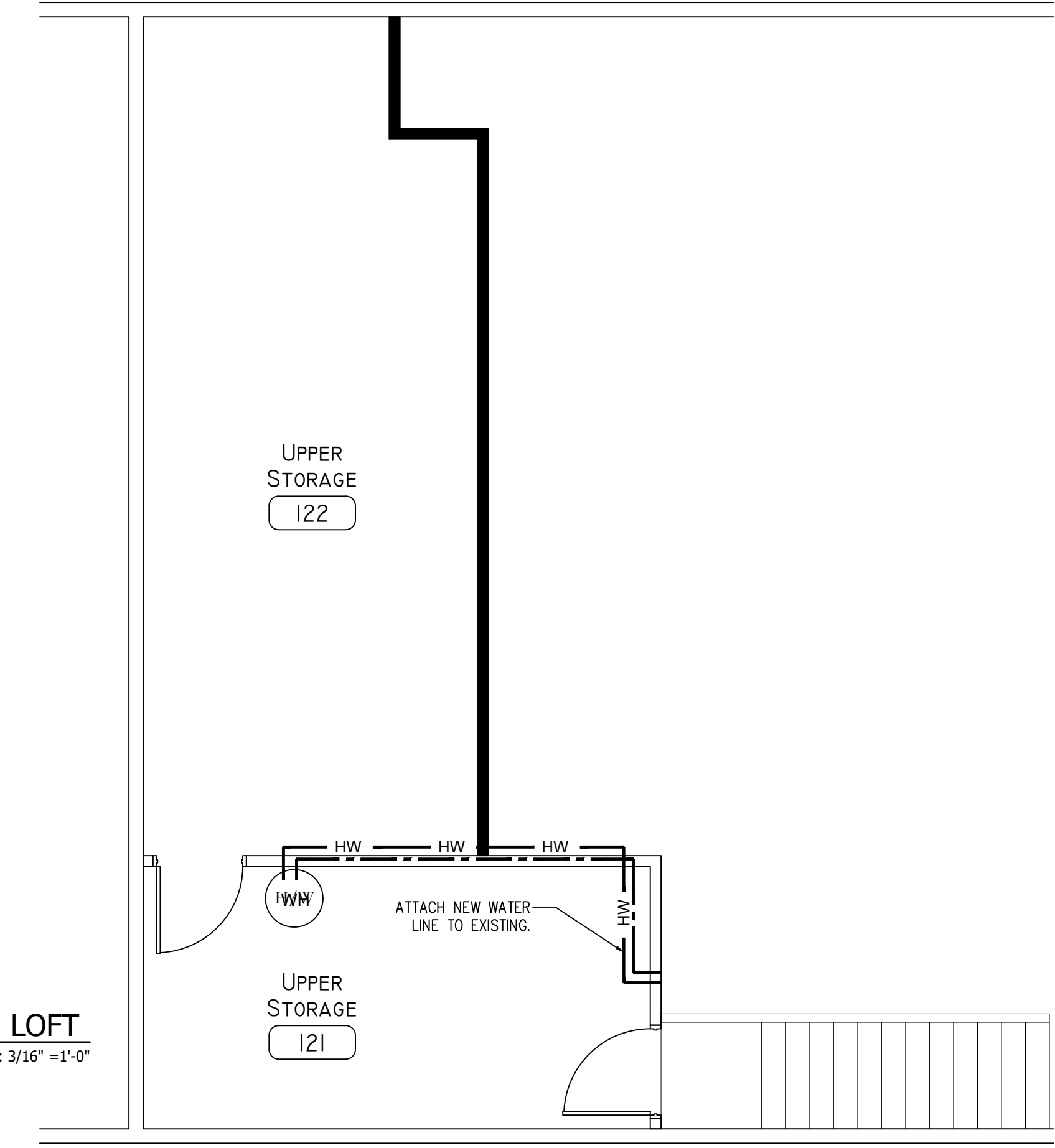
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Proj#: J1870

P2.1



1 PLUMBING - SUPPLY PLAN
Scale: 3/16" = 1'-0"



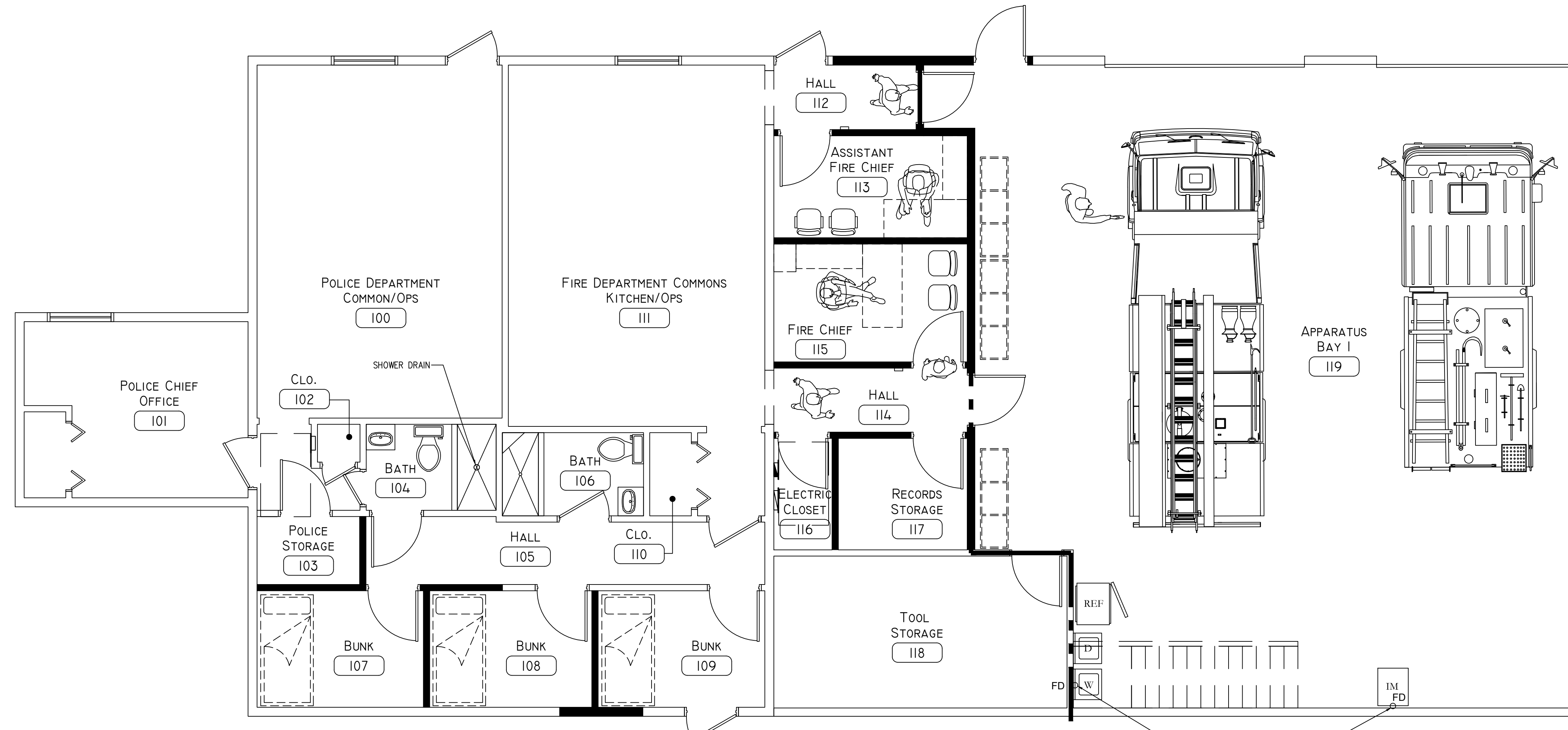
2 PLUMBING - SUPPLY PLAN - LOFT
Scale: 3/16" = 1'-0"

Date/Revisions:
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PLUMBING
SUPPLY
PLAN
Scale: NTS
Drawn: TMH
Check: MP
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1 PLUMBING - WASTE PLAN
Scale: 3/16" = 1'-0"

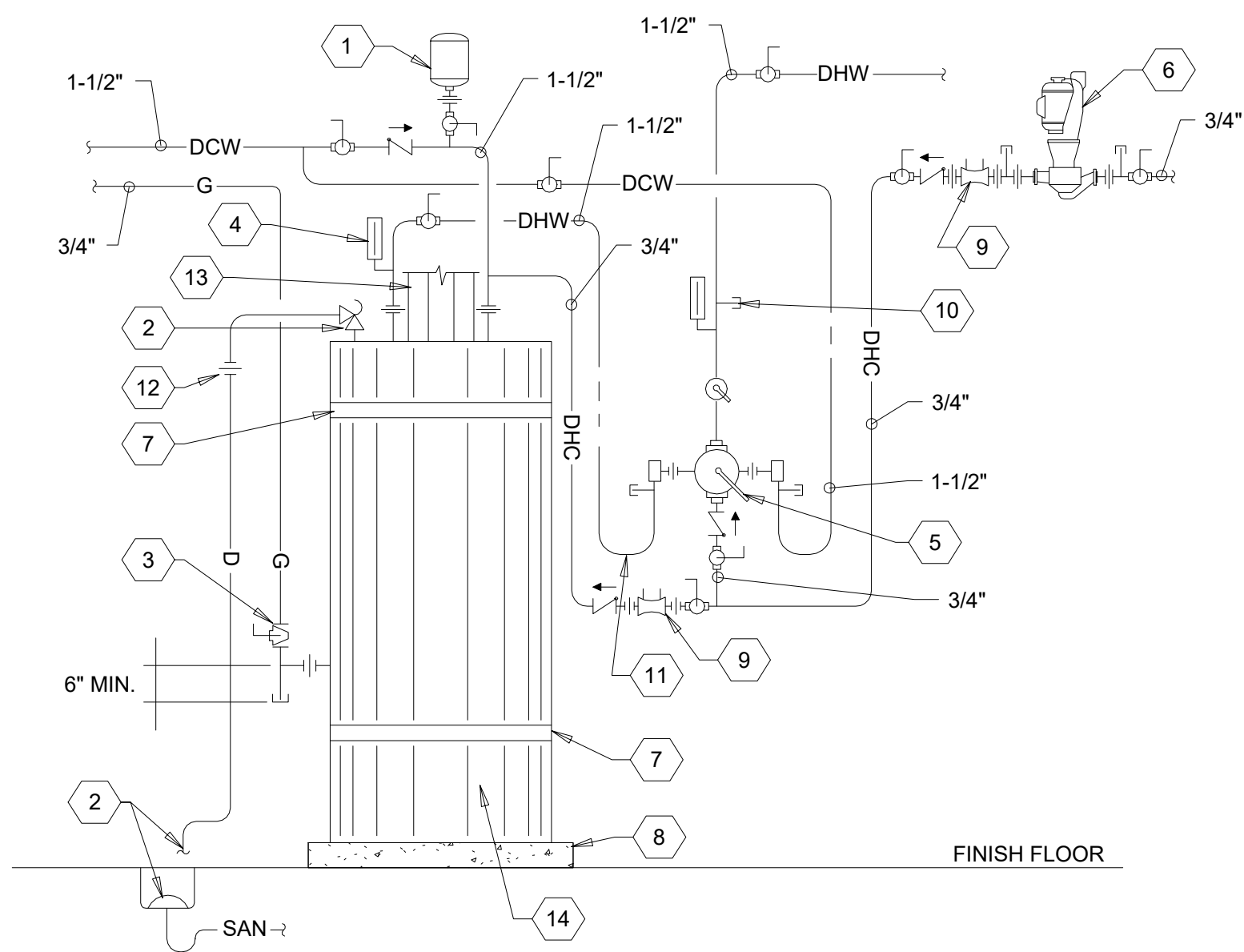
RELOCATE EXISTING PLUMBING DRAINS FOR WASHER AND ICE MACHINE AS NECESSARY.

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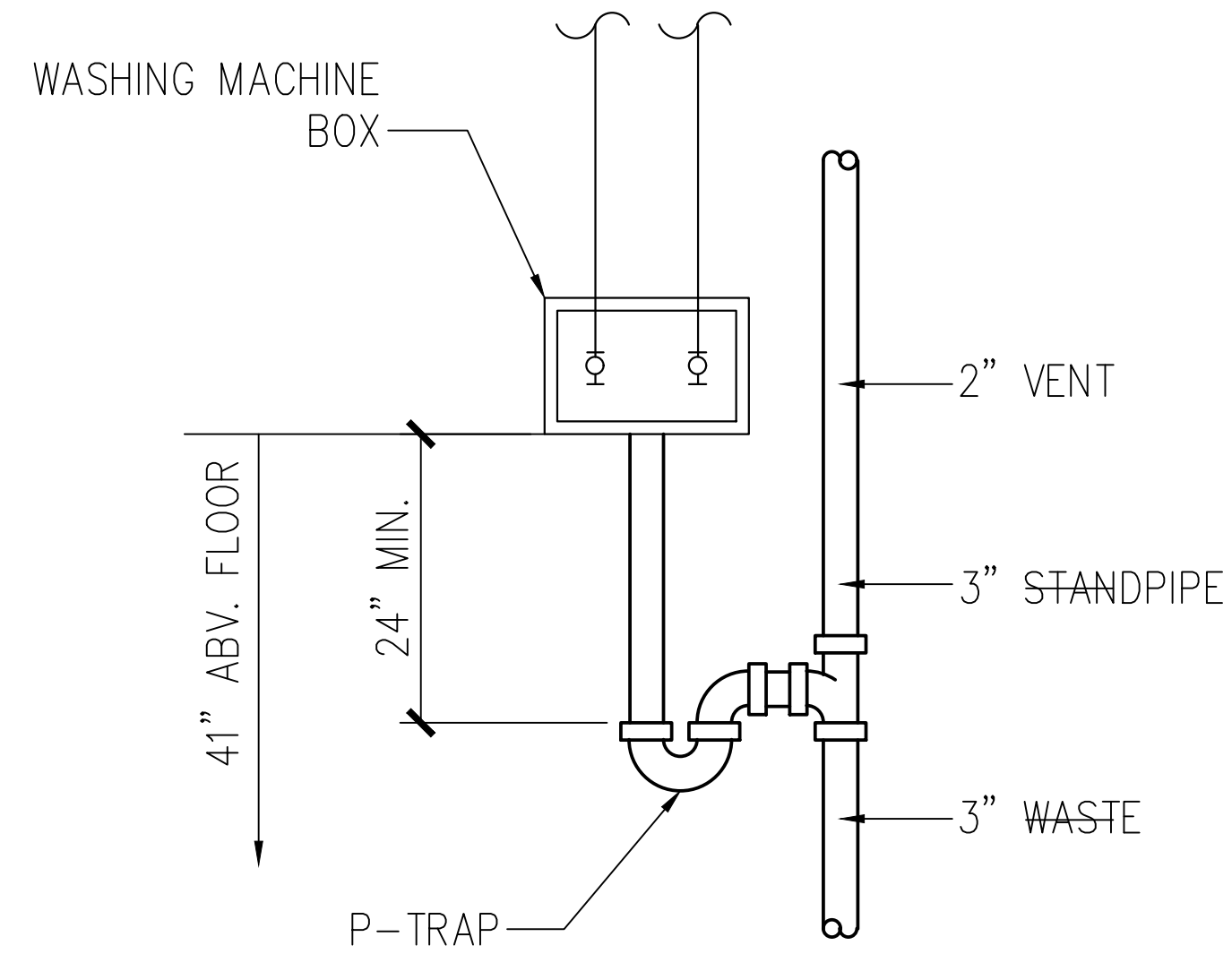
PLUMBING
WASTE
PLAN
Scale: NTS
Drawn: TMH
Check: MP
Proj#: J1870



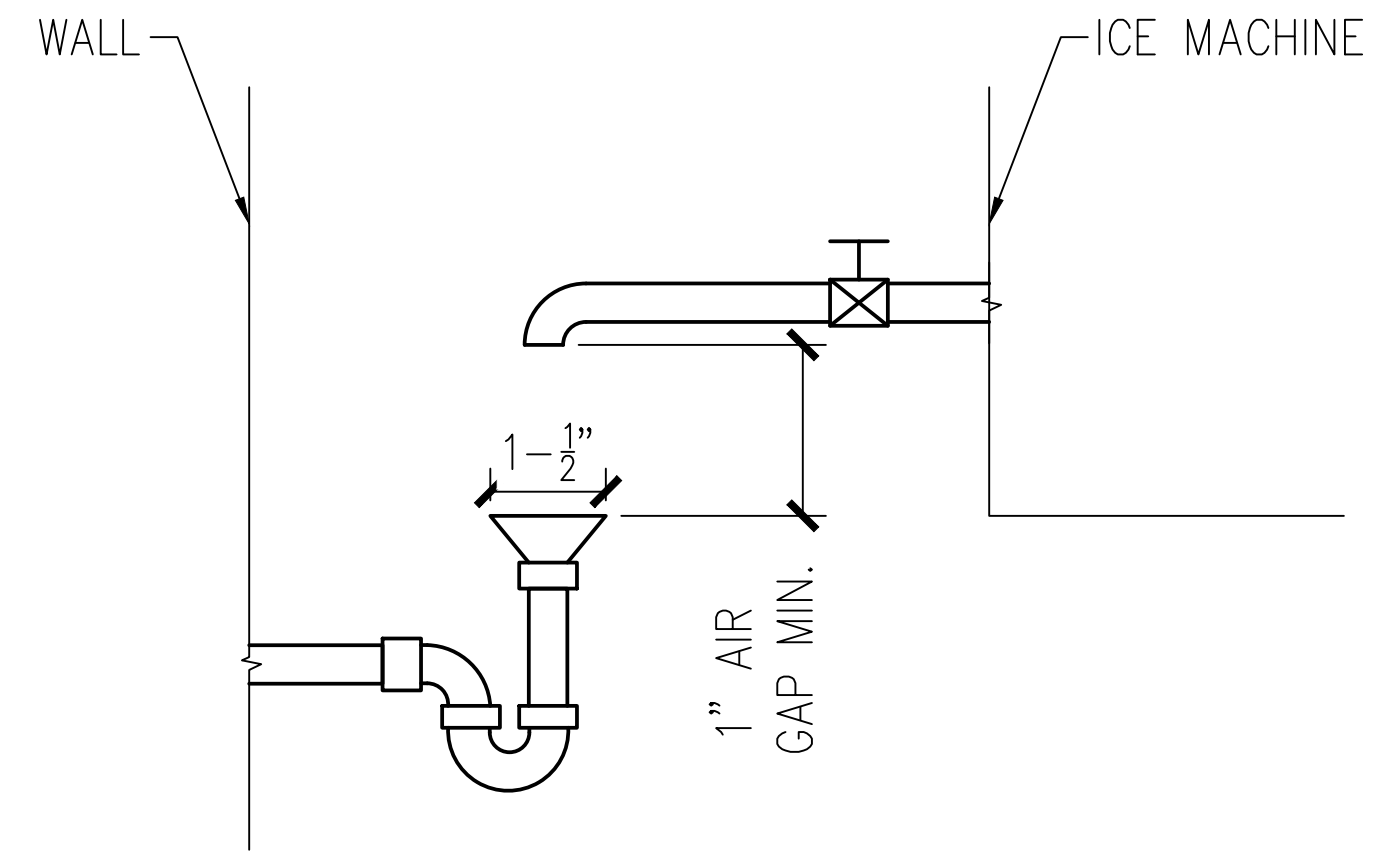
- 1 EXPANSION TANK P10
- 2 FULL SIZED T&P RELIEF VALVE INDIRECTLY DISCHARGED TO FLOOR SINK, 2X PIPE DIA.
- 3 PLUG VALVE W/DIRT LEG
- 4 THERMOMETER (TYPICAL)
- 5 THERMOSTATIC MIXING VALVE P12
- 6 RECIRCULATION PUMP P11
- 7 SEISMIC STRAPPING PER UPC 508.2 (IF REQUIRED)
- 8 4" MIN. HOUSEKEEPING PAD
- 9 CIRCUIT SETTER/BALANCING VALVE
- 10 PETE'S PLUGS (TYPICAL)
- 11 HEAT TRAP PER MFG. SPEC'S
- 12 UNION (TYPICAL)
- 13 COMBUSTION AIR INTAKE AND FLUE BY MECHANICAL
- 14 DOMESTIC WATER HEATER P9

NOTE: INSTALL THERMOSTATIC MIXING VALVE ASSEMBLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION. PROVIDE PIPING SCHEMATIC WITH SUBMITTALS

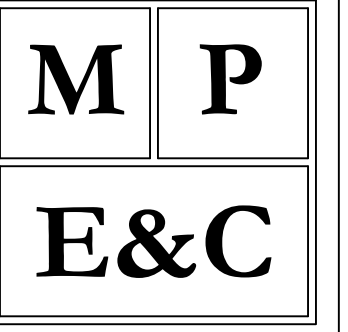
1 DOMESTIC WATER HEATER DETAIL-TYPICAL
Scale: NTS



2 WASHING MACHINE HOOK-UP/DRAIN DETAIL
Scale: NTS



3 ICE MACHINE DRAIN DETAIL
Scale: NTS



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PLUMBING
DETAILS

Scale: NTS

Drawn: TMH

Check: MP

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P3.1