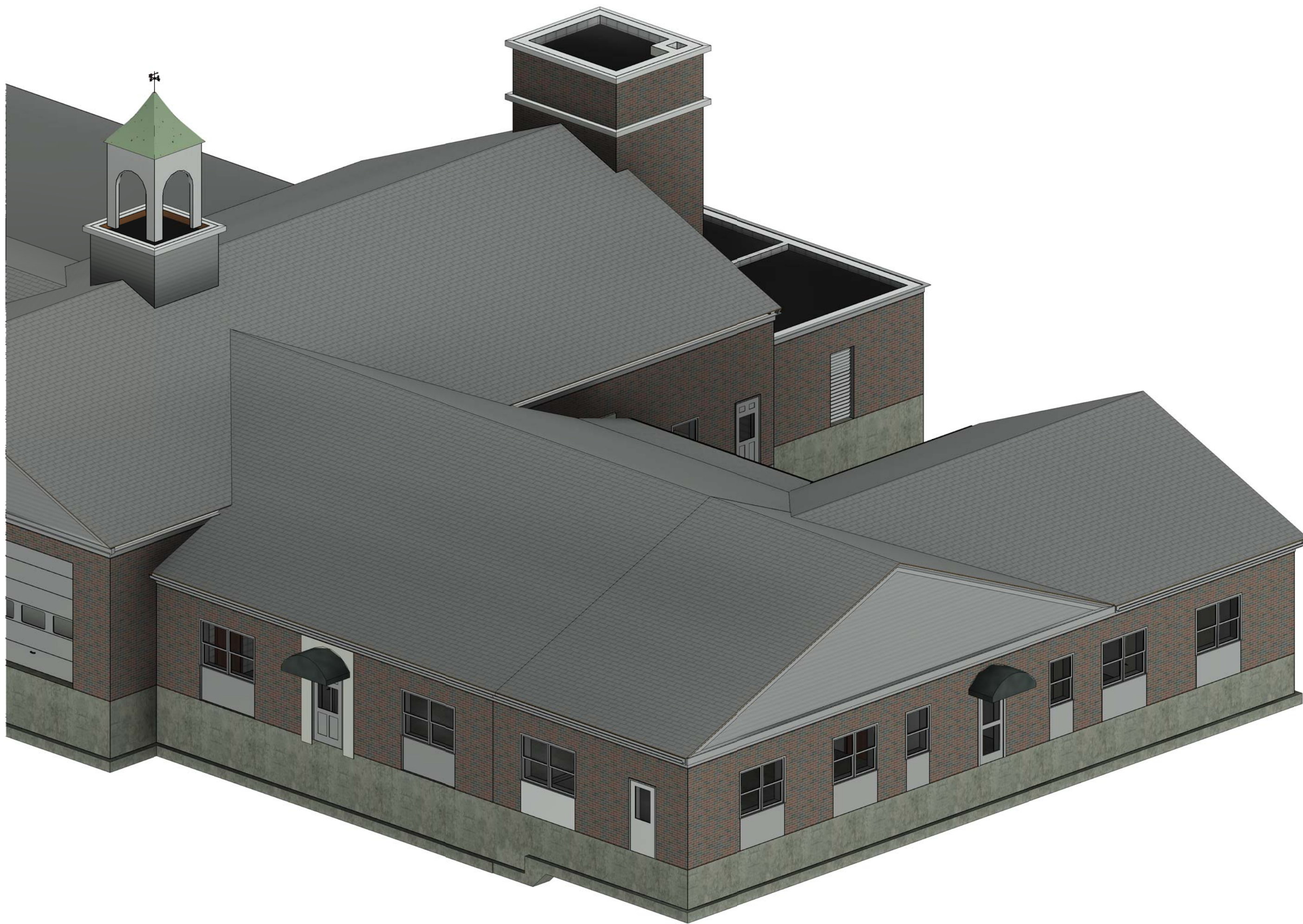
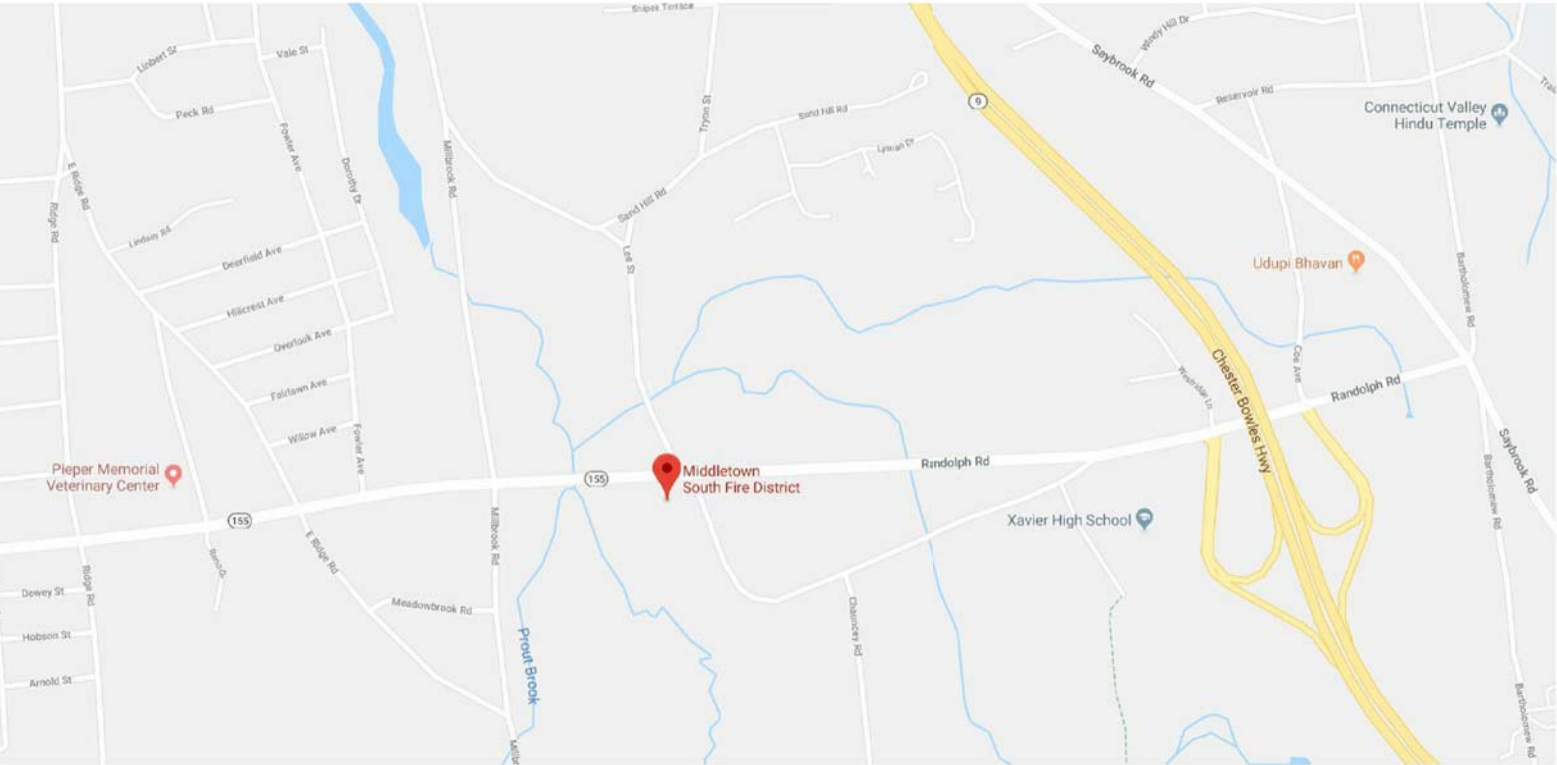


South Fire District Bldg Renovations & Addition

445 Randolph Rd
Middletown, CT 06457
For Permit
9/21/2023



LOCATION MAP:



445 Randolph Rd
Middletown, CT 06457

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO THE MENTIONED PROJECT IS STRICTLY PROHIBITED.

NOTES:

PROFESSIONAL SEALS:

No.	Date	Description

CLIENT:



CONSULTANTS:



Richard Sambor, P.E.
Structural Engineer



ARCHITECT OF RECORD:



100 Riverview Plaza, Suite 204
Middletown, CT 06457
phone: 860-346-1333
www.landmarkarch.com

LIST OF DRAWINGS

COVER
LIST OF DRAWINGS

CIVIL DRAWINGS

- SITE-01 Site Improvements and Grading Plan
- SITE-02 Standard Construction Details
- 1

SITE-03 Pavement Rehabilitation Areas

ARCHITECTURAL DRAWINGS

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A-0.1 Code Information

A-1.0 Demolition Plan
A-1.1 Proposed Plan
A-1.2 Roof Plan
A-1.3 Reflected Ceiling Plan

A-2.0 Exterior Elevations

A-3.0 Transverse Building Sections
A-3.1 Wall Sections
A-3.2 Wall Sections

A-4.0 Bathroom Elevations
A-4.1 Kitchen/Dining Plan and Elevations
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A-5.2 Roof Details
A-5.3 Roofing Details
A-5.4 Wall Details
A-5.5 Ceiling Details
A-5.6 Casework Details
A-5.7 Miscellaneous Details

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A-6.1 Window Schedule & Details

A-7.0 Finish Schedule

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S-1.2 Roof Framing Plan
S-1.3 Roof Truss Elevations

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M1 Mechanical Plan
M2 Mechanical Roof/Attic Plan
M3 Mechanical Diagram
M4 Mechanical Notes, Legends and Schedules

ELECTRICAL DRAWINGS

DE1 Electrical Demolition Floor Plans
E1 Electrical - Lighting Floor Plan
E2 Electrical - Power Floor Plan
E3 Electrical - Mechanical Power Plan
E4 Electrical Notes, Legend and Schedules
E5 Electrical Details

PLUMBING DRAWINGS

DP1 Plumbing Demolition Plans
P1 Plumbing Plan
P2 Plumbing Details
P3 Plumbing Notes, Legends and Schedules

FIRE PROTECTION DRAWINGS

FP1 Fire Protection Plans
FP2 Fire Protection Attic Plan, Notes and Legends
FP3 Fire Protection Details



Richard Sambor, P.E.
Structural Engineer



No.	Description	Date
1	Added Drawing: SITE-03	10/17/23

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445 Randolph Rd
Middletown, CT 06457
South Fire District Bldg
Renovations & Addition

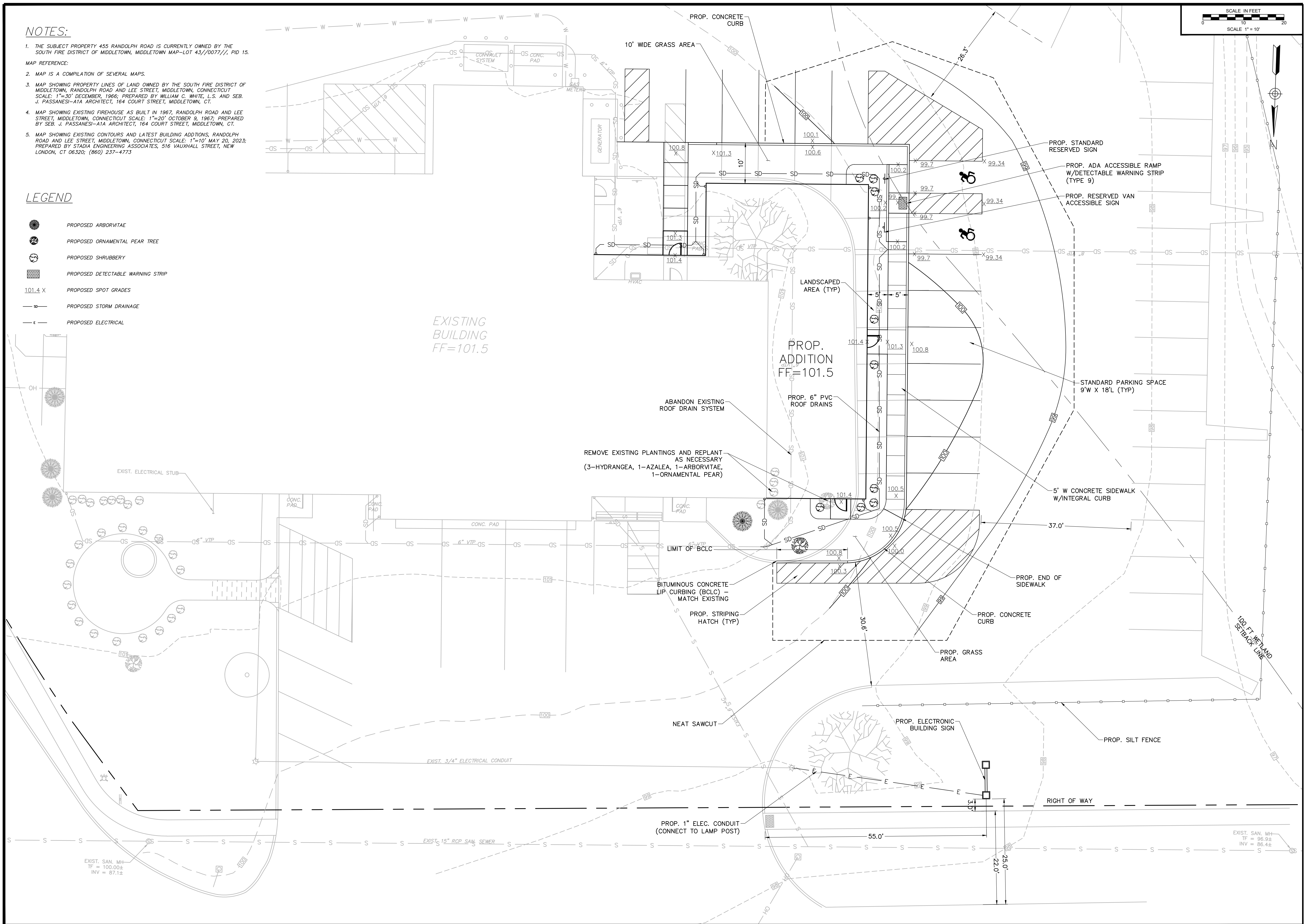
For Permit
9/21/2023

List of Drawings

0-LOD

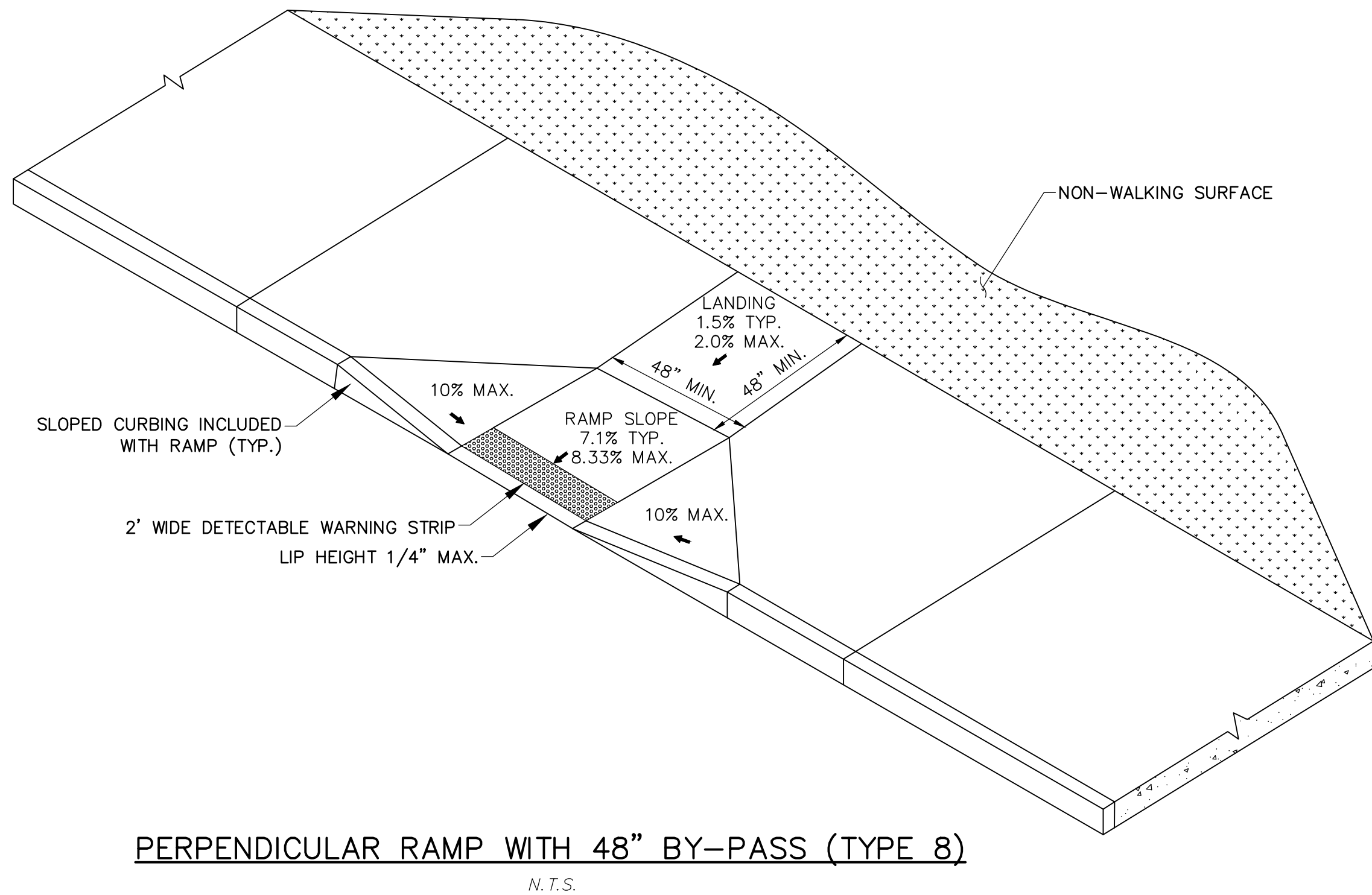
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MAP REFERENCE:
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	<i>PROPOSED ARBORVITAE</i>
	<i>PROPOSED ORNAMENTAL PEAR TREE</i>
	<i>PROPOSED SHRUBBERY</i>
	<i>PROPOSED DETECTABLE WARNING STRIP</i>
	<i>PROPOSED SPOT GRADES</i>
	<i>PROPOSED STORM DRAINAGE</i>
	<i>PROPOSED ELECTRICAL</i>



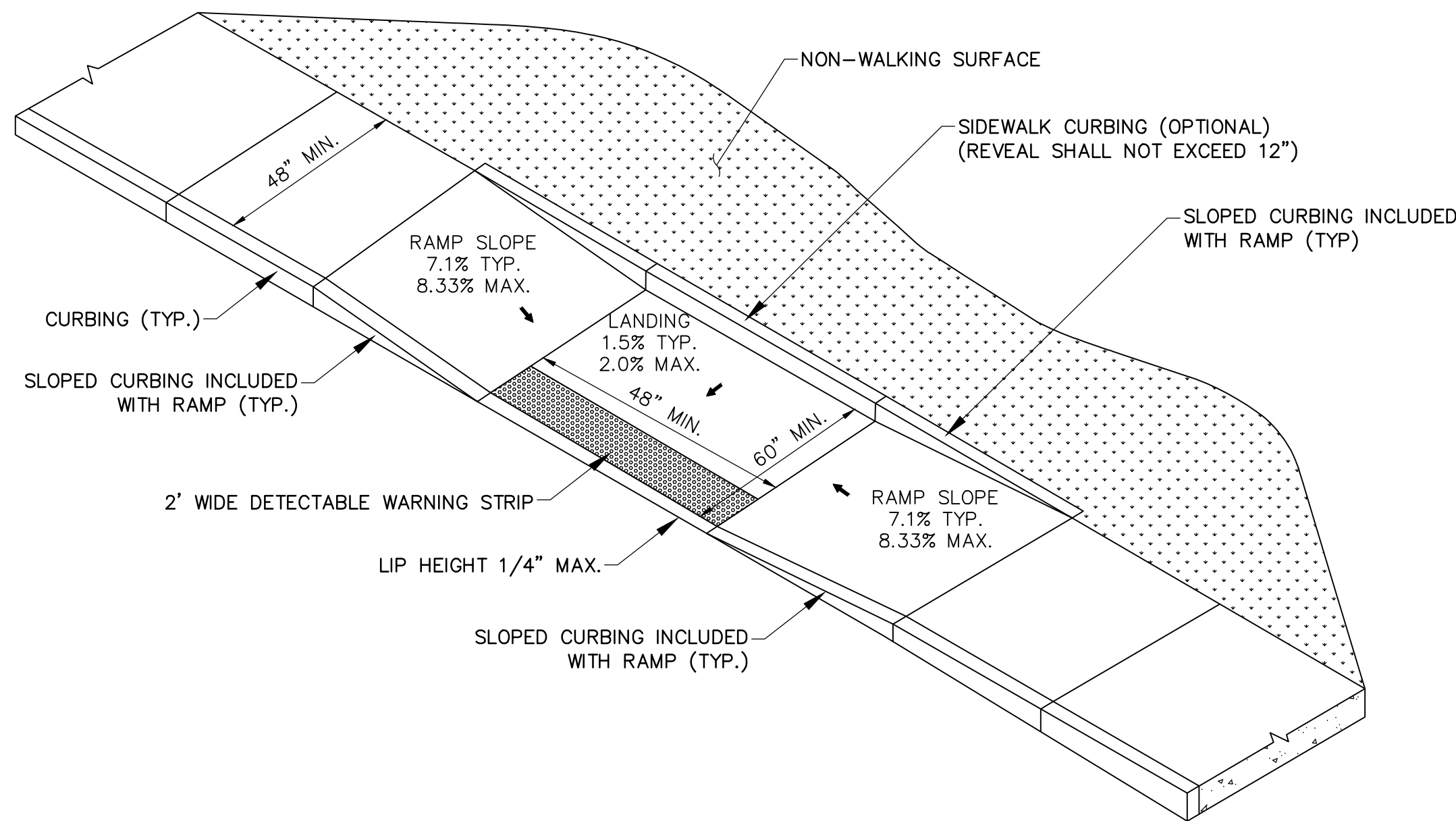
PROJECT NO: 2499				
DESIGNED BY: ERN				
DRAWN BY: ERN				
CHECKED BY: GG				
APPROVED BY: JAC				

File: B:\Civil 3d Projects\2023\2400 Middletown Fire District Addition Drawings\Detail.dwg Plotter: 10/4/2023 8:54 AM



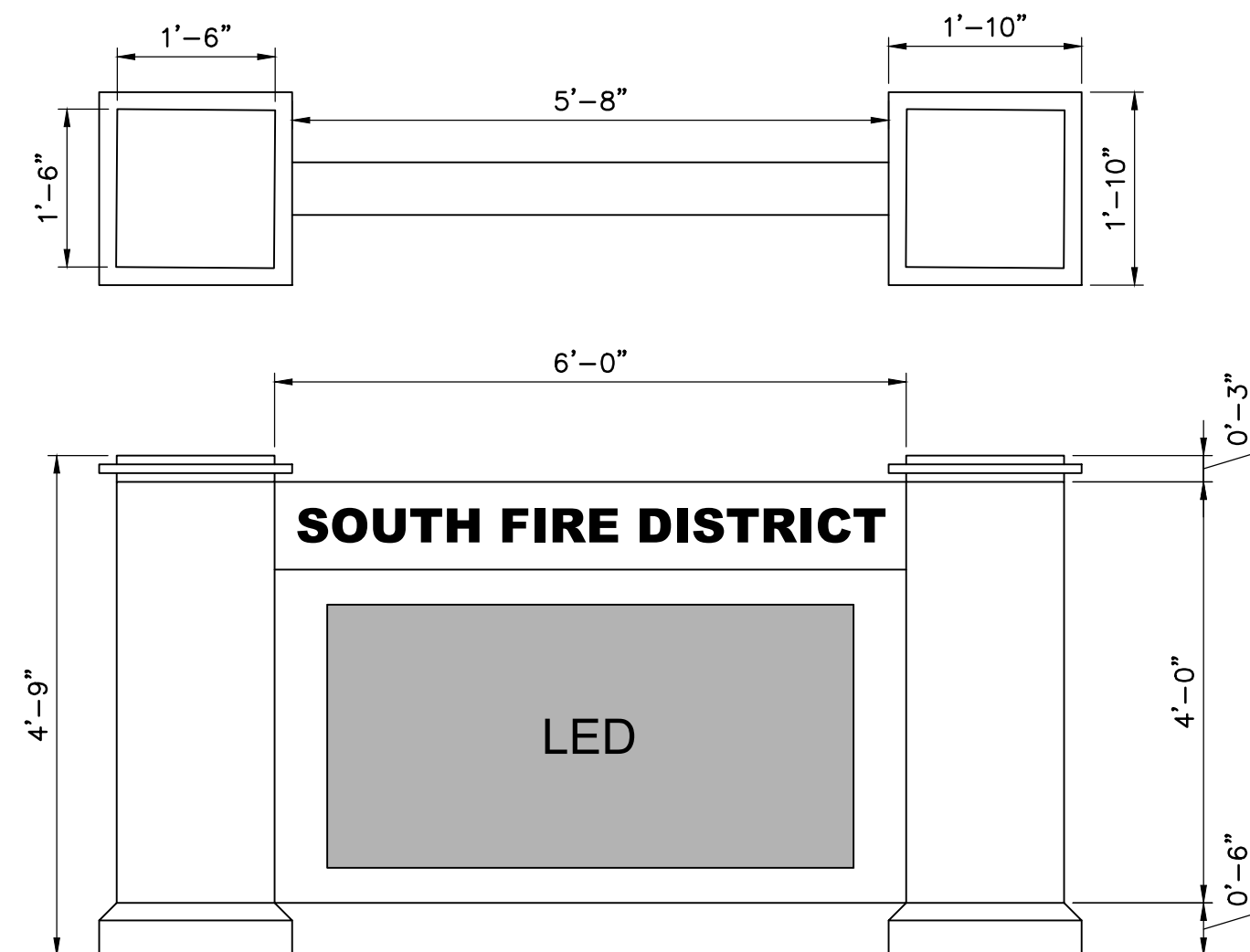
PERPENDICULAR RAMP WITH 48" BY-PASS (TYPE 8)

N.T.S.



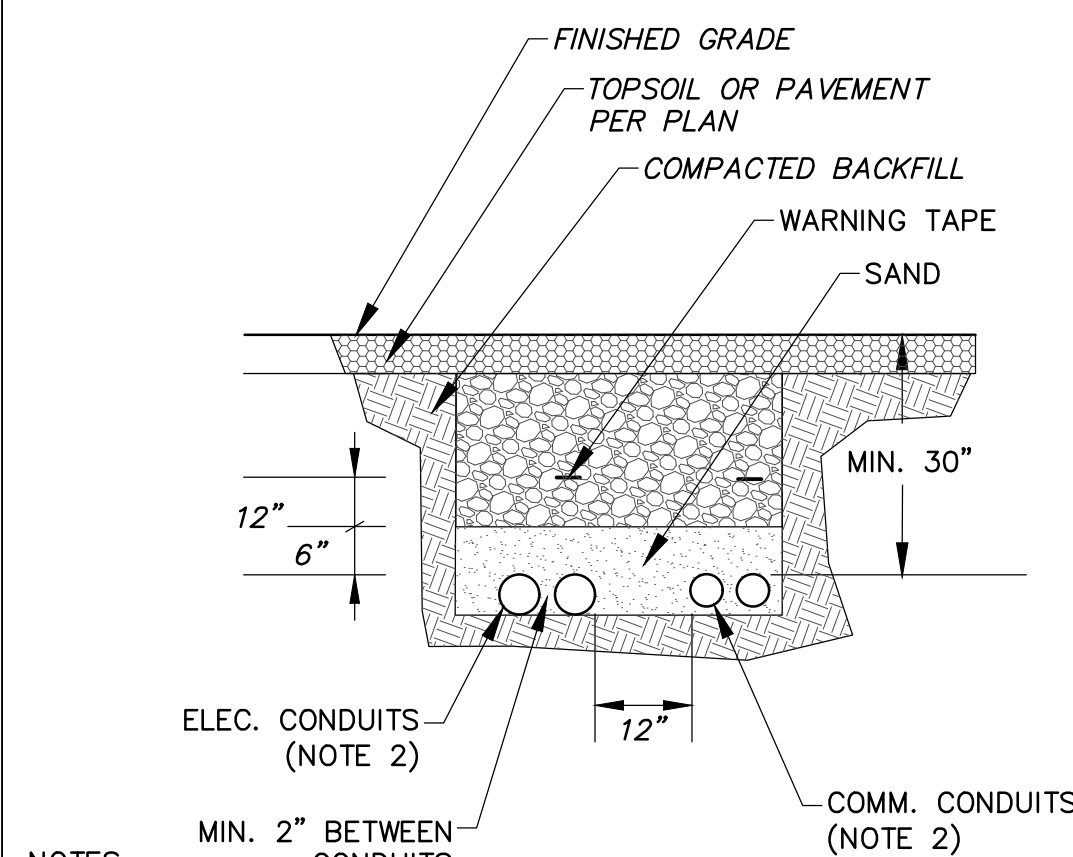
PARALLEL RAMP WITHOUT NON-WORKING SURFACE (TYPE 9)

N.T.S.



VARIABLE MESSAGE SIGN

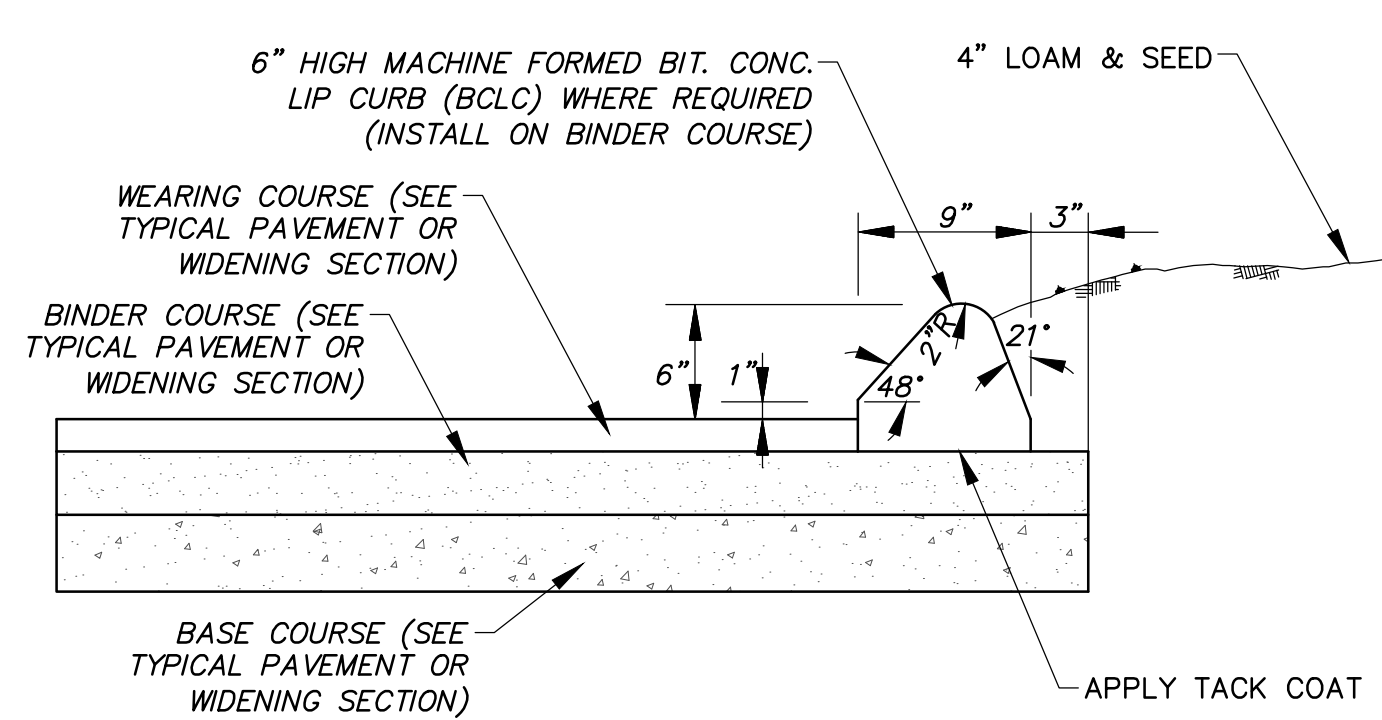
N.T.S.



- NOTES:
1. TYPICAL DETAIL (SEE UTILITY COMPANY STANDARDS FOR SPECIFIC DETAILS).
 2. SEE PLANS FOR GENERAL ROUTING OF UTILITIES. NUMBER, SIZE AND LAYOUT OF CONDUITS PER CUSTODIAL UTILITY COMPANY.

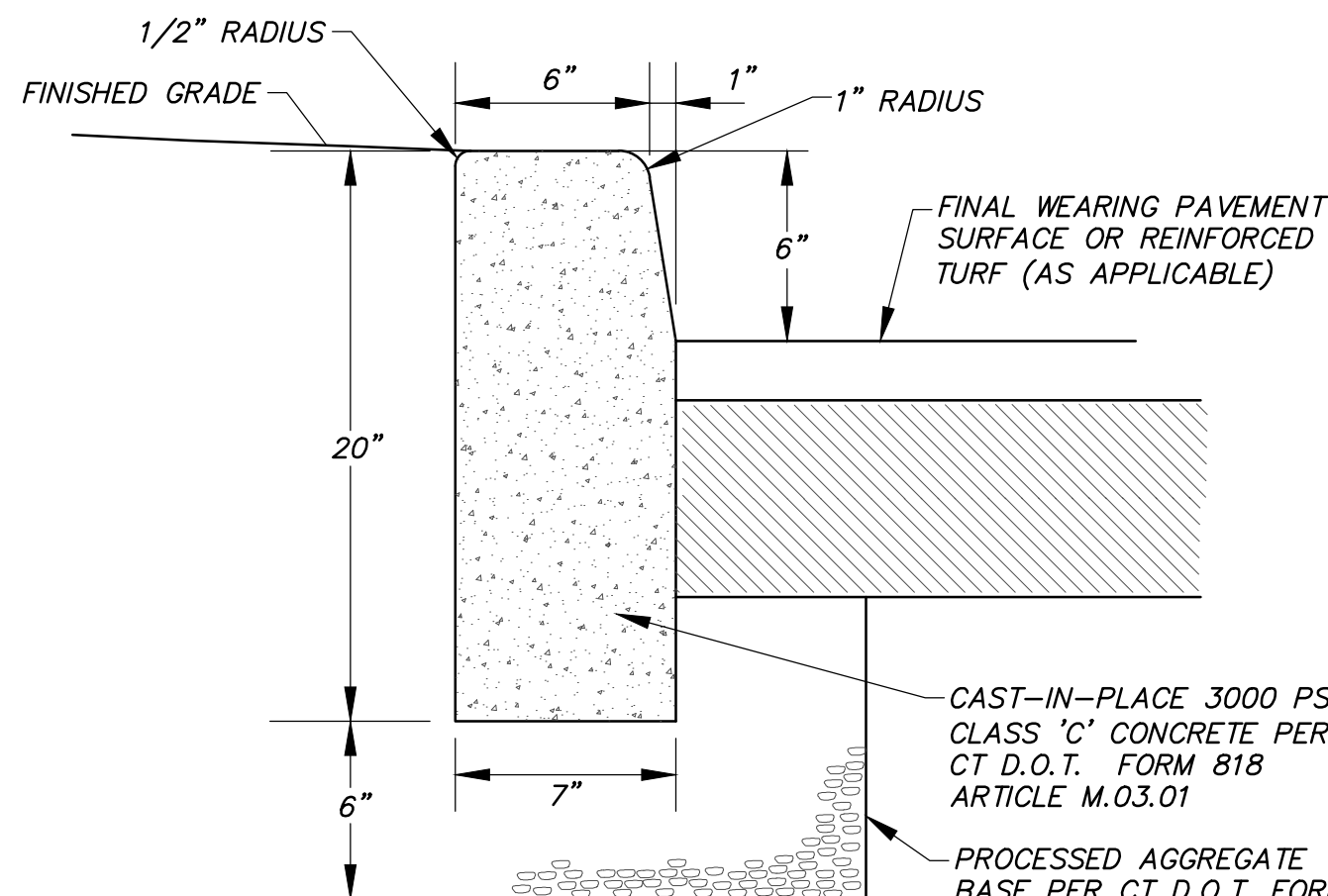
ELECTRIC/COMMUNICATION TRENCH

N.T.S.



BITUMINOUS CONCRETE LIP CURBING (BCLC)

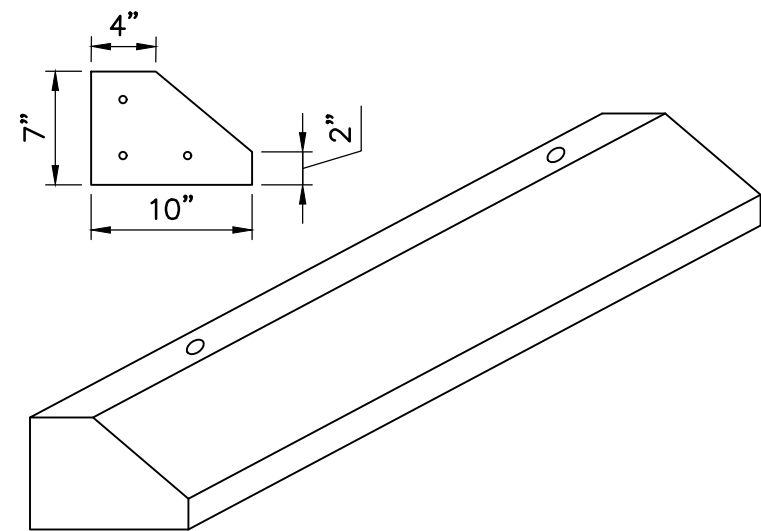
N.T.S.



NOTE:
TRANSVERSE JOINTS 1/2" WIDE SHALL BE INSTALLED IN THE CURB 20'- 0" APART AND SHALL BE FILLED WITH PREFORMED BITUMINOUS IMPREGNATED FIBER JOINT FILLER.

CAST-IN-PLACE CONCRETE CURBING

N.T.S.

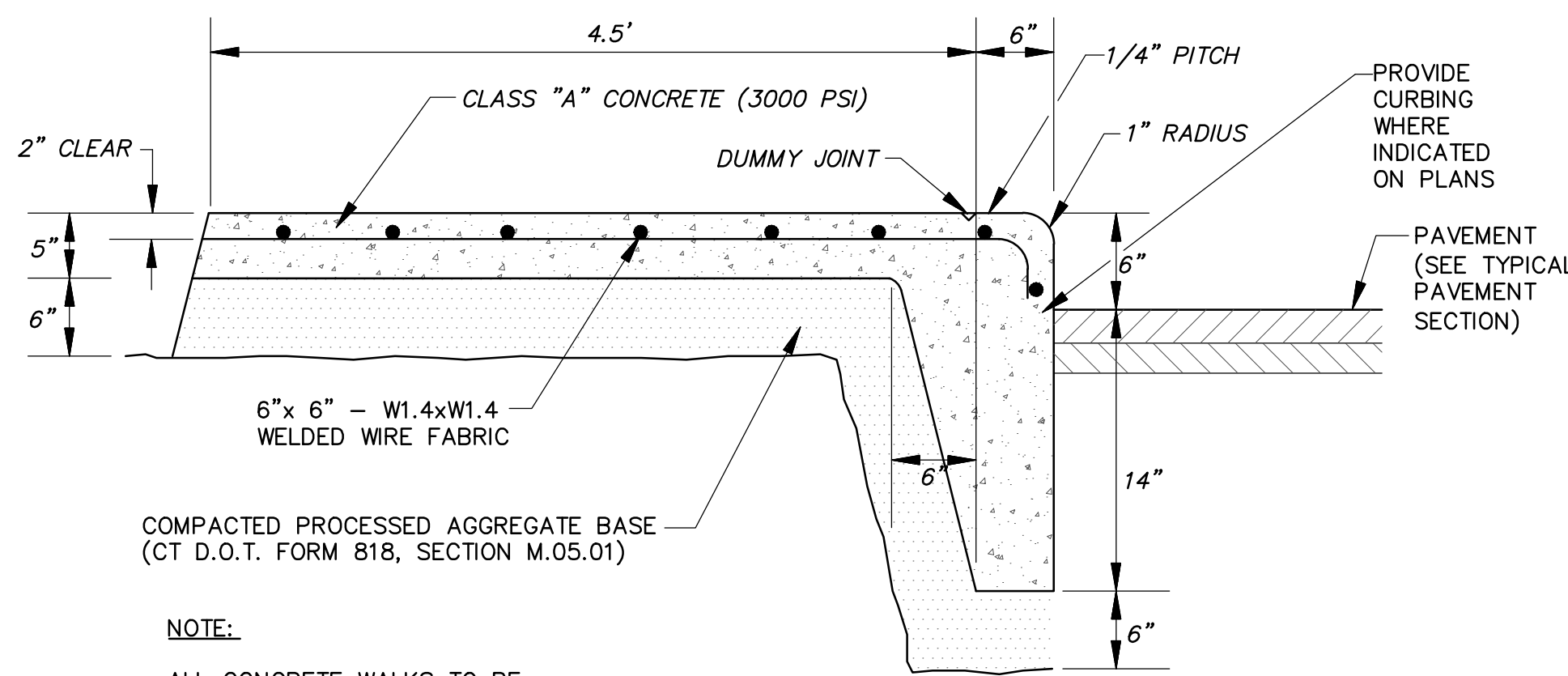


BUMPER STOP

N.T.S.

NOTES:

1. BUMPER STOPS ARE 6' LONG WITH 1/2" DIA. PINS.
2. CONCRETE COMPRESSIVE STRENGTH 4000 PSI @ 28 DAYS.
3. METHOD OF MANUFACTURE: WET CAST.
4. REINFORCED STEEL DEFORMED BARS CONFORM TO THE LATEST ASTM SPECIFICATIONS A615.
5. MANUFACTURED TO CONNECTICUT DOT SPECIFICATIONS.
6. UNIT WEIGHT: 300 LBS.

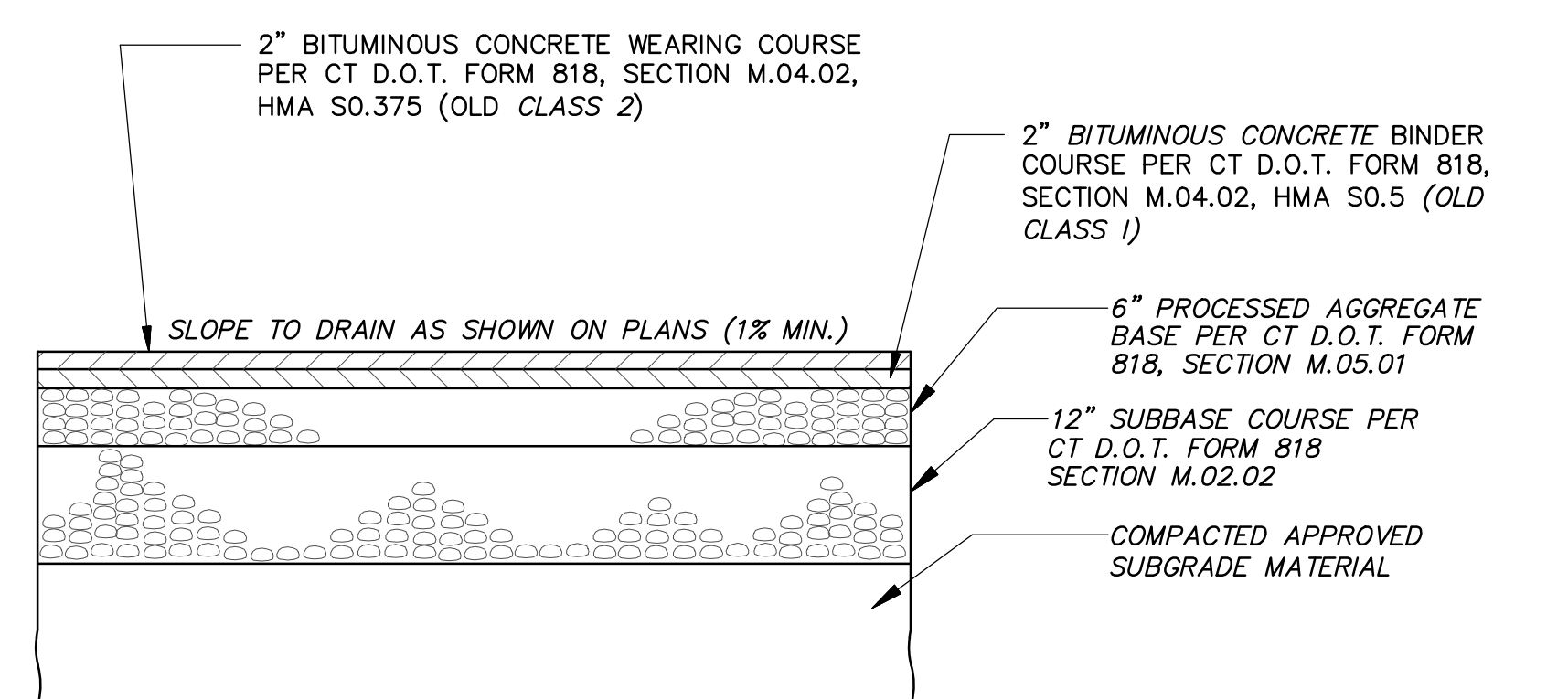


NOTE:
ALL CONCRETE WALKS TO BE CONSTRUCTED TO THIS SPECIFICATION. WIDTH & LOCATION AS SHOWN ON PLANS.

PREMOLDED EXPANSION JOINTS AT 20 FT. O.C. DUMMY JOINTS AT 5 FT. O.C.

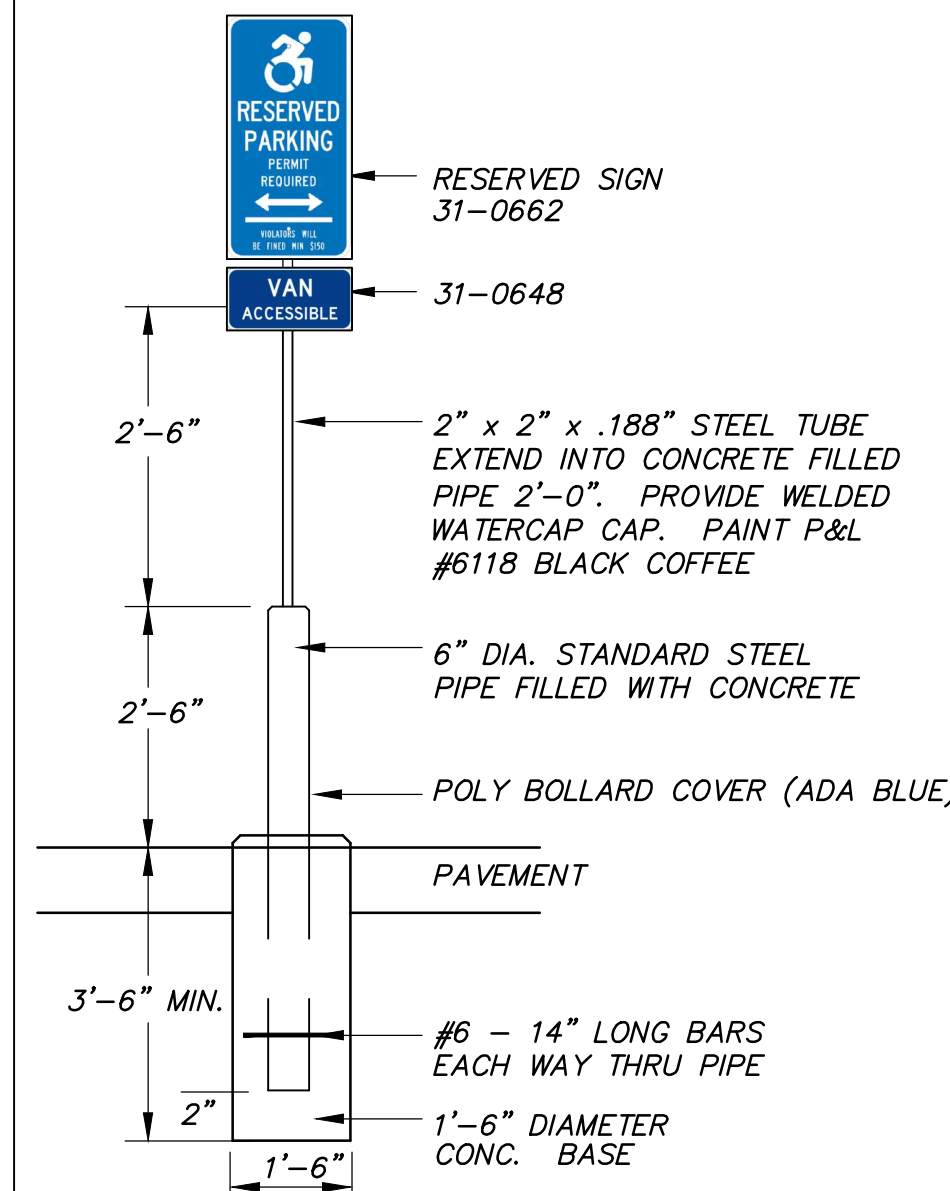
CONCRETE SIDEWALK & CURB - ICCW

N.T.S.



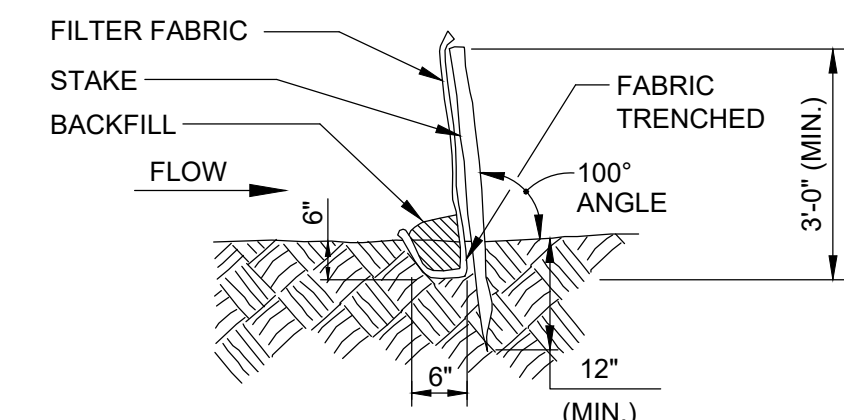
PAVEMENT SECTION

N.T.S.



ACCESSIBLE SPACE SIGN POST/BASE

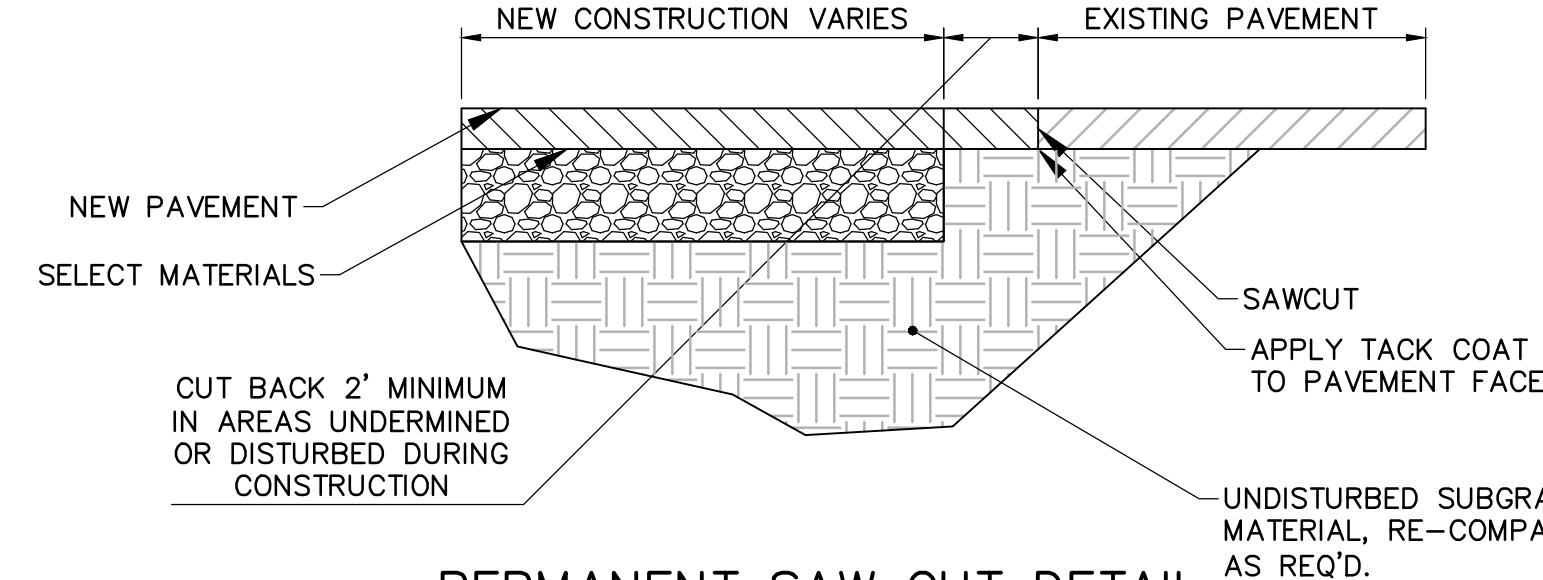
N.T.S.



1. MINIMUM LENGTH OF SILT FENCE IS 15 L.F.
2. MAXIMUM POST SPACING IS 10 L.F.
3. JOINTS ONLY AT SUPPORT POST WITH MINIMUM 6" OVERLAP, SECURELY SEALED.
4. SEDIMENTATION DEPOSITS SHALL BE REMOVED WHEN THEY REACH 1/2 THE HEIGHT OF THE SILT FENCE.
5. SILT FENCE SHALL NOT BE USED IN A WATER COURSE.
6. UPON ESTABLISHMENT OF GROUND COVER ON DISTURBED AREAS, AND WHEN DIRECTED BY THE ENGINEER, FENCE WILL BE REMOVED AND ANY SEDIMENTATION WILL BE THINLY SPREAD UPON EXISTING GROUND COVER.

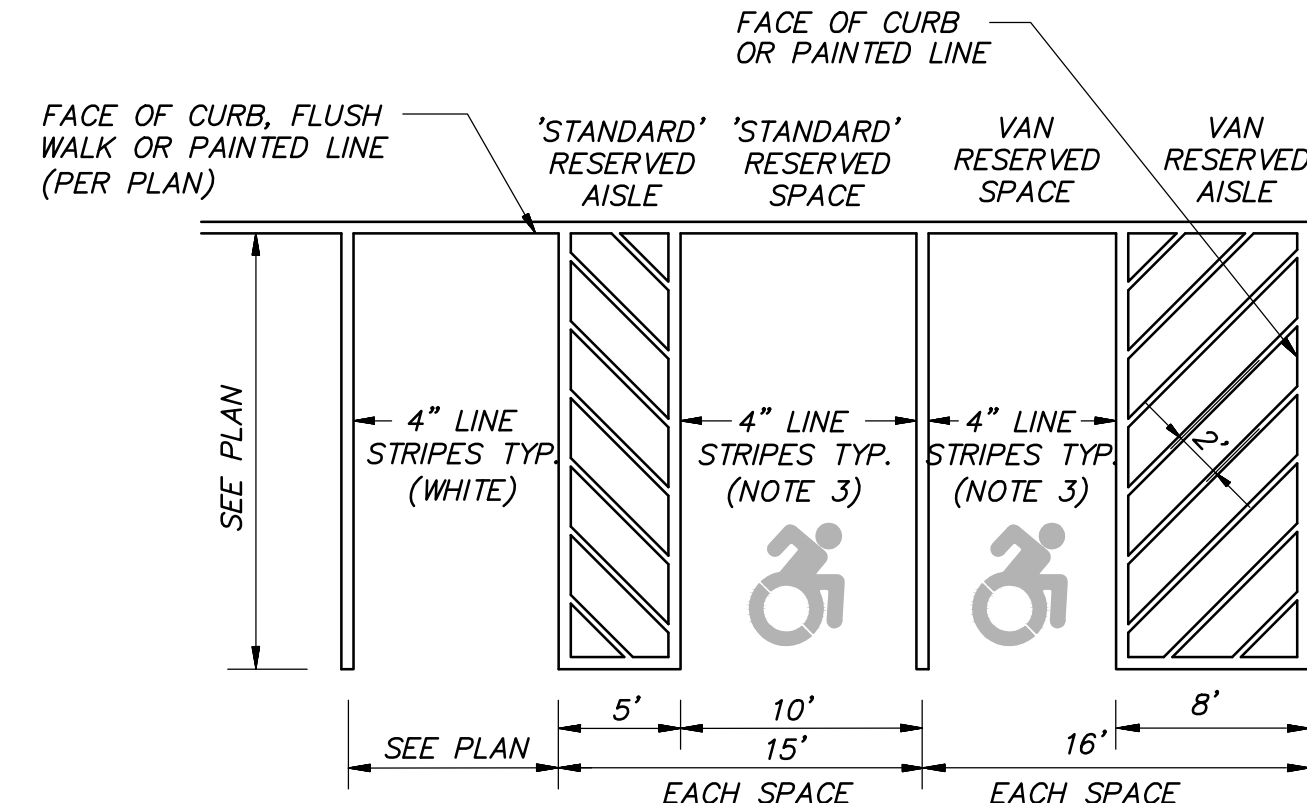
SILT FENCE INSTALLATION

N.T.S.



PERMANENT SAW CUT DETAIL

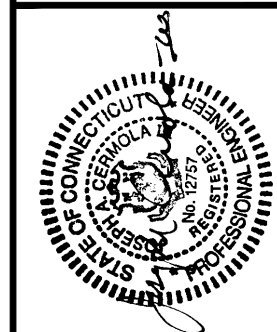
N.T.S.



- NOTES:
1. AISLE CONFIGURATION PER PLAN.
 2. SIGN/BOLLARD LOCATION PER PLAN.
 3. LINE STRIPING COLOR AND ADA SYMBOL SPECIFICS NEED TO COORDINATED WITH BURLINGTON BUILDING INSPECTOR BEFORE INSTALLATION
 4. ADJACENT 'STANDARD' RESERVED PARKING SPACES MAY SHARE COMMON AISLE. ADJACENT 'VAN' RESERVED PARKING SPACES MAY SHARE A COMMON AISLE.

RESERVED PARKING SPACE LAYOUT

N.T.S.



NO.	REVISION	DATE	BY

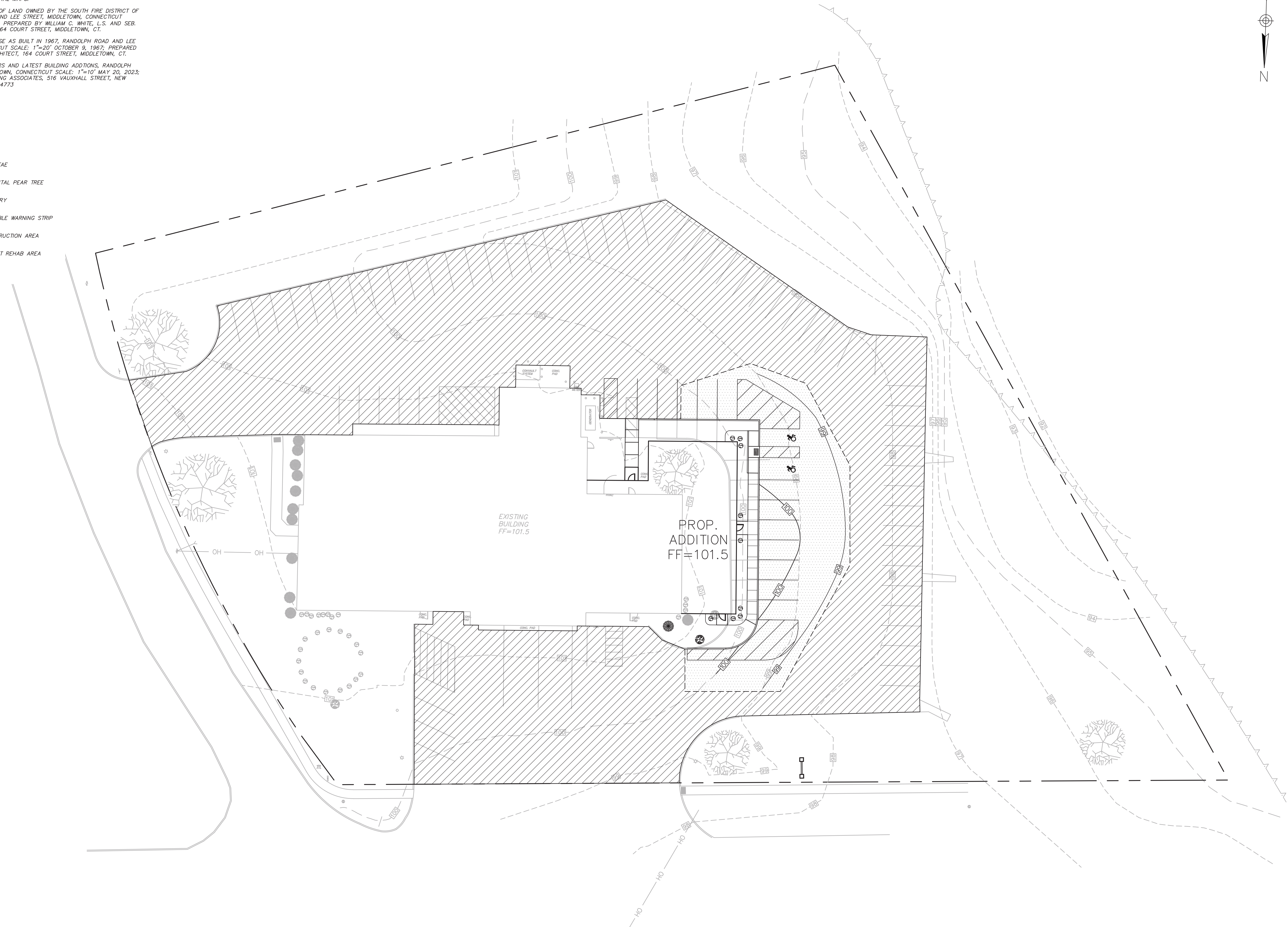
DATE: October 2023
PROJECT NO: 2499
DESIGNED BY: ERN
DRAWN BY: ERN
CHECKED BY: GG
APPROVED BY: JAC

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PROPOSED RECONSTRUCTION AREA = 5,913 SF (0.14 AC) (BASE BID)
PROPOSED PAVEMENT REHAB AREA = 36,557 SF (0.84 AC) (ADD ALTERNATE)



	PROPOSED ARBORVITAE
	PROPOSED ORNAMENTAL PEAR TREE
	PROPOSED SHRUBBERY
	PROPOSED DETECTABLE WARNING STRIP
	PROPOSED RECONSTRUCTION AREA (BASE BID)
	PROPOSED PAVEMENT REHAB AREA (ADD ALTERNATE)



General Notes:

1. All work shall comply with the 2021 International Building Codes and the subsequent 2022 Connecticut State Building Code.
2. Contractor is to review all drawings and specifications in the contract document set. The contractor shall coordinate all work shown in the contract document set. The contractor shall provide a complete set of contract documents to all sub-contractors and all related parties. Sub-contractors shall review all the documents and examine information that affects their work.
3. Contractor shall furnish all material, labor, and equipment required to provide a complete build-out including all finishes, structural, mechanical, and electrical components and provide all items as shown or indicated on the drawings or written in the specifications. Contractor shall furnish a completed job all in accordance with local and state governing authorities and others having lawful jurisdiction over the work.
4. The contractor and sub-contractors shall give all necessary notices, obtain all permits, pay for all government, state sales taxes and applicable fees. The contractor shall file all drawings, complete all documents and obtain all necessary approvals from the proper authority or agency having jurisdiction. The contractor to obtain all required certificates of inspection covering work. The contractor shall see that all required inspections and tests are made and shall cooperate to make these tests as thorough and as readily made as possible.
5. Contractor shall maintain a current set of drawings and specifications on-site at all times and ensure the distribution of new drawings to sub-contractors and other relevant parties as soon as they are made available. All old drawings shall be marked void and shall be removed from the contract area. Contractor shall furnish a clean marked 'As-Built' set of drawings from original permit set to the building owner upon completion of the project.
6. Unless items are noted as existing, they shall be new and shall be included and/or provided as part of the work of this contract.
7. Do not scale drawings. Check details & related drawings when not dimensioned on plans. All dimensions shown are to face of studs, face of concrete, face of masonry or column centerlines, unless noted otherwise.
8. Drawings indicate the minimum required standards, but if any work should be indicated to be substandard by any ordinances, laws, codes, rules, or regulations bearing on the work, the contractor shall include in his work and shall execute the work correctly and in accordance with such ordinances, laws, codes, rules, or regulations.
9. All equipment and products purchased for installation in this project are to be reviewed by the contractor and all applicable sub-contractors for any condition or requirement per manufacturer's recommendations.
10. Any and all errors, discrepancies, and missed items are to be brought to the attention of the owner and/or architect/engineer during the bidding process by the contractor.
11. Contractor shall be responsible for all on-site safety from the time the job is awarded until all work is complete and accepted by the owner and architect.
12. Contractor shall review all shop drawings and submit copies to the architect/engineer for review. Shop Drawings must bear the checker's initials and stamp before submittal to the architect/engineer for review.
13. The contractor shall field verify all dimensions, elevations, angles, and existing conditions prior to the fabrication and/or installation of any work in the contract area.
14. The contractor is solely responsible for the determination of all construction procedures and construction sequences, and shall ensure the safety of the occupants, on the site and within the building and its component parts during the construction. This includes the addition of all necessary barriers shoring, bracing, underpinning, etc. That may be necessary.
15. Coordinate architectural drawings with the structural, mechanical, and electrical drawings for locations of openings, recesses, built-in work, etc. All sleeves and openings may not be shown on the documents.
16. Actual conditions and extent of work required may vary from that shown on these drawings. Bidders must visit site prior to bidding on this project.
17. Contractor is responsible for actual quantities used and must be verified by the contractor.
18. Contractor shall protect people, buildings, equipment, furnishings, grounds, and plantings from damage. Provide protective coverings and barricades as required. Protect finished building surfaces as required. Limit traffic and storage of materials on waterproofed and roofed surfaces. See specifications for additional protective measures.
19. Contractor to maintain all egress paths for any adjacent occupied areas during the construction process. Contractor to provide temporary exits when required.
20. Drawings indicate typical details of construction. Where conditions are not specifically indicated but are of similar character to details shown, similar details of construction shall be used, subject to review and approval by the architect and structural engineer.
21. Building systems and components not specifically detailed shall be installed, as per minimum manufacturers recommendations. Notify the architect of any resulting conflicts.
22. Errors or omissions on any drawings or in any schedule do not excuse the contractor from completing the work intended on the drawings or written in the specifications.
23. Architectural Drawings are intended to be printed in color for clarity.

Hatches Legend:

plan	section	elevation		plan	section	elevation	
	N/A	N/A	RUBBER FLOORING			N/A	GYPSUM WALL BOARD
	N/A	N/A	WOOD FLOORING			N/A	PLYWOOD
	N/A	N/A	CERAMIC TILE			N/A	WOODING FRAMING
	N/A	N/A	VINYL TILE			N/A	GRAVEL
	N/A	N/A	CARPETING	N/A			EARTH
			STONE			N/A	SAND
		N/A	METAL	N/A		N/A	UNDISTURBED EARTH
N/A		N/A	SOLID PVC TRIM		N/A		SLOPED ROOFING
N/A		N/A	FINISH WOOD			N/A	SPRAY INSULATION
N/A			STUCCO			N/A	BATT INSULATION
N/A	N/A		SHAKE SIDING			N/A	RIGID INSULATION
N/A	N/A		CLAPBOARD SIDING				BRICK
		N/A	CONCRETE				CONCRETE MASONRY

Abberviations:

A	AMPERS	H	H.B.	HOSE BIBB	SPA	SPACE
A.B.	ANCHOR BOLT	H.C.	H.C.	HOLLOW CORE	SPECS	SPECIFICATIONS
A.F.F.	ABOVE FINISHED FLOOR	H.M.	H.M.	HOLLOW METAL	SPKR.	SPEAKER
A.G.	ABOVE GRADE	H.O.B.D.	H.O.B.D.	HARDBOARD	SQ. FT.	SQUARE FEET
A.C.	AIR CONDITIONING	H.D.W.	H.D.W.	HARDWARE	SQ. IN.	SQUARE INCHES
ABC	AGGREGATE BASE COURSE	H.G.T.	H.G.T.	HEIGHT	STD.	STANDARD
ABS	ACRYLONITRILE-BUTADIENE-STYRENE	HOR.	HOR.	HORIZONTAL	STL.	STEEL
ABV.	ABOVE	HTR.	HTR.	HEATER	SUSP.	SUSPENDED
ACB	ASBESTOS-CEMENT BOARD	HVAC	HVAC	"HEATING, VENTILATION & AIR CONDITIONING"	SW	SWITCH
ACCU.	ACOUSTIC	HYD.	HYD.	HOT WATER	SYM	SYMMETRICAL
ACT	ACOUSTICAL CEILING TILE	I	I	HYDRAULIC	SYS.	SYSTEM
ADD.	ADDITION or ADDENDUM	I.C.	I.C.		T	
AG	ABOVE GRADE	I.D.	I.D.	INTERCOM OUTLET	T & G	TONGUE AND GROOVE
AHU	AIR HANDLER UNIT	I.F.	I.F.	INSIDE DIAMETER	T.B.	THROUGH BOLT
AL. or ALUM.	ALUMINUM	I.G.	I.G.	INSIDE FACE	T.M.B.	TELEPHONE MOUNTING BOARD
ALT.	ALTERNATE	IG	IG	IDENTIFICATION	T.B.D.	TO BE DETERMINED
ASPH.	ASPHALT	IMC	IMC	ISOLATED GROUND	T.O.B.	TOP OF BEAM
ASPH.	ASPHALT	IMPG	IMPG	INTERMEDIATE METALLIC CONDUIT	T.O.C.	TOP OF CURB
AVG	AVERAGE	INCL.	INCL.	IMPEGATED	T.O.F.	TOP OF FOOTING
AWG	AMERICAN WIRE GAUGE	INSUL.	INSUL.	"INCLUDE, INCLUSIVE"	T.O.J.	TOP OF JOIST
Δ	ANGLE	INT.	INT.	INSULATION	T.O.M.	TOP OF MASONRY
B		J	J	INTERIOR	T.O.S.	TOP OF SLAB
B.P.	BEAM POCKET	J-BOX	J-BOX		T.O.W.	TOP OF WALL
B.N.	BOUNDARY NAILING	JCT	JCT	JUNCTION BOX	T.S.	TUBE STEEL
B.O.	BOTTOM OF	JST.	JST.	JUNCTION	T.V.	TELEVISION OUTLET
B.U.	BUILT UP	JT.	JT.	JOIST	TEL.	TELEPHONE
B/C	BACK OF CURB	K	K	JOINT	TH	THRESHOLD
BD.	BOARD	K-D	K-D		THD	THREADED
BLDG	BUILDING	K-D	K-D	KNOCK DOWN	THK.	THICK
BLK.	BLOCK	KO	KO	KILN DRIED	THRU	THROUGH
BLKG.	BLOCKING	L	L	KNOCK OUT	TLT.	TOILET
BM.	BEAM	L.E.D.	L.E.D.		TRANS.	TRANSFORMER
BR	BRASS	L.F.T.	L.F.T.		TYP.	TYPICAL
BRG.	BEARING	LAM	LAM	LIGHT EMITTING DIODE	U	
BRZ	BRONZE	LAT.	LAT.	LINEAR FEET	UNQ.	UNFINISHED
C		LAV	LAV	LAMINATE	UR	UNLESS NOTED OTHERWISE
C.A.P.	CONCRETE ASBESTOS PIPE	L.D.	L.D.	LATERAL		
C.D.	CONSTRUCTION DOCUMENTS	LIN.	LIN.	LAVATORY	V	
C.I.P.	CAST IN PLACE	LINO.	LINO.	LEAD	V.B.	VAPOR BARRIER
C.J.	CONTROL JOINT	LT.	LT.	LINEAR	V.I.F.	VERIFY IN FIELD
C.Q.	CLEAN OUT	LTG	LTG	LINOLEUM	VA	VOLT AMPERE
C.T.	CERAMIC TILE	LVL	LVL	LIGHT	VCT	VINYL COMPOSITION TILE
CAB	CABINET	M	M	LIGHTING	VERT.	VERTICAL
CAM.	CAMBER	M.B.	M.B.	LAMINATED VENEER LUMBER	W	
CCTV	CLOSED CIRCUIT TELEVISION	M.H.	M.H.		W/C	WATER CLOSET
CER	CEMENT	M.L.	M.L.	MACHINE BOLT	WDW	WINDOW
CFM	CUBIC FEET PER MINUTE	M.O.	M.O.	MACHINABLE IRON	WCT	WAINSCOT
CH or F	CHANNEL	MAR.	MAR.	MASONRY OPENING	WP	WEATHER PROOF
CH or F	CIRCUIT BREAKER	MAS.	MAS.	MARBLE	WT.	WEIGHT
CL or C	CENTERLINE	MATL.	MATL.	MASONRY	W	WITH
CLG.	CEILING	MAX.	MAX.	MATERIAL	W/O	WITHOUT
CLKG.	CAULKING	MECH.	MECH.	MAXIMUM	WD.	WOOD
CLO.	CLOSET	MED.	MED.	MECHANICAL	W.I.	WROUGHT IRON
CLR.	CLEAR	MFG.	MFG.	MEDIUM	Y	
CMU	CONCRETE MASONRY UNIT	MFR.	MFR.	MANUFACTURING	YD.	YARD
CONTRD.	CENTERED	MTR.	MTR.	MANUFACTURER		
COL.	COLUMN	MIN.	MIN.	MINIMUM		
COMB.	COMBINATION	MISC.	MISC.	MISCELLANEOUS		
CONC.	CONCRETE	MOD	MOD	MODULAR		
CONST.	CONSTRUCTION	MTL.	MTL.	METAL		
CONT.	CONTINUOUS	MUL	MUL	MULLION		
CONTR.	CONTRACTOR	N	N			
CU	COPPER	N/a	N/a	NOT APPLICABLE		
D		N/C.	N/C.	NOT IN CONTRACT		
D.F.	PENNY	N.T.S.	N.T.S.	NOT TO SCALE		
D.	DRINKING FOUNTAIN	NCM	NCM	NON-CORROSIVE METAL		
D.G.	DECOMPOSED GRANITE	NFC	NFC	NOT FOR CONSTRUCTION		
D.S.	DOWN SPOUT	NLR.	NLR.	NUMBER		
D/W	DISHWASHER	NO.	NO.	NOMINAL		
DBL	DOUBLE	NOM.	NOM.			
DEMO	DEMOLITION	O	O			
DIA. or ø	DIAMETER	O.C.	O.C.	ON CENTER		
DIAG.	DIAGONAL	O.D.	O.D.	OUTSIDE DIAMETER		
DIM.	DIMENSION	O.H.	O.H.	OVER HANG		
DL	DEAD LOAD	O.I.	O.I.	ORNAMENTAL IRON		
DR	DOOR	O.R.	O.R.	OUTSIDE RADIUS		
E		OAI	OAI	OUTSIDE AIR INTAKE		
E.A.	EXPANSION ANCHOR	OH	OH	OVER HEAD		
E.F.	EXHAUST FAN	OPNG.	OPNG.	OPENING		
E.J.	EXPANSION JOINT	OPPO.	OPPO.	OPPOSITE		
EN	END NAILING	P	P			
E.W.	EACH WAY	P.C.	P.C.	PRECAST CONCRETE		
EA.	EACH	P.L. or PL	P.L. or PL	PROPERTY LINE		
ELEV.	ELEVATION	PLAM.	PLAM.	PLASTIC LAMINATE		
ELECT.	"ELECTRIC, ELECTRICAL"	P.O.C.	P.O.C.	POINT OF CONNECTION		
ELEV.	ELEVATOR	PERF.	PERF.	PERFORATED		
EMC	ELECTRICAL METALLIC CONDUIT	PERF. or ⊥	PERF. or ⊥	PERPENDICULAR		
EMT	ELECTRICAL METALLIC TUBING	Pl or ø	Pl or ø	PHASE		
ENT	ELECTRICAL NON-METALLIC TUBING	PL	PL	PLASTER		
EQ.	EQUAL	PLAS.	PLAS.	PLASTIC		
EQUIP.	EQUIPMENT	PLUMB.	PLUMB.	PLUMBING		
EST.	ESTIMATE	PLYWD.	PLYWD.	PLYWOOD		
EVAP.	EVAPORATIVE COOLER	PORC.	PORC.	PORCELAIN		
EW.	ELECTRIC DRINKING COOLER	PREFAB.	PREFAB.	PREFABRICATED		
EXC	EXCAVATE	PSF	PSF	POUNDS PER SQUARE FOOT		
EXH.	EXHAUST	PSI	PSI	POUNDS PER SQUARE INCH		
EXIST. or E	EXISTING	PTN.	PTN.	PARTITION		
EXT.	EXTERIOR	PT	PT	PRESSURE TREATED		
F		PVC	PVC	POLYVINYLCHLORIDE		
F.A.	FIRE ALARM	PWR.	PWR.	POWER		
F.C.	FAN COIL	Q	Q			
F.C.O.	FLOOR CLEAN OUT	Q.T.	Q.T.	QUARRY TILE		
F.D.	FLOOR DRAIN	QTY.	QTY.	QUANTITY		
F.E.	FIRE EXTINGUISHER	R	R			
F.N.	FIELD NAILING	R.	R.	RADIUS		
F.O.	FACE	R.D.L.	R.D.L.	ROOF DRAIN LEADER		
F.S.	FLOOR SINK	R.D.D.	R.D.D.	ROOF DRAIN OVERFLOW		
F/G	FIBERGLASS	R.O.	R.O.	ROUGH OPENING		
FAB.	FABRICATE	R.O.W. or R/W	R.O.W. or R/W	RIGHT OF WAY		
FAC.	FIRE ALARM CONTROL PANEL	REF	REF	REFRIGERATOR		
FDC	FIRE DEPARTMENT CONNECTION	REF.	REF.	REFERENCE		
FDN.	FOUNDATION	REINF.	REINF.	REINFORCED		
FHC	FIRE HOSE CABINET	REQ'D.	REQ'D.	REQUIRED		
FIN.	FINISH	RETUR.	RETUR.	RETURN		
FL.	FLOOR	REV.	REV.	REVISION		
FLG.	FLOORING	RM	RM	ROOM		
FLUOR.	FLUORESCENT	RMV.	RMV.	REMOVE		
FP	FIRE PROOF	S	S			
FTG	FOOTING	S.C.	S.C.	SOLID CORE		
FURN.	FURNISH	S.D.	S.D.	SMOKE DETECTOR		
G		S.O.V.	S.O.V.	SHUT OFF VALVE		
G.I.	GALVANIZED IRON	S/L	S/L	SKYLIGHT		
GA.	GAUGE	S/S	S/S	STAINLESS STEEL		
GALV.	GALVANIZED	SC	SC	SELF CLOSING		
GAR.	GARAGE	SCHED.	SCHED.	SCHEDULE		
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	SECT.	SECT.	SECTION		
GFI	GROUND FAULT INTERRUPTER	SES	SES	SERVICE ENTRANCE SECTION		
GL	GLASS	SF	SF	STEP FOOTING		
GLB	GLUE LAMINATED BEAM	SH	SH	SHEET		
GM	GRADE MARK	SH'TG.	SH'TG.	SHEATHING		
GM	GATE VALVE	SIM.	SIM.	SIMILAR		
GMR	GALVANIZED RIGID TUBING					
GYP.	GYPSUM					
GWB	GYPSUM WALLBOARD					



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445 Randolph Rd
Middletown, CT 06457

South Fire District Bldg
Renovations & Addition

For Permit
0/24/2022

Abbreviations & General Notes

DRAWING NO. _____

A-0.0

2015 IBC	Scope
	300 Occupancy
	Table 504.3 Allowable Height
	Table 506.2 Allowable Area
	Table 508.4 Separated Occupancies
	508.3 Nonseparated Occupancies
	Table 601 Fire-Resistance Rating Requirements for Elements
	Table 602 Fire-Resistance Exterior Walls
	707.5 Continuity of Separation
	Table 716.5 Door Fire Protection
	718.4 Draftstopping in Attics
	Table 721.1 Rated Fire-Resistance [or provide UL# of assemblies]
	Table 803.11 Finish Requirements
	1004.1 Design Occupant Load

	(Amd) 1005.3.2 Required Capacity for Other Egress Components Table 1006.3.1 Min. Number of Exits 1007.1.1 Two Exits Doorways 1010.10 Panic & Fire Exit Hardware 1010.1.1 Size of Doors Table 1017.2 Exit Access Travel Distance Table 1020.1 Corridor Fire-Resistance Table 1020.3 Minimum Corridor Width 1020.4 Dead Ends 1105.1 Accessible Public Entrances 1109.2 Accessible Toilet & Bathing Facilities 1109.4 Accessible Kitchens 2902.1 Minimum Number of Fixtures 2902.2 Separate Facilities, Exception 5 2021 IECC C402.3 Building Envelope: Fenestration C402.2 Opaque Thermal Envelope
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ENGINEER	Richard Sambor, P.E. <i>Structural Engineer</i>
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Signage	
---------	--

Signage Locations:
Accessible Parking Spaces
Accessible Entrances (doors 2 & 3)
Accessible Rest Rms (doors 6, 27 & 28)

Signs at Door Locations

Directional Signage Locations:
No Access signs (doors 5 & 7)

Diagram of a 12'x18' parking sign. The sign is rectangular with a blue background and a white silhouette of a person walking. Above the sign, the text "VEHICLES WILL BE FINED" is visible. The sign is mounted on a post. The dimensions are indicated as 12'x18'. A note indicates a minimum clearance of 8' Min. for the mounting post.

Building Signs

installed 60" above parking surface to bottom of sign

Conventional Arial or Helvetica Font, Typ.

18" Min.

60"

5/8" Min. 0" - 6" 0" - 10"

1/32" Min.

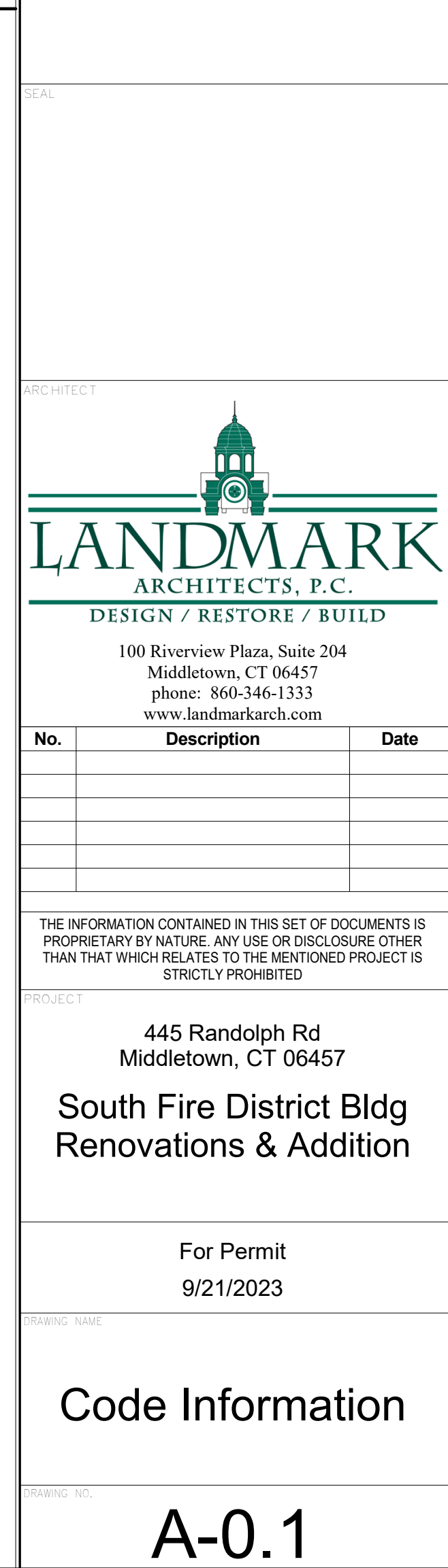
Grade 2 Braille in Accordance with ICC A117.1-2009 Section 703.4, Typ.

ACCESSIBLE
PERMIT REQUIRED

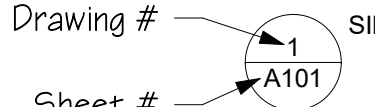
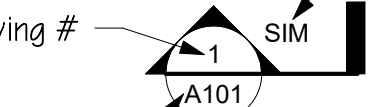
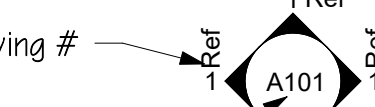
NO ACCESS
PERMIT REQUIRED

NOT AN EXIT
PERMIT REQUIRED

RESTROOM
PERMIT REQUIRED



Symbol Tag Legend

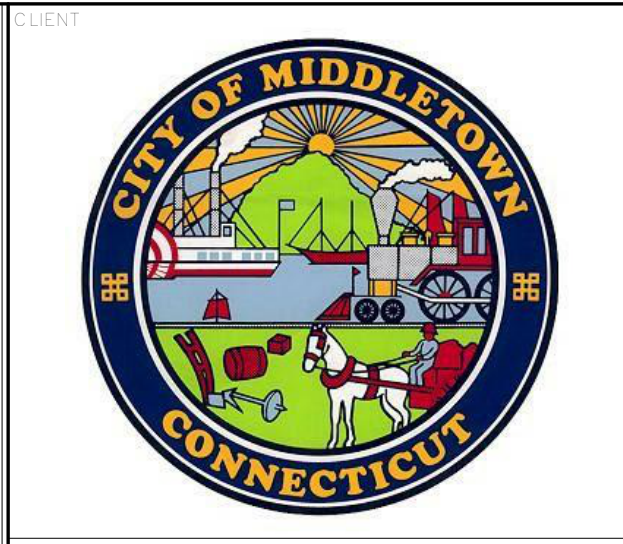
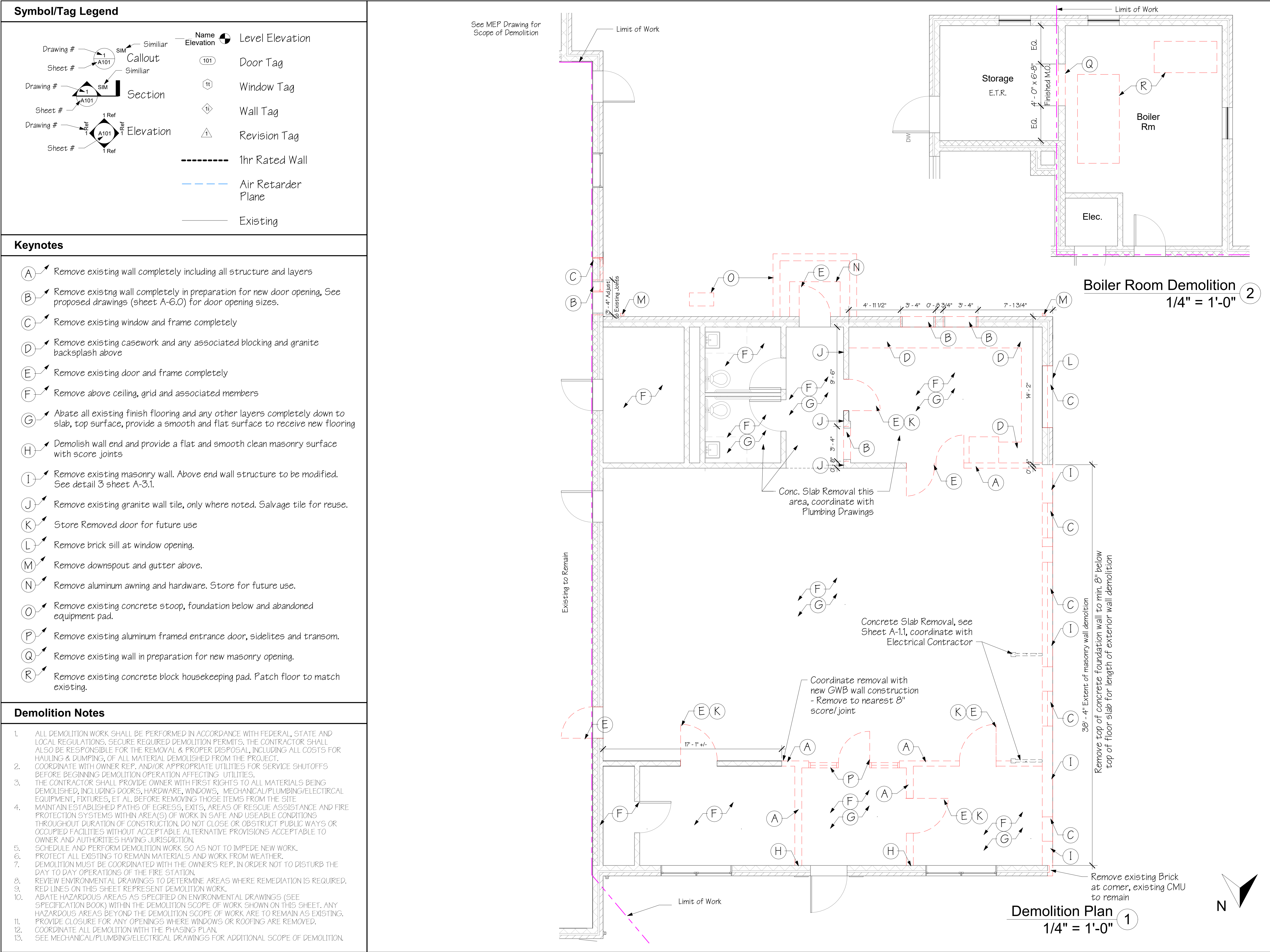
 Drawing # Sheet #	 Drawing # Sheet #	 Drawing # Sheet #	— Name ● Elevation ○ 101 ⬡ 1t ⬡ 1i ⚠ 1	Level Elevation Door Tag Window Tag Wall Tag Revision Tag
			----- ---- _____	1hr Rated Wall Air Retarder Plane Existing

Keynotes

- (A) Remove existing wall completely including all structure and layers
- (B) Remove existing wall completely in preparation for new door opening. See proposed drawings (sheet A-6.0) for door opening sizes.
- (C) Remove existing window and frame completely
- (D) Remove existing casework and any associated blocking and granite backsplash above
- (E) Remove existing door and frame completely
- (F) Remove above ceiling, grid and associated members
- (G) Abate all existing finish flooring and any other layers completely down to slab, top surface, provide a smooth and flat surface to receive new flooring
- (H) Demolish wall end and provide a flat and smooth clean masonry surface with score joints
- (I) Remove existing masonry wall. Above end wall structure to be modified. See detail 3 sheet A-3.1.
- (J) Remove existing granite wall tile, only where noted. Salvage tile for reuse.
- (K) Store Removed door for future use
- (L) Remove brick sill at window opening.
- (M) Remove downspout and gutter above.
- (N) Remove aluminum awning and hardware. Store for future use.
- (O) Remove existing concrete stoop, foundation below and abandoned equipment pad.
- (P) Remove existing aluminum framed entrance door, sidelites and transom.
- (Q) Remove existing wall in preparation for new masonry opening.
- (R) Remove existing concrete block housekeeping pad. Patch floor to match existing.

Demolition Notes

1. ALL DEMOLITION WORK SHALL BE PERFORMED IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. SECURE REQUIRED DEMOLITION PERMITS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE REMOVAL & PROPER DISPOSAL, INCLUDING ALL COSTS FOR HAULING & DUMPING, OF ALL MATERIAL DEMOLISHED FROM THE PROJECT.
2. COORDINATE WITH OWNER REP. AND/OR APPROPRIATE UTILITIES FOR SERVICE SHUTOFFS BEFORE BEGINNING DEMOLITION OPERATION AFFECTING UTILITIES.
3. THE CONTRACTOR SHALL PROVIDE OWNER WITH FIRST RIGHTS TO ALL MATERIALS BEING DEMOLISHED, INCLUDING DOORS, HARDWARE, WINDOWS, MECHANICAL/PLUMBING/ELECTRICAL EQUIPMENT, FIXTURES, E.T.C. BEFORE REMOVING THOSE ITEMS FROM THE SITE.
4. MAINTAIN ESTABLISHED PATHS OF EGRESS, EXITS, AREAS OF RESCUE ASSISTANCE AND FIRE PROTECTION SYSTEMS WITHIN AREA(S) OF WORK IN SAFE AND USABLE CONDITIONS THROUGHOUT DURATION OF CONSTRUCTION. DO NOT CLOSE OR OBSTRUCT PUBLIC WAYS OR OCCUPIED FACILITIES WITHOUT ACCEPTABLE ALTERNATIVE PROVISIONS ACCEPTABLE TO OWNER AND AUTHORITIES HAVING JURISDICTION.
5. SCHEDULE AND PERFORM DEMOLITION WORK SO AS NOT TO IMPEDE NEW WORK.
6. PROTECT ALL EXISTING TO REMAIN MATERIALS AND WORK FROM WEATHER.
7. DEMOLITION MUST BE COORDINATED WITH THE OWNER'S REP. IN ORDER NOT TO DISTURB THE DAY TO DAY OPERATIONS OF THE FIRE STATION.
8. REVIEW ENVIRONMENTAL DRAWINGS TO DETERMINE AREAS WHERE REMEDIATION IS REQUIRED.
9. RED LINES ON THIS SHEET REPRESENT DEMOLITION WORK.
10. ABATE HAZARDOUS AREAS AS SPECIFIED ON ENVIRONMENTAL DRAWINGS (SEE SPECIFICATION BOOK) WITHIN THE DEMOLITION SCOPE OF WORK SHOWN ON THIS SHEET. ANY HAZARDOUS AREAS BEYOND THE DEMOLITION SCOPE OF WORK ARE TO REMAIN AS EXISTING.
11. PROVIDE CLOSURE FOR ANY OPENINGS WHERE WINDOWS OR ROOFING ARE REMOVED.
12. COORDINATE ALL DEMOLITION WITH THE PHASING PLAN.
13. SEE MECHANICAL/PLUMBING/ELECTRICAL DRAWINGS FOR ADDITIONAL SCOPE OF DEMOLITION.



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DESIGN / RESTORE / BUILD

100 Riverview Plaza, Suite 204
Middletown, CT 06457
1-800-346-1222

No.	Description	Date

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PROJECT 445 Randolph Rd
Middletown, CT 06457

South Fire District Bldg
Renovations & Addition

	For Permit

9/21/2023

Demolition Plan

DRAWING NO. **A 10**

Symbol/Tag Legend

	Drawing # Sheet #	SIM A101	Similar Callout
	Drawing # Sheet #	SIM A101	Similar Section
	Drawing # Sheet #	1 Ref A101 1 Ref	Elevation
	Name Elevation		Level Elevation
			Door Tag
			Window Tag
			Wall Tag
			Revision Tag
			1hr Rated Wall
			Air Retarder Plane
			Existing

Wall Type Legend

FURRING
Type Mark:

F1 (2x4 Framing - Parallel)
F4 (2x4 Framing-Perpendicular)

5/8" Gypsum
Wood Studs @ 16 O.C.
(F4 -Perpendicular to GWB,
F1- Parallel to GWB)

PARTITION
Type Mark:

P4 (2x4 Framing)

5/8" Gypsum
Wood Studs @ 16 O.C. Max. Spacing
3-1/2" Acoustical Insulation @
Demising & Hallway Walls Only
5/8" Gypsum

PARTITION
Type Mark:

P4p (2x4 Framing)

5/8" Gypsum
Wood Studs @ 16 O.C. Max. Spacing
3-1/2" Acoustical Insulation @
Demising & Hallway Walls Only
1/2" Plywood
5/8" Gypsum
Interior Face

EXTERIOR MASONRY WALL (LB)
Type Mark: EM

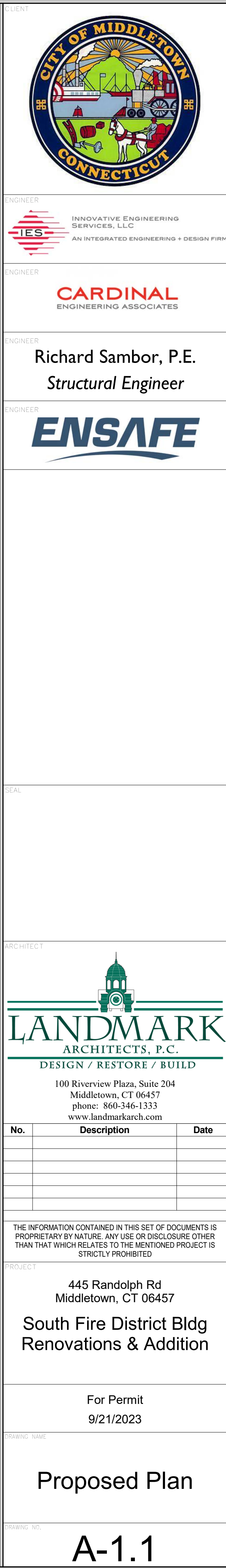
Standard Brick, Flemish Common Bond
(Flemish Headers every 6 Courses)
2" Air Space
8"X8"X16" Nom. Light Weight
Concrete Masonry Units Reinforced
with EPS Inserts (Omni-Block or
Sim. R-20 Min. System)

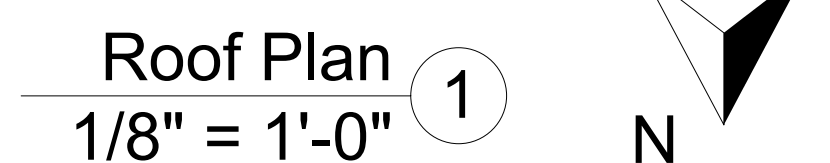
MASONRY WALL
Type Mark: MG (6" Nom. CMU)

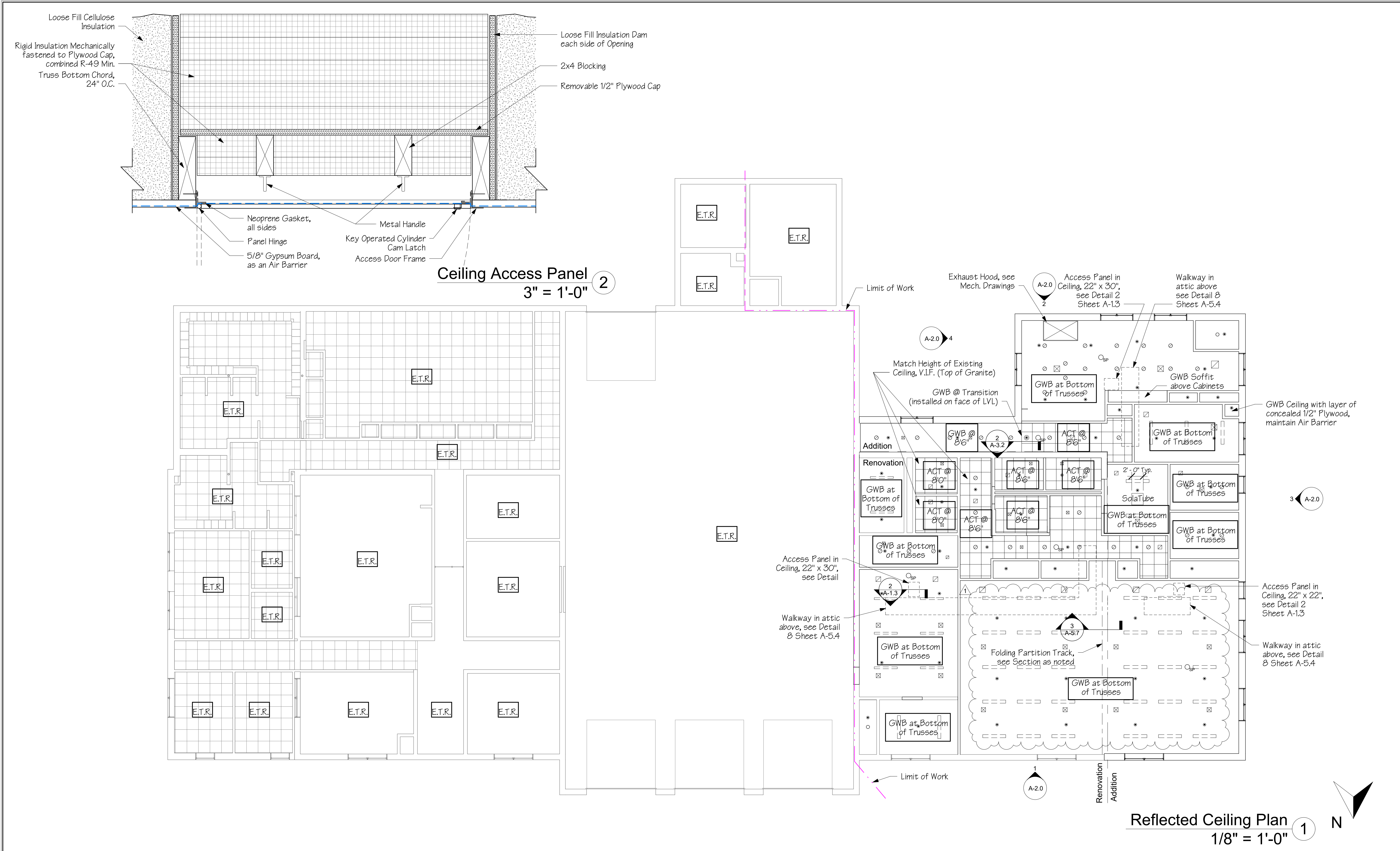
(Width as Noted-See Type
Marks)"X8"X16" Nom. Light Weight
Concrete Masonry Units Reinforced

General Notes

1. Provide blocking for millwork/appliances and grab bar installation.
2. Provide plumbing fixtures. Refer to plumbing drawings for details.
3. Provide moisture resistant GWB @ wet walls in kitchen & bathrooms.
4. Provide interior wood doors and metal frames including new trim & hardware. Refer to door details.
5. Provide floor finishes and replace existing floors where noted on finish schedule, see sheet A-7.0.
6. Provide level 4 finish painting on all wall surfaces (including but not limited to GWB, CMU and Brick surfaces), except tiled (granite and ceramic) wall areas and existing Equipment Wash Room.
7. Provide mechanical and electrical systems. Complete as per MEP drawings.
8. Provide light fixtures, exhaust fans, outlets & switches throughout. See electrical drawings.
9. Refer to structural drawings for size & locations of structural members.
10. Dimensions are to the face of structural wall elements (studs, CMU, face of concrete, etc.) unless noted otherwise.
11. See demolition plan Sheet A-1.0 and door schedule for coordination of existing doors to be re-used.
12. Existing studs and CMU in the existing building are to remain unless noted to be demolished.
13. Construction must be coordinated with the owner's rep. in order not to disturb the day to day operations of the fire station.
14. Align new coursing of masonry with existing.
15. Doors to be 4" from adjacent wall surface, except closet doors which are to be centered.
16. For Closet Rod and Shelf see Detail 2 on Sheet A-5.6
17. For Closet Shelves see Detail 3 on Sheet A-5.6
18. Provide and install building dedication plaque in Lobby. See specification in project manual. Provide wood blocking as required. Coordinate exact location with owner.







- ### Ceiling Notes
- This drawing only shows the architectural scope of the project, and contractor shall refer to the MEP drawings and structural drawings for coordination.
 - Ceiling grids to be centered in rooms unless shown differently on reflected ceiling plan. All ceiling devices including exit signs, HVAC diffusers and registers, and luminaires to be centered in the ceiling tile.
 - See the electrical notes and legends included in the electrical set for the light fixture schedule.
 - See specification for ceiling finishes.
 - Ceiling heights may vary in the existing areas of the building. Contractor should maximize ceiling height where fixtures and mechanical equipment allow.
 - See sheet A-5.5 for ceiling system details.
 - New suspended ceiling systems adjacent to existing must be aligned at matching elevations or a vertical transition piece must be provided.
 - Areas in the renovated and addition of the west wing are typically painted (V14 finish) GWP at the bottom of the trusses including all closets.
 - Gypsum board ceiling as an air barrier shall have seams taped, edges caulked and penetrations sealed with caulk or tape. Light fixtures, electrical boxes, etc., as may penetrate gypsum board to be of air sealed construction. See also 'Air Tightness General Notes' sheet A-3.0 and detail 3 on sheet A-3.2.
 - Gypsum board ceiling as an air barrier will require the installation of gypsum wall board to the roof trusses and/or blocking above non-bearing partitions prior to installation of the partitions. See detail 4 on sheet A-3.2.
 - Length of attic walkways and ceiling access panel locations to be coordinated with MEP contractors to provide proper access to mechanical units and to avoid conflicts with items recessed in or mounted on ceiling including but not limited to light fixtures, diffusers, returns and sprinkler heads.

Symbol/Tag Legend

	Acoustical Ceiling Tile		Door Tag
	Existing Ceiling to Remain		Window Tag
	Callout		Wall Tag
	Section		Revision Tag
	Elevation		1hr Rated Wall

CITY OF MIDDLETOWN
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No.	Description	Date
1	Revised Ltg. & Spkr. Layout - Mtg. Rms.	10/17/23

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PROJECT

445 Randolph Rd
Middletown, CT 06457

**South Fire District Bldg
Renovations & Addition**

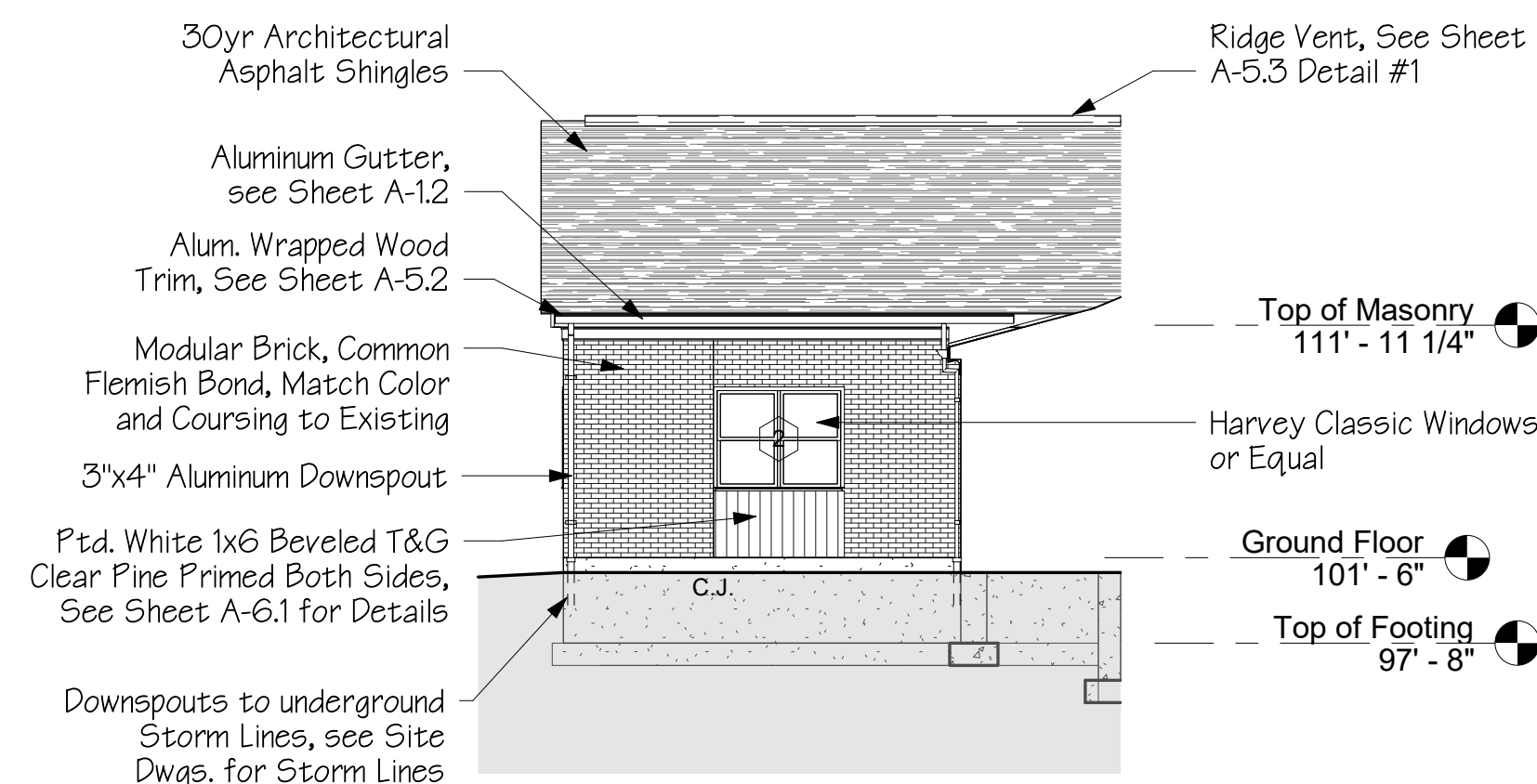
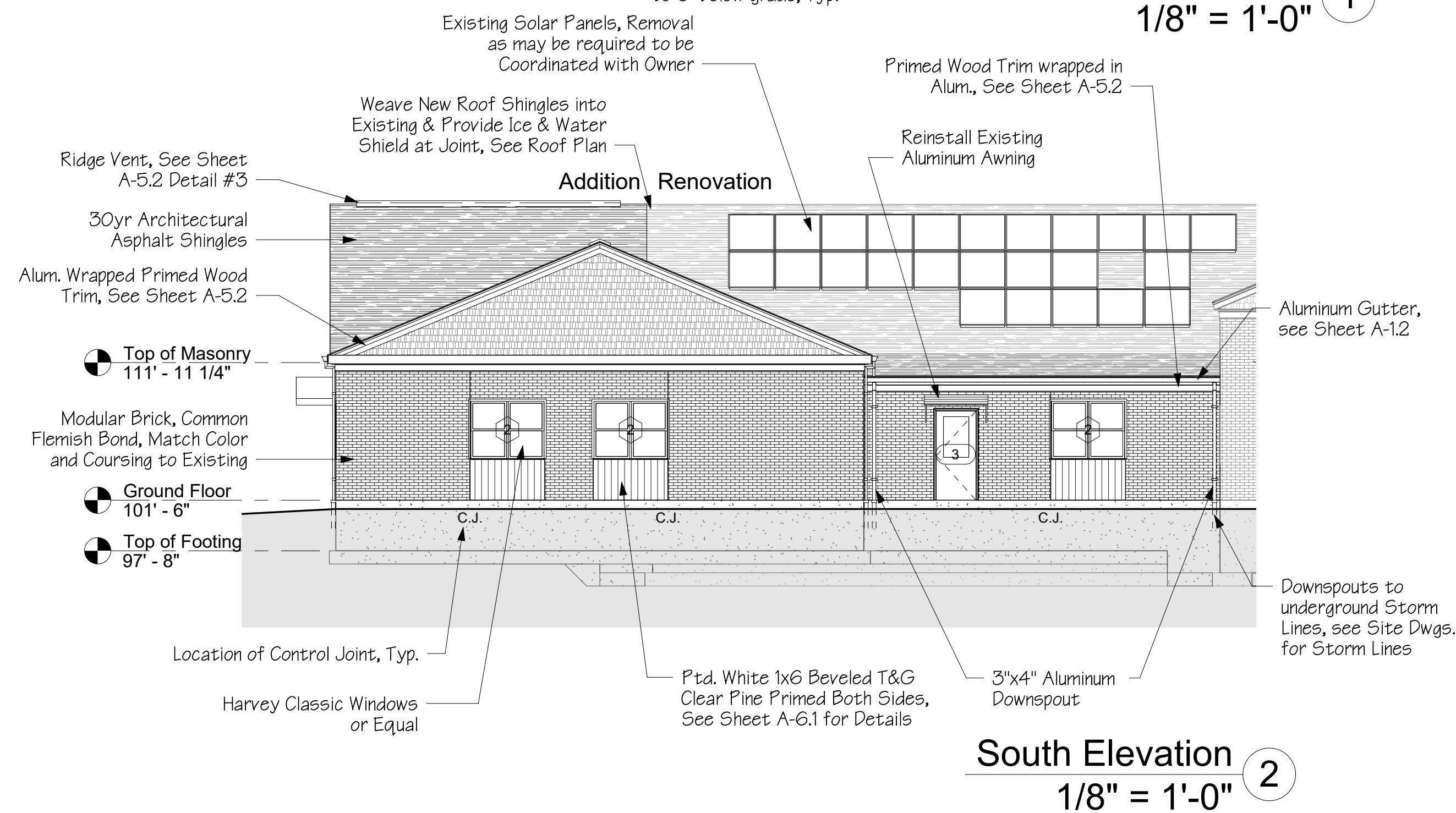
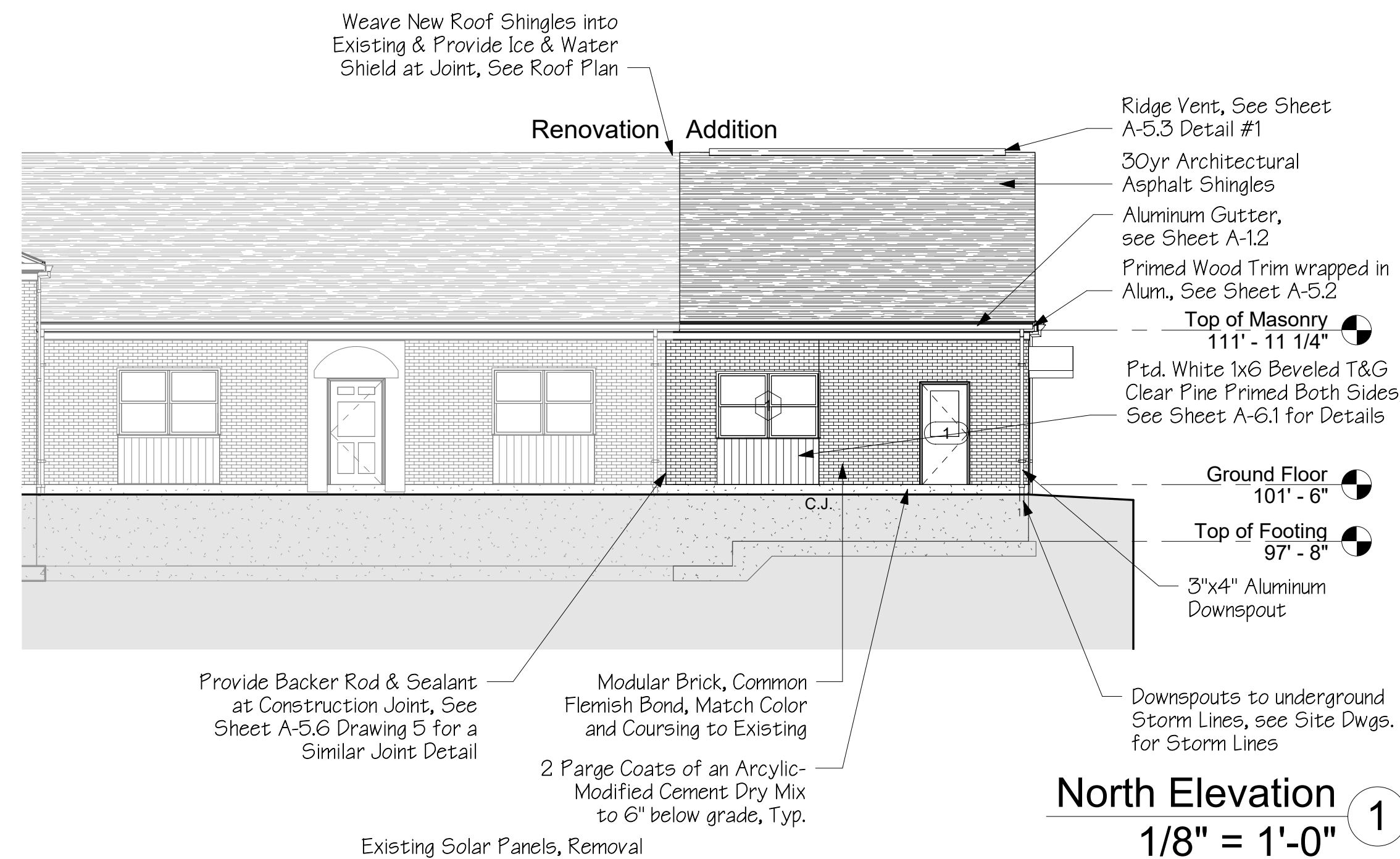
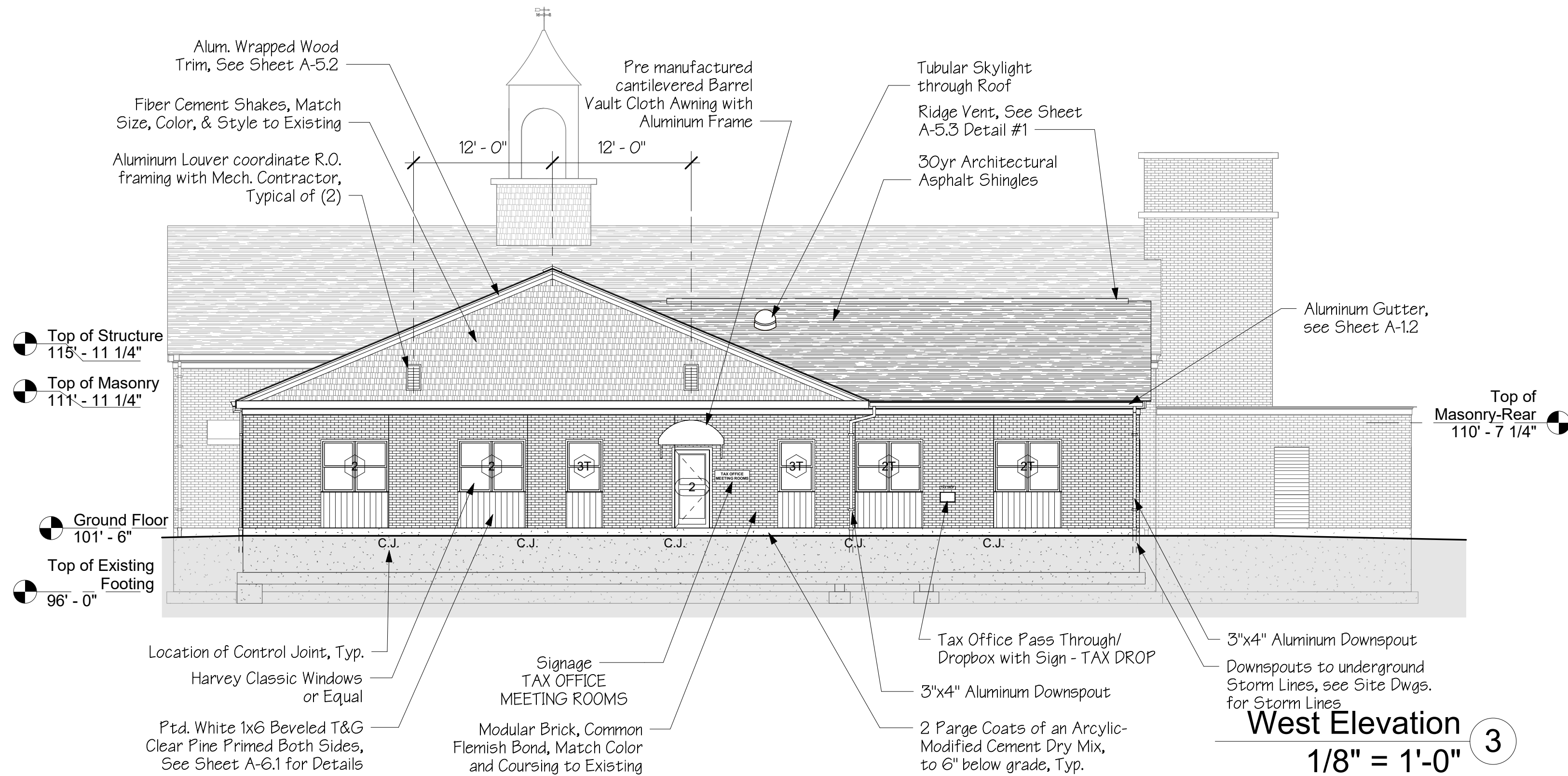
For Permit
9/21/2023

DRAWING NAME

**Reflected Ceiling
Plan**

DRAWING NO.

A-1.3



Elevation Notes

1. All exterior finishes on the new addition are to match existing. Provide samples for verify in the field.
2. Brick color, size, & bond is to match existing. Contractor is responsible to verify match in the field, and provide samples for approval.
3. See window & door schedule for sizes and sill heights.
4. Align new coursing of masonry with existing.
5. Replace existing brick only as required in existing masonry wall for any new openings and tooth-in.

Symbol/Tag Legend

Drawing #	Sheet #	Symbol	Name	Level Elevation
1	A101		Callout	(101)
1	A101		Section	(1)
1	A101		Elevation	(1)
1	A101		Revision Tag	(1)
1	A101		1hr Rated Wall	
1	A101		Air Retarder Plane	
1	A101		Existing	



Richard Sambor, P.E.
Structural Engineer



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PROJECT
445 Randolph Rd
Middletown, CT 06457
South Fire District Bldg
Renovations & Addition

For Permit
9/21/2023

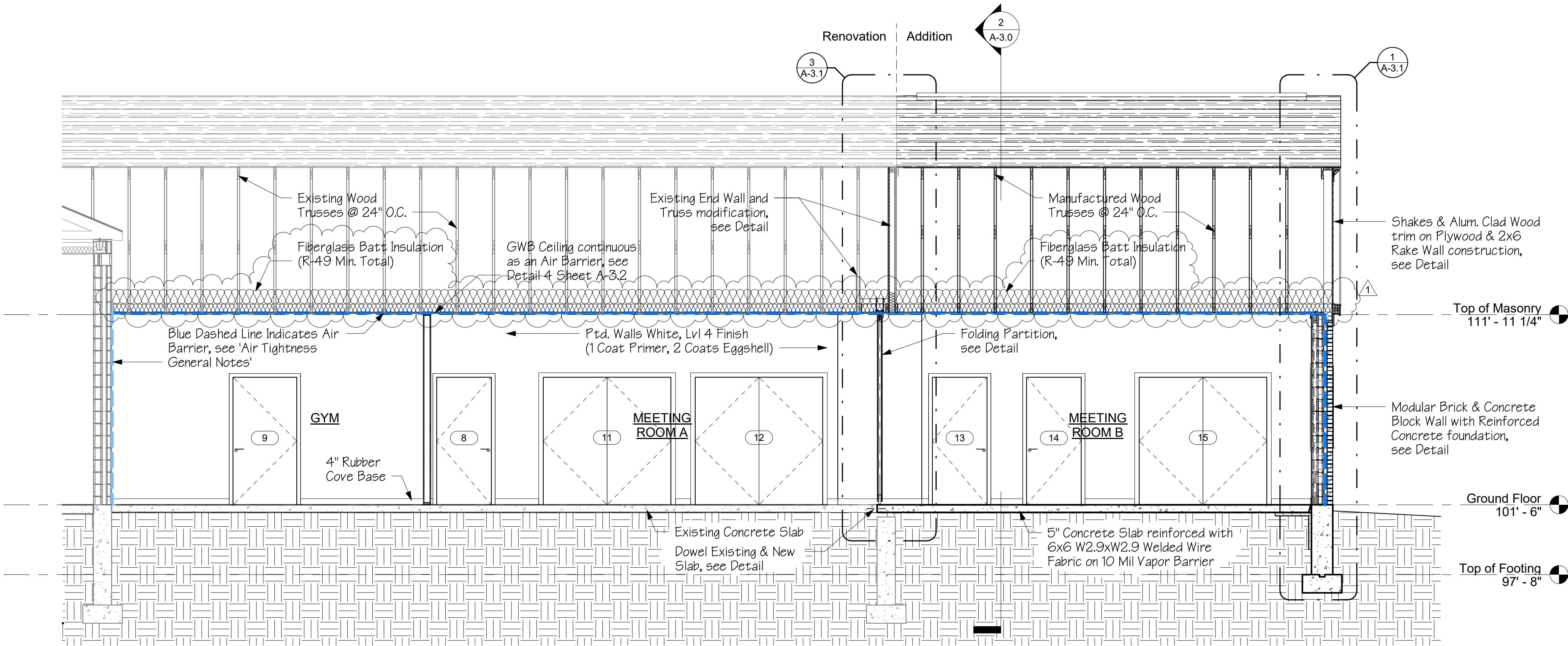
Exterior
Elevations

A-2.0

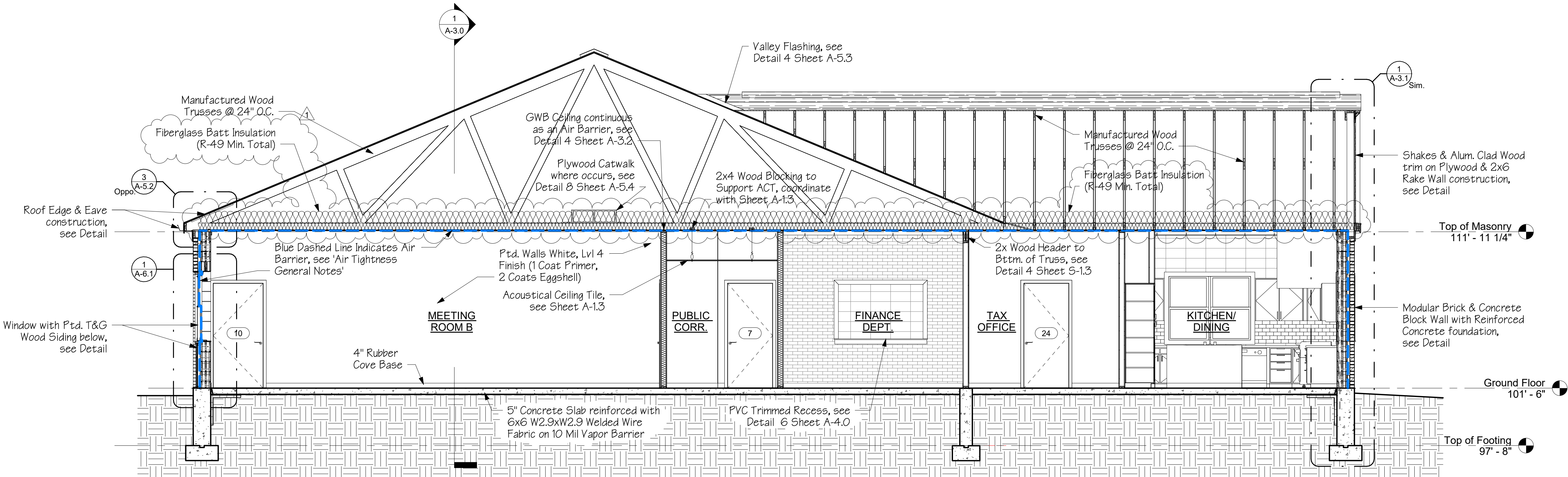
Air Tightness General Notes

Blue Dashed Line: Air Retarder Plane

- 1) The area within the air retarder plane shall be constructed in such fashion as to minimize air leakage to outdoors. A blower door test shall not be provided for this project as new construction is an addition to an existing building. Visual inspection of the air retarder plane shall be ongoing by the contractor as the job progresses. A final visual inspection of the air retarder plane shall be undertaken upon completion of the thermal envelope and the final completion of the project.
- 2) The Air Retarder Plane shall consist of approved air barriers per C402.5.1 of the 2021 IECC (EPDM membrane, closed cell spray foam insulation, liquid applied air & vapor retarder, wood framing members, GWB with taped seams/ edges, and sealant measures - caulking & gaskets at edges and seams).
- 3) The air retarder plane must be continuous with caulking, gaskets, tapes, or other sealants at edges, joints, and gaps.
- 4) All penetrations through the air & vapor retarder plane shall be sealed with an appropriate sealant. Additionally, proper flashing to be installed at vapor barriers.
- 5) Each sub-contractor is responsible to seal any work related to their trade, and to be coordinated and reviewed by the general contractor through out the construction process (HVAC contractor to seal HVAC penetrations, plumber to seal plumbing penetrations, roofing contractors to seal all seams and gaps at the roof, mason to seal all masonry work, framer to seal all perimeter framing between roofing and masonry, etc.).
- 6) Installation of all insulation shall be "Grade 1" per Resnet standard. Contractor shall be accountable for all necessary procedures to bring any failed insulation into compliance with Resnet's "Grade 1" standards.
- 7) For notes regarding installation of the gypsum board ceiling as an air barrier see details #3 and #4 on sheet A-3.2 and 'Ceiling Notes' #9 and #10 on sheet A-1.3.



Section - Gym and Mtg. Rooms 1
1/4" = 1'-0"



Section - Mtg. Rooms, Offices & Kitchen 2
1/4" = 1'-0"



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No.	Description	Date
1	Replace Loose Fill w/Batt Insul. - Attic	10/17/23

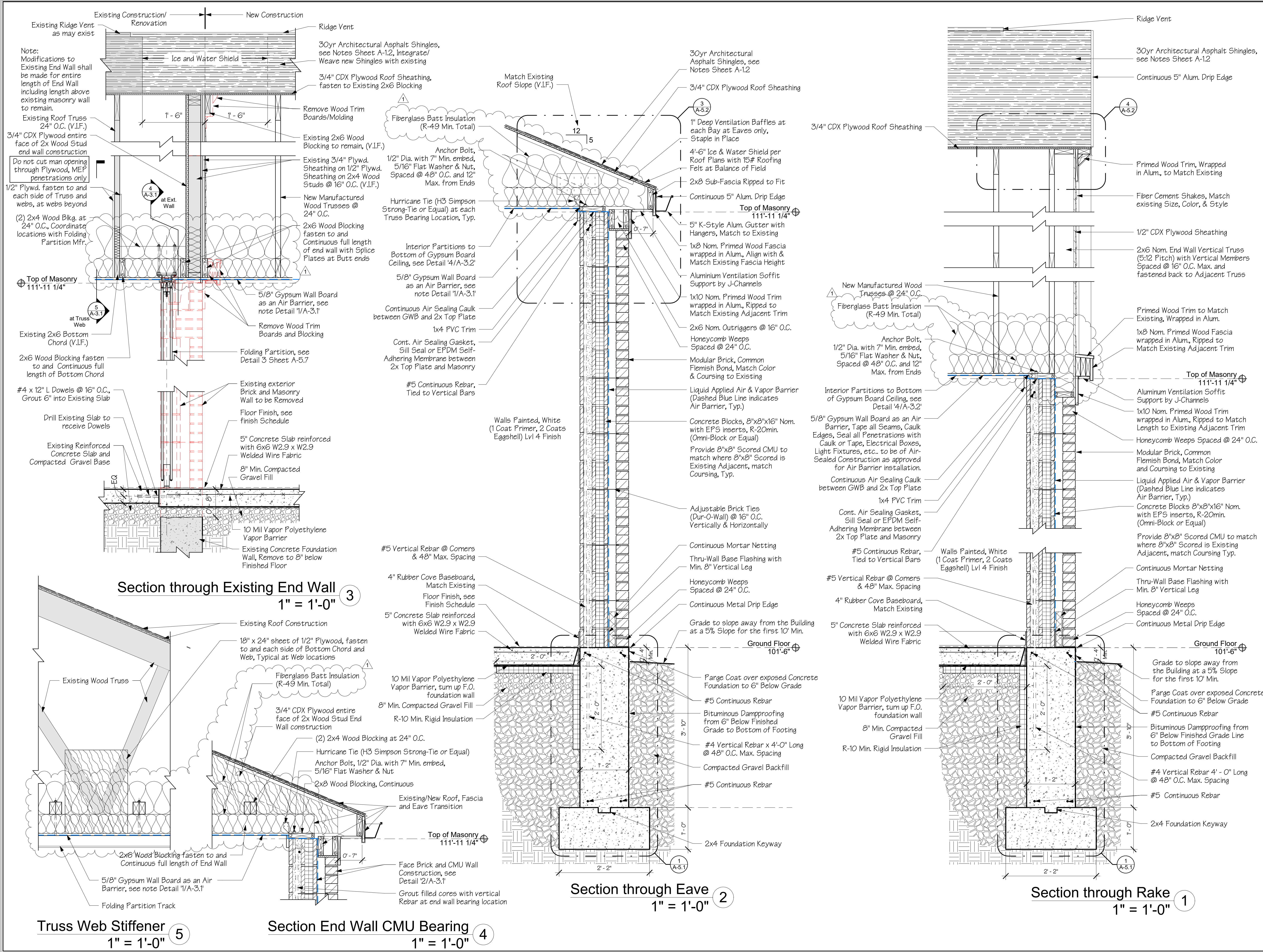
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PROJECT
445 Randolph Rd
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South Fire District Bldg
Renovations & Addition

For Permit
9/21/2023

TRANSVERSE NAME
Transverse
Building Sections

DRAWING NO.
A-3.0



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No.	Description	Date
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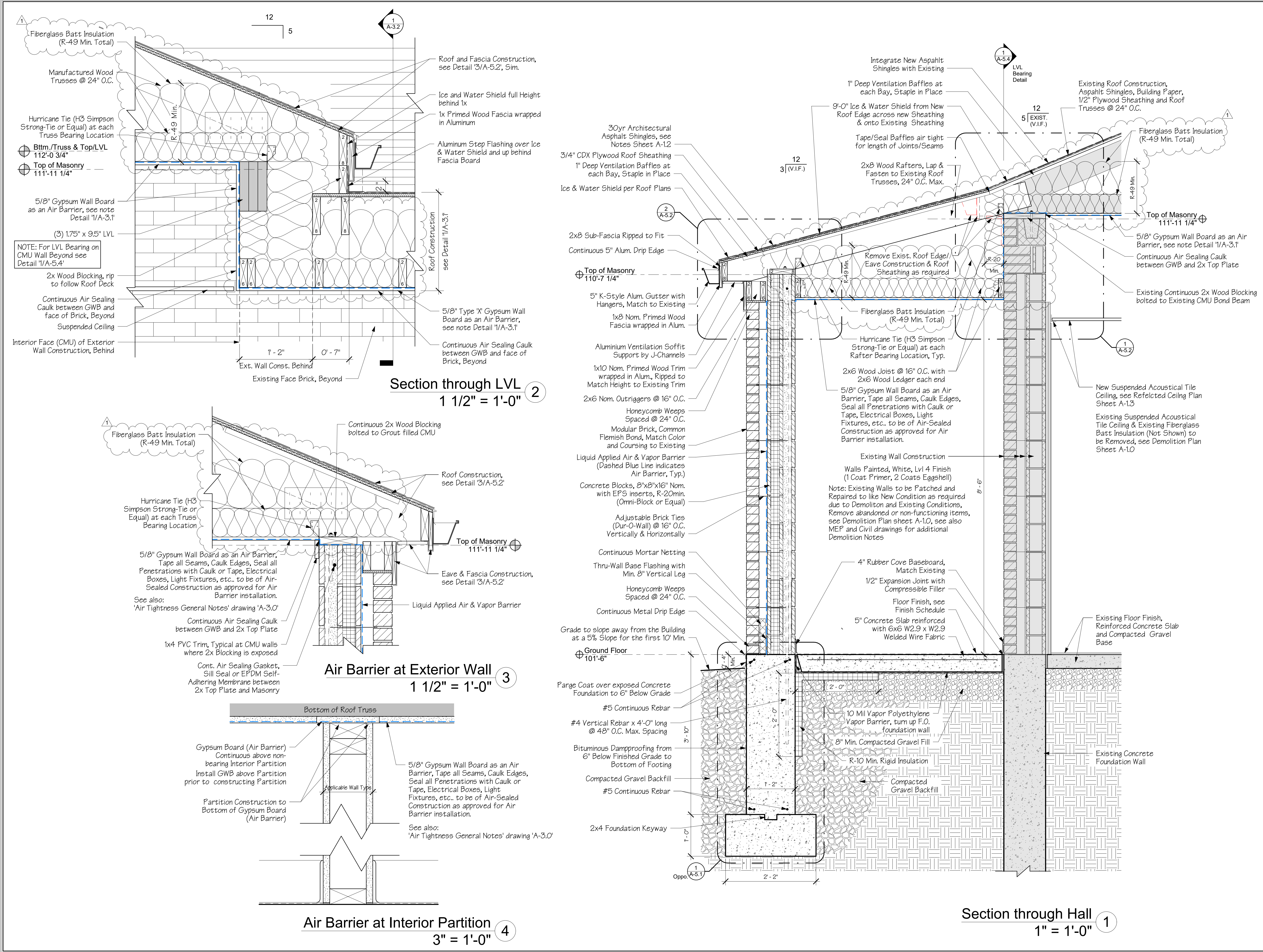
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PROJECT
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DRAWING NAME
Wall Sections

DRAWING NO.
A-3.1



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CONNECTICUT

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PROJECT

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**South Fire District Bldg
Renovations & Addition**

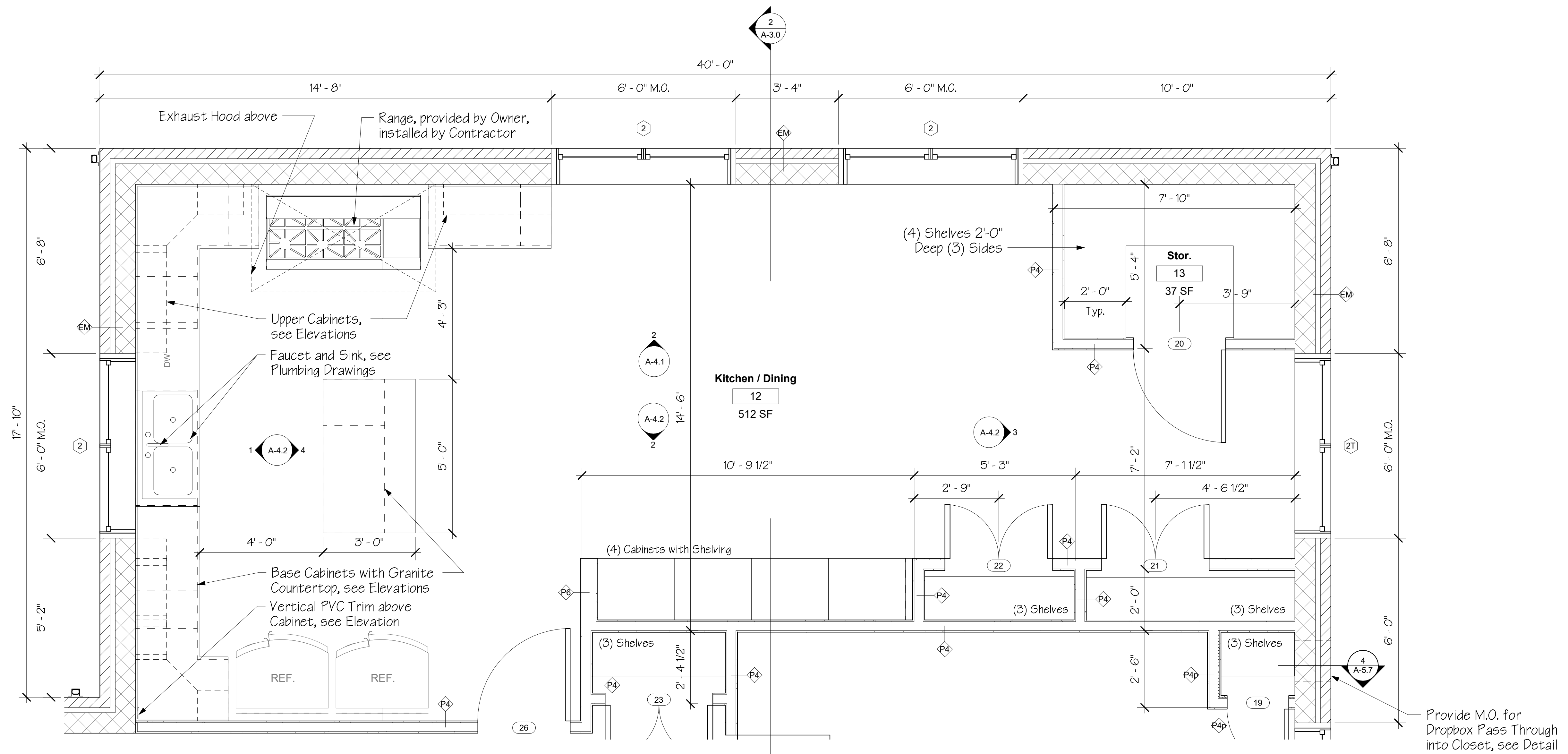
For Permit
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DRAWING NAME

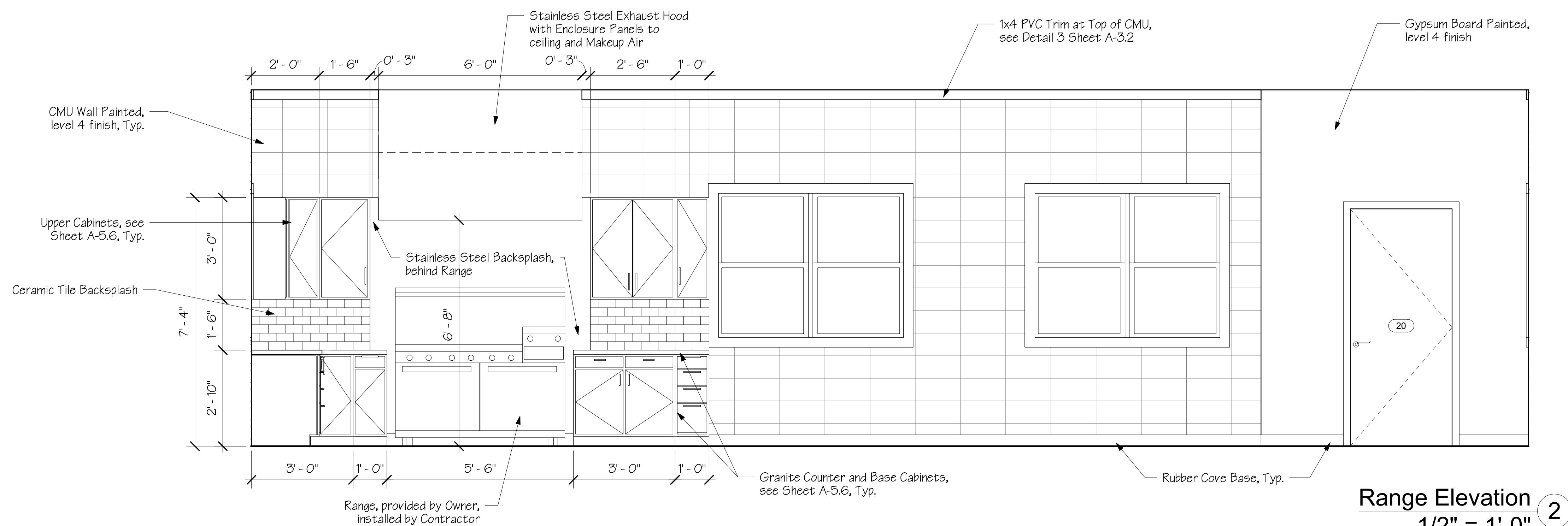
Wall Sections

DRAWING NO.

A-3.2



Kitchen/Dining Plan
1/2" = 1'-0" 1



Range Elevation
1/2" = 1'-0" 2



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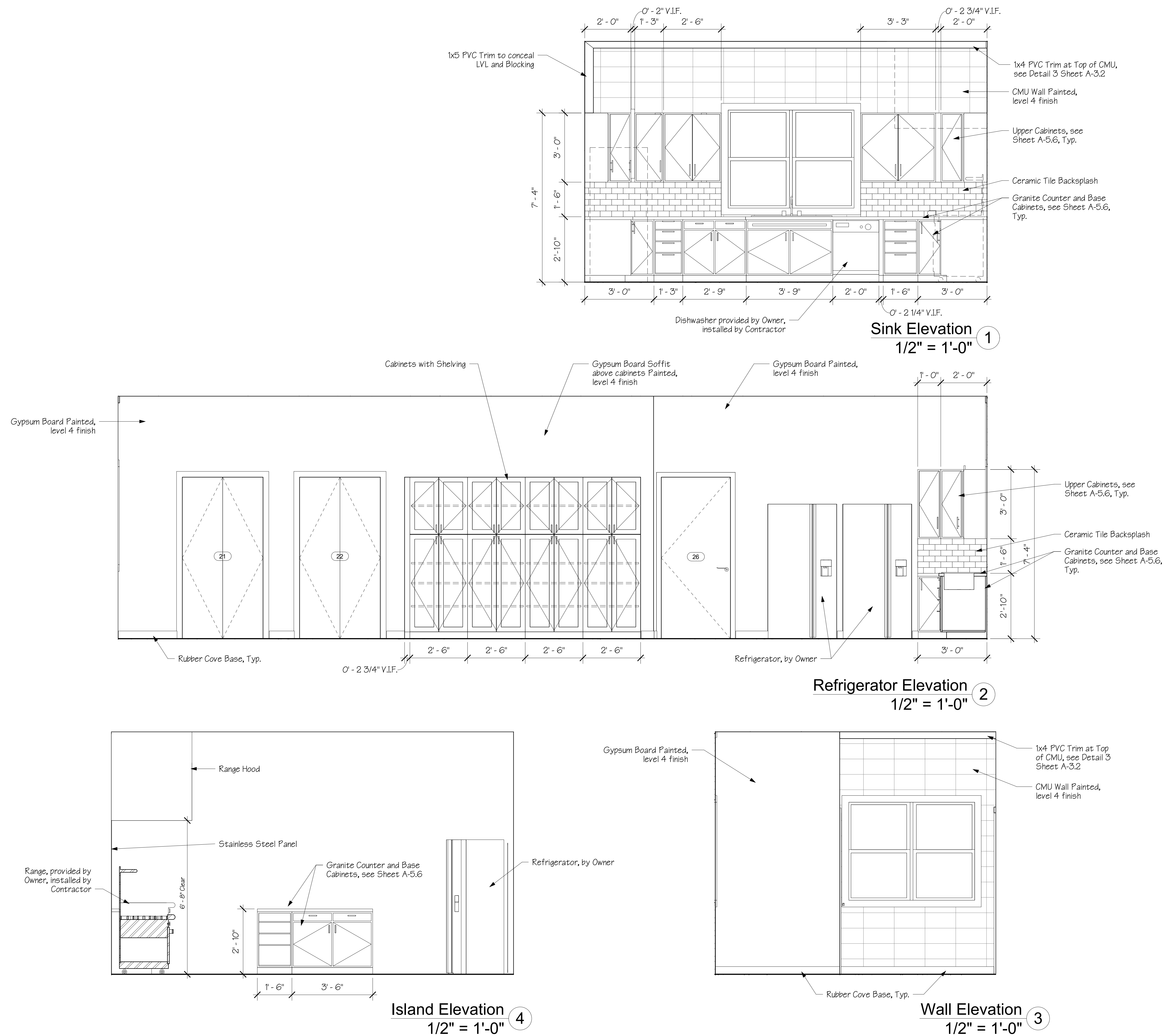
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DRAWING NAME
Kitchen/Dining Plan and Elevations

DRAWING NO.
A-4.1



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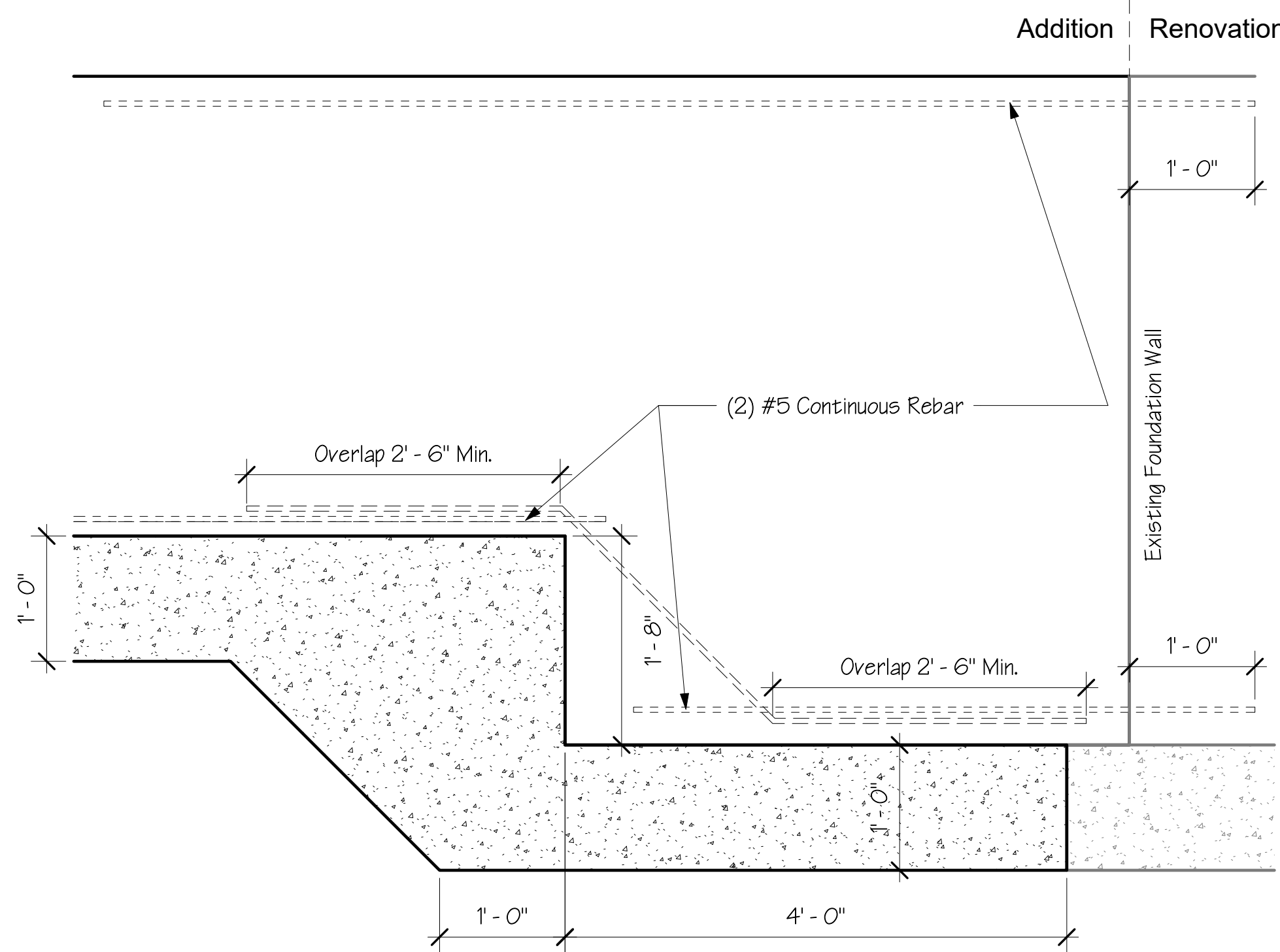
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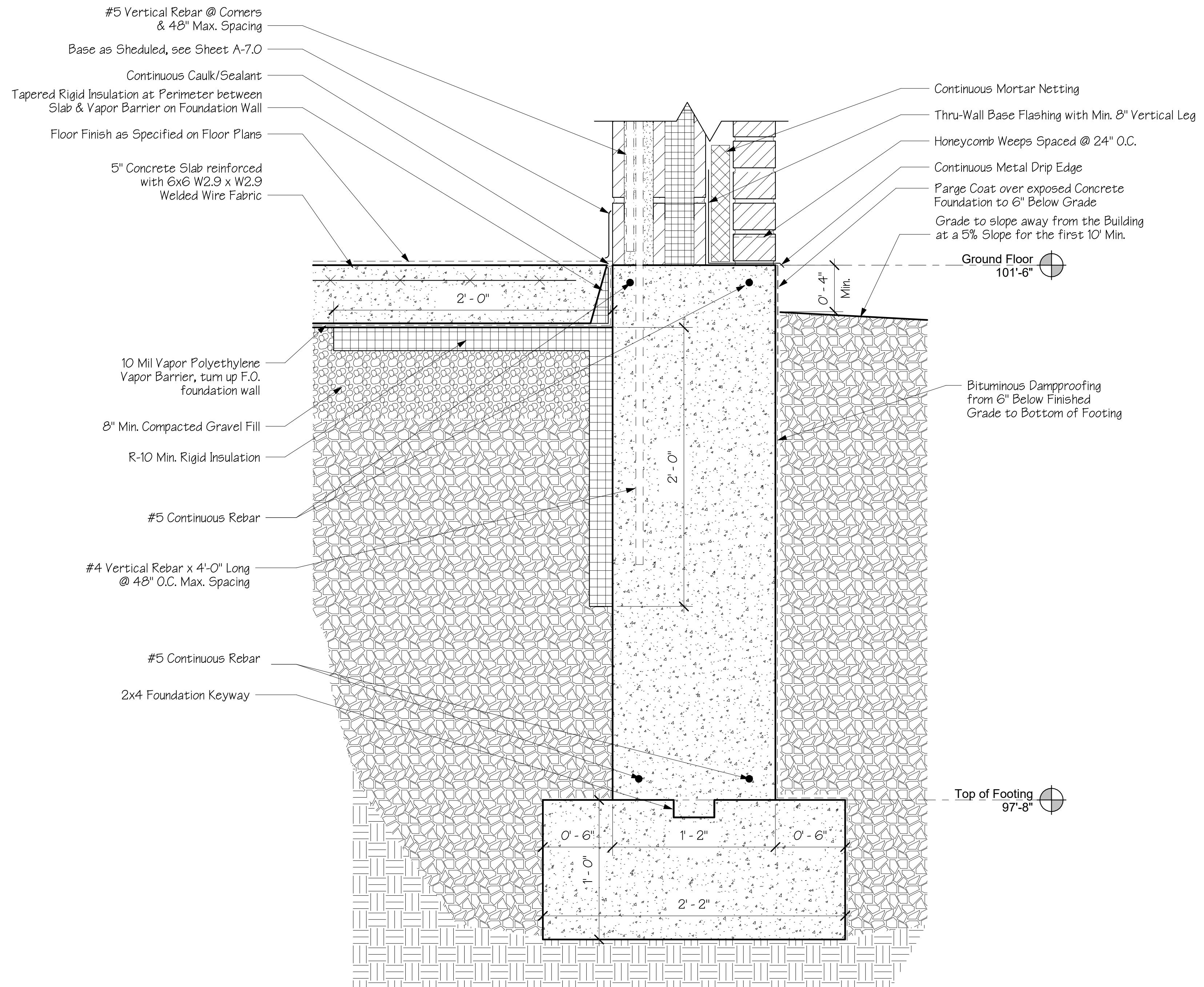
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DRAWING NAME
**Kitchen/Dining
Elevations**

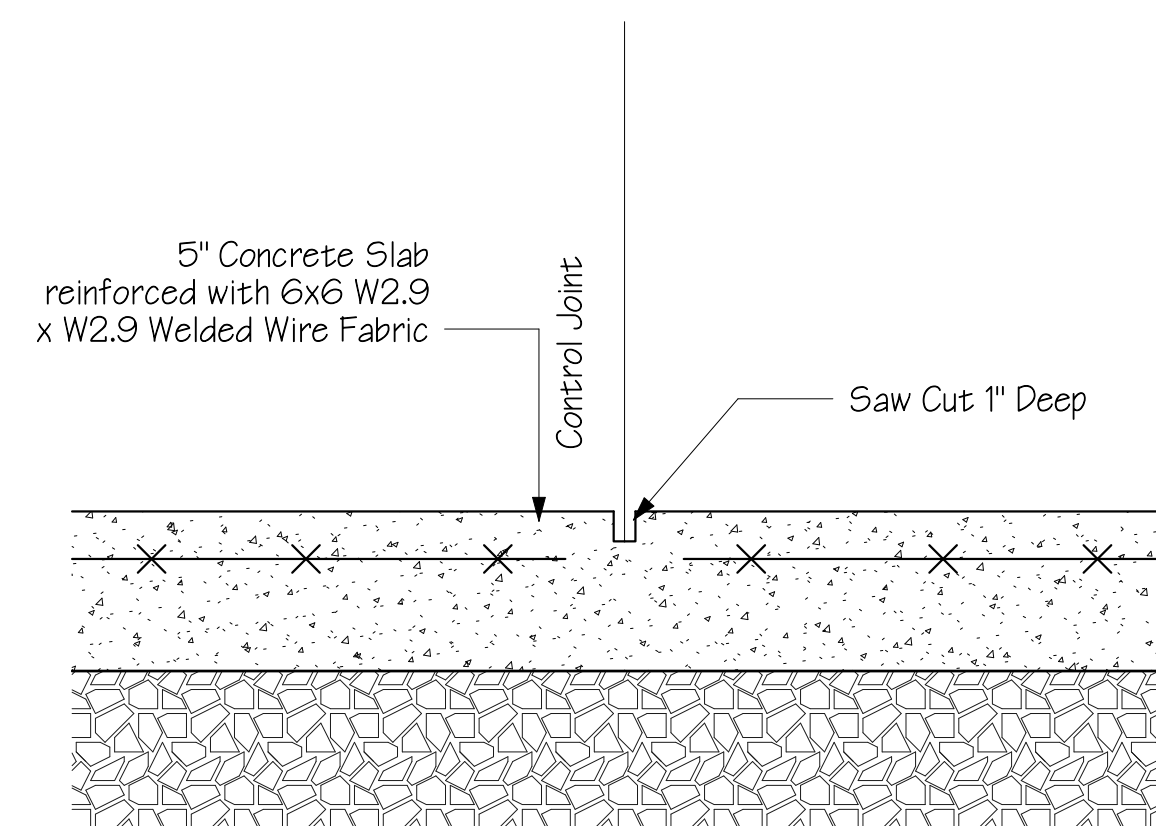
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A-4.2



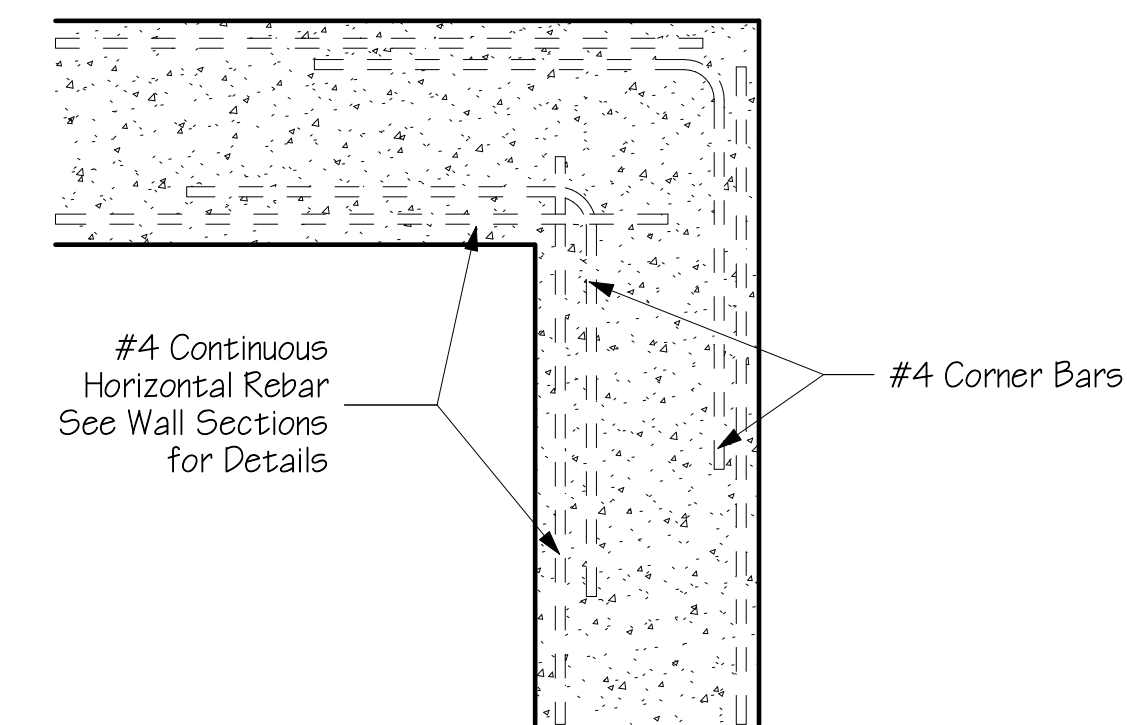
Stepped Footing Detail 4
1" = 1'-0"



Typical Foundation Detail 1
2" = 1'-0"



Control Joint in Slab 3
2" = 1'-0"



Foundation Corner Detail 2
1" = 1'-0"



Richard Sambor, P.E.
Structural Engineer



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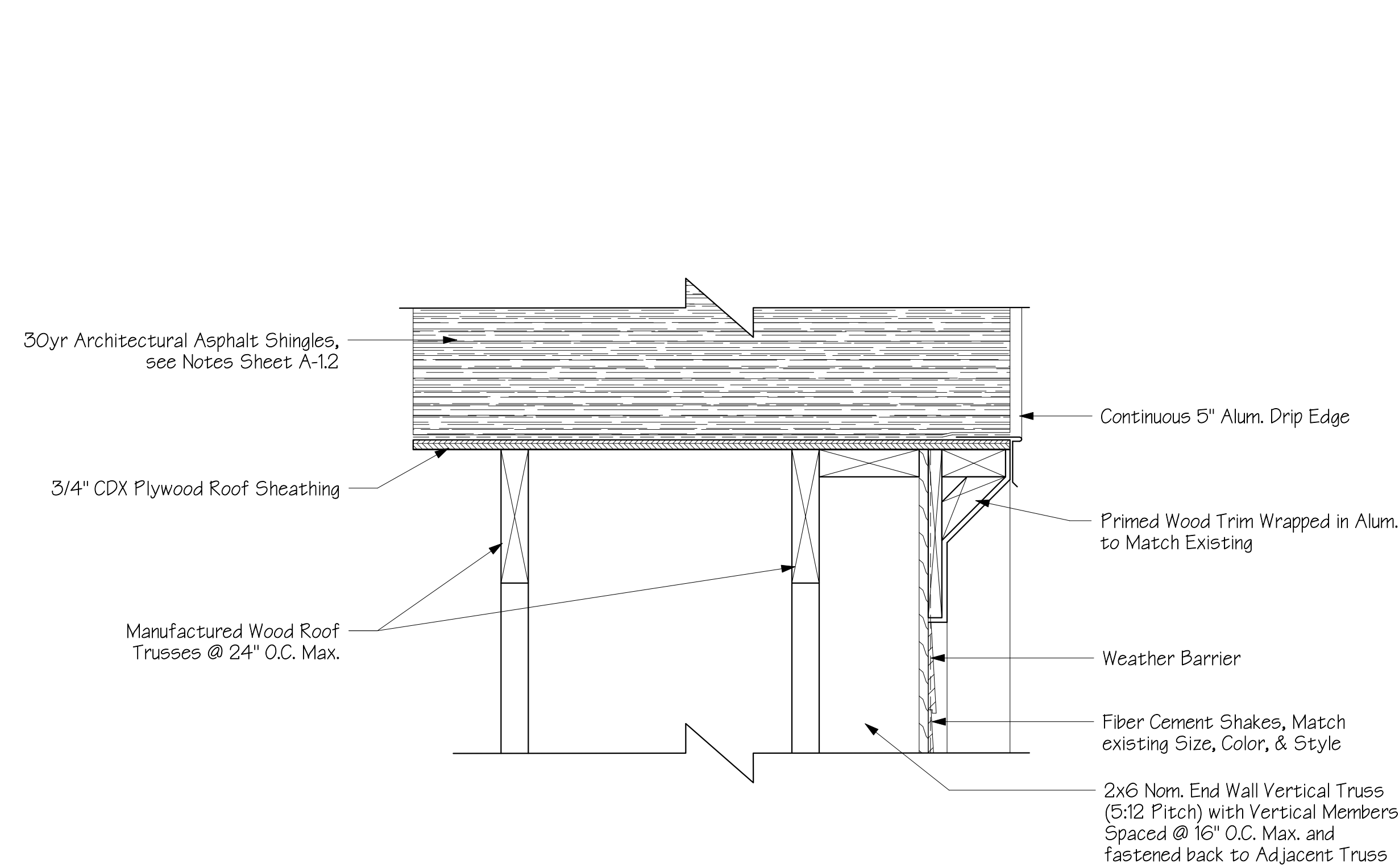
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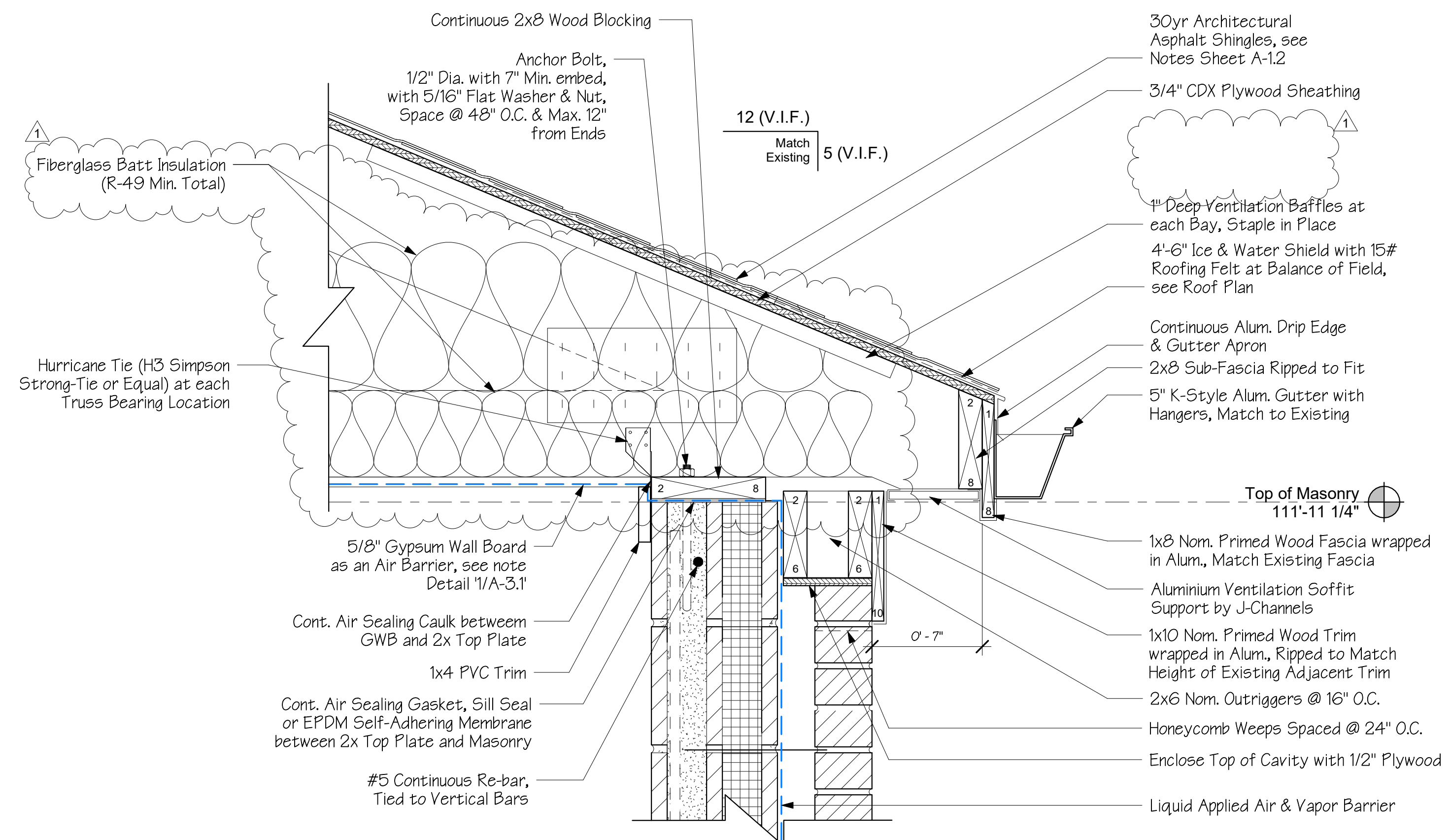
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Foundation
Details

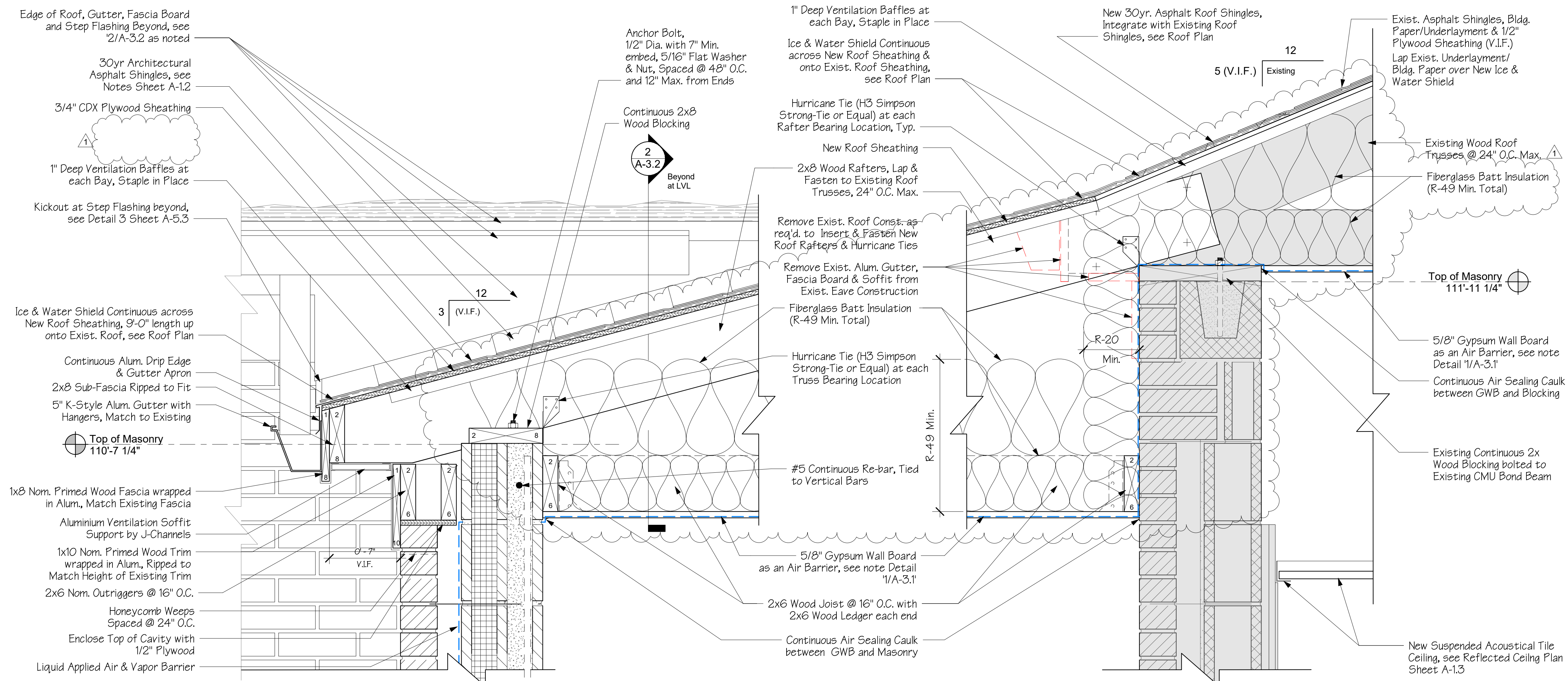
A-5.1



Detail - Rake 4
2" = 1'-0"



Detail - Eave at Addition 3
2" = 1'-0"



Detail - Eave at Hall 2
2" = 1'-0"

Detail - New & Existing Roof at Hall 1
2" = 1'-0"



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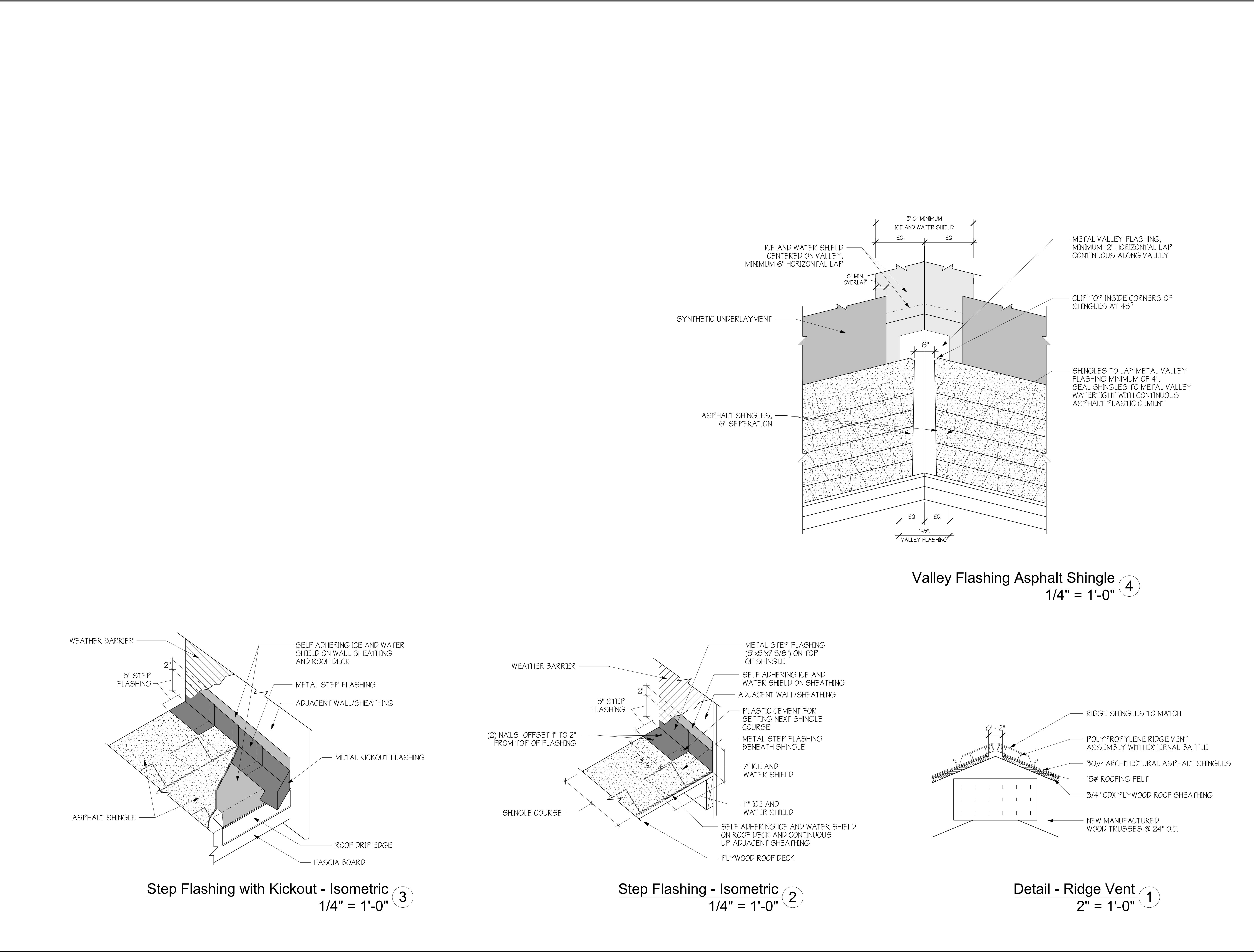
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Roof Details

A-5.2



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DRAWING NAME

Roofing Details

DRAWING NO.

A-5.3

Miscellaneous Details

Door Jamb @ Door #4
 2 = 1'-0" 7

Section through Catwalk
 1 1/2" = 1'-0" 8

CMU Wall Details

The diagram consists of three main technical drawings illustrating CMU wall construction details:

- CMU Control Joint (5):** A cross-section showing two CMU units separated by a control joint. Labels include: SEALANT, BACKER ROD, CERAMIC FIBER FELT (ALUMINA-SILICA FIBER), #5 VERTICAL REBAR CENTERED IN CELL, and OMNI BLOCK CORNER UNIT. The joint width is specified as 3" = 1'-0".
- CMU Vertical Rebar Placement (6):** A side elevation showing the placement of vertical rebar in a CMU wall. Labels include: CORNER UNIT, 16", 24", 32", 40", 48", 4", 16 1/2", CENTERED IN CELL, INTERIOR, MAX. VERTICAL REBAR SPACING, 4-1/2", OPENING, 4", and INTERIOR. The rebar is shown centered in the cells.
- CMU Sill & Lintel Detail (4):** A 3D perspective view of a window opening in a CMU wall. Labels include: JAMB REINFORCING #5 REBAR, FILL THE WIDTH OF THE CORE WITH SOLID GROUT, LINTEL TOP REINFORCING #5 REBAR, JAMB REINFORCING #5 REBAR, 16" MIN (TYP), FOAM INSERT, OMNI CORNER BLOCKS AT JAMBS, 4" MIN BEARING, INTERIOR, FIELD CUT NOTCH FOR REBAR, STEEL LINTEL SEE SCHEDULE, and FILL WITH SOLID GROUT. The detail shows the reinforcement and grouting for the window opening.

LVL Bearing Details

LVL Elevation at New Wall

1 1/2" = 1'-0"

3

LVL Bearing on New Wall

1 1/2" = 1'-0"

2

LVL Bearing on Existing Wall

1 1/2" = 1'-0"

1

(3) 1.75" x 9.5" LVL

Simpson Tie Plate TP49 or Equal on both Sides

(5) 2x6s with layer of Plywood Built-Up for Bearing

1/2" Dia. with 7" Min. embed, 5/16" Flat Washer, & Nut

#5 Vertical Rebar @ Corners & 48" Max. Spacing

0' - 8"

Bearing

Note: Gypsum Wall Board not shown for clarity

Btm./Truss & Top/LVL 112'-0 3/4"

Top of Masonry 111'-11 1/4"

2x Top Plate

#5 Continuous Rebar

#5 Vertical Rebar @ Corner

#5 Rebar

Btm./Truss & Top/LVL 112'-0 3/4"

(3) 1.75" x 9.5" LVL

Simpson Tie Plate TP49 or Equal, both sides

#5 Continuous Re-bar, Tied to Vertical Bars

Top of Masonry 110'-7 1/4"

5/8" Gypsum Wall Board as an Air Barrier, see note Detail 1/A-3.1

Continuous Air Sealing Caulk

Concrete Blocks, 8"x8"x16" Nom. with EPS inserts, R-20min. (Omni-Block or Equal)

See also Elevation of this face see Detail 3/A-5.4

Roof, Wood Truss and Fascia Construction, see Detail 2/A-3.2 Similar

(5) 2x6s with layer of Plywood Built-Up for Bearing

1/2" Dia. Anchor with 7" Min. embed, 5/16" Flat Washer, & Nut

NOTE: Set Anchor in grouted CMU core. Grout fill Cavity between CMU and Face Brick for 8" Min. each side of Bearing location

Liquid Applied Air & Vapor Barrier (Dashed Blue Line indicates Air Barrier, Typ.)

#5 Vertical Rebar @ Corners & 48" Max. Spacing

Fiberglass Batt Insulation Infill

NOTE: Verify Existing Heights in Field, Typ.

Btm./Truss & Top/LVL 112'-0 3/4"

Top of Masonry 111'-11 1/4"

Sawcut Face Brick (6 Courses) & CMU (2 Courses) this side to Allow installation of LVL & Blocking

Grout Fill Cavity between CMU and Face Brick at LVL and Blocking

Existing Wall Construction, Face Brick, Air Space, Cement Parge on 6x8x16 CMU with Horizontal Steel Reinforcing

Face Brick shown Screened & Parging not shown, for clarity

Interior Face of CMU Wall Behind, see Detail 2/A-5.4

Existing & New 2x Roof Trusses @ 24" O.C., as occur

Existing 2x Top Plate

(3) 1.75" x 9.5" LVL

Simpson Tie Plate TP49 or Equal, this side

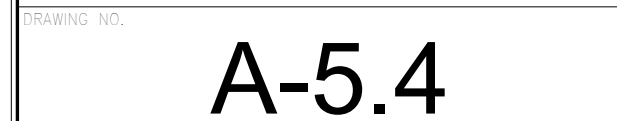
Remove Existing CMU (2 Courses) this side to Allow installation of LVL & Blocking. Re-install CMU upon completion of LVL installation

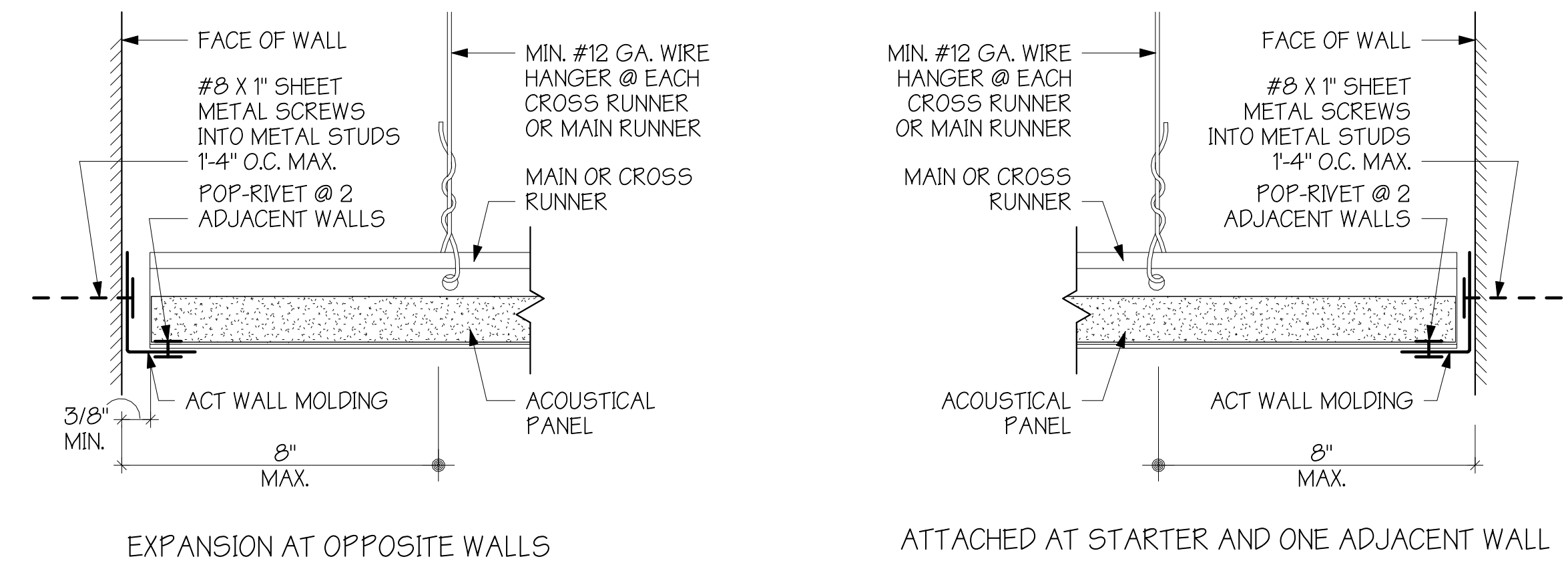
Existing Face Brick to be Removed as Req'd. this side to Allow installation of LVL, Blocking and Joist Hanger

(5) 2x6s with layer of Plywood Built-Up for Bearing on Masonry

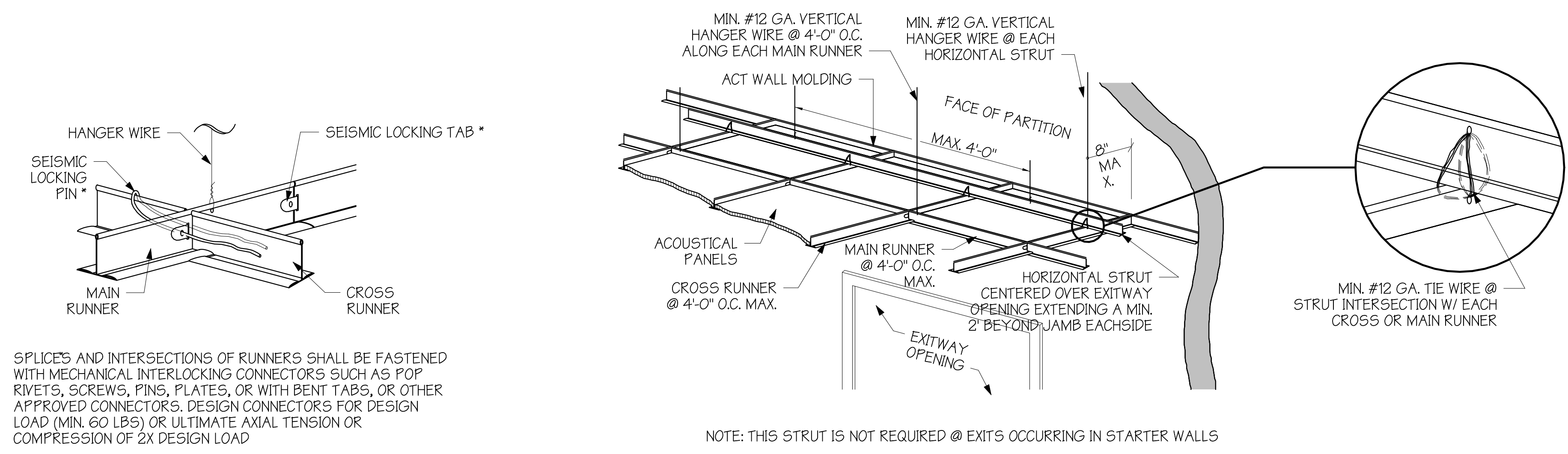
1/2" Dia. Anchor with 7" Min. embed, 5/16" Flat Washer, & Nut

NOTE: Set Anchor in newly grouted CMU core(s) or Drill and Epoxy Anchor in place. Minimum 7" embedment.



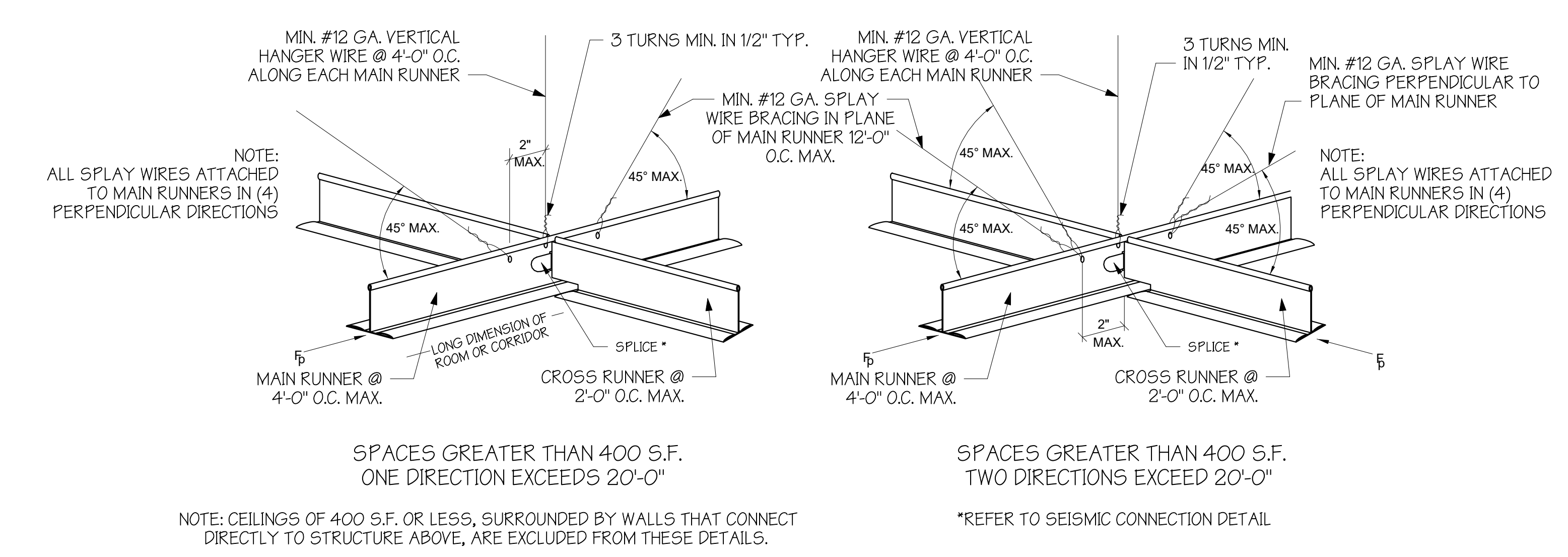


Seismic Wall Angles
NTS 1



Seismic Connections
NTS 3

Seismic Strut @ Exit Ways
NTS 2



Seismic Splay Bracing
NTS 4



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Renovations & Addition**

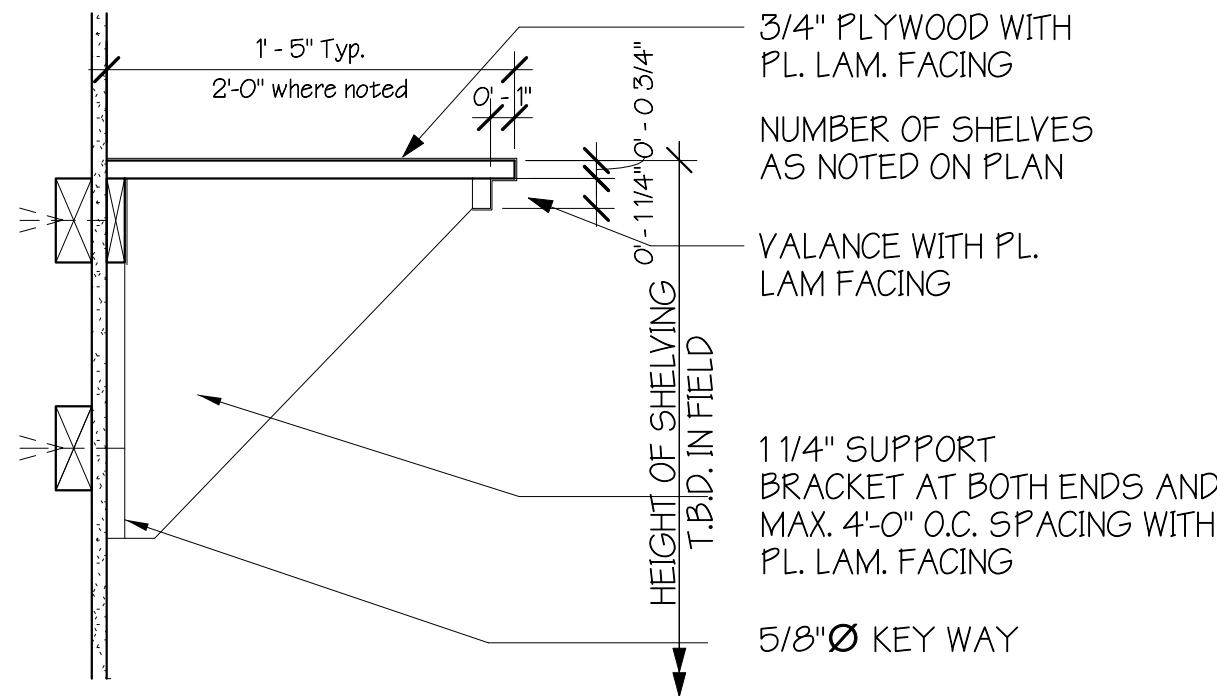
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CEILING DETAILS
Ceiling Details

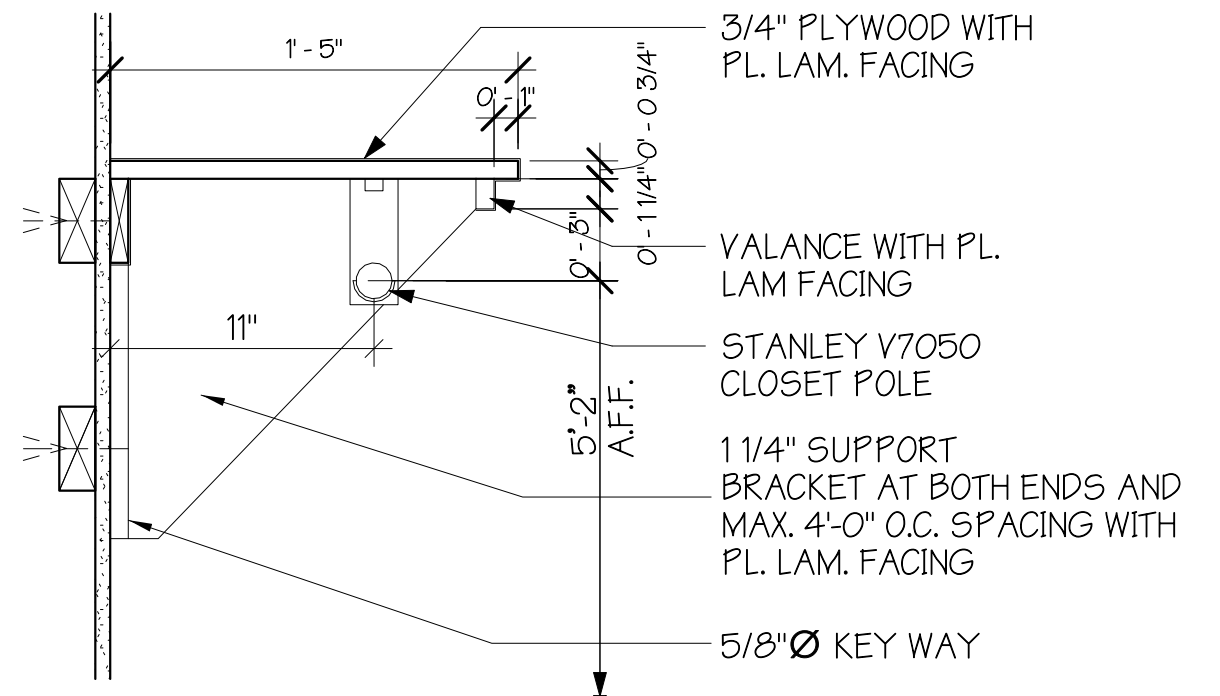
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A-5.5

Casework Notes

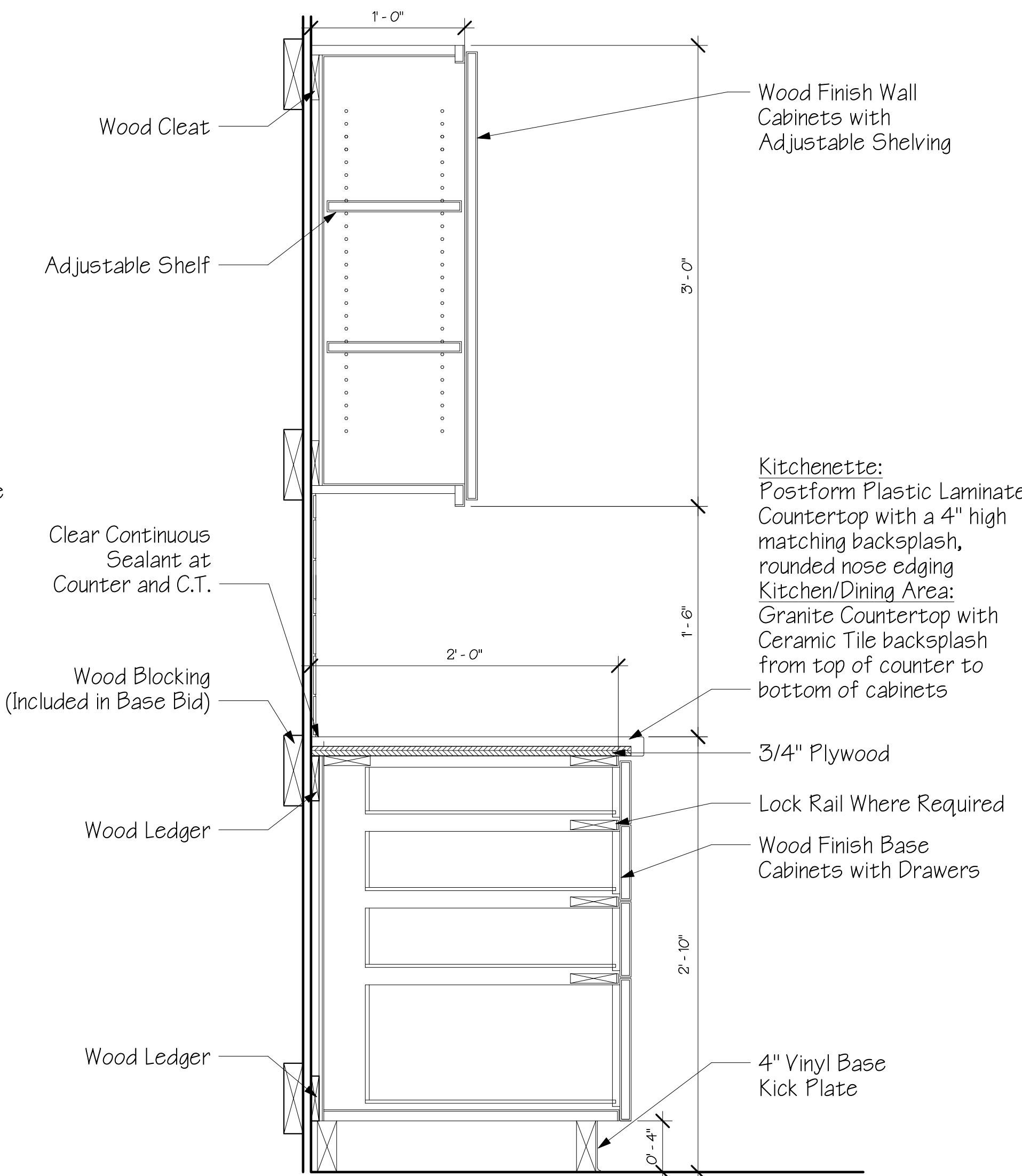
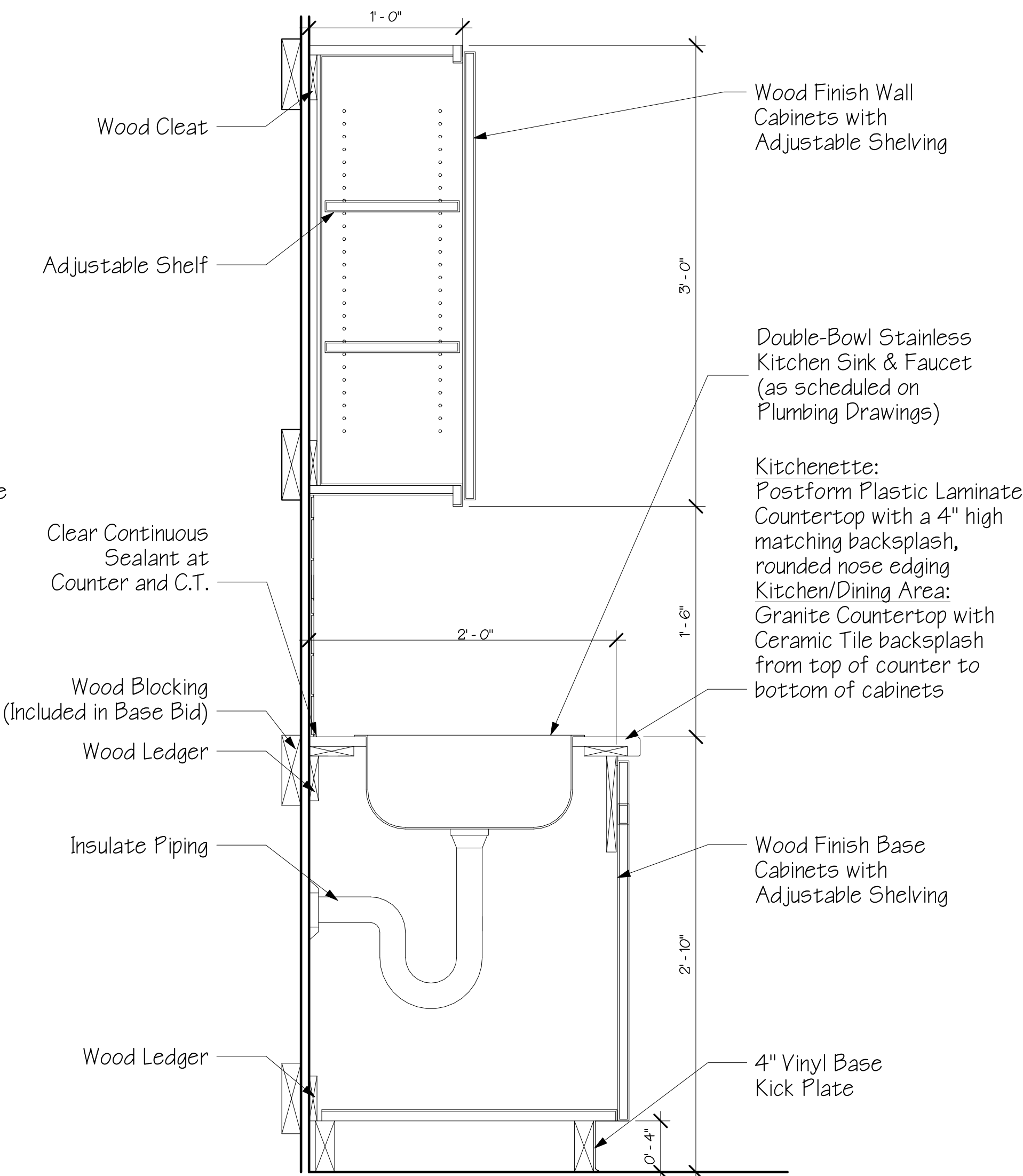
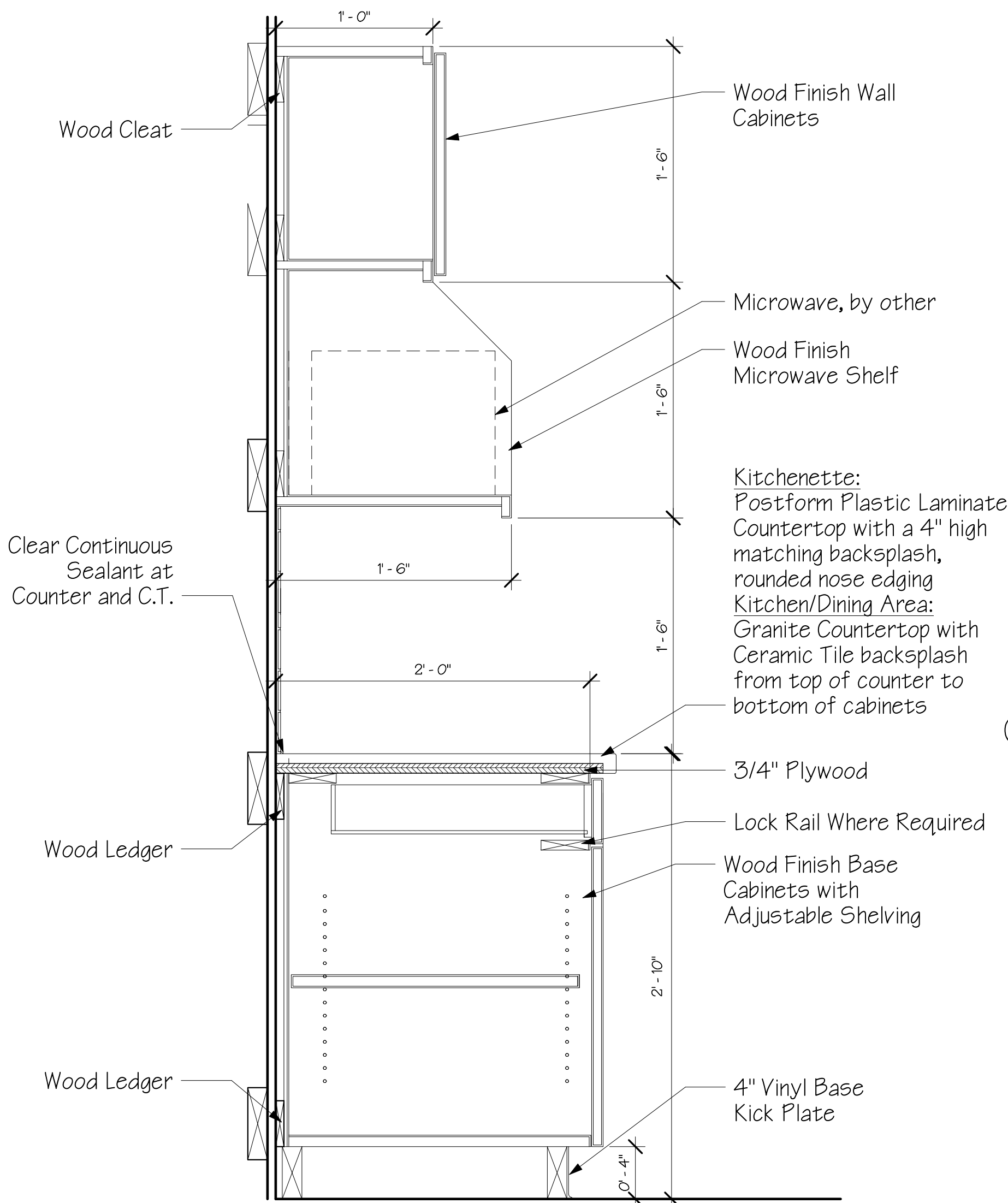
1. Provide wood blocking for all wall mounted toilet room accessories.
2. Provide certified by KCMA (Kitchen Cabinet Manufacturers Association) as meeting Severe Use Standards cabinetry.
3. Doors to allow for 180-degree operation.
4. Provide ball-bearing hardware for drawers.
5. Provide 3/4" thick finished shelves for base and wall cabinets.
6. Materials & Methods to comply with AWI, AHA, HPVA, NPA, NEMA, & BHMA standards.
7. See Plumbing Drawings for the schedule of plumbing fixtures.
8. Provide granite countertops in kitchen and plastic laminate countertops in kitchenette.
9. Provide brushed nickel straight bars for cabinetry hardware.
10. Contractor to provide submittals of finishes with 3 options min. and final selection of finishes to be selected by owner representatives.
11. Details provided for cabinet sizes and construction. See elevations for cabinet layout.



Closet Shelves ③
1 1/2" = 1'-0"



Closet Shelf & Rod ②
1 1/2" = 1'-0"



Kitchen Casework Details ①
1 1/2" = 1'-0"



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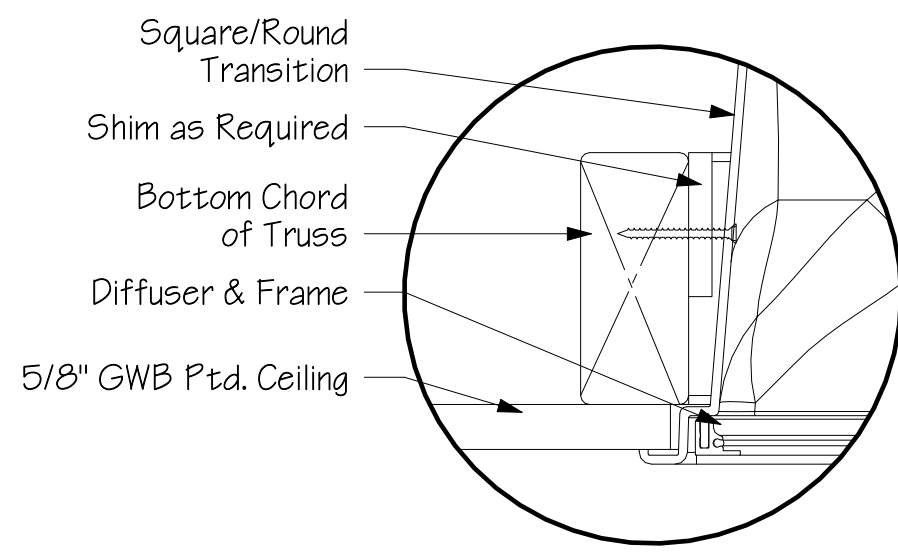
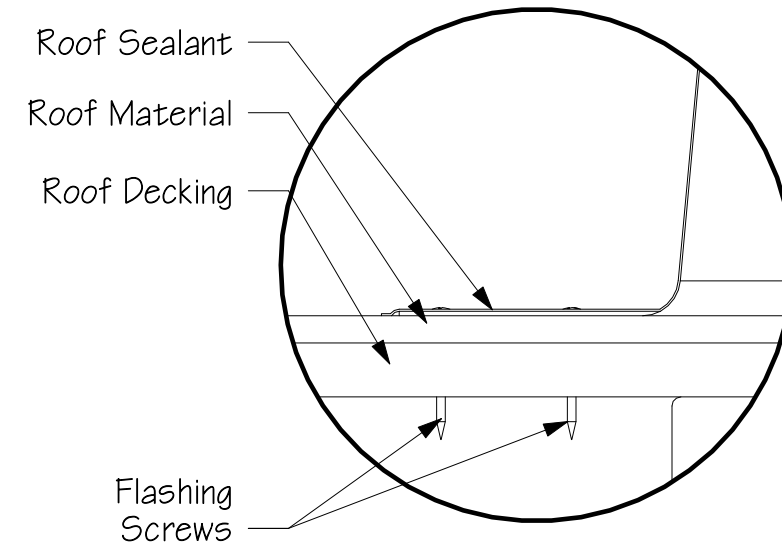
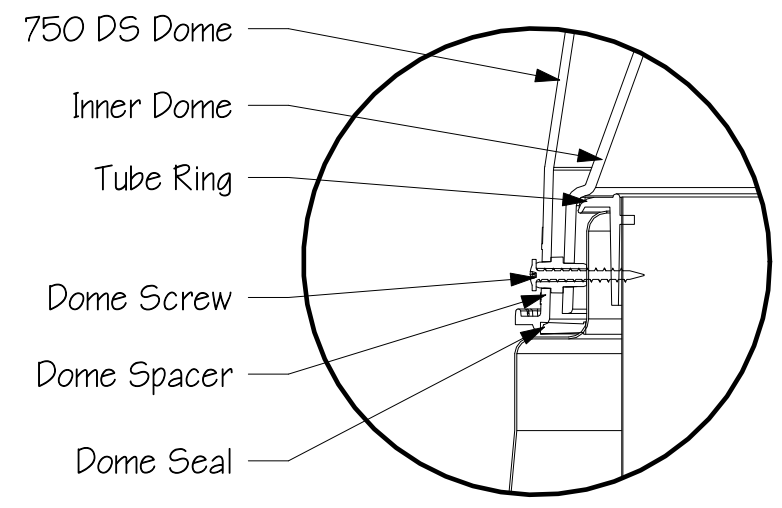
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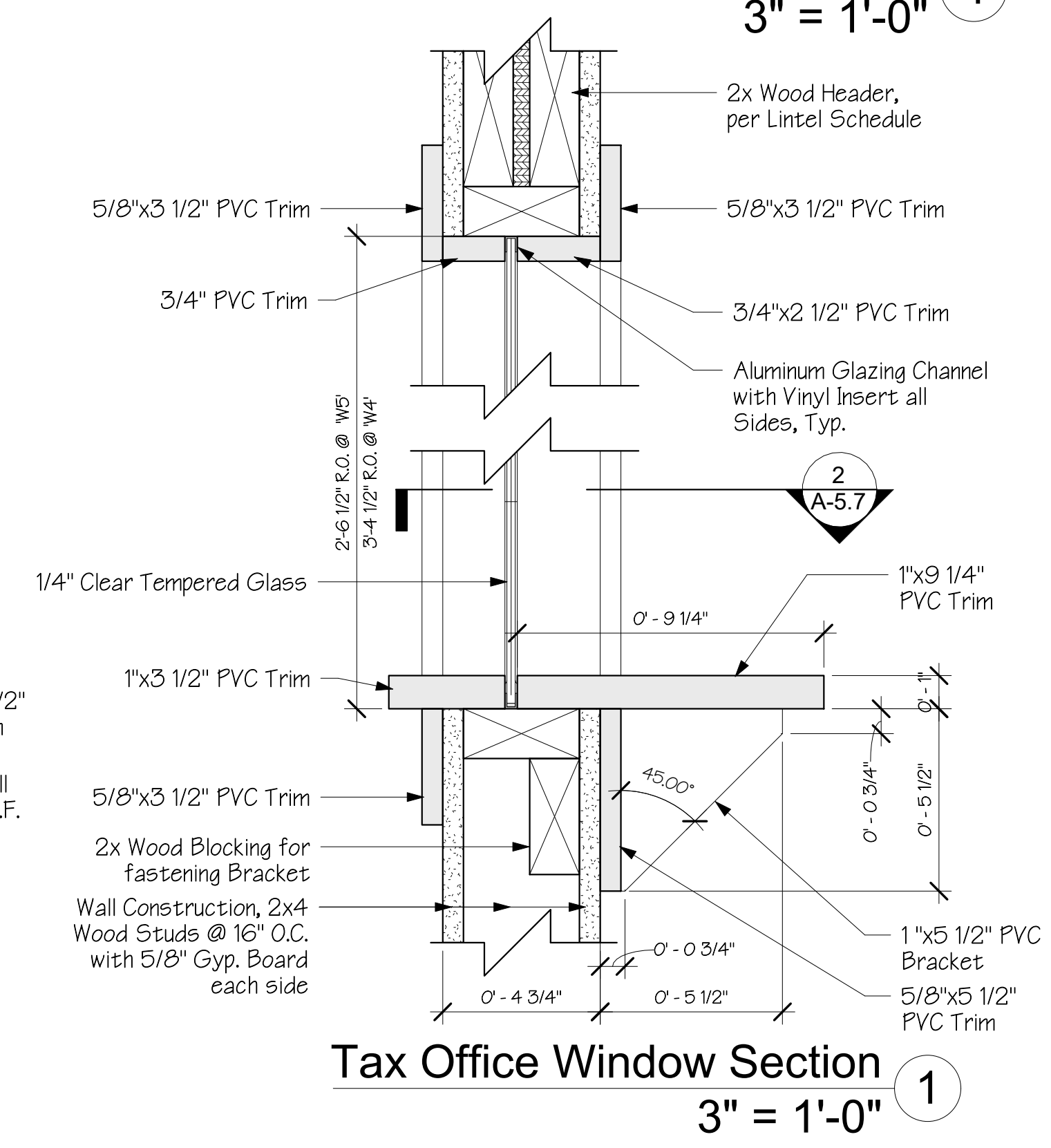
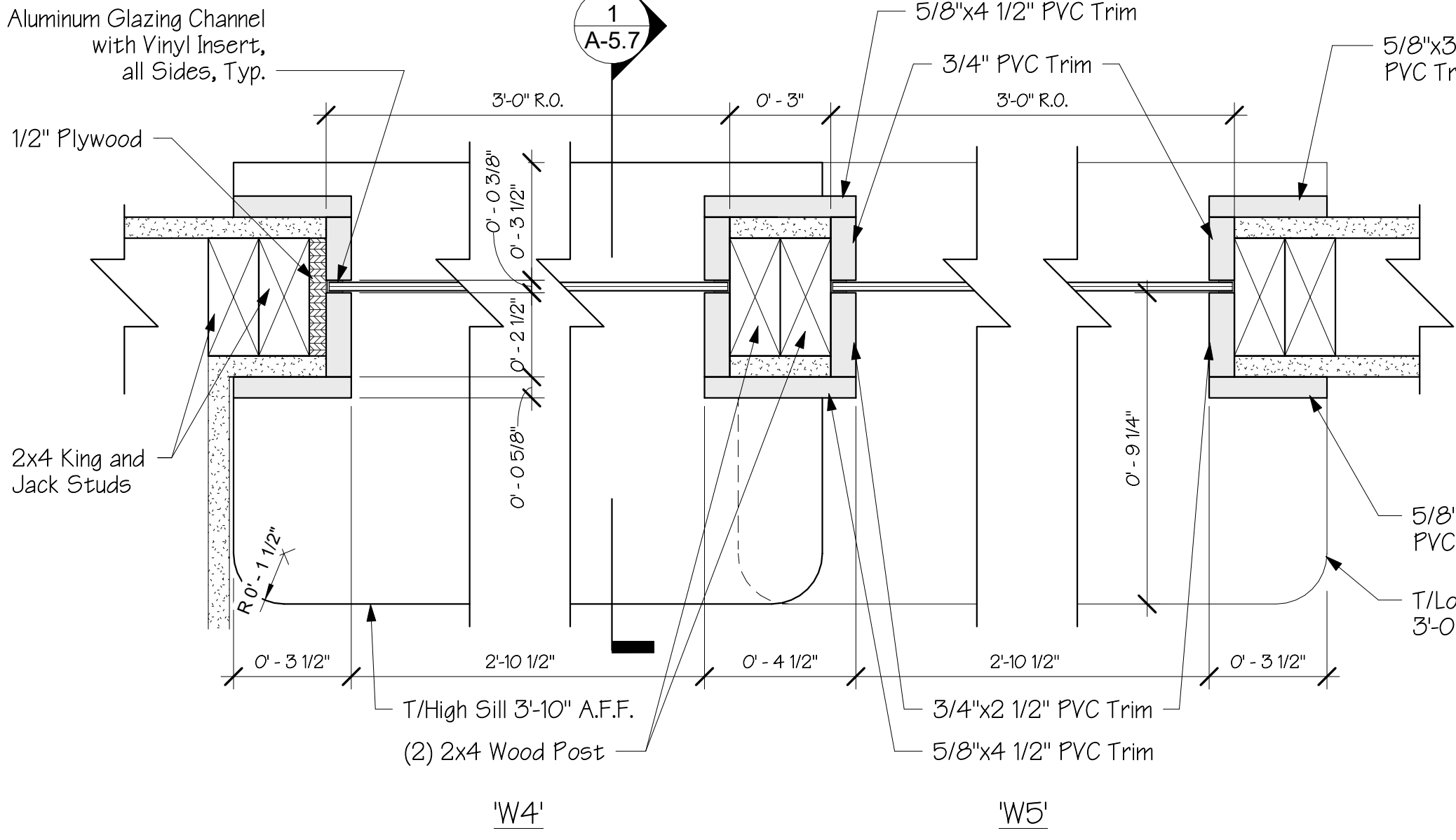
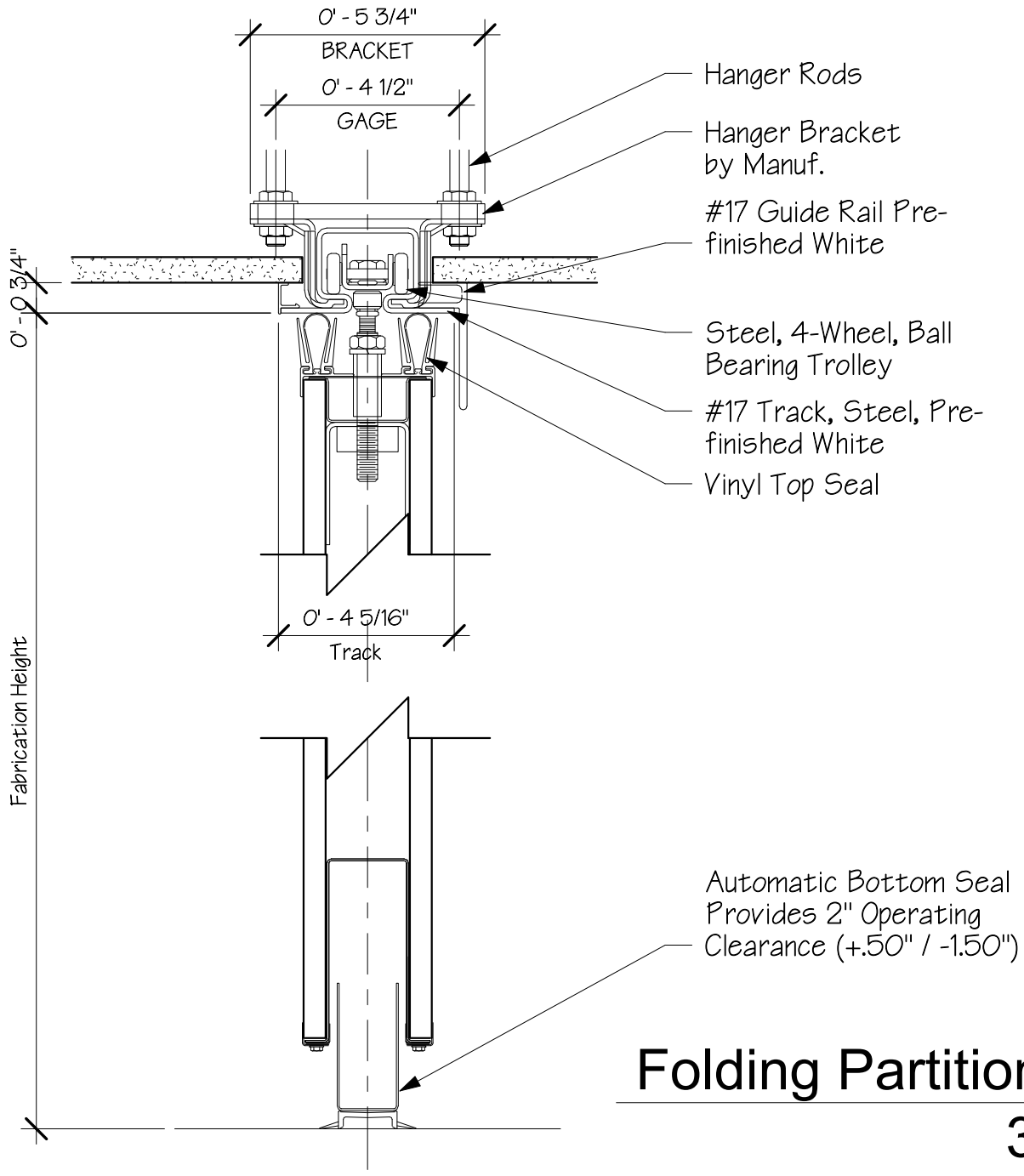
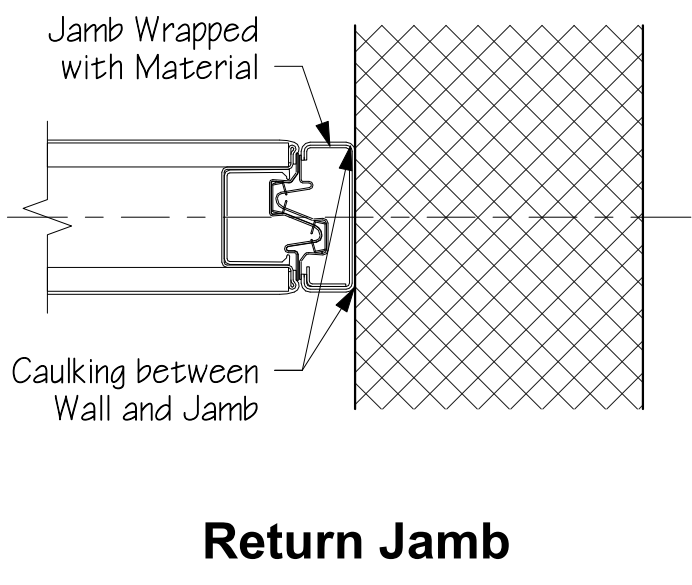
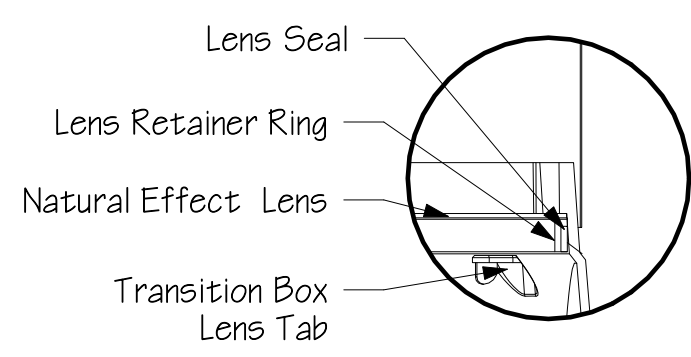
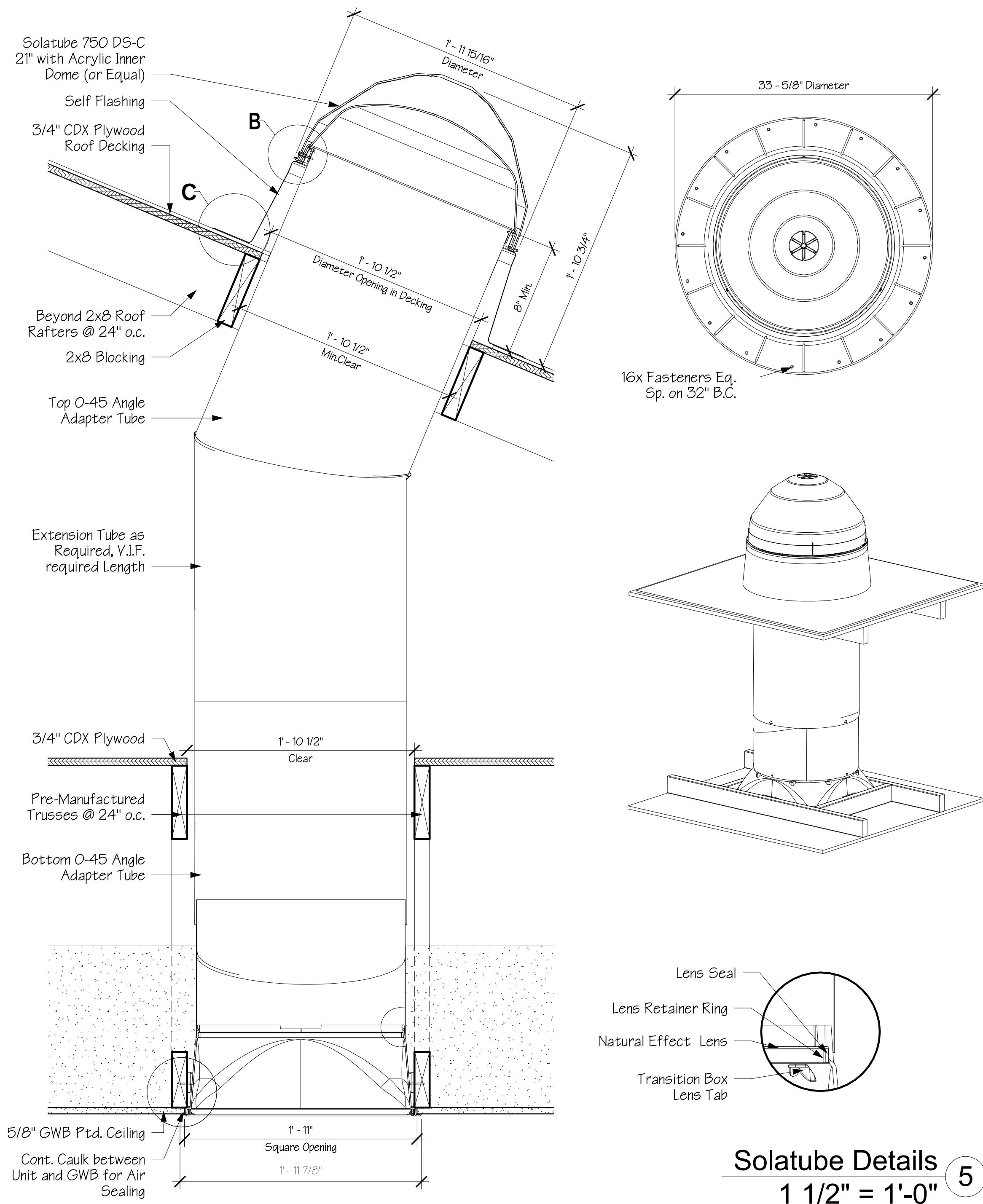
Casework Details

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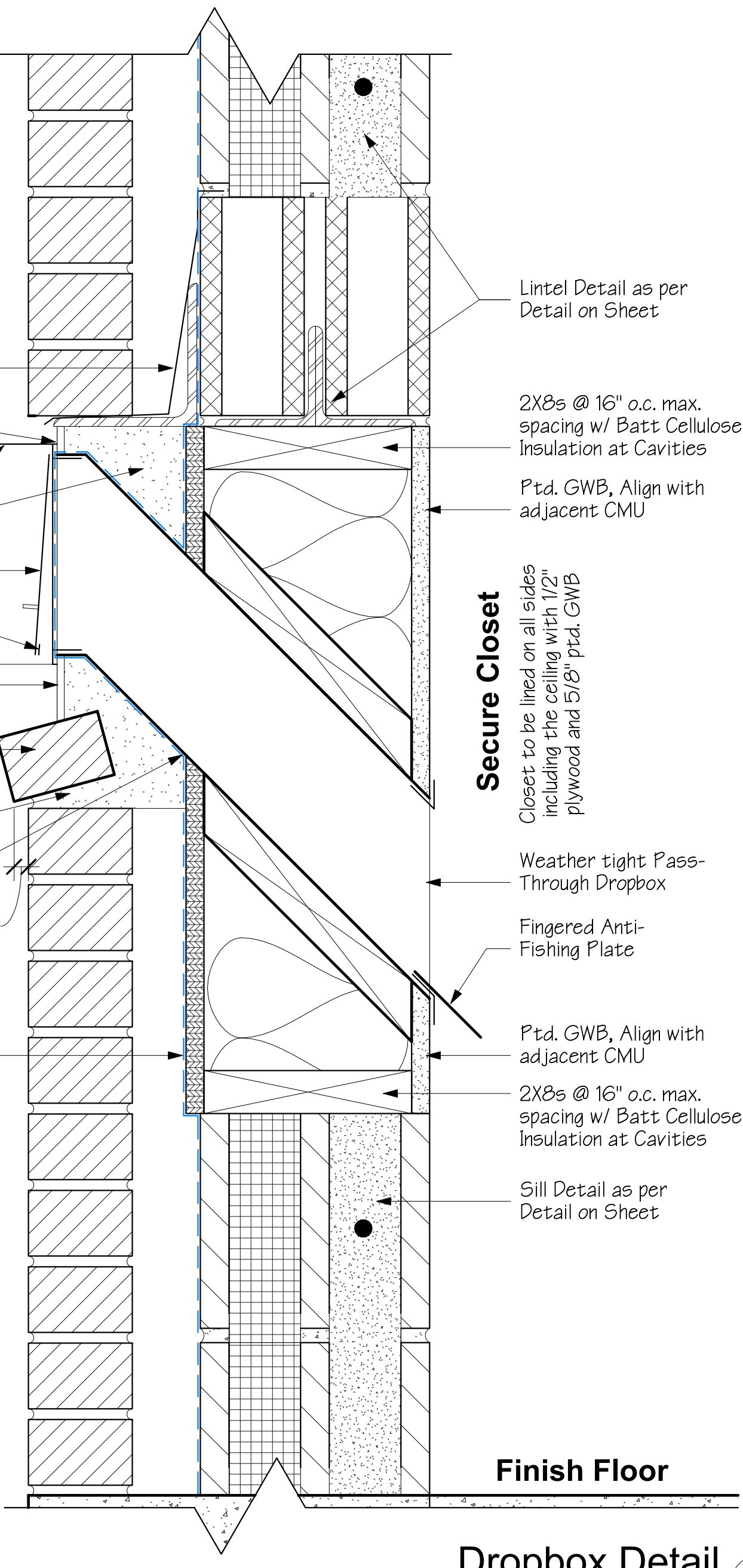
A-5.6



NOTE:
 1. All tube joints & seams taped with 2" minimum air sealing tape.
 2. 6" minimum clearance should be maintained from all Solatube (or equal) components and other plenum components.



NOTE:
 Coordinate location and size of masonry opening with size of the Pass-Through. Location shown on plans is the approximate location of dropbox, adjust actual location with coursing and so that the bottom end of the Pass-Through is entirely located within the secure closet of the tax office.



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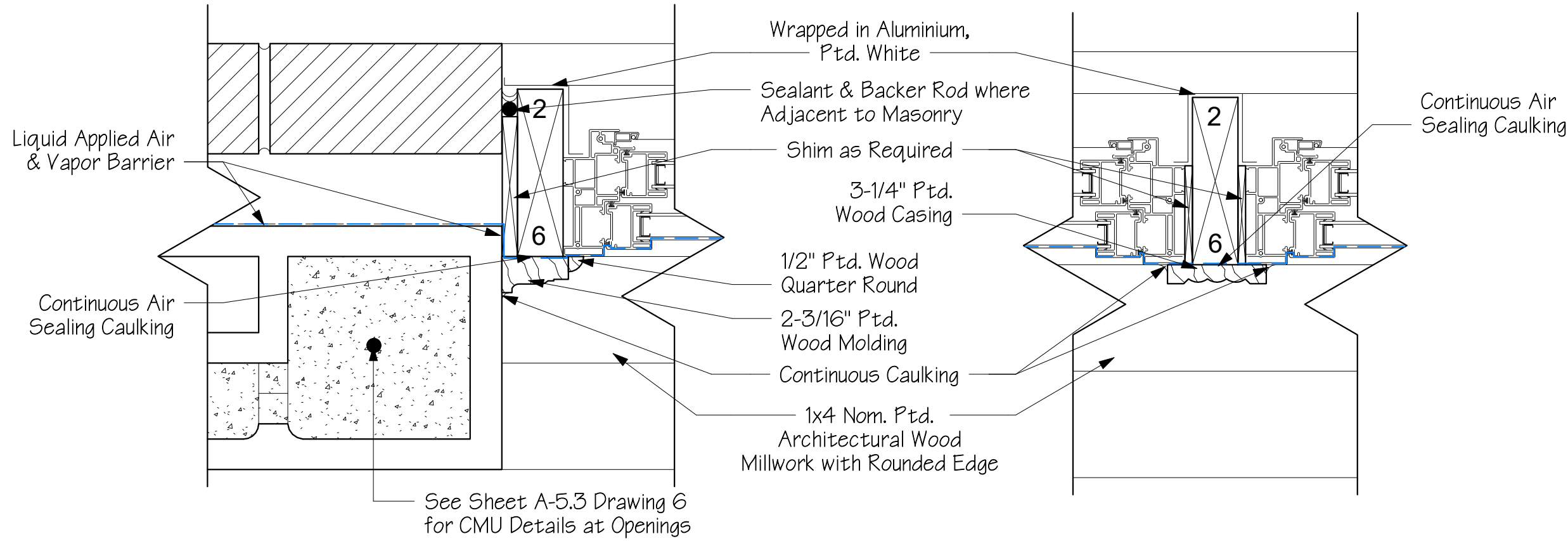
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REVISION NAME
Miscellaneous
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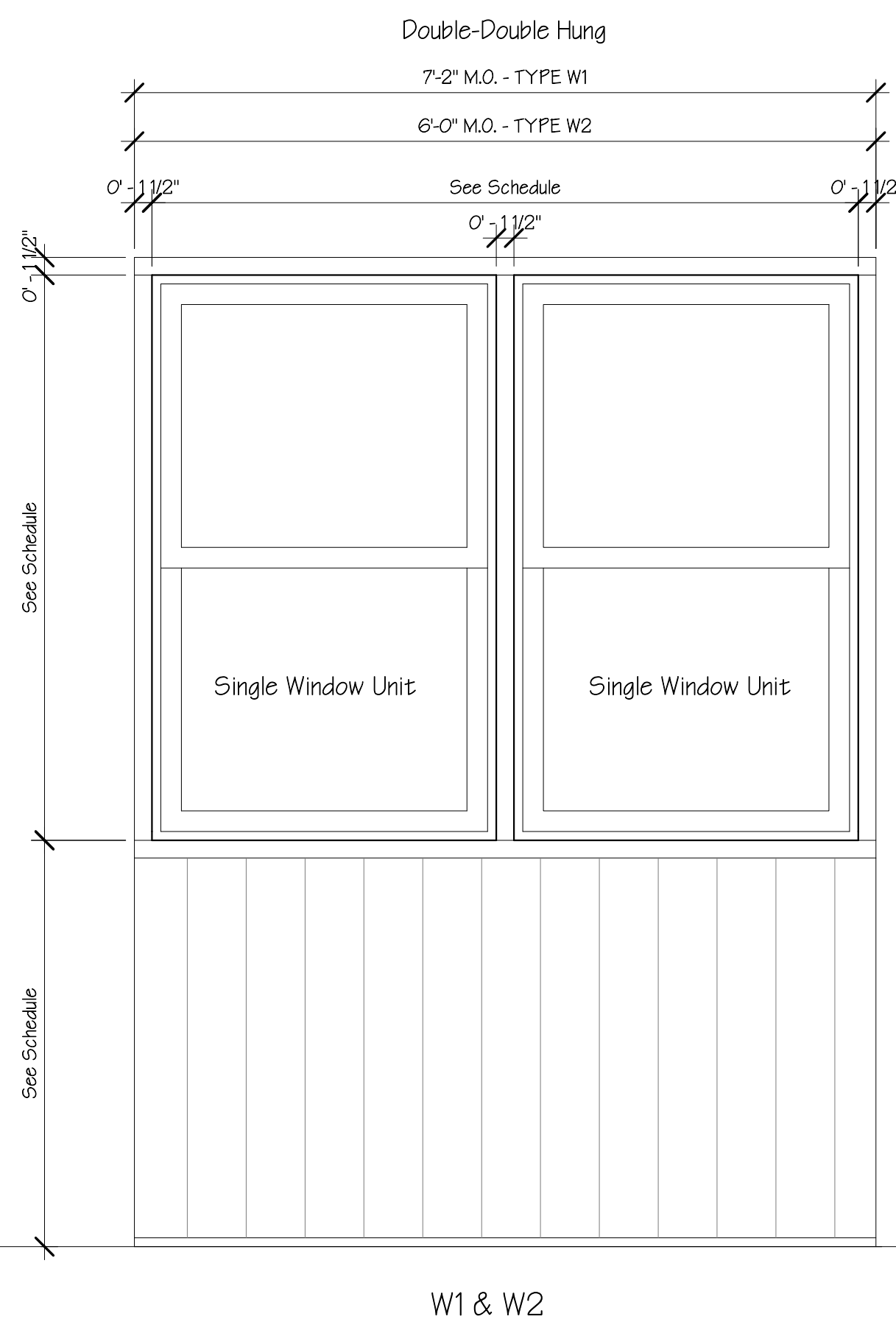
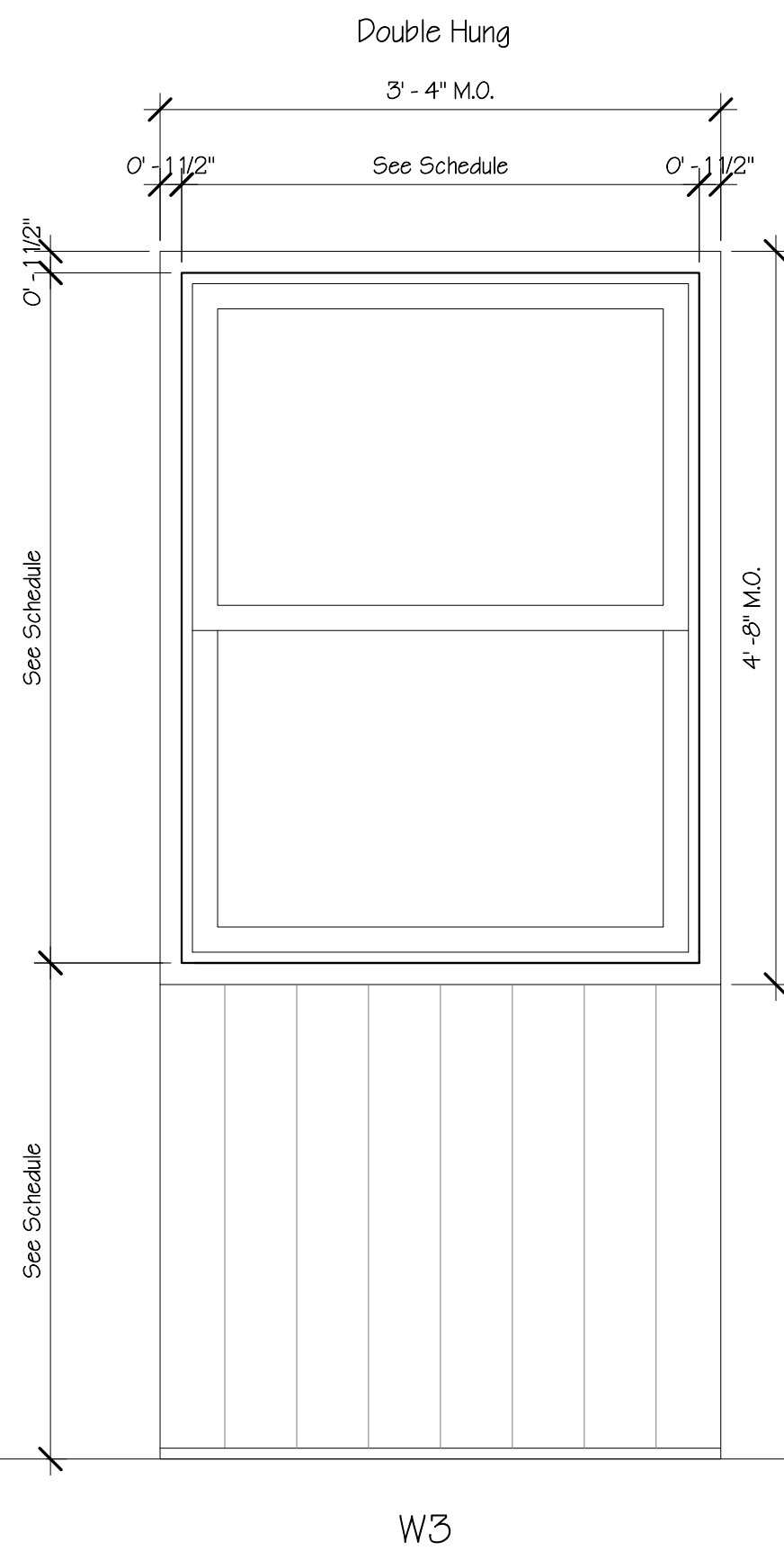
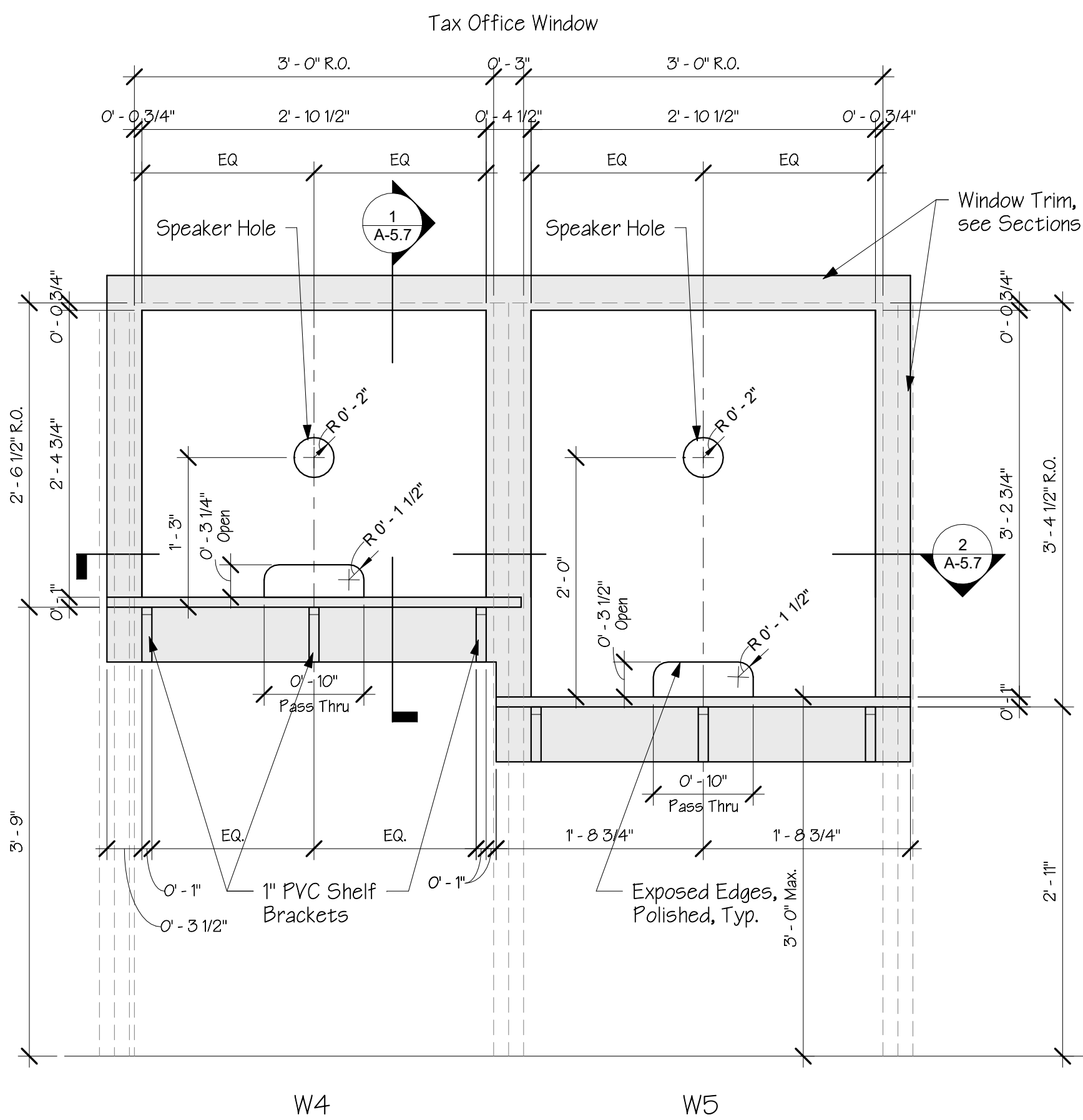
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Window Schedule							
Tag	Family	Height	Width	Sill Height	Glass	Frame	Comments
1	Double Hung-Double w Trim	4' - 5 1/2"	6' - 10"	3' - 1 1/4"	Double Glazed Low-E with Argon	Vinyl	
2	Double Hung-Double w Trim	4' - 5 1/2"	5' - 8"	3' - 1 1/4"	Double Glazed Low-E with Argon	Vinyl	
2T	Double Hung-Double w Trim	4' - 5 1/2"	5' - 8"	3' - 1 1/4"	Double Glazed Low-E with Argon	Vinyl	Tempered Glazing
3T	Double Hung with Trim	4' - 5 1/2"	3' - 0"	3' - 1 1/4"	Double Glazed Low-E with Argon	Vinyl	Tempered Glazing
4T	Tax Office Window	2' - 4 3/4"	3' - 0"	3' - 10"	1/4" Tempered	Vinyl	
5T	Tax Office Window ADA Compliant	3' - 2 3/4"	3' - 0"	3' - 0"	1/4" Tempered	Vinyl	



Window Jamb
3" = 1'-0" 5

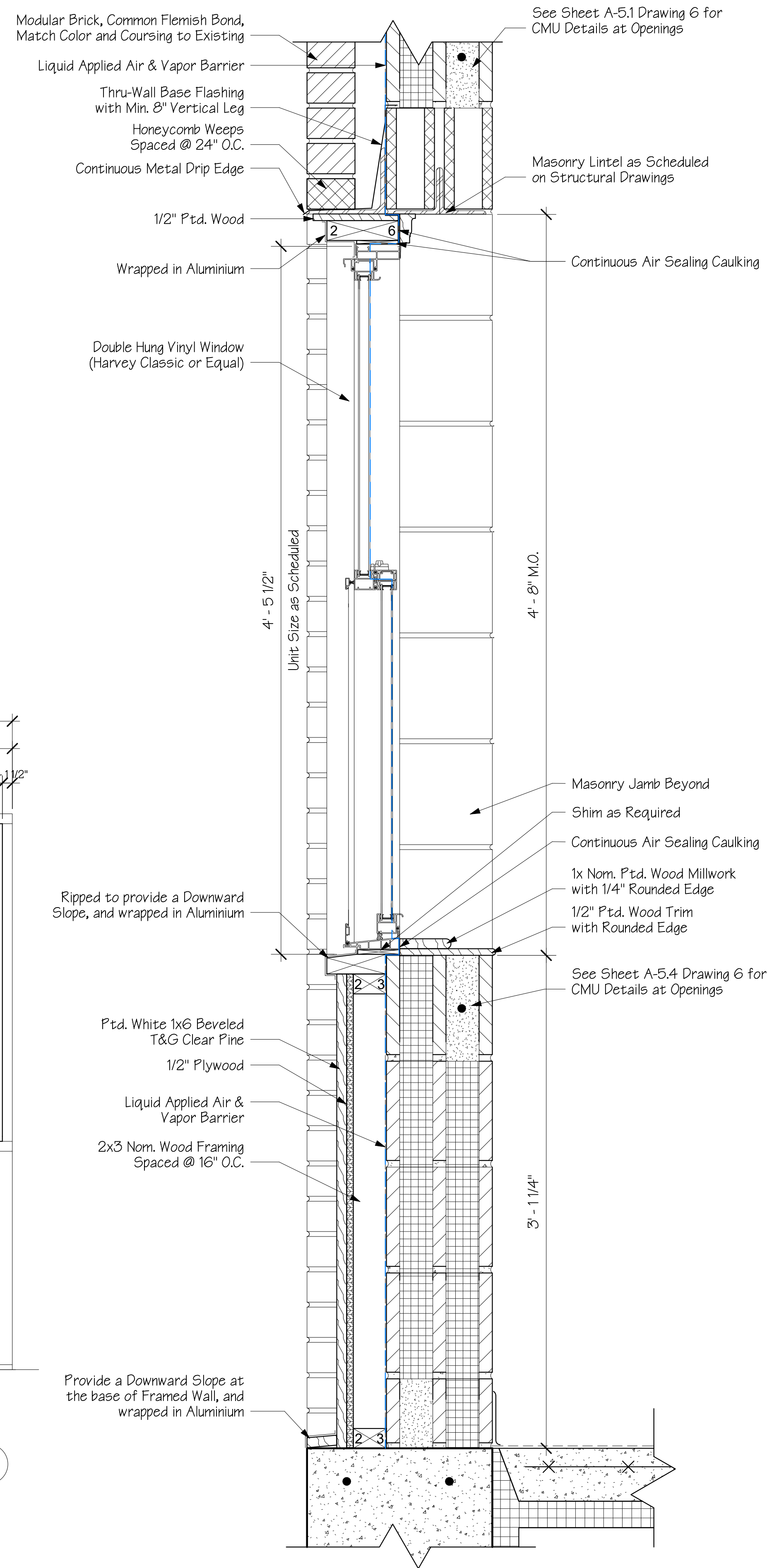
Window Jamb between Windows
3" = 1'-0" 4



Window Types
NTS 3

Window Notes:

1. Verify rough opening size is of sufficient size to receive window unit and complies with manufacuter's requirements for opening clearances..
2. Verify that sill is level.
3. Install window unit in accordance with manufacturer's printed instructions.
4. Apply sealant around perimeter of window unit as shown.
5. Install window unit square, level and plumb. Center window unit in opening and secure window unit by nailing through nail fin and screw through jambs as indicated in manufacturer's instructions.
6. Flash window in accordance with AAMA's standard practices.
8. Windows must have a minimum U value of 0.27 or less.



Window Detail
2" = 1'-0" 1



Richard Sambor, P.E.
Structural Engineer



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No.	Description	Date

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445 Randolph Rd
Middletown, CT 06457
South Fire District Bldg
Renovations & Addition

For Permit
9/21/2023

Window Schedule
& Details

A-6.1

Room Name	Rm. #	Floor	Unit	Color/Style	Wall	Unit	Color/Style	Ceiling	Unit	Color/Style	Base	Unit	Color/Style
Gym	1	Rubber	Roll	Provide 4 Options for Selection	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Captain's Office	2	Carpeting	Roll	Neutral Commercial	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Gender Neutral Bathroom(s)	-	Ceramic	2x2	Provide 4 Options for Selection	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	A.C.T.	24x24	White/Moisture Res.	Ceramic	6x6	Cove
Meeting Rm (A & B)	3 & 4	VCT	12x12	Provide 4 Options for Selection	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Lobby	5	Ceramic	12x12	Provide 4 Options for Selection	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Ceramic	6x6	Cove
Public Corridor (see note #7 below)	6	VCT	12x12	Provide 4 Options for Selection	Ptd. GWB/E.T.R.	— / ETR	Eggshell White / ETR	A.C.T.	24x24	White/Fissure	Rubber	4"	Gray Cove
Tax Office Public Reception Area	7	Carpeting	Roll	Neutral Commercial	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Tax Office	8	Carpeting	Roll	Neutral Commercial	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Finance Department	9	Carpeting	Roll	Neutral Commercial	Ptd. Brick/GWB	Brick / —	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Kitchenette	10	LVT	Plank	Provide 4 Options for Selection	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Private Corridor A	11	VCT	12x12	Provide 4 Options for Selection	Ptd. Brick/GWB	Brick / —	Semi/Eggshell White	A.C.T.	24x24	White/Fissure	Rubber	4"	Gray Cove
Kitchen Dining	12	LVT	Plank	Provide 4 Options for Selection	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Storage	13	LVT	Plank	Provide 4 Options for Selection	Ptd. Block/GWB	8x8x16/—	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Private Corridor B	14	VCT	12x12	Provide 4 Options for Selection	Ptd. Brick/GWB	Brick / —	Semi/Eggshell White	Ptd. GWB	—	Ceiling/White	Rubber	4"	Gray Cove
Gender Neutral Bathroom	15	E.T.R.			E.T.R.	—	—	A.C.T.	24x24	White/Moisture Res.	E.T.R.	—	—
Gender Neutral Bathroom	16	Granite	12x12	Match Existing Wall Tile	E.T.R.	—	—	A.C.T.	24x24	White/Moisture Res.	E.T.R.	—	—
Equipment Wash	17	E.T.R.			E.T.R.	—	—	Ptd. GWB	—	Ceiling/White	E.T.R.	—	—

Finishes Notes

1. VCT tiled corridors shall have a border (one 12x12 tile wide at all edges) of a different color.
2. Provide 4 options of finishes for the Owner's Rep. to select from.
3. Finishes are to match existing, unless noted otherwise or directed by Owner's Rep. Contractor to match east wing where possible
4. Finishes provide must meet the standards of heavy-use commercial grade finishes.
5. Review the book Specifications for more details.
6. Closet finishes are to match the finishes of the room they are located in.
7. For existing finishes to remain (E.T.R.) see notes on sheet A-1.1.



ENGINEER
Richard Sambor, P.E.
Structural Engineer



No.	Description	Date
1	Revised Floor Finish - Bathroom #16	10/17/23

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PROJECT
445 Randolph Rd
Middletown, CT 06457
**South Fire District Bldg
Renovations & Addition**

For Permit
9/21/2023

DRAWING NAME

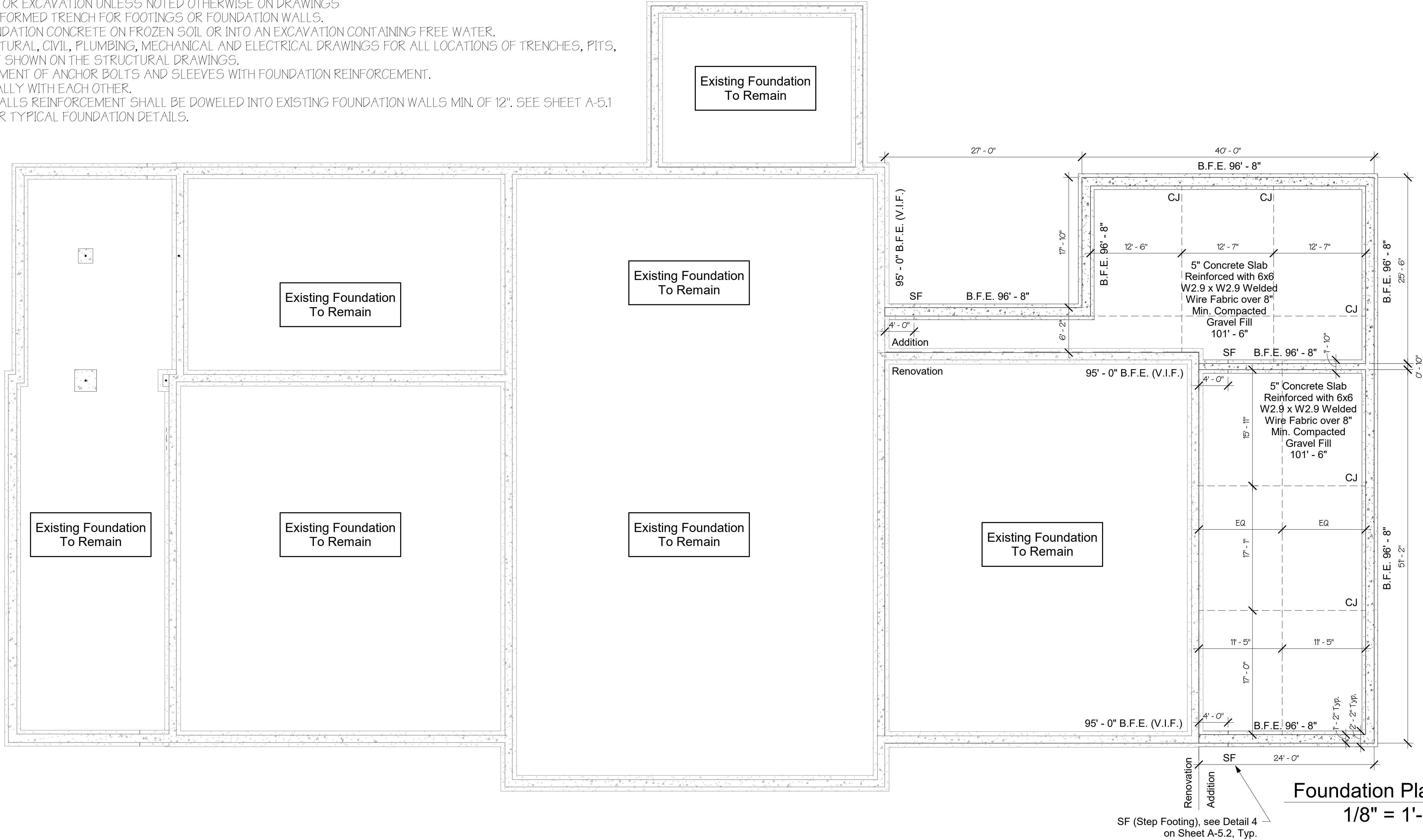
Finish Schedule

DRAWING NO.

A-7.0

FOUNDATIONS:

- FOOTING ELEVATIONS SHOWN ON PLAN ARE AT BOTTOM OF FOOTINGS.
- REFER TO CIVIL DRAWINGS FOR ROUGH GRADE ELEVATIONS.
- OVER EXCAVATION OF SOIL FOR FOOTINGS SHALL BE REPLACED AND COMPACTED IN LAYERS, TO 95% OF MODIFIED PROCTOR.
- UNSUITABLE BEARING MATERIALS, SUCH AS MISCELLANEOUS FILL AND ORGANIC SOILS MAY EXIST IN AREAS OF NEW FOUNDATIONS. EXISTING UNSUITABLE MATERIALS SHALL BE EXCAVATED AS DIRECTED OR AS INDICATED ON THE DRAWINGS AND SHALL BE FILLED BY PLACEMENT OF COMPACTED GRAVEL FILL.
- STEP WALL FOOTINGS 1 VERTICAL TO 2 HORIZONTAL WHERE ELEVATIONS CHANGE UNLESS NOTED OTHERWISE ON DRAWINGS.
- EDGES OF FOOTINGS SHALL NOT BE PLACED AT A SLOPE GREATER THAN 1 VERTICAL TO 2 HORIZONTAL WITH RESPECT TO ANY ADJACENT FOOTING OR EXCAVATION UNLESS NOTED OTHERWISE ON DRAWINGS
- DO NOT USE EARTH FORMED TRENCH FOR FOOTINGS OR FOUNDATION WALLS.
- DO NOT PLACE FOUNDATION CONCRETE ON FROZEN SOIL OR INTO AN EXCAVATION CONTAINING FREE WATER.
- REFER TO ARCHITECTURAL, CIVIL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL LOCATIONS OF TRENCHES, PITS, CONDUITS, ETC., NOT SHOWN ON THE STRUCTURAL DRAWINGS.
- COORDINATE PLACEMENT OF ANCHOR BOLTS AND SLEEVES WITH FOUNDATION REINFORCEMENT.
- WALLS MONOLITHICALLY WITH EACH OTHER.
- NEW FOUNDATION WALLS REINFORCEMENT SHALL BE DOWELED INTO EXISTING FOUNDATION WALLS MIN. OF 12". SEE SHEET A-5.1
- SEE SHEET A-5.1 FOR TYPICAL FOUNDATION DETAILS.



SLAB ON GRADE:

- SUPPORT WELDED WIRE FABRIC REINFORCEMENT OR REINFORCING STEEL BARS ON CONTINUOUS SLAB BOLSTERS (WITH SAND PLATES) SPACED AS REQUIRED TO ADEQUATELY SUPPORT FABRIC OR REINFORCING STEEL BARS, BUT IN NO CASE GREATER THAN 24" O/C. PLACE WELDED WIRE FABRIC OR REINFORCING STEEL BARS AS SHOWN.
- PLACE ALL INTERIOR SLABS ON GRADE OVER VAPOR BARRIER, REFER TO SPECIFICATION FOR VAPOR BARRIER REQUIREMENTS.
- EXTERIOR SLABS ON GRADE CONSTRUCTION AND CONSTRUCTION CONTROL JOINTS (INCLUDING SIDEWALKS) SHALL BE TOOLED. REFER TO CIVIL DRAWINGS FOR REQUIRED DEPTH.
- PLACE ELECTRIC CONDUIT AND OTHER PIPES BELOW CONCRETE FLOOR SLABS.

CONCRETE:

- HEATING WILL NOT BE PERMITTED FOR BENDING OF REINFORCEMENT STEEL.
- CONCRETE COVER FOR STEEL REINFORCEMENT, UNLESS NOTED OTHERWISE: UNFORMED SURFACE IN CONTACT WITH THE GROUND - 3 INCHES
- FORMED SURFACES EXPOSED TO EARTH OR WEATHER - 2 INCHES.
- MINIMUM CONCRETE COVER FOR ANCHOR BOLTS - 3 INCHES.
- LAP CONTINUOUS CONCRETE HORIZONTAL REINFORCING BARS 3B DIAMETERS, UNLESS OTHERWISE NOTED. ALL OTHER LAP SPLICES SHALL BE IN ACCORDANCE WITH AC 131B-99.
- PROVIDE CORNER BARS FOR ALL HORIZONTAL REINFORCEMENT.
- ALL CONCRETE SHALL BE AIR-ENTRAINED.
- REFER TO CIVIL, ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION AND DIMENSIONS OF PADS, DEPRESSIONS, OPENINGS, SLEEVES, DRAINS, INSERTS, ANCHORS, HANGERS, MISCELLANEOUS IRON, CHASES, CONDUITS, FLOOR FILLS AND FINISHES, CURBS, STONE AND MASONRY DETAILS AND OTHER DETAILS RELATED TO CONCRETE WORK NOT SHOWN ON STRUCTURAL DRAWINGS.
- REFER TO ARCHITECTURAL DRAWINGS AND/OR SPECIFICATIONS FOR CONCRETE FINISHES.
- REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL CONCRETE WORK NOT SHOWN ON STRUCTURAL DRAWINGS.

MASONRY:

- MASONRY CONSTRUCTION SHALL BE IN ACCORDANCE WITH "BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES" ACI 530-02/ASCE 5-02
- MASONRY SHALL BE LAID IN COMMON FLEMISH BOND (EVERY SIXTH COURSE IS FLEMISH BOND), MATCH TO EXISTING
- MORTAR SHALL BE TYPE S BY ASTM C270 STANDARDS.
- GROUT SHALL MEET ASTM C476 STANDARDS WITH 7.0 MIN. SACKS OF PORTLAND CEMENT PER A CUBIC YARD.
- PROVIDE REBAR AS SHOWN ON SHEETS A-3.1, A-3.2, A-5.1, A-5.2 AND A-5.4
- MASONRY CELLS WITH REBAR SHALL BE FILLED IN WITH SOLID GROUT (SAME TYPE AS MORTAR).
- VERTICAL REBAR TO BE DOWELED INTO FOUNDATION WALL A MIN. OF 12"
- REBAR SHALL BE HELD IN PALCE WITH POSITIONERS AT THE SPLICES, THE START, AND END.
- SPICE REBAR A MIN. OVERLAP OF 48 BAR DIAMETERS OR 12", WHICHEVER IS GREATER.
- SINGLE WYTHE JOINT REINFORCEMENT TO BE TRUSS TYPE (3/16" DIAMETER SIDE RODS WITH 9 GA. CROSS TIES) MEETING ASTM A82 STANDARDS. INSTALLED 16" O.C. MAX. VERTICALLY. WIRE TO BE GALVANIZED.
- DO NOTE USE AMIXTURES CONTAINING CHLORIDES, NITRITES, OR NITRATES.



Richard Sambor, P.E.
Structural Engineer



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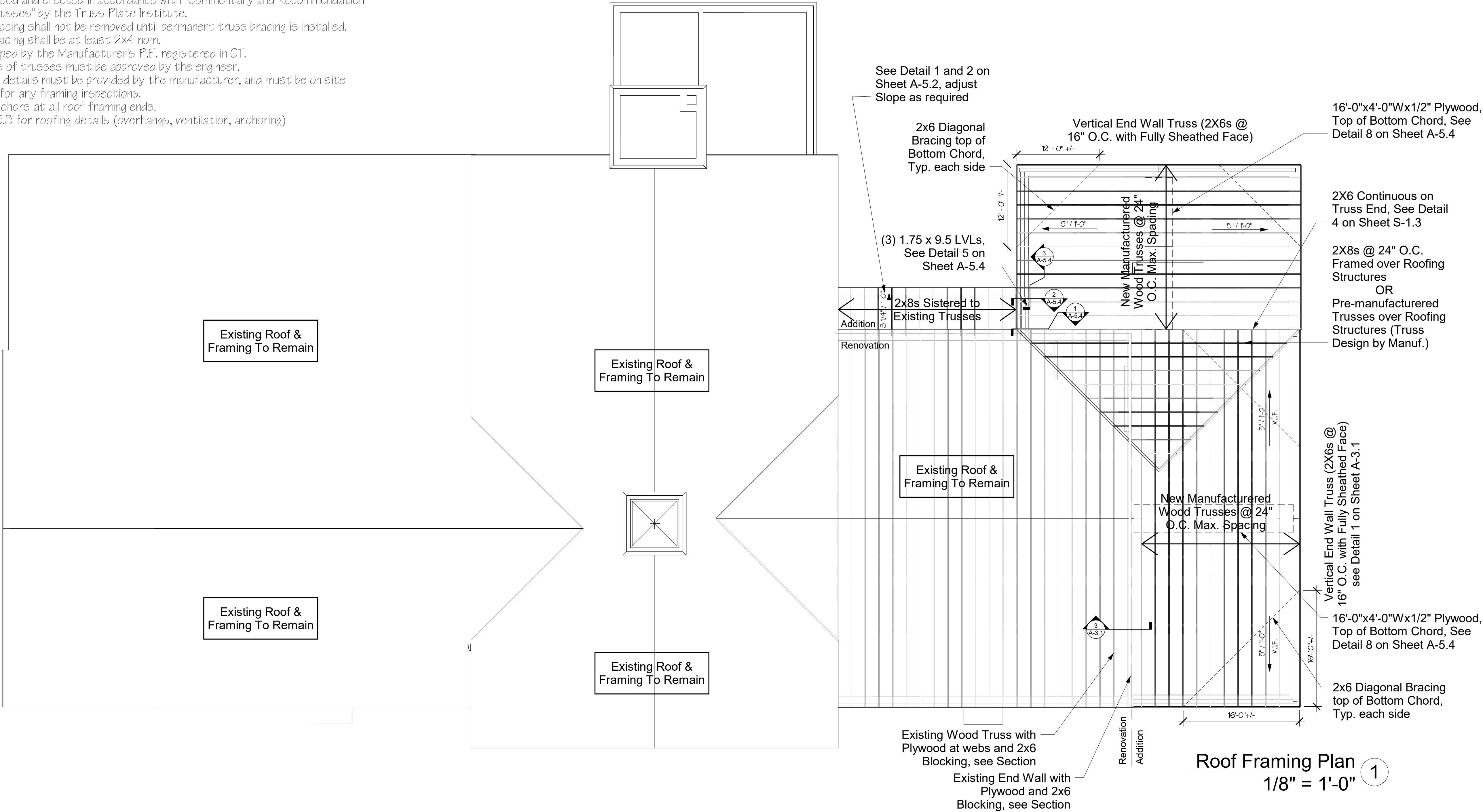
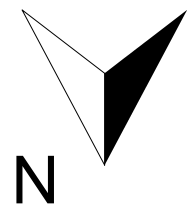
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9/21/2023

Foundation Plan

S-1.1

ROOF FRAMING NOTS:

1. All trusses shall be fabricated and erected in accordance with the "Code of Standard Practice for the Metal Plate Connected Wood Truss Industry"
2. Trusses shall be braced and erected in accordance with "Commentary and Recommendation for Bracing Wood Trusses" by the Truss Plate Institute.
3. Temporary Truss bracing shall not be removed until permanent truss bracing is installed.
4. Permanent truss bracing shall be at least 2x4 nom.
5. Trusses to be stamped by the Manufacturer's P.E. registered in CT.
6. Any field alterations of trusses must be approved by the engineer.
7. Drawings and design details must be provided by the manufacturer, and must be on site during construction for any framing inspections.
8. Provide hurricane anchors at all roof framing ends.
10. See sheet 5.2 and 5.3 for roofing details (overhangs, ventilation, anchoring)



Roof Framing Plan 1
1/8" = 1'-0"

STRUCTURAL GENERAL NOTES

2022 CONNECTICUT STATE BUILDING CODE

ROOF/SNOW LOADS

ROOF LIVE LOAD:
GROUND SNOW 30 PSF (DOES NOT INCLUDE IMPORTANCE FACTOR)

FLAT ROOF SNOW LOAD P_f = 40 PSF
DRIFTING CURRENT CODE
SNOW LOAD IMPORTANCE FACTOR I = 1.2
SNOW LOAD EXPOSURE FACTOR C_e = 1.0
SNOW LOAD THERMAL FACTOR C_t = 1.0
ROOF DESIGN TRUSS LIVE LOAD 36 PSF

WIND LOADS

ULTIMATE WIND SPEED 120 mph
NOMINAL WIND SPEED 93 mph
WIND LOAD IMPORTANCE FACTOR I = 1.15
WIND EXPOSURE B
WIND DESIGN PRESSURE P = 12 PSF MWFRS WALLS
= 12 PSF COMP. & CLADDING
= 19.1 PSF GROSS UPLIFT ON ROOF

DESIGN STRESSES

PRESUMED
SOIL BEARING PRESSURE F_p = 4,000 PSF

CONCRETE :
EXTERIOR SLABS f'_c = 4,000 PSI
ALL OTHERS f'_c = 4,000 PSI

REINFORCING STEEL:
#4 BARS AND LARGER: F_y = 60,000 PSI
WELDED WIRE FABRIC: F_y = 65,000 PSI

EARTH QUAKE LOADS

RISK CATEGORY IV
SEISMIC CATEGORY C
SEISMIC IMPORTANCE 1.5

LUMBER

DOUGLAS FIR #2
FRAMING LUMBER F_b = 1,100 PSI
MICROLAM (LVL) F_b = 3,100 PSI
E = 2,000,000 PSI

WOOD FRAME HEADER SCHEDULE

SIZE	MAX SPAN
2- 2X6	6'-0"
2- 2X8	8'-0"

MASONRY LINTELS SCHEDULE

SIZE	MAX SPAN
L3-1/2 x 3-1/2 x 5/16	4'-6" or less
L4 x 3-1/2 x 5/16	4'-7" to 5'-6"
L5 x 3-1/2 x 5/16	5'-7" to 6'-6"
L6 x 3-1/2 x 5/16	6'-7" to 7'-6"

GENERAL:

1. USE STRUCTURAL DRAWINGS WITH ARCHITECTURAL, ELECTRICAL AND MECHANICAL DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR INCLUDING ALL REQUIREMENTS INTO SHOP DRAWINGS.
2. DO NOT CHANGE SIZE OR DIMENSIONS OF STRUCTURAL MEMBERS WITHOUT APPROVAL OF ARCHITECT.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION LOAD IMPOSED UPON STRUCTURAL FRAMING. CONSTRUCTION, CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF STRUCTURAL MEMBERS AT THE TIME THE LOADS ARE IMPOSED.
4. DO NOT SCALE THE DRAWINGS, USE DIMENSIONS.
5. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING CONSTRUCTION PERIOD.
6. VERIFY ALL DIMENSIONS AND ELEVATIONS ON STRUCTURAL DRAWINGS WITH ARCHITECTURAL DRAWINGS. REPORT DISCREPANCIES TO ARCHITECT BEFORE PROCEEDING WITH WORK.
7. UNDERGROUND UTILITY LOCATIONS AND MATERIALS OF CONSTRUCTION SHOWN HEREIN AND OTHER LOCATIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION.
8. CONTRACTOR SHALL NOT DISRUPT OPERATION DURING CONSTRUCTION.
9. ALL DISTURBED AREAS TO BE RESTORED TO THE ORIGINAL CONDITIONS.
10. CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND BRACING TO SUPPORT UTILITIES DURING CONSTRUCTION.
11. PRIOR TO START OF CONSTRUCTION CONTRACTOR SHALL PROVIDE TEST PITS TO VERIFY LOCATION AND ELEVATIONS OF CROSSING SANITARY WATER LINES, STORM SEWER LINES AND ELECTRICAL UTILITIES. THE CONTRACTOR SHALL REQUEST MARK OUT OF UTILITY LOCATION FROM CALL BEFORE YOU DIG (1-800-922-4455) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION OPERATION.



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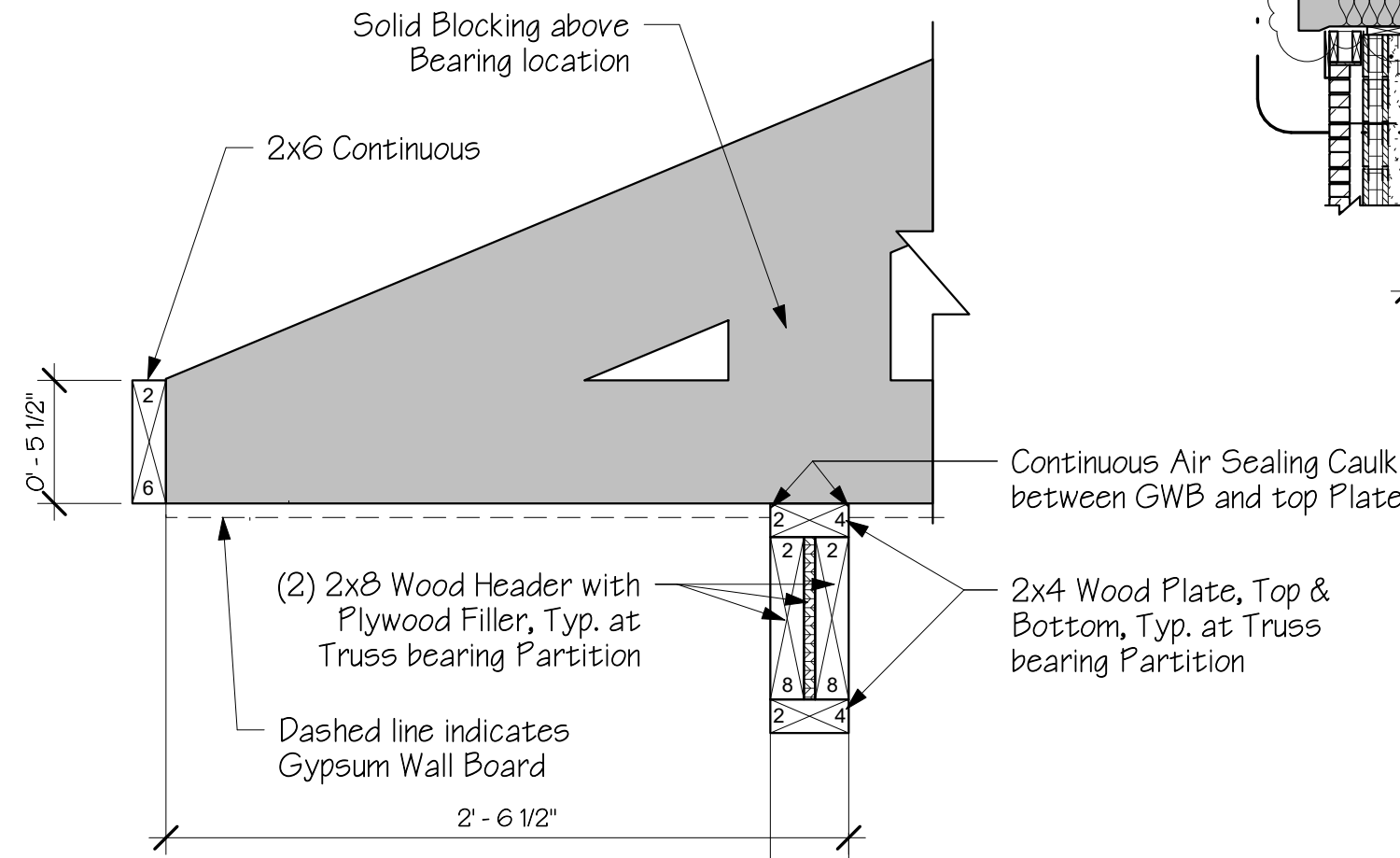
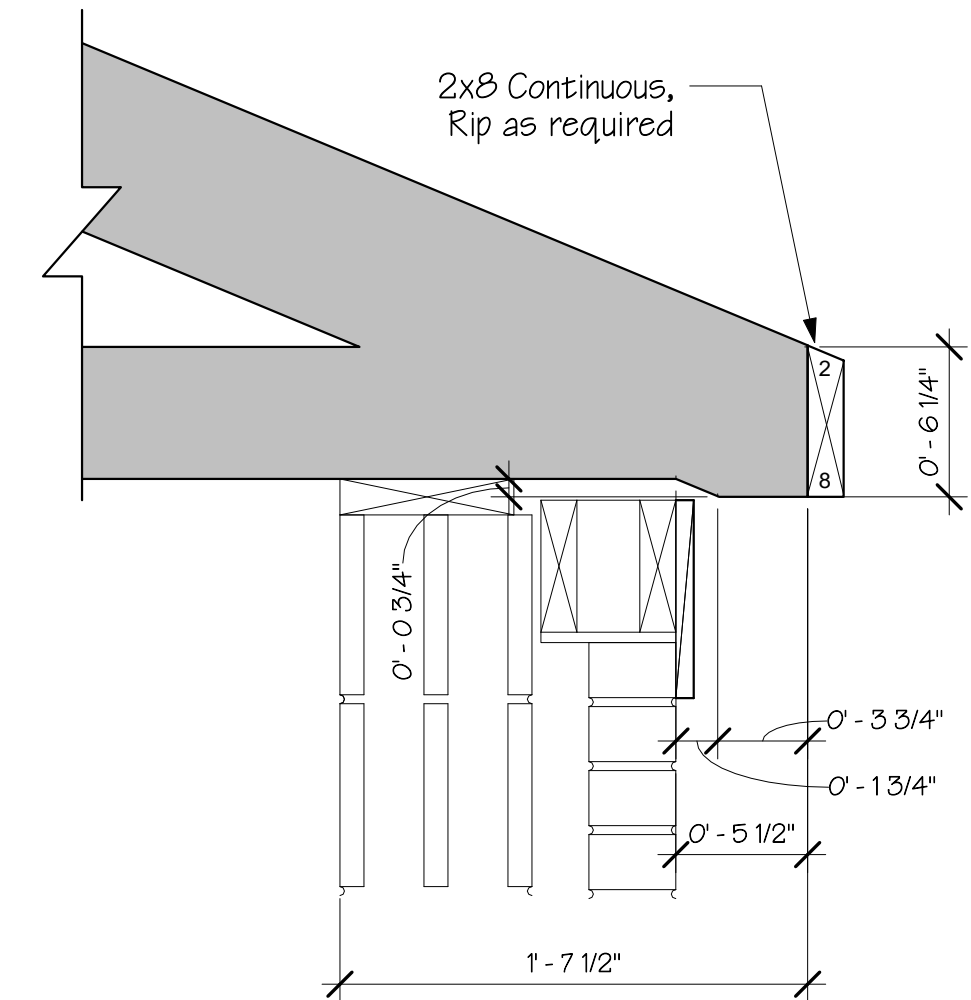
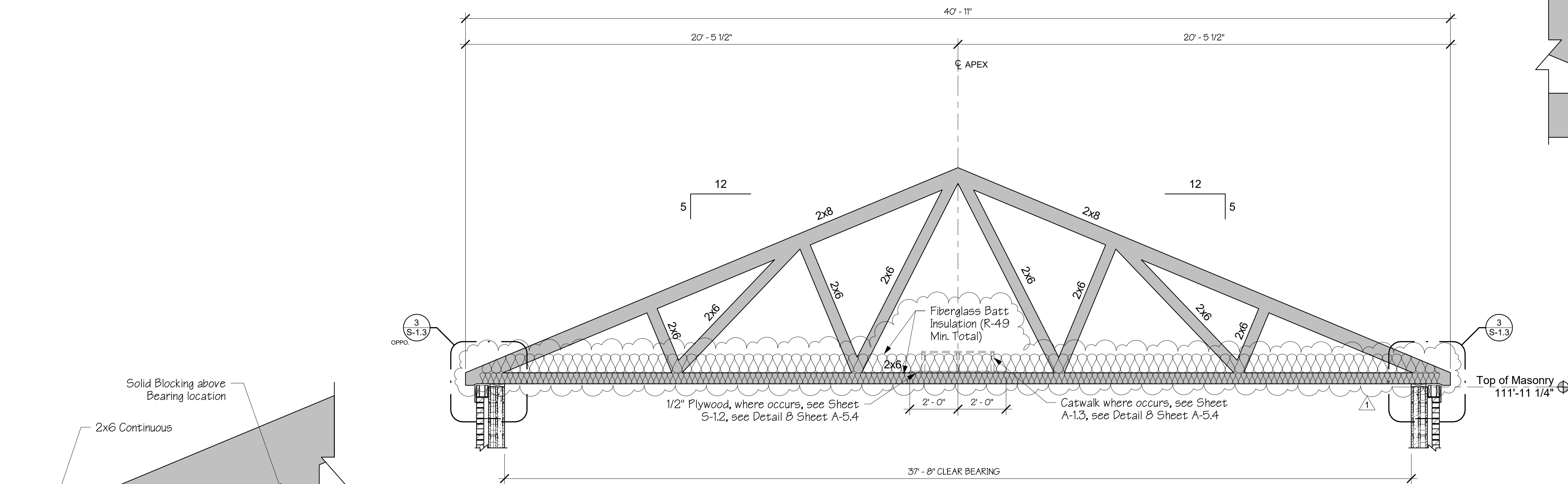
ARCHITECT
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No. Description Date

PROJECT
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Middletown, CT 06457
**South Fire District Bldg
Renovations & Addition**

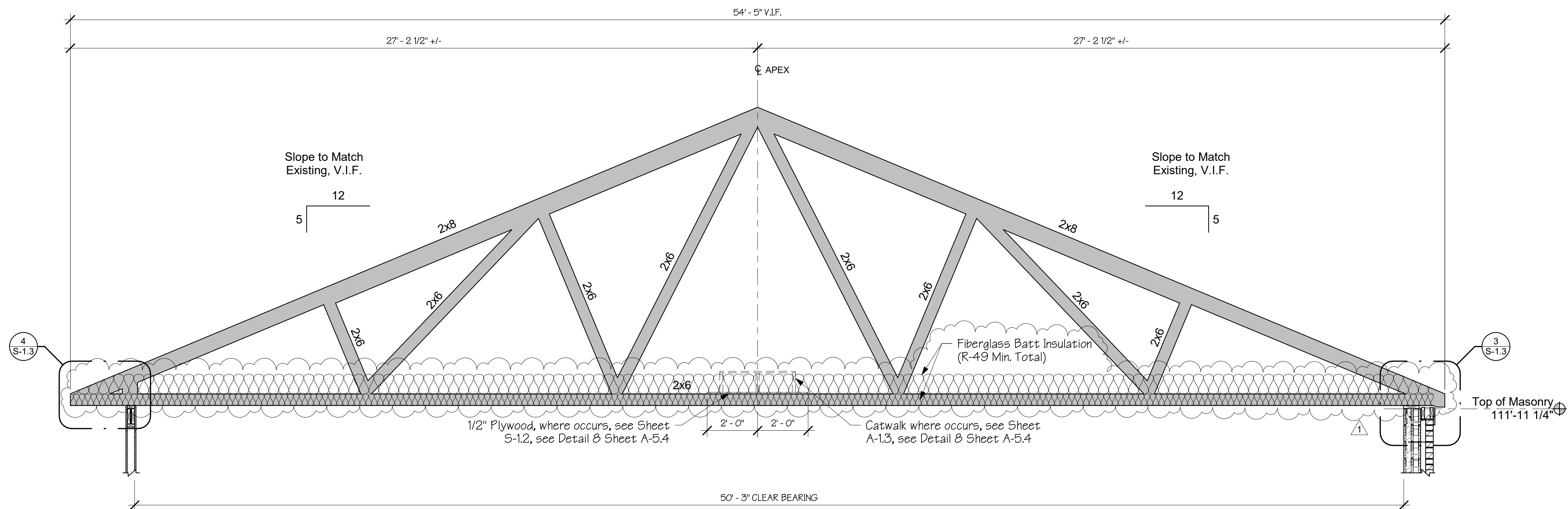
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Roof Framing
Plan
S-1.2



Roof Truss - Type '2'
3/8" = 1'-0"

Truss End 'B'
1 1/2" = 1'-0"



Roof Truss - Type '1'
3/8" = 1'-0"



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No.	Description	Date
1	Replace Loose Fill w/Batt Insul. - Attic	10/17/23

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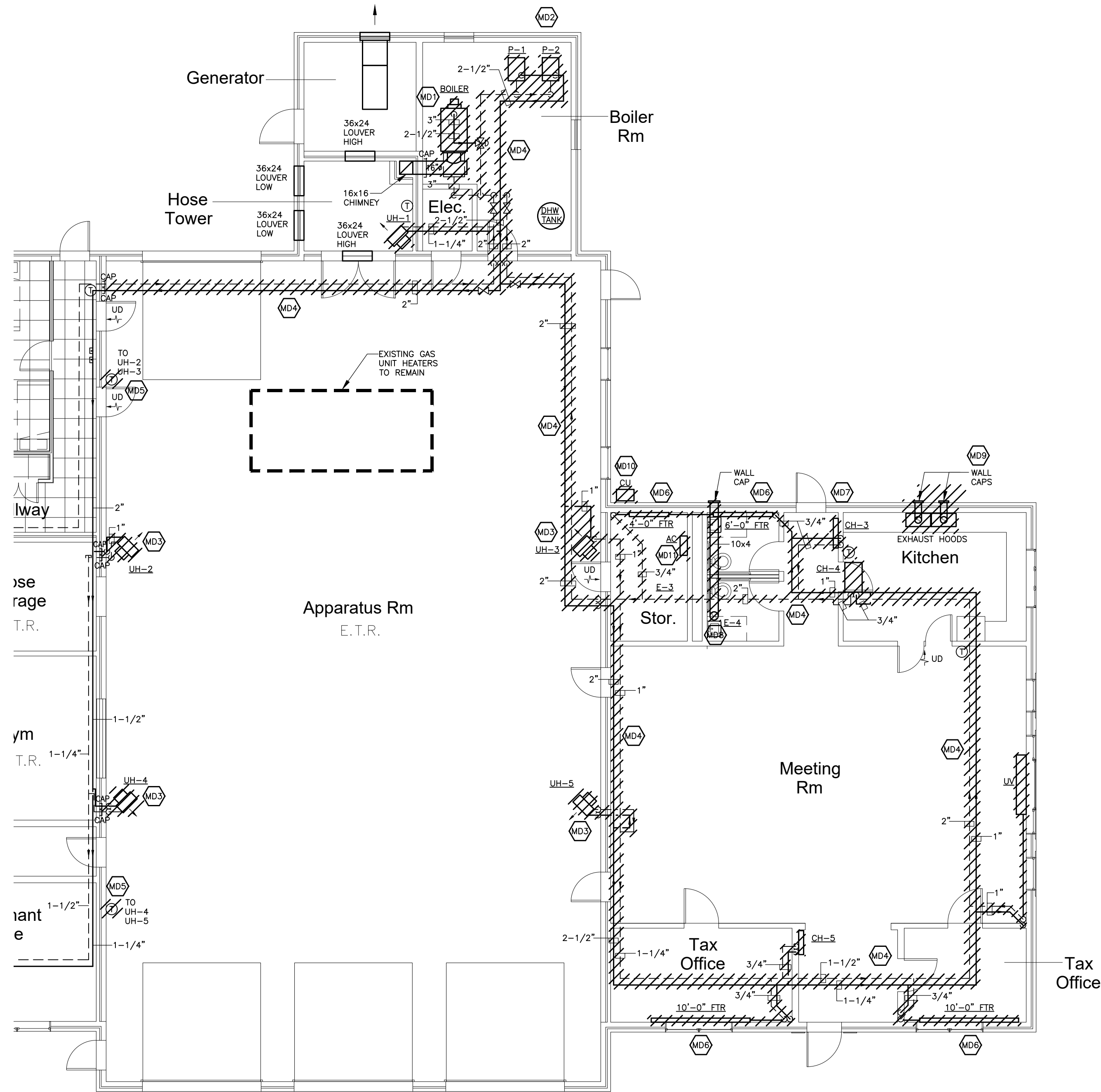
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South Fire District Bldg
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Roof Truss
Elevations

S-1.3

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MECHANICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

- MECHANICAL DEMOLITION NOTES
- MD1 REMOVE AND DISPOSE EXISTING BOILER AND ACCESSORIES, REMOVE BREECHING UP TO CHIMNEY AND CAP.
 - MD2 REMOVE AND DISPOSE EXISTING HEATING WATER PUMP AND ACCESSORIES.
 - MD3 REMOVE AND DISPOSE EXISTING HOT WATER UNIT HEATER AND ACCESSORIES.
 - MD4 REMOVE AND DISPOSE HWS/R PIPING AS SHOWN HATCHED.
 - MD5 REMOVE EXISTING THERMOSTAT AND ACCESSORIES.
 - MD6 REMOVE AND DISPOSE EXISTING FINITUBE RADIATION AND ACCESSORIES.
 - MD7 REMOVE AND DISPOSE EXISTING CABINET UNIT HEATER AND ACCESSORIES.
 - MD8 REMOVE AND DISPOSE EXISTING CEILING EXHAUST FAN, DUCTWORK AND ACCESSORIES.
 - MD9 REMOVE EXISTING HOOD, FAN AND ACCESSORIES.
 - MD10 REMOVE EXISTING CU AND ACCESSORIES.
 - MD11 REMOVE EXISTING AC UNIT AND ACCESSORIES.



CITY OF MIDDLETOWN
CONNECTICUT



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SEAL



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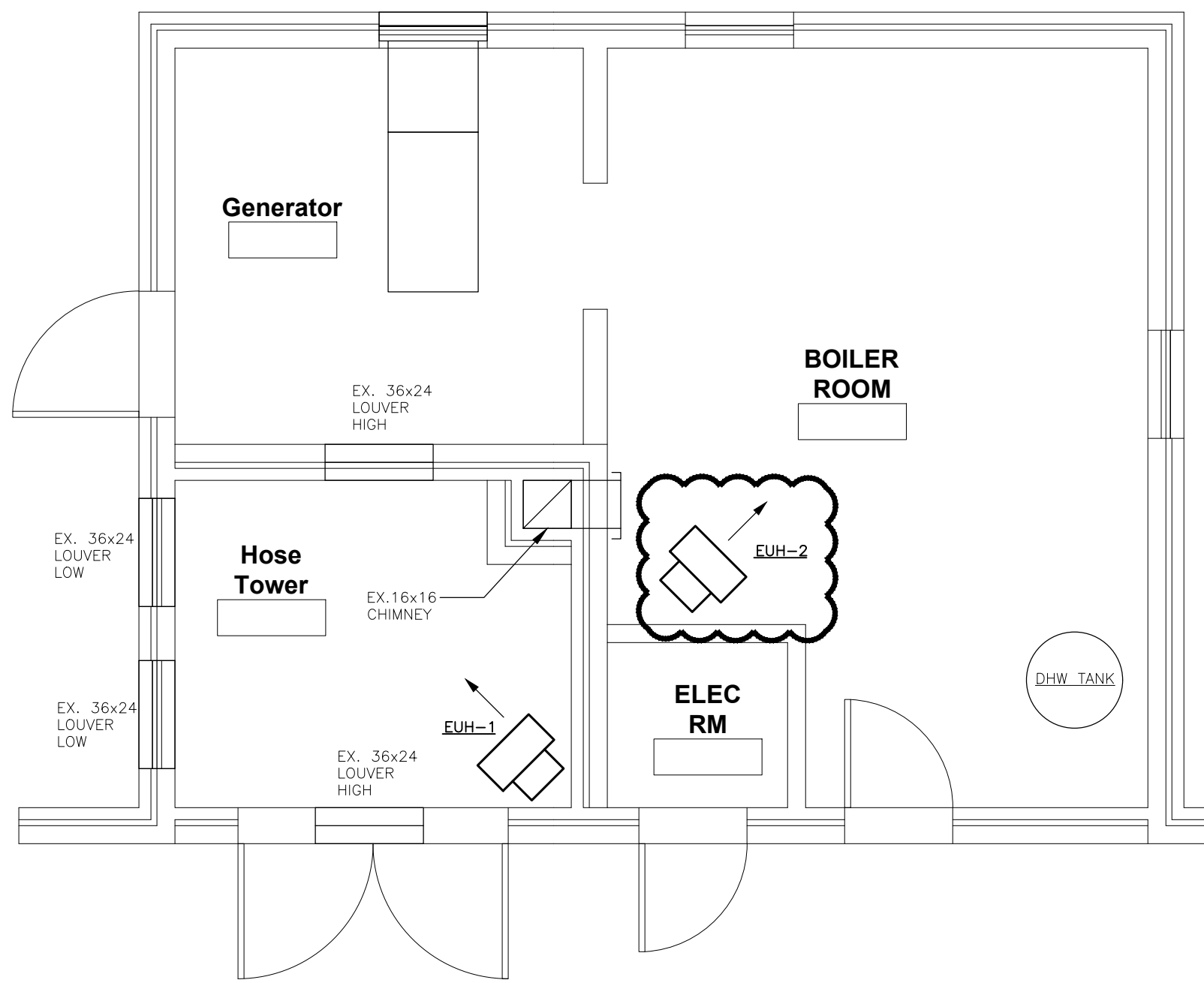
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MECHANICAL
DEMOLITION
PLAN

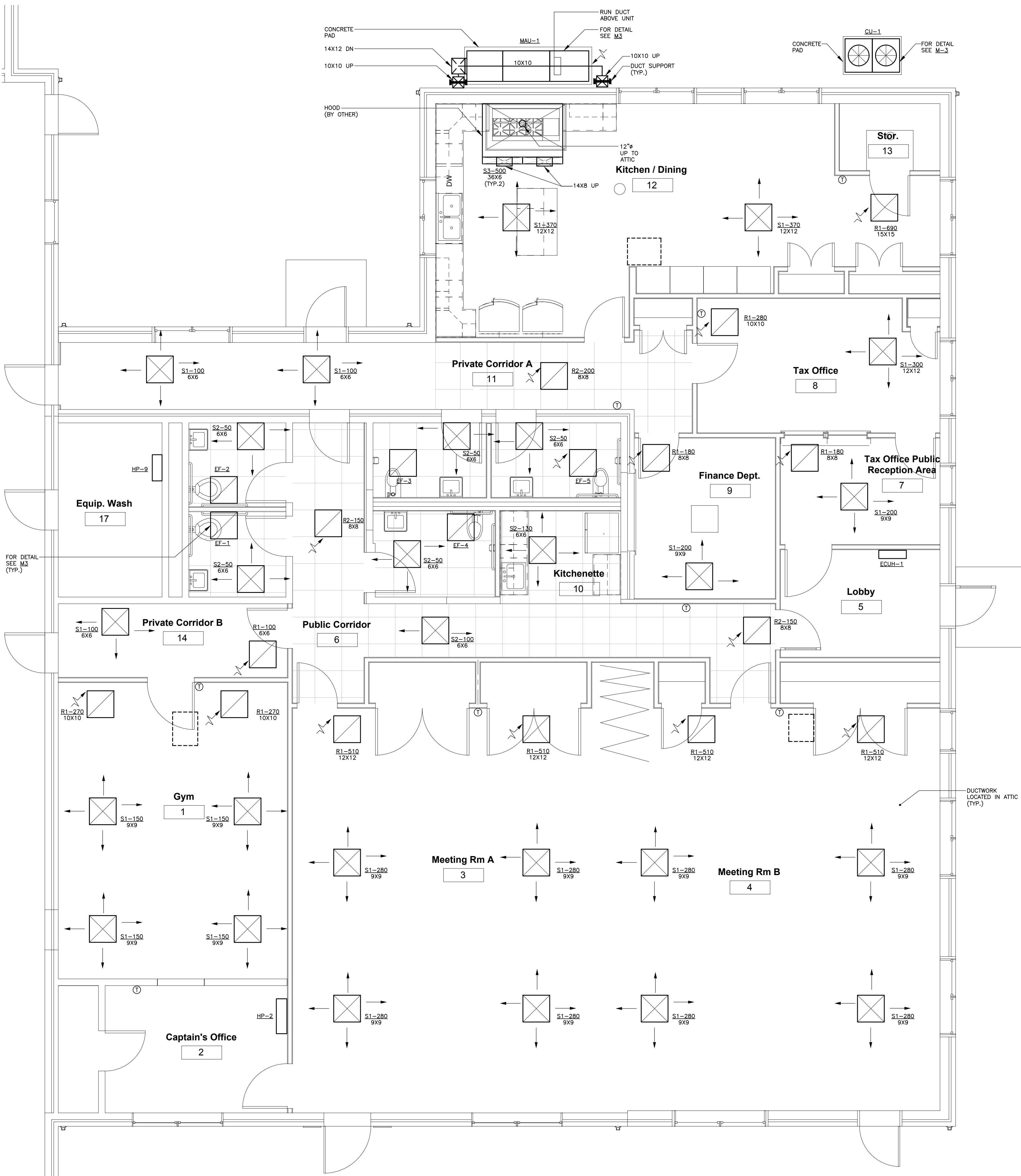
DM1

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PARTIAL MECHANICAL BOILER ROOM PLAN
SCALE: 1/4" = 1'-0"

MECHANICAL NOTES	
(M1)	PROVIDE NEW RLL/RSL PIPING CONNECTIONS.



MECHANICAL FIRST FLOOR PLAN
SCALE: 1/4" = 1'-0"



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No.	Description	Date
1	BULLETIN #1	10/17/23

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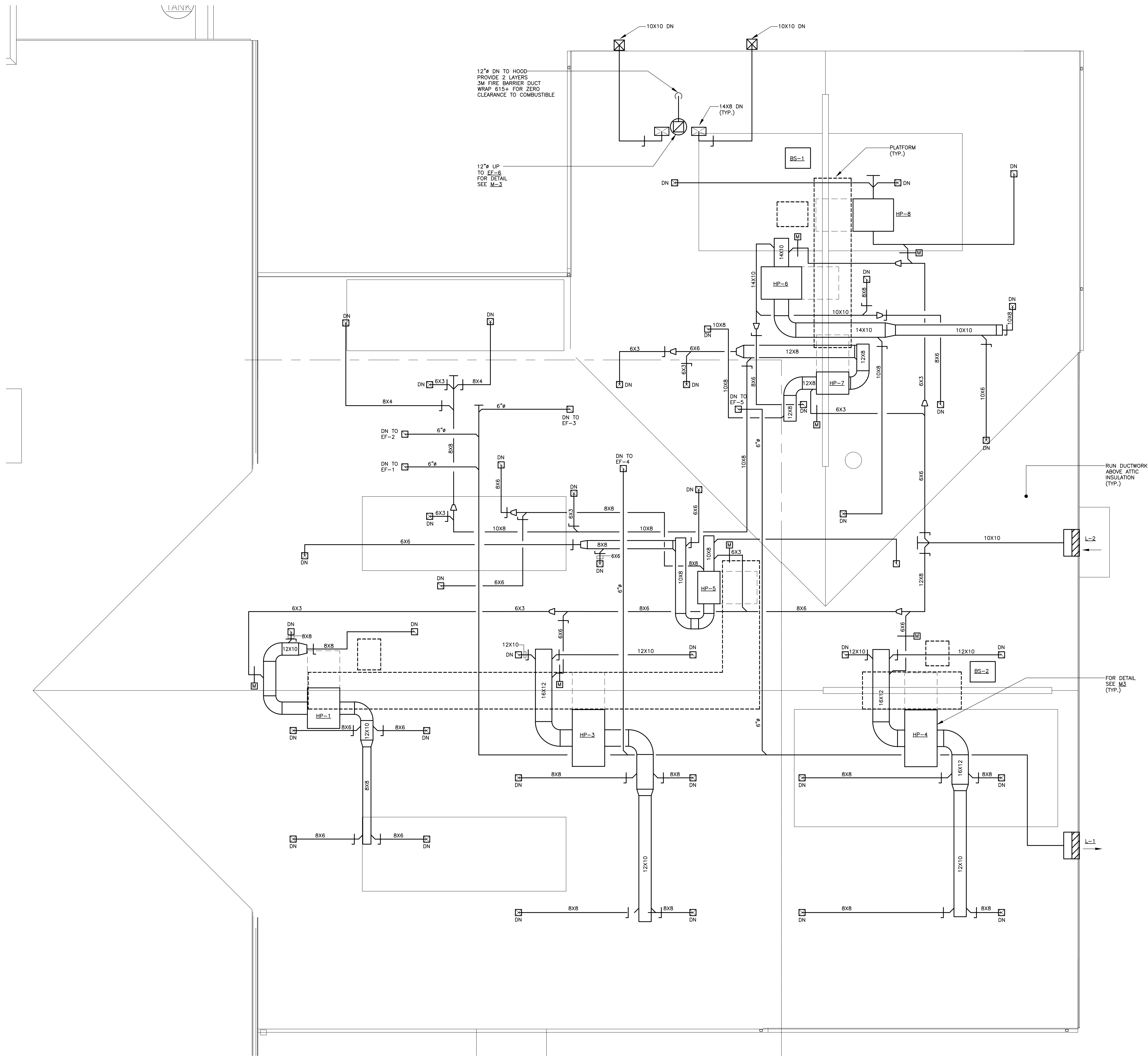
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MECHANICAL
PLAN

M1

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MECHANICAL ROOF/ATTIC PLAN
SCALE: 1/4" = 1'-0"



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No.	Description	Date

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PROJECT

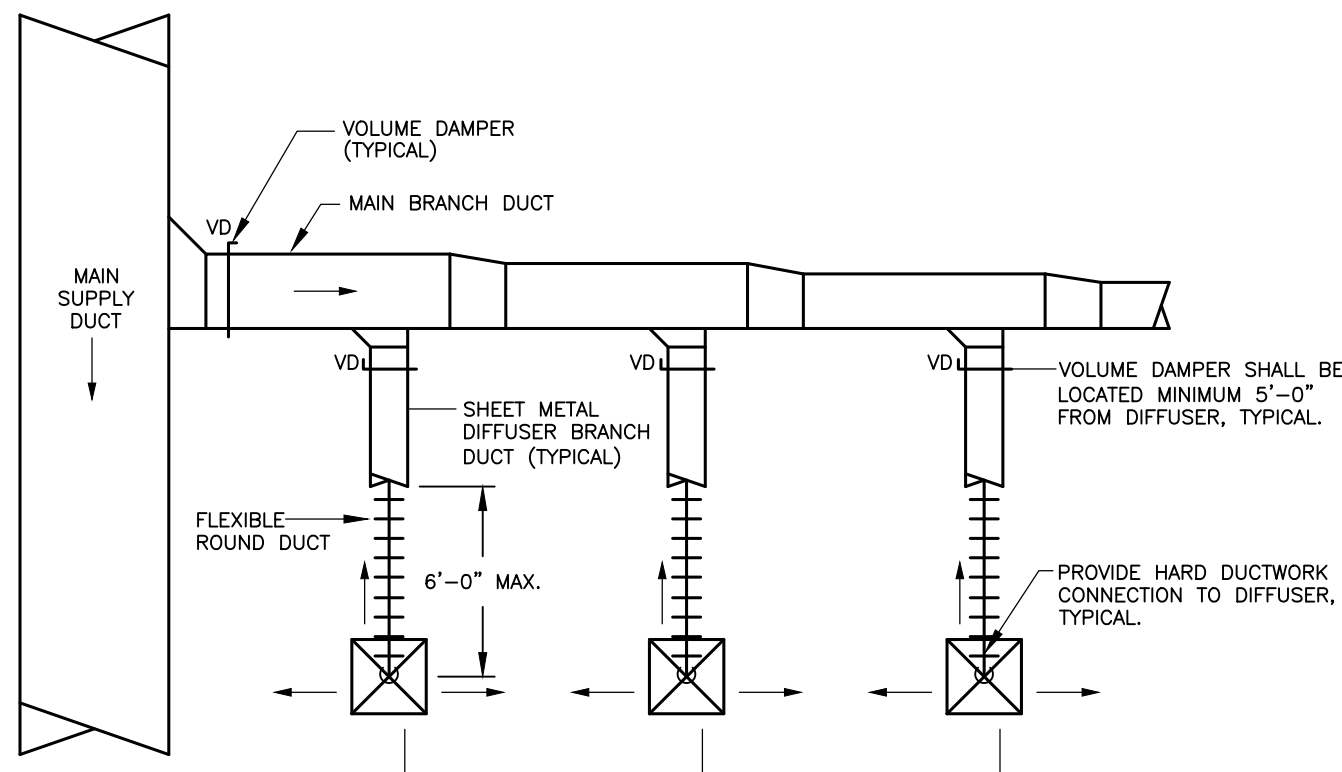
445 Randolph Rd
Middletown, CT 06457

**South Fire District Bldg
Renovations & Addition**

Issued for Permit
9/21/2023

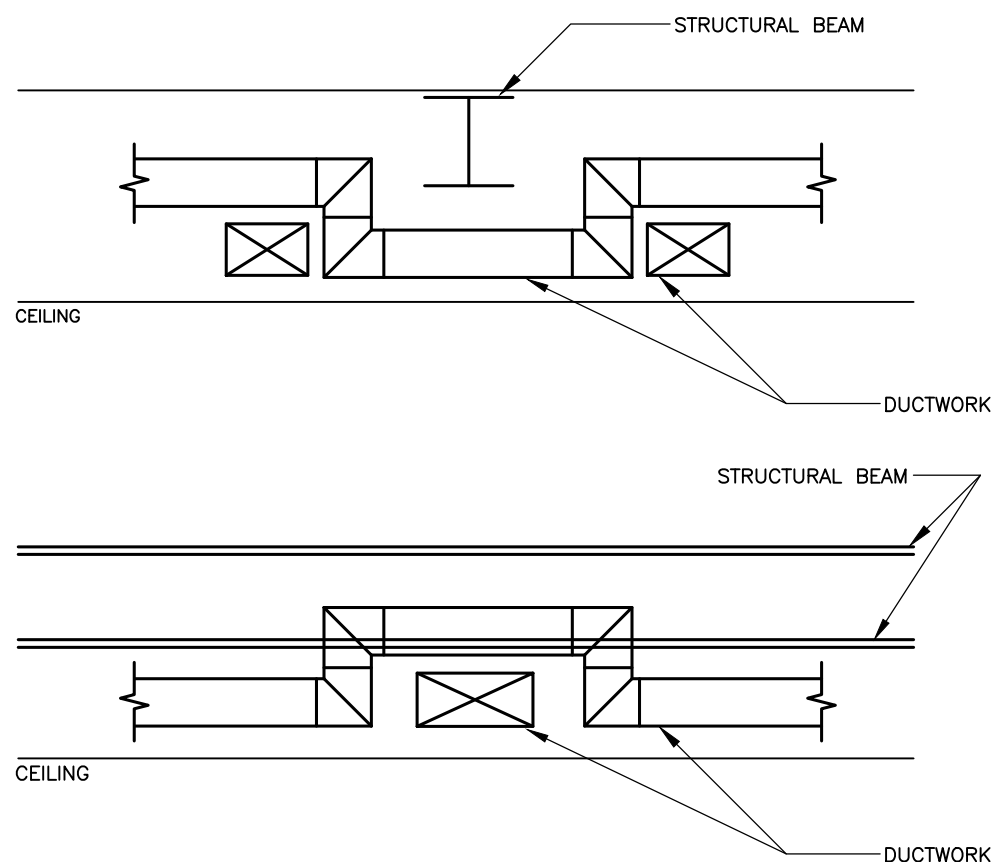
MECHANICAL
ROOF/ATTIC PLAN

M2

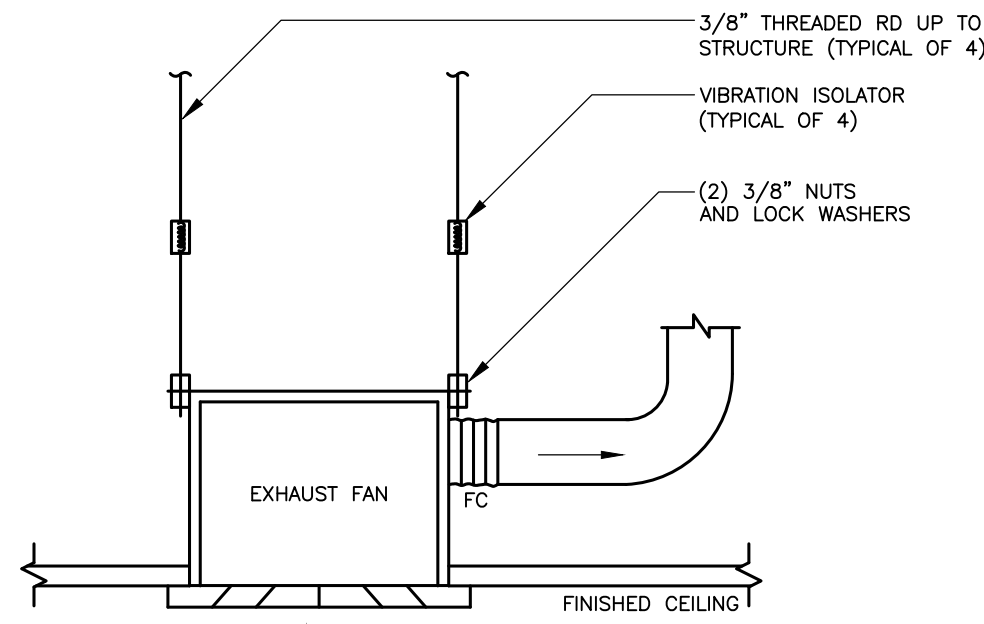


TYPICAL VOLUME DAMPER LOCATION
SCALE: N.T.S.

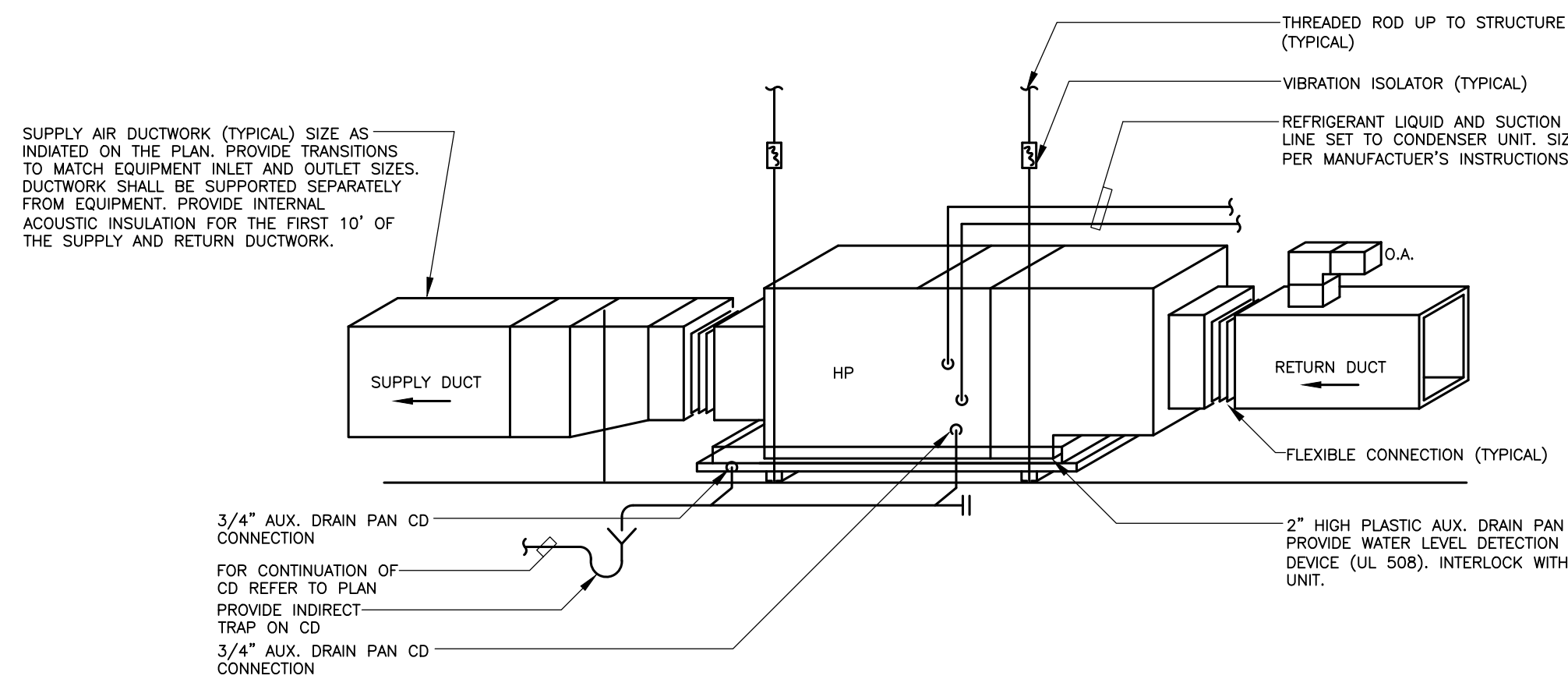
- NOTES:
1. PROVIDE VOLUME DAMPERS IN EVERY MAIN SUPPLY BRANCH AND DIFFUSER BRANCH AS SHOWN ABOVE.
 2. PROVIDE VOLUME DAMPER IN EVERY MAIN RETURN BRANCH AND DIFFUSER BRANCH.
 3. PROVIDE VOLUME DAMPER IN EVERY MAIN EXHAUST BRANCH AND DIFFUSER BRANCH.
 4. PROVIDE ADDITIONAL VOLUME DAMPERS AS SHOWN ON CONTRACT DOCUMENTS.
 5. PROVIDE ADDITIONAL VOLUME DAMPERS AS REQUIRED FOR BALANCING OF SUPPLY, RETURN AND EXHAUST AIR SYSTEMS.



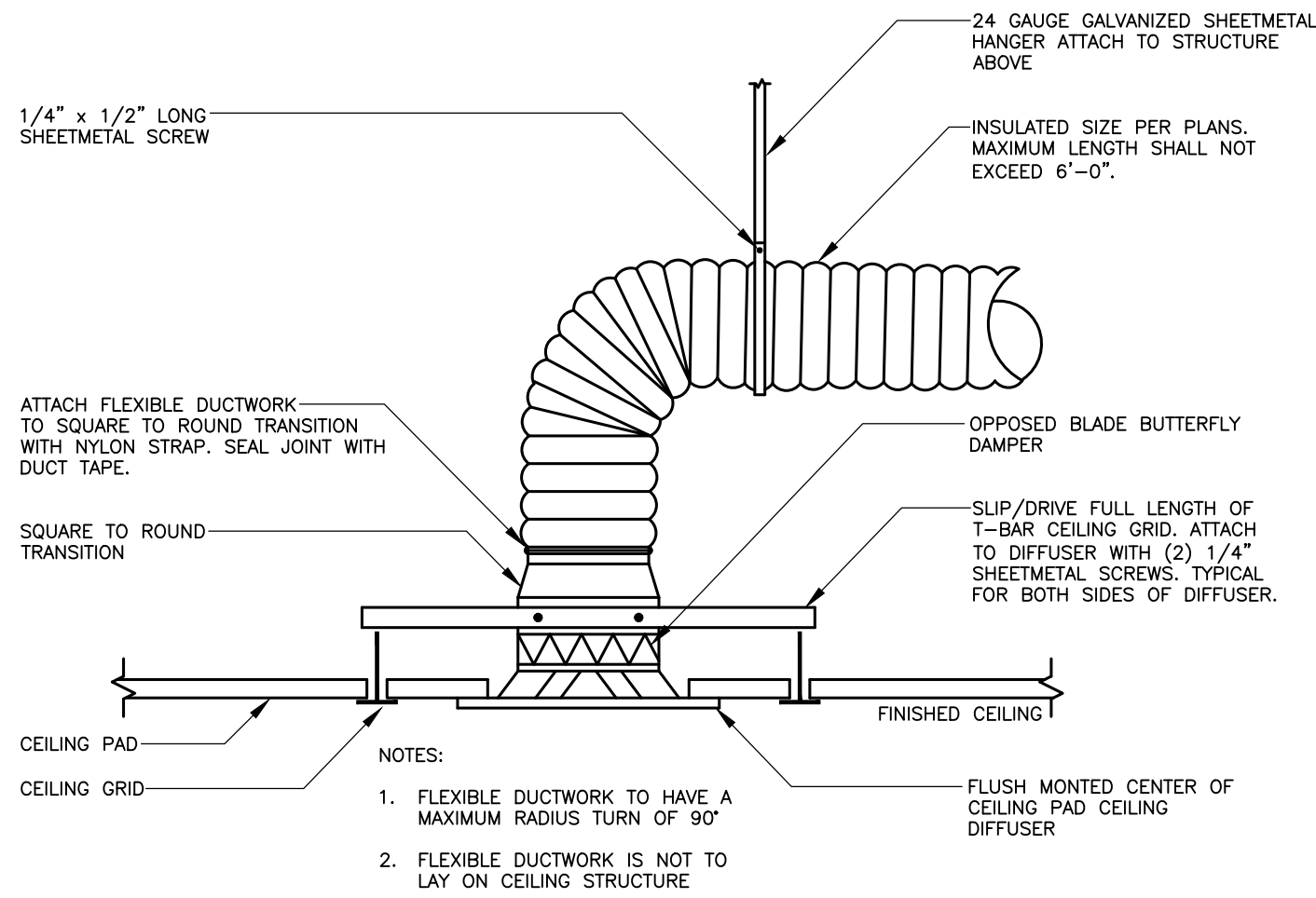
TYPICAL CROSSOVER AT ALL LOCATIONS DETAIL
N.T.S.



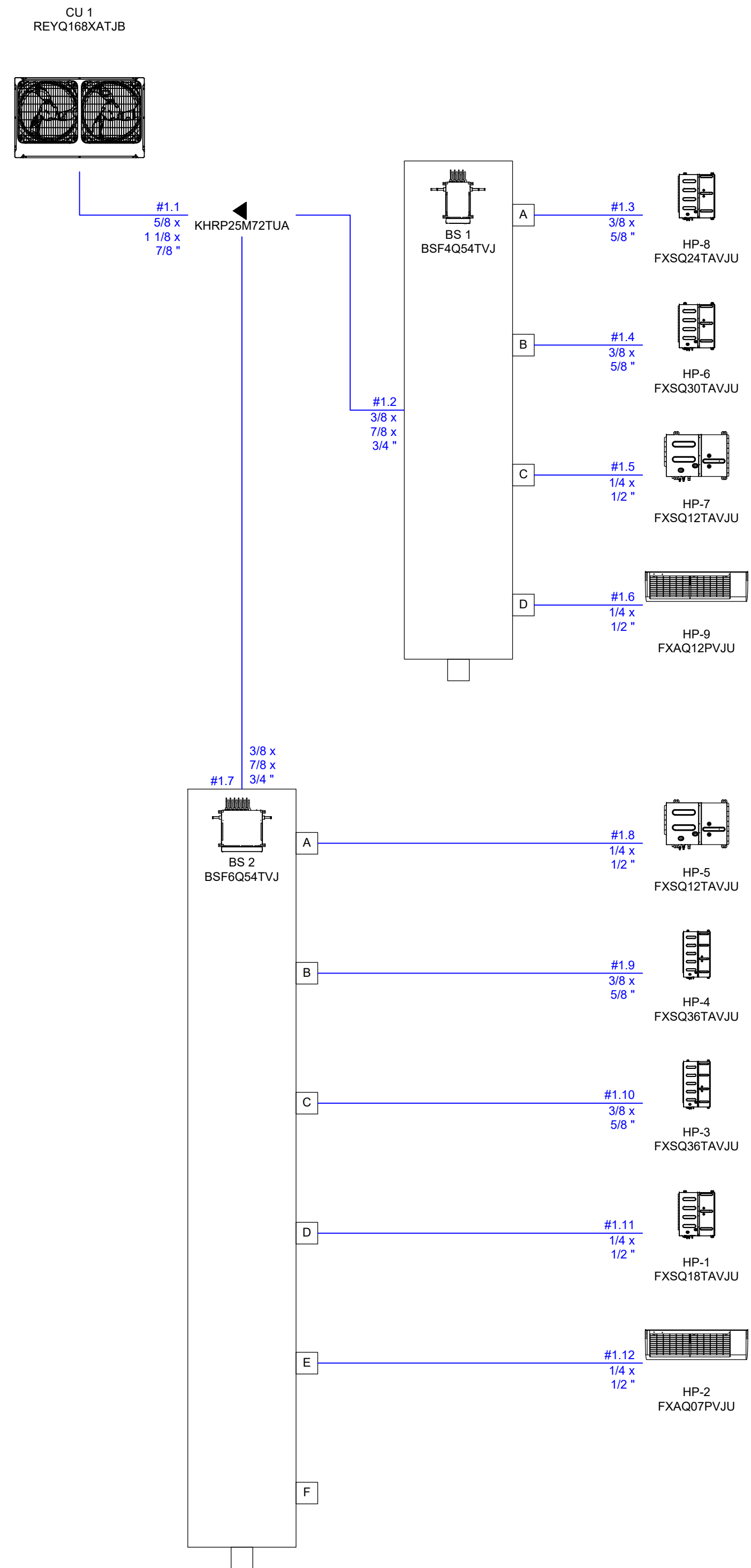
CEILING EXHAUST FAN
N.T.S.



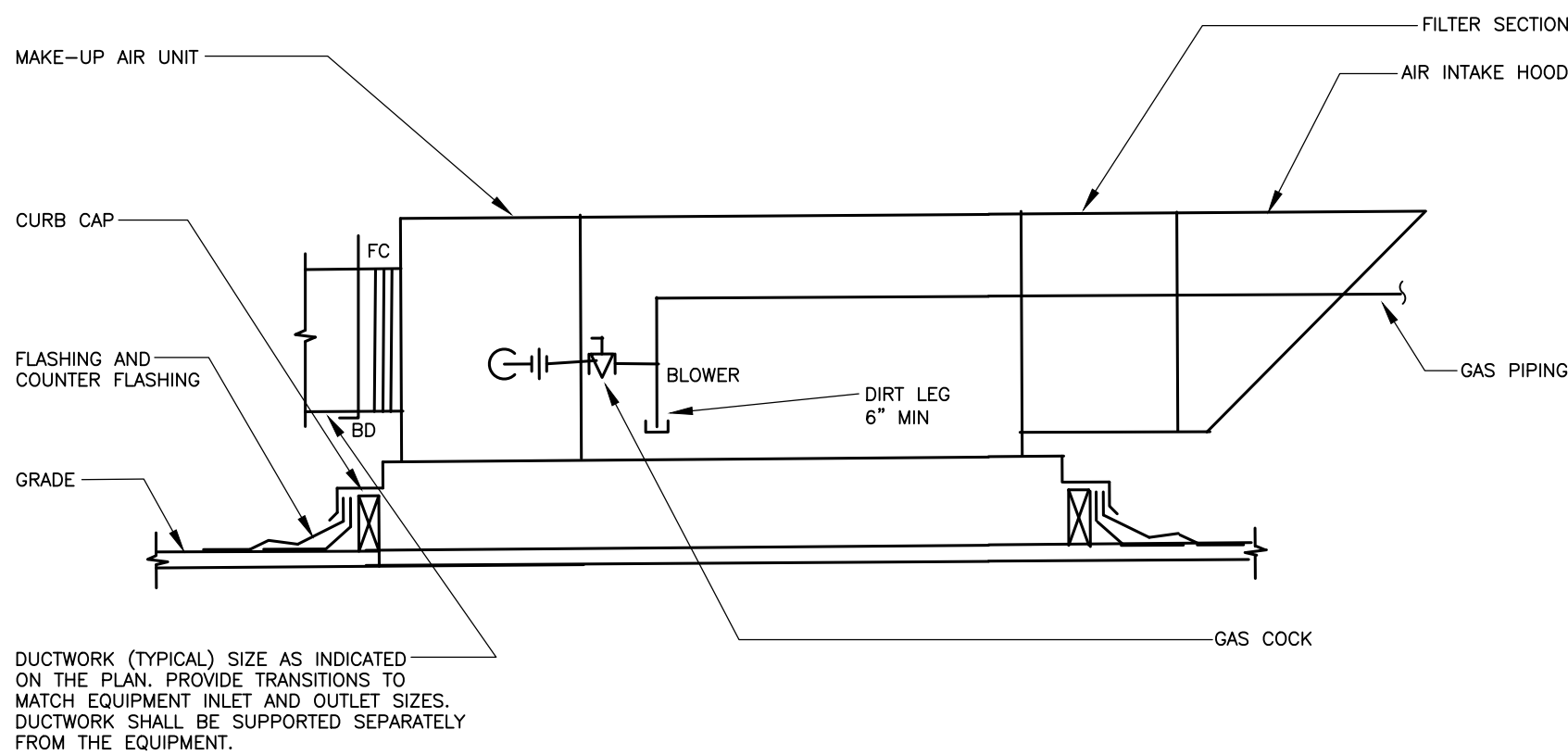
HORIZONTAL HEAT PUMP DETAIL
N.T.S.



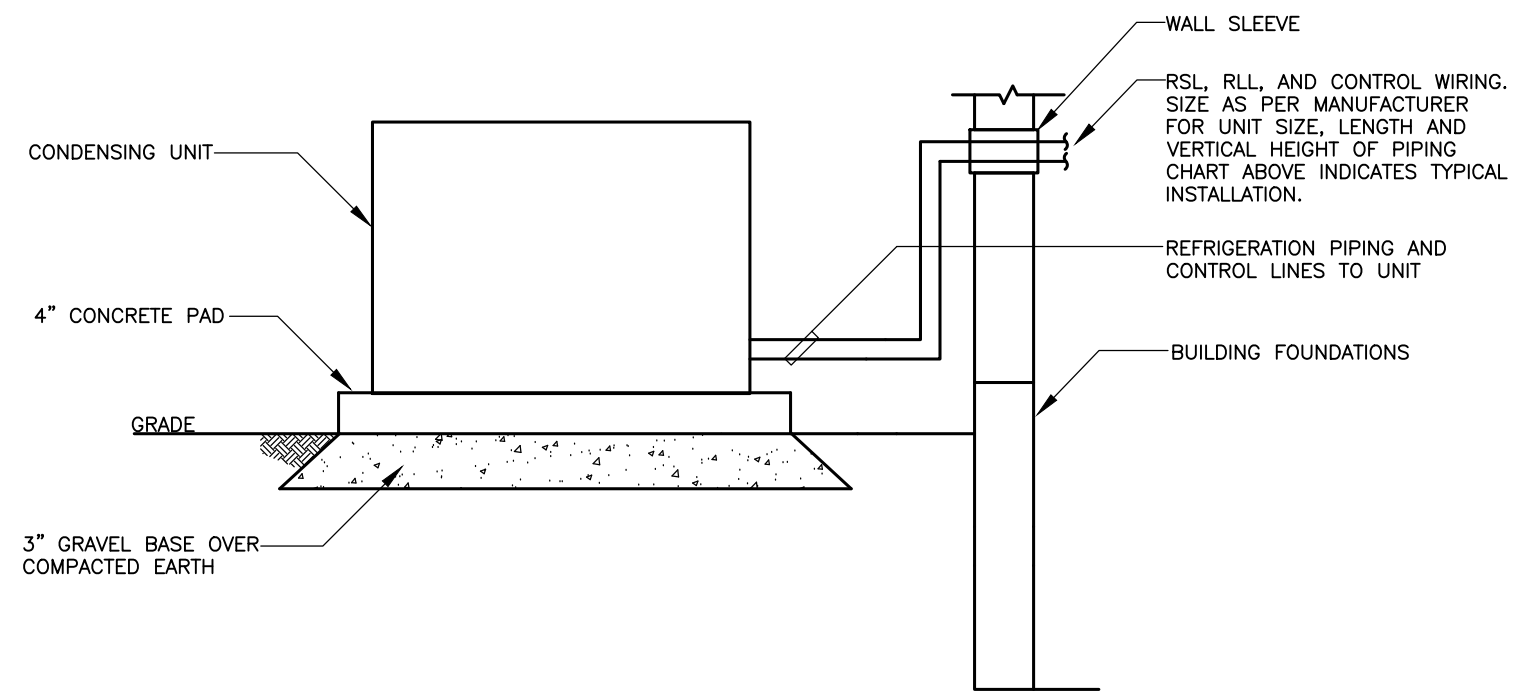
CEILING DIFFUSER CONNECTION DETAIL
N.T.S.



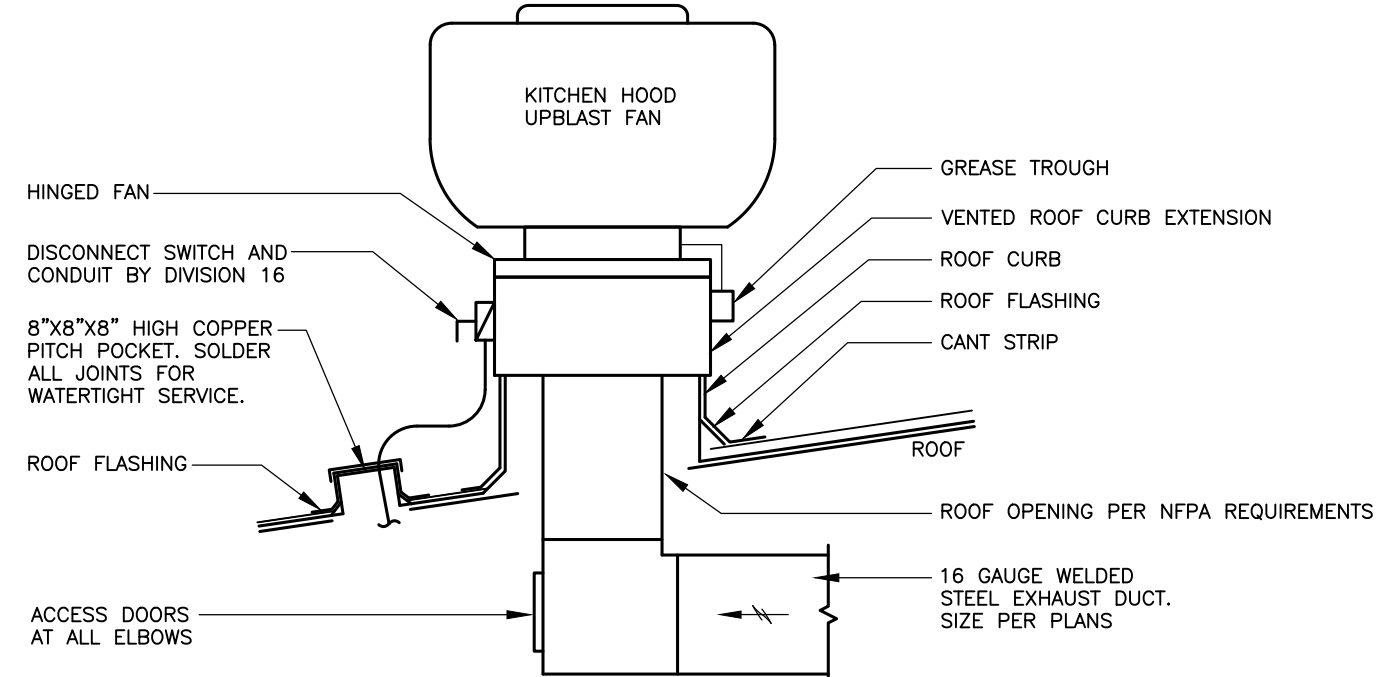
CU-1 PIPING DIAGRAM
N.T.S.



GAS FIRED MAKE-UP AIR UNIT DETAIL
N.T.S.



CONDENSER UNIT DETAIL
N.T.S.



ROOFTOP UPBLAST EXHAUST FAN DETAIL
N.T.S.



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445 Randolph Rd
Middletown, CT 06457
South Fire District Bldg Renovations & Addition

Issued for Permit
9/21/2023

MECHANICAL
DIAGRAM

M3

C:\Users\james\Documents\2023\2023 South Fire Addition\Contract Documents\23085_M4.dwg Plotted by dburgh on Dct 17, 2023 - 1:28pm

VARIABLE REFRIGERANT VOLUME - AIR-COOLED CONDENSING UNIT SCHEDULE

TAG: ROOM	BASIS OF DESIGN (DAIKIN)	NOMINAL TONNAGE	DESCRIPTION	COOLING CAPACITY		HEATING CAPACITY		REFRIGERANT CHARGE		CONNECTION RATIO (%)	ELECTRICAL												DIMENSIONS		EFFICIENCY (NonDucted/ Ducted or Specific Combo)						NOTES	Options and Accessories		
				BTU/h	AMBIENT DESIGN (°F DB)	BTU/h	AMBIENT DESIGN (°F DB / WB)	Factory Charge (lbs)	Add'l Refrigerant (lbs)		VOLTAGE- PHASE	MIN CIRCUIT AMPS (MCA)				MAX OVERCURRENT PROTECTION (MOP)				RUNNING CURRENT (RLA)														
												mod #1	mod #2	mod #3	total	mod #1	mod #2	mod #3	total	mod #1	mod #2	mod #3	total	(WxHxD) (inch)	WEIGHT (lbs)	EER	IEER	COP47	COP17	SCHE			SEER	HSPF
CU 1	REYQ168XATJB	14	Air cooled heat recovery (1)	175,605	90.0	115,365	4.0 / 3.9	25.8	n/a	111.6	208V - 230V 3ph	61.9			61.9	70.0			70.0	49.0				49.0	48.9 x 66.7 x 30.2	793.0	10.8 / 10.7	22.3 / 20.4	3.55 / 3.3	2.08 / 2.05	25.5 / 22.2	n/a / n/a	n/a / n/a	

VARIABLE REFRIGERANT VOLUME - INDOOR UNIT SCHEDULE

TAG	ROOM	BASIS OF DESIGN (DAIKIN)	NOMINAL TONNAGE	TYPE	CONNECTED TO:		SUPPLY FAN		COOLING CAPACITY		HEATING CAPACITY		ELECTRICAL			DIMENSIONS		WEIGHT	NOTES	Options and Accessories
					CONDENSING UNIT	ZONE CHANGE/COVER DEVICE	AIR FLOW RATE cfm	TOTAL BTU/h	SENSIBLE BTU/h	ENTERING AIR *F DB *F WB	TOTAL BTU/h	ENTERING AIR *Fdb	POWER SUPPLY Voltage - Phase	Min Circuit Amps MCA	Max Overcurrent Protection MOP	WxHxD inch	Net lbs			
HP-8		FXSQ24TAVJU	2.0	MSP Concealed Ducted Unit	CU 1	Yes	742	23,989	16,749	80.0	67.0	27,980	68.0	208-230V 1ph	1.8	15.0	39.4 x 9.6 x 31.5	82.0		BRC1E73 (1), DFBS39A13 (1)
HP-6		FXSQ30TAVJU	2.5	MSP Concealed Ducted Unit	CU 1	Yes	812	29,994	22,023	80.0	67.0	35,145	68.0	208-230V 1ph	1.8	15.0	39.4 x 9.6 x 31.5	82.0		BRC1E73 (1), DFBS39A13 (1)
HP-7		FXSQ12TAVJU	1.0	MSP Concealed Ducted Unit	CU 1	Yes	335	12,011	9,413	80.0	67.0	13,990	68.0	208-230V 1ph	0.8	15.0	21.7 x 9.6 x 31.5	55.0		BRC1E73 (1), DFBS22A13 (1)
HP-9		FXAQ12PVJU	1.0	Wall Mounted Unit	CU 1	Yes	290	12,002	8,695	80.0	67.0	14,000	68.0	208-230V 1ph	0.4	15.0	31.3 x 11.4 x 9.3	26.5		BRC1E73 (1), DACA-CP3-1 (1)
HP-5		FXSQ12TAVJU	1.0	MSP Concealed Ducted Unit	CU 1	Yes	335	12,011	9,413	80.0	67.0	13,990	68.0	208-230V 1ph	0.8	15.0	21.7 x 9.6 x 31.5	55.0		BRC1E73 (1), DFBS22A13 (1)
HP-4		FXSQ36TAVJU	3.0	MSP Concealed Ducted Unit	CU 1	Yes	1,130	36,000	25,125	80.0	67.0	41,287	68.0	208-230V 1ph	2.5	15.0	55.1 x 9.6 x 31.5	101.0		BRC1E73 (1), DFBS55A13 (1)
HP-3		FXSQ36TAVJU	3.0	MSP Concealed Ducted Unit	CU 1	Yes	1,130	36,000	25,125	80.0	67.0	41,287	68.0	208-230V 1ph	2.5	15.0	55.1 x 9.6 x 31.5	101.0		BRC1E73 (1), DFBS55A13 (1)
HP-1		FXSQ18TAVJU	1.5	MSP Concealed Ducted Unit	CU 1	Yes	600	18,017	13,291	80.0	67.0	20,814	68.0	208-230V 1ph	1.6	15.0	39.4 x 9.6 x 31.5	77.0		BRC1E73 (1), DFBS39A13 (1)
HP-2		FXAQ07PVJU	0.6	Wall Mounted Unit	CU 1	Yes	260	7,501	6,041	80.0	67.0	8,700	68.0	208-230V 1ph	0.3	15.0	31.3 x 11.4 x 9.3	26.5		BRC1E73 (1), DACA-CP3-1 (1)

- NOTES:
1. PROVIDE WITH DISCONNECT SWITCH.
 2. PROVIDE WITH NAVIGATION REMOTE CONTROLLER.
 3. PROVIDE WITH MERV13 FILTER BOX WITH FILTER.
 4. PROVIDE WITH CONDENSATE PUMP, MODEL DACA-CP-4-1.
 5. PROVIDE WITH INTERNAL CONDENSATE PUMP.

SEQUENCE OF OPERATION

- GENERAL**
- PROVIDE ALL TEMPERATURE, OPERATION AND SAFETY CONTROLS, LOW VOLTAGE CONTROL WIRING, HARDWARE, SOFTWARE, AND ACCESSORIES NECESSARY TO ACHIEVE A FULLY OPERATIONAL HVAC POWER WIRING SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. UPDATE GRAPHICS
- HEa**
- HEATING MODE
1. UPON A DROP IN SPACE TEMPERATURE BELOW THE FILED ADJUSTABLE SET POINT OF 70 DEGREES F (ADJUSTABLE) THE UNIT SHALL BE PLACED IN HEATING MODE. THE CONTROL VALVE ON THE HEATING COIL SHALL BE CYCLED OPENED AND CLOSED TO MAINTAIN SPACE TEMPERATURE.
- COOLING MODE
1. UPON A RISE IN SPACE TEMPERATURE ABOVE THE FILED ADJUSTABLE SET POINT OF 75 DEGREES F (ADJUSTABLE) THE UNIT SHALL BE PLACED IN COOLING MODE. THE CONTROL VALVE ON THE COOLING COIL SHALL BE CYCLED OPENED AND CLOSED TO MAINTAIN SPACE TEMPERATURE.

VARIABLE REFRIGERANT VOLUME - ZONE HEAT RECOVERY DEVICE SCHEDULE

TAG: ROOM	BASIS OF DESIGN (DAIKIN)	CONDENSING UNIT SERVED	VOLTAGE-PHASE	MIN CIRCUIT AMPS (MCA)	MAX OVERCURRENT PROTECTION (MOP)	MAX CAPACITY (per Port)	DIMENSIONS (WxHxD inch)	WEIGHT (lbs)	ZONE SERVED	Options and Accessories
BS 1	BSF4Q54TVJ	CU 1	208-230V 1ph	0.4	15.0	54,000	13.7 x 9.5 x 23.7	48.5		
BS 2	BSF6Q54TVJ	CU 1	208-230V 1ph	0.6	15.0	54,000	23.3 x 9.5 x 23.7	72.8		KHPF26A100CA (1)

MAKE-UP AIR UNIT SCHEDULE

SYMBOL	MANUFACTURER MODEL NUMBER	AREA SERVED	CFM	MINIMUM CFM O.A.	ESP IN. WG	EAT DEG F	LAT DEG F	AFUE %	HEATING SOURCE	HEATING CAPACITY MBH INOUT/OUTPUT	FILTER TYPE	OPERATING WIEGHT LBS.	ELECTRICAL DATA HP-VOLT-PH	NOTES
MAU-1	CAPTIVEAIRE A1-D.250-1SD	KITCHEN	1,000	1,000	0.75	6	64.0	92%	NAT. GAS	75.1/69.1	30% EFFICIENT PLEATED	482	16.6-208-3	1,2,3,4,5,6,7

NOTES:

1. PROVIDE NEMA 3R DISCONNECT SWITCH.
2. PROVIDE FACTORY CONTROL INTERLOCK CONTROLS (INTERLOCK WITH KEF-1)
3. PROVIDE 7" GAS PRESSURE AT BURNER
4. PROVIDE FACTORY 20" HIGH INSULATED CURB
5. PROVIDE FACTORY GAS SAFETY ACCESSORIES.
6. PROVIDE WITH FREEZE STAT, SMOKE DETECTOR.
7. INTERLOCK WITH EE-6.

LOUVER SCHEDULE

SYMBOL	MANUFACTURER MODEL NUMBER	SYSTEM SERVED	AIRFLOW (CFM)	MAXIMUM VELOCITY (FPM)	AIR P.D. (IN. WG)	NOMINAL WIDTH (IN.)	NOMINAL HEIGHT (IN.)	MINIMUM FREE AREA (SQ. FT.)	MAXIMUM WATER PENETRATION (OZ./SQ. FT.)	NOTES
L-1	GREENHECK EDJ-401	EF-1,2,3,4,5	500	750	0.045	12	24	0.6	0.01	1,2,3
L-2	GREENHECK EDJ-401	HP-1,3,4,5,6,7,8	440	750	0.045	12	24	0.58	0.01	1,2,3

- NOTES:
1. PROVIDE WITH BIRD AND INSECT SCREEN.
 2. PROVIDE WITH FLANGED FRAME.
 3. COLOR BY ARCHITECT.

GRILLE, DIFFUSER AND REGISTER SCHEDULE

SYMBOL	MANUFACTURER MODEL NUMBER	DUTY	TYPE	BORDER TYPE	CONSTRUCTION			NOTES
					ODB	FRAME	BLADES	
S1	TITUS TDCA-AA	SUPPLY	D.D.	TYPE 1	ALUM	ALUM	ALUM	1,2,3
S2	TITUS TDCA-AA	SUPPLY	D.D.	TYPE 3	ALUM	ALUM	ALUM	1,2,3
S3	TITUS 301RL	SUPPLY	L.F.	TYPE 1	ALUM	ALUM	ALUM	1,2,3
R1	TITUS PAR-AA	RETURN	P.F.	TYPE 4	ALUM	ALUM	ALUM	1,2,3
R2	TITUS PAR-AA	RETURN	P.F.	TYPE 3	ALUM	ALUM	ALUM	1,2,3

- TYPES:
- L.S. - LINEAR SLOT
 - L.B. - LINEAR BAR
 - D.D. - DIRECTIONAL DIFFUSER
 - P.F. - PERFORATED FACE
 - L.F. - LOUVERED FACE
 - C.C. - CUBE CORE
 - S.W./C.G.-SIDE WALL OR CEILING
- DESIGNATIONS:
- SYMBOL
- NECK SIZE
- S1-150 6" 9"
- FLOW (CFM)
- NECK SIZE (ROUND OR EQUIV. FLAT OVAL)
- S1-150 6" 9" 4"
- QTY. OF SLOTS
- LINEAR SLOT
- TYPICAL RDG
- NOTES:
1. SQUARE TO ROUND TRANSITION.
 2. FACE VELOCITY 600 FPM MAX.
 3. NC LEVEL NOT TO EXCEED 25.

ELECTRIC UNIT HEATER AND CABINET UNIT HEATER SCHEDULE

SYMBOL	MANUFACTURER MODEL NUMBER	TYPE	LOCATION	AIR FLOW	BTUH	ELECTRIC DATA AMPS-V-PH	NOTES
ECUH-1	BERKO CUH935	S	VESTIBULE	250	6,800	10-208-1	1,2,4
EUH-1	QMARK MUH03-21	V	HOSE TOWER	350	7,000	11-208-1	1,2,3
EUH-2	QMARK MUH03-21	V	BOILER ROOM	350	7,500	11-208-1	1,2,3

UNIT HEATER TYPES:
H - HORIZONTAL
V - VERTICAL

CABINET UNIT HEATER TYPES:
R - RECESSED
S - SURFACE
SR - SEMI-RECESSED

- NOTES:
1. PROVIDE DISCONNECT SWITCH.
 2. PROVIDE WITH INTERNAL THERMOSTAT.
 3. PROVIDE WITH MOUNTING BRACKETS.
 4. PROVIDE WITH BASE KIT.

FAN SCHEDULE

SYMBOL	MANUFACTURER MODEL NUMBER	SERVING	TYPE	AIR FLOW CFM	ESP IN. WS.	FAN RPM	DRIVE	CONTROL	WATTS	HP	ELECTRICAL V-PH-RPM	SONES (LWA)	NOTES
EF-1	PANASONIC FV-051NK2	BATH ROOM	C	100	0.375	1356	DIRECT	SWITCH	20.0	0.2 AMPS	120-1	-	4,5
EF-2	PANASONIC FV-051NK2	BATH ROOM	C	100	0.375	1356	DIRECT	SWITCH	20.0	0.2 AMPS	120-1	-	4,5
EF-3	PANASONIC FV-051NK2	BATH ROOM	C	100	0.375	1356	DIRECT	SWITCH	20.0	0.2 AMPS	120-1	-	4,5
EF-4	PANASONIC FV-051NK2	BATH ROOM	C	100	0.375	1356	DIRECT	SWITCH	20.0	0.2 AMPS	120-1	-	4,5
EF-5	PANASONIC FV-051NK2	BATH ROOM	C	100	0.375	1356	DIRECT	SWITCH	20.0	0.2 AMPS	120-1	-	4,5
EF-6	CAPTIVEAIRE DUS0HFA	HOOD	RM	1,200	0.5	1275	BELT	SWITCH	-	0.5	208-3	11.1	1,2,3

- NOTES:
1. PROVIDE WITH DISCONNECT SWITCH, GREASE COLLECTOR.
 2. PROVIDE WITH ECM WIRING PACKAGE, VARIABLE SPEED CONTROL.
 3. UL 705 AND UL 762 LISTED.
 4. PROVIDE WITH CONDENSATION SENSOR, ECM MOTOR.
 5. PROVIDE WITH DISCONNECT SWITCH.

TYPE: C-CEILING RM-ROOF MOUNTED SW-SIDEWALL

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AMB	AMBIENT
AMP	AMPERE (AMP, AMPS)
BAL	BALANCE
BTU	BRITISH THERMAL UNIT
CAP	CAPACITY
CFM	CUBIC FEET PER MINUTE
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
CLG	COOLING
CU	CONDENSING UNIT
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWI	ENTERING WATER TEMPERATURE
EXH	EXHAUST
F	DEGREES FAHRENHEIT
FC	FLEXIBLE CONNECTION
FD	FIRE DAMPER
FE	FEET PER MINUTE
PFM	FEET PER MINUTE
FT	FEET
FTS	FIN TUBE RADIATION
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H-1	HUMIDIFIER
HWC	HOT WATER COIL
HP	HORSE POWER
HTR	HEATING RETURN (HOT WATER)
HTS	HEATING SUPPLY (HOT WATER)
HTG	HEATING
Hz	FREQUENCY
IN.	INCH
IN. WG	INCHES WATER GAUGE
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LBS/HR	POUNDS PER HOUR
LWT	LEAVING WATER TEMPERATURE
MBH	BTU PER HOUR (THOUSAND)
N.T.S.	NOT TO SCALE
O.A.	OUTSIDE AIR
OED	OPEN END DUCT
P-1	PUMP
PD	PRESSURE DROP
PH	PHASE
PSI	POUNDS PER SQUARE INCH
REG	REGISTER/DIFFUSER/GRILLE
RET	RETURN
RH	RELATIVE HUMIDITY
RPM	ROTATIONS PER MINUTE
SP-1	SUMP PUMP
SQ.FT.	SQUARE FEET
SUP	SUPPLY
T&P	TEMPERATURE & PRESSURE RELIEF VALVE
TYP	TYPICAL
UH	UNIT HEATER
UN	UNLESS OTHERWISE NOTED
VD	VOLUME DAMPER
VER	VERIFY IN FIELD
WF	WET BULB
WP	WORKING PRESSURE
ZC	ZONE CONTROLLER
ZV	ZONE VALVE

MECHANICAL GENERAL NOTES

1. THESE GENERAL NOTES ARE APPLICABLE TO ALL MECHANICAL DRAWINGS.
2. DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK. SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. MECHANICAL CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEMS.

MECHANICAL LEGEND

	DIFFUSER/GRILLE - SUPPLY
	GRILLE/REGISTER - RETURN
	GRILLE/REGISTER - EXHAUST
	ROUND DUCT UP
	ROUND DUCT DN
	SIDEWALL GRILLE/REGISTER - SUPPLY/RETURN/EXHAUST
	LINEAR SLOT DIFFUSER/BAR GRILLE - SUPPLY
	AIR FLOW DIRECTION INDICATOR - SUPPLY
	AIR FLOW DIRECTION INDICATOR - RETURN
	DUCT RISER - SUPPLY/COMBUSTION AIR
	DUCT DROP - SUPPLY/COMBUSTION AIR
	DUCT RISER - RETURN/EXHAUST
	DUCT DROP - RETURN/EXHAUST
	THERMOSTAT
	VOLUME DAMPER
	MOTORIZED DAMPER
	REDUCER
	REFRIGERANT LIQUID LINE
	REFRIGERANT SUCTION LINE
	DIRECTION OF FLOW
	PIPE DOWN
	PIPE DROP
	PIPE RISE
	PIPE ANCHOR
	PIPE GUIDE OR SLEEVE
	PIPE EXPANSION FITTING (AT BLDG. EXP.JOINTS)
	PLUGGED OR CAPPED PIPE
	EXISTING TO BE REMOVED
	CONNECT TO EXISTING



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SEAL



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No.	Description	Date
1	BULLETIN #1	10/17/23

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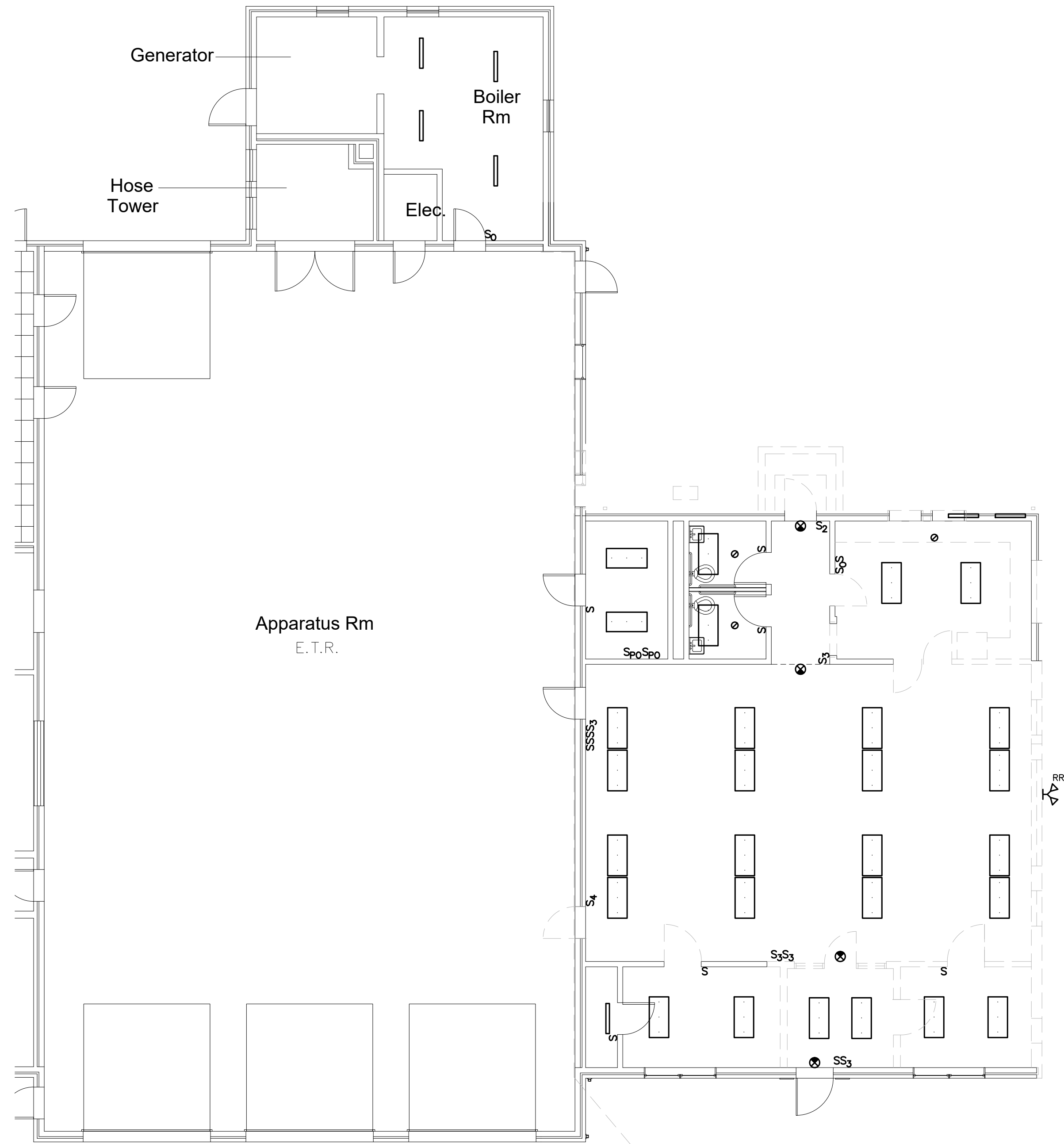
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MECHANICAL
NOTES, LEGENDS
AND SCHEDULES

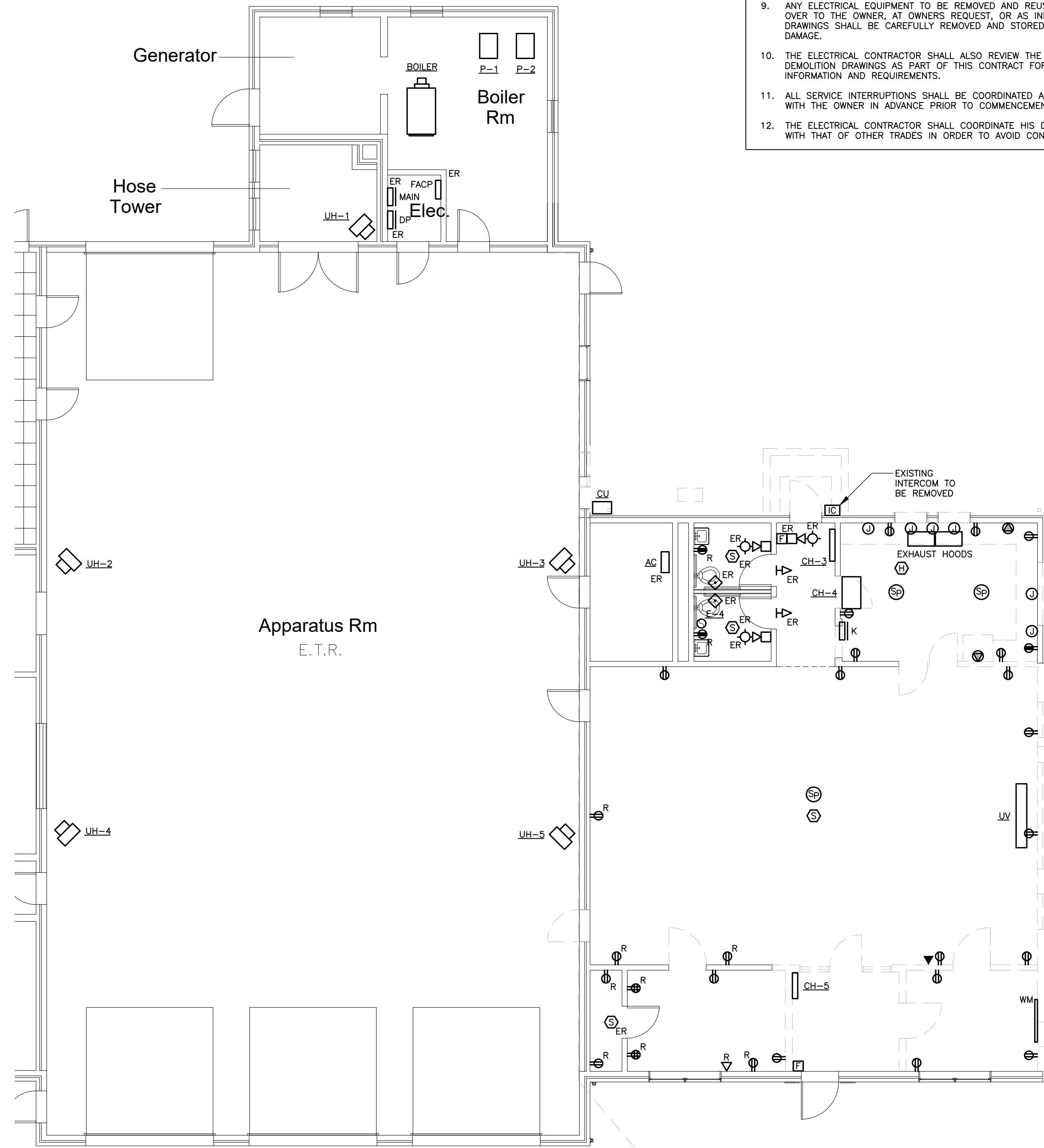
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5/16/2023 2:12:04 PM

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ELECTRICAL - LIGHTING DEMOLITION FLOOR PLAN
SCALE: 1/8"= 1'-0"



ELECTRICAL - POWER DEMOLITION FLOOR PLAN
SCALE: 1/8"= 1'-0"

ELECTRICAL DEMOLITION NOTES

1. ALL EXISTING ELECTRICAL EQUIPMENT AND/OR DEVICE SHOWN WITHOUT ("RR", "ER" OR "R") SHALL BE DISCONNECTED AND REMOVED, REMOVE ALL ASSOCIATED BACK BOX, CONDUIT AND WIRING BACK TO SOURCE OR LAST DEVICE.
2. "RR" - INDICATES EXISTING ELECTRICAL EQUIPMENT AND/OR DEVICE TO BE REMOVED AND RELOCATED, (EXTEND EXISTING WIRING AS REQUIRED).
3. "ER" - INDICATES EXISTING ELECTRICAL EQUIPMENT AND/OR DEVICE TO REMAIN.
4. "R" - INDICATES EXISTING ELECTRICAL DEVICE TO BE REPLACED WITH NEW DEVICE IN KIND WITHIN EXISTING LOCATION, REUSE BACK BOX AND WIRING, PROVIDE NEW FACE PLATE TO DEVICE.
5. NO EQUIPMENT OR DEVICES THAT HAVE BEEN DISCONNECTED AND OR ABANDONED SHALL REMAIN.
6. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING SYSTEMS AND CONDITIONS IN AREAS OF RENOVATION.
7. ANY SYSTEMS OR EQUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE KEPT IN OPERATION BY PROVIDING TEMPORARY CONNECTIONS AS REQUIRED UNTIL NEW SYSTEMS ARE INSTALLED AND OPERATIONAL.
8. THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OWNER, CM, AND OR GENERAL CONTRACTOR ANY AND ALL PHASING OF THE MECHANICAL DEMOLITION WORK IN ORDER TO SATISFY THE CONSTRUCTION SCHEDULE AND OWNERS OCCUPANCY REQUIREMENTS.
9. ANY ELECTRICAL EQUIPMENT TO BE REMOVED AND REUSED OR TURNED OVER TO THE OWNER, AT OWNERS REQUEST, OR AS INDICATED ON THE DRAWINGS SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE.
10. THE ELECTRICAL CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITION DRAWINGS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
11. ALL SERVICE INTERRUPTIONS SHALL BE COORDINATED AND APPROVED WITH THE OWNER IN ADVANCE PRIOR TO COMMENCEMENT OF ANY WORK.
12. THE ELECTRICAL CONTRACTOR SHALL COORDINATE HIS DEMOLITION WORK WITH THAT OF OTHER TRADES IN ORDER TO AVOID CONFLICTS.



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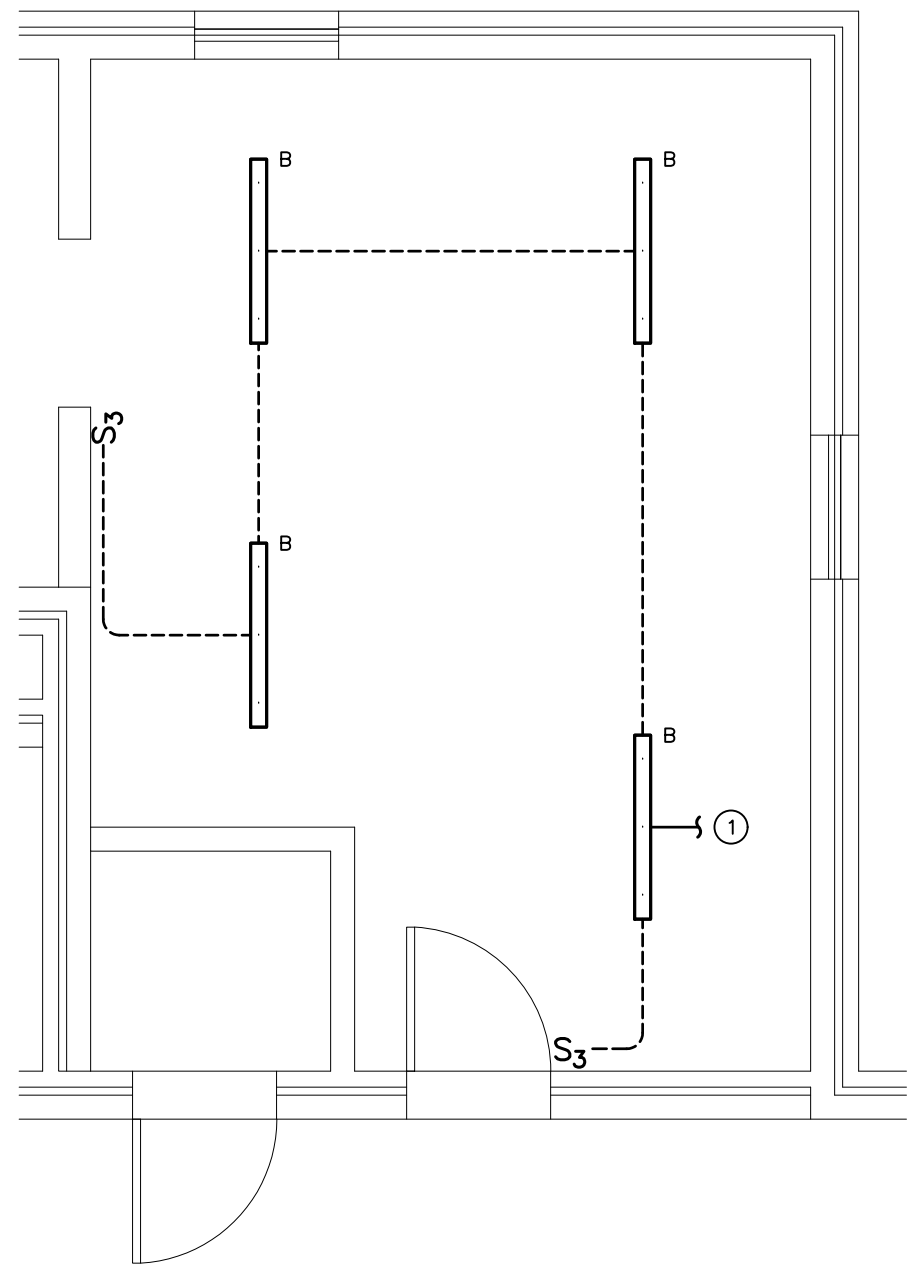
No.	Description	Date

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PROJECT
445 Randolph Rd
Middletown, CT 06457
**South Fire District Bldg
Renovations & Addition**

Issued for Permit
9/21/2023

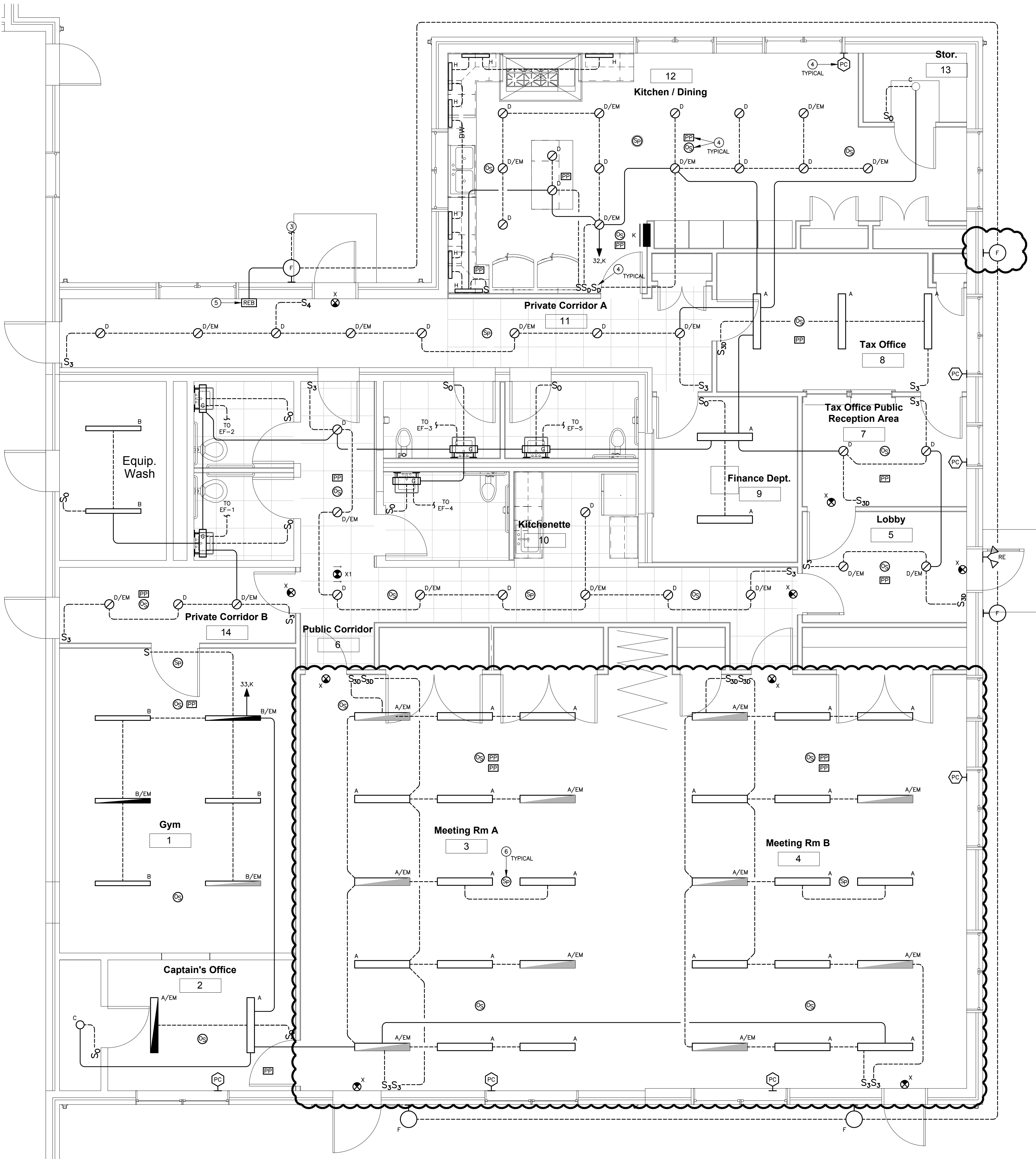
PROJECT TITLE
**ELECTRICAL
DEMOLITION
FLOOR PLANS
DE1**



ELECTRICAL - LIGHTING
BOILER AND ELECTRICAL ROOM FLOOR PLAN
SCALE: 1/4"= 1'-0"

LIGHTING NOTES

- 1. CONNECT TO EXISTING LIGHTING CIRCUIT.
- 2. # NOT USED
- 3. VERIFY SPARE CAPACITY OF EXISTING EXTERIOR LIGHTING CIRCUIT AND CONNECT NEW LIGHT FIXTURE AS REQUIRED. PROVIDE ALLOWANCE FOR NEW CIRCUIT IF REQUIRED.
- 4. PROVIDE ROOM CONTROLLER, PHOTOCELL AND INTERCONNECT WITH CONTROLLED OUTLETS OCCUPANCY SENSORS AND DIMMER AS REQUIRED TO DIMMED LIGHTS AND CONTROL RECEPTACLES WITH OCCUPANCY SENSORS.
- 5. RECESSED REMOTE EMERGENCY BATTERY "REB" RATED AT 55W, 120V. DUAL-LITE LP55SR OR EQUAL.
- 6. DISPATCH NOTIFICATION SPEAKER, COORDINATE SPEAKER AND ELECTRICAL REQUIREMENTS WITH USER AND EXISTING SYSTEM AND INTERCONNECT SPEAKERS WITH EXISTING SYSTEM AS REQUIRED. (TYPICAL OF 6)



ELECTRICAL - LIGHTING FLOOR PLAN
SCALE: 1/4"= 1'-0"



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Renovations & Addition

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PROJECT TITLE
**ELECTRICAL -
LIGHTING
FLOOR PLAN**
PROJECT NO.
E1

C:\IES Projects\2023 Projects\Team PJP\23085 South Fire Addition\Contract Documents\23085_E2.dwg Plotted by Ingalaski on Sep 21, 2023 - 3:54pm

- POWER NOTES
- 1

(2) CONDUITS WITH POWER AND DATA TO NEW EXTERIOR SIGN.
- 2

RECEPTACLE WIRED DOWNSTREAM FROM ADJACENT GFI RATED RECEPTACLE TO PROVIDE GROUND FAULT PROTECTION TO NON ACCESSIBLE RECEPTACLE.
- 3

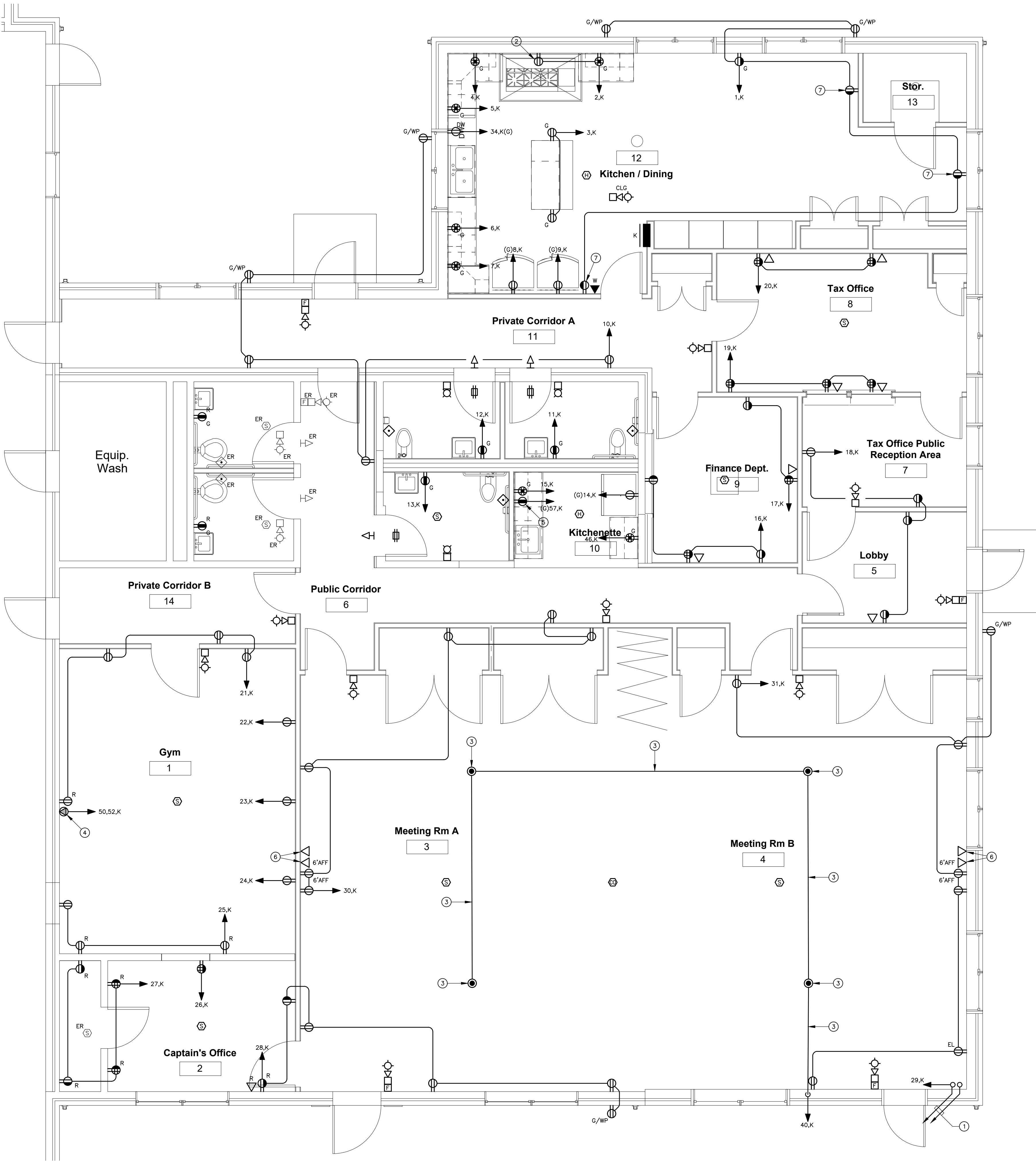
FLUSH FLOOR BOX LEGRAND EVOLUTION 6 (OR EQUAL) WITH DUPLEX RECEPTACLE, DATA AND A/V. PROVIDE (3) CONDUITS BELOW SLAB:
(1) 3/4" POWER
(1) 1" DATA
(1) 1-1/4" A/V
TRENCH EXISTING SLAB AS REQUIRED. COORDINATE ASBESTOS ABATEMENT FOR EXISTING FLOOR SLAB WITH ARCHITECT. CONDUIT ROUTING SHOWN FOR CIRCUIT REFERENCE ONLY. FIELD COORDINATE EXACT ROUTING AND FLOOR BOX LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.
- 4

COORDINATE RECEPTACLE AND FEEDER WITH EQUIPMENT.
- 5

COORDINATE WITH ARCHITECTURAL DWG THE LOCATION AND HEIGHT OF MICROWAVE WITHIN UPPER CABINET AND PROVIDE RECEPTACLE.
- 6

PROVIDE BACK BOX LOW ON WALL, AT 18" A.F.F. WITH 1-1/4" CONDUIT TO BACK BOX HIGH AT WALL 6' A.F.F. AND TO ABOVE CEILING.
- 7

STANDARD RECEPTACLE WIRE DOWN STREAM FROM GFI RATED RECEPTACLE TO PROVIDE GFI PROTECTION TO ALL RECEPTACLES WITHIN KIT/DINING AREA.



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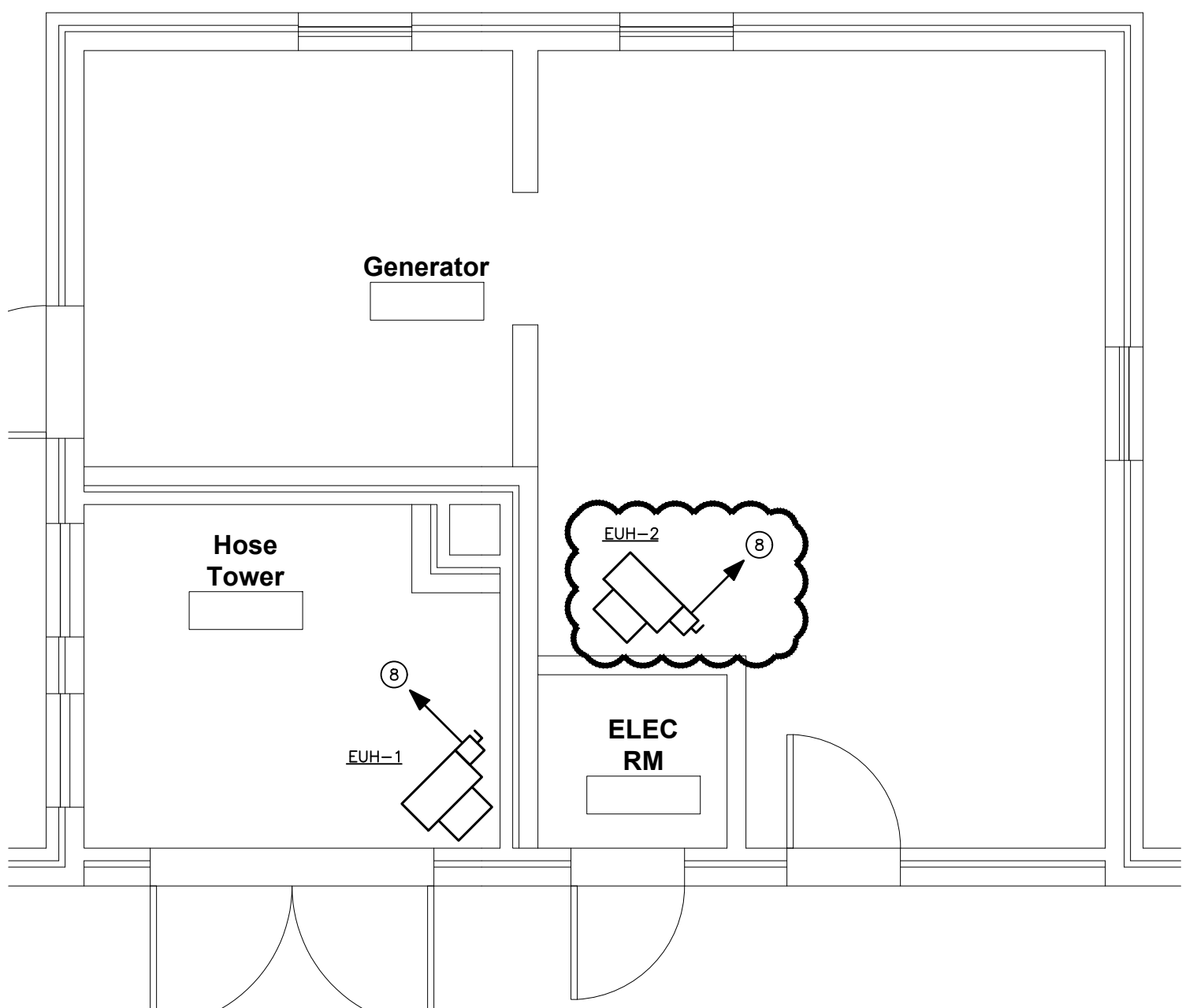
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PROJECT TITLE

ELECTRICAL -
POWER
FLOOR PLAN
E2

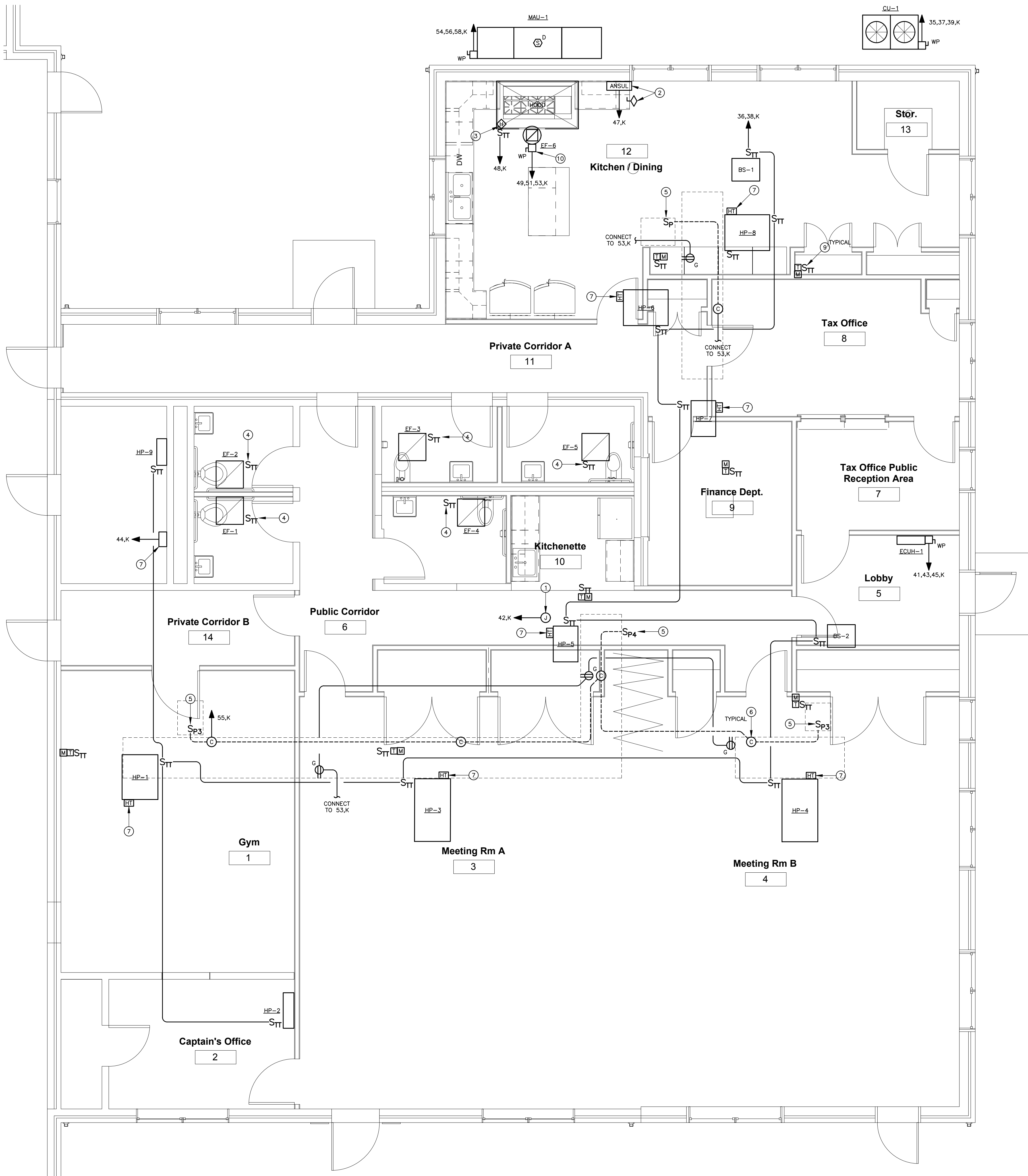
PROJECT ID

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ELECTRICAL - MECHANICAL POWER PARTIAL FLOOR PLAN - BOILER RM
SCALE: 1/4"= 1'-0"

MECHANICAL POWER NOTES		
1	DEDICATED 20A, 120V CIRCUIT FOR MISC. MECHANICAL EQUIPMENT. (EX. CONTROL PANELS, LOW VOLTAGE TRANSFORMER, MOTORIZED DAMPERS, ETC...)	
2	GAS SERVICE SOLENOID VALVE, AND ANSUL SYSTEM, PROVIDE POWER AND INTERCONNECT WITH FACP AS REQUIRED.	
3	PROVIDE POWER TO HOOD, INTERCONNECT LIGHT, LIGHT SWITCH AND SWITCH TO EXHAUST FAN EF-6.	
4	CONNECT TO LOCAL LIGHT SWITCH / OCCUPANCY SENSOR.	
5	LIGHT SWITCH WITH PILOT-LIGHT WITHIN ATTIC, COORDINATE LOCATION WITH ACCESS PANEL. WIRED SWITCH SO PILOT LIGHT IS ILLUMINATED WHEN THE LIGHTS ARE OFF.	
6	PROVIDE SUPPORTS AS REQUIRED TO MOUNT UTILITY LIGHT TO STRUCTURE WITHIN ATTIC.	
7	HEAT TRACE CONTROL PANEL, PROVIDE POWER TO HEAT TRACE AT ALL CONDENSATE P-TRAP LOCATIONS, PROVIDE POWER TO EACH LOCATION FROM CONTROL PANEL CKT 44.K.	
8	PROVIDE POWER FROM EXISTING PANELBOARD "DP" OR "MAIN" WITHIN EXISTING ELECTRICAL ROOM, PROVIDE 20A, 2P CIRCUIT BREAKER AND FEEDER RATED AT 3/4"X 2#12, #125.	
9	COORDINATE MOTORIZED DAMPER'S LOW VOLTAGE TRANSFORMER, VOLTAGE AND PROVIDE STT SWITCH AND POWER FROM MISC MECH CKT.	
10	INTERCONNECT WITH FACP TO SHUT DOWN UPON ALARM ACTIVATION	



ELECTRICAL - MECHANICAL POWER FLOOR PLAN
SCALE: 1/4"= 1'-0"



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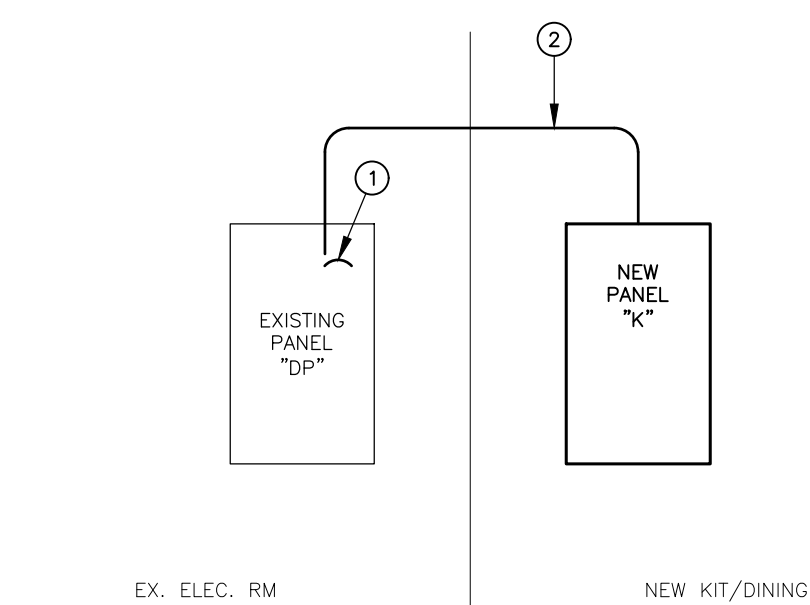
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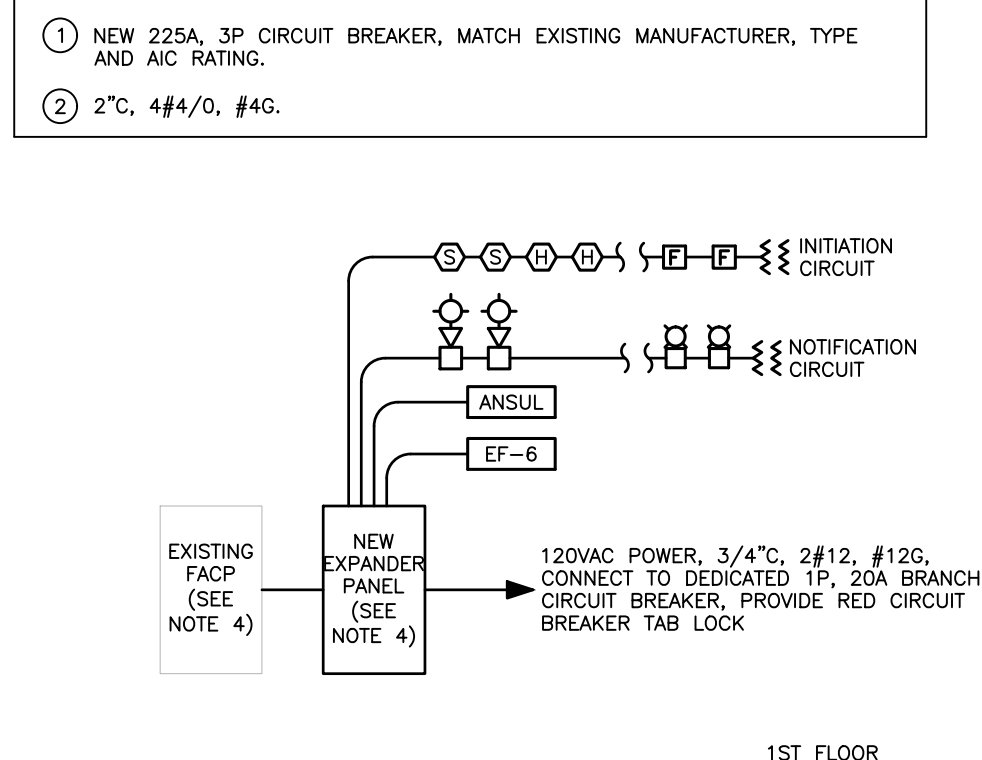
ELECTRICAL -
MECHANICAL
POWER PLAN

E3

RATING: 208Y/120V, 3ø, 4W				K (NEW)				LOCATION: KITCHEN/DINING (19)						
MAIN BUS: ☒ CU ☐ AL 225A MAIN BUS								MOUNTING: ☐ FLUSH ☐ SURFACE						
MAIN DEVICE: 225A M.C.B.								TRIM: ☐ SINGLE DOOR ☒ DOOR-IN-DOOR						
INTERRUPTING RATING: 22K AC														
9 C C C	B R K E R	12 P O L E	DESCRIPTION	WIRE & CONDUIT	KVA	A	B	C	KVA	WIRE & CONDUIT	DESCRIPTION	12 P O L E	B R K E R	9 C C C
1	20	1	RECEPTACLE (KIT/DINING)	3/4"ø, 2ø12, ø12ø	0.7	•			0.4	3/4"ø, 2ø12, ø12ø	RCPT – COUNTER (KIT/DINING)	1	20	2
3	20	1	RECEPTACLE – ISLAND (KIT/DINING)	3/4"ø, 2ø12, ø12ø	0.4		•		0.4	3/4"ø, 2ø12, ø12ø	RCPT – COUNTER (KIT/DINING)	1	20	4
5	20	1	RCPT – COUNTER (KIT/DINING)	3/4"ø, 2ø12, ø12ø	1.5			•	1.5	3/4"ø, 2ø12, ø12ø	RCPT – COUNTER (KIT/DINING)	1	20	6
7	20	1	RCPT – COUNTER (KIT/DINING)	3/4"ø, 2ø12, ø12ø	0.4	•			1.0	3/4"ø, 2ø12, ø12ø	RECEPTACLE – REF (KIT/DINING)	1	20	8
9	20	1	RECEPTACLE – REF (KIT/DINING)	3/4"ø, 2ø12, ø12ø	1.0			•	0.7	3/4"ø, 2ø12, ø12ø	RECEPTACLE (PRIVACY CORRIDOR)	1	20	10
11	20	1	RECEPTACLE (TOILET RM)	3/4"ø, 2ø12, ø12ø	0.2			•	0.2	3/4"ø, 2ø12, ø12ø	RECEPTACLE (TOILET RM)	1	20	12
13	20	1	RECEPTACLE (TOILET RM)	3/4"ø, 2ø12, ø12ø	0.2			•	0.2	3/4"ø, 2ø12, ø12ø	RECEPTACLE – REF (KITCHENETTE)	1	20	14
15	20	1	RCPT – COUNTER (KITCHENETTE)	3/4"ø, 2ø12, ø12ø	0.4	•			0.5	3/4"ø, 2ø12, ø12ø	RECEPTACLE (FINANCE DEPARTMENT)	1	20	16
17	20	1	RECEPTACLE (FINANCE DEPARTMENT)	3/4"ø, 2ø12, ø12ø	0.5			•	0.7	3/4"ø, 2ø12, ø12ø	RECEPTACLE (TAX OFFICE & LOBBY)	1	20	18
19	20	1	RECEPTACLE (TAX OFFICE)	3/4"ø, 2ø12, ø12ø	0.7	•			0.7	3/4"ø, 2ø12, ø12ø	RECEPTACLE (TAX OFFICE)	1	20	20
21	20	1	RECEPTACLE (GYM)	3/4"ø, 2ø12, ø12ø	0.5			•	0.2	3/4"ø, 2ø12, ø12ø	RECEPTACLE (GYM)	1	20	22
23	20	1	RECEPTACLE (GYM)	3/4"ø, 2ø12, ø12ø	0.2			•	0.2	3/4"ø, 2ø12, ø12ø	RECEPTACLE (GYM)	1	20	24
25	20	1	RECEPTACLE (GYM)	3/4"ø, 2ø12, ø12ø	0.5			•	0.4	3/4"ø, 2ø12, ø12ø	RECEPTACLE (CAPTAIN'S OFFICE)	1	20	26
27	20	1	RECEPTACLE (CAPTAIN'S OFFICE)	3/4"ø, 2ø12, ø12ø	0.4	•			1.1	3/4"ø, 2ø12, ø12ø	RCPT (CAPT'S OFF. & MEET RM "A")	1	20	28
29	20	1	STREET SIGN & RCPT (CLOSET)	3/4"ø, 2ø12, ø12ø	0.6			•	1.1	3/4"ø, 2ø12, ø12ø	RECEPTACLE (MEETING RM "A")	1	20	30
31	20	1	RECEPTACLE (MEETING RM "B")	3/4"ø, 2ø12, ø12ø	1.3	•			0.7	3/4"ø, 2ø12, ø12ø	LIGHTING (KITCHEN & KIT)	1	20	32
33	20	1	LIG (MEETING RM, GYM & OFFICE)	3/4"ø, 2ø12, ø12ø	1.5			•	1.2	3/4"ø, 2ø12, ø12ø	RECEPTACLE – DW (KIT/DINING)	1	20	34
35	70	3	CU-1	1"ø, 3ø4, ø8ø	7.4	•		•	1.4	3/4"ø, 2ø12, ø12ø	FCU-1 – FCU-8, BS-1 & BS-2	2	20	36
37	--	--	--	--	7.4	•			1.4	--	--	--	--	38
39	--	--	--	--	7.4	--		•	0.7	3/4"ø, 2ø12, ø12ø	FLOOR RECEPTABLES (MEETING RMS)	1	20	40
41	20	3	ECU#-1	3/4"ø, 3ø12, ø12ø	1.2			•	0.6	3/4"ø, 2ø12, ø12ø	MISC. MECHANICAL EQUIPMENT	1	20	42
43	--	--	--	--	1.2	--		•	1.0	3/4"ø, 2ø12, ø12ø	HEAT TRACE	1	20	44
45	--	--	--	--	1.2	--		•	1.5	3/4"ø, 2ø12, ø12ø	RCPT – COUNTER (KITCHENETTE)	1	20	46
47	20	1	ANSUL SYSTEM	3/4"ø, 2ø12, ø12ø	0.6			•	0.6	3/4"ø, 2ø12, ø12ø	HOOD (KITCHEN/DINING)	1	20	48
49	20	3	EF-6	3/4"ø, 3ø12, ø12ø	0.3	•			0.6	3/4"ø, 3ø12, ø12ø	GYM EQUIPMENT	2	20	50
51	--	--	--	--	0.3	--		•	0.6	--	--	--	--	52
53	--	--	--	--	0.3	--		•	2.0	3/4"ø, 3ø10, ø10ø	MAU-1	3	20	54
55	20	1	ATTIC LIGHTING AND RECEPTACLE	3/4"ø, 2ø12, ø12ø	0.8	•			2.0	--	--	--	--	56
57	20	1	MICROWAVE	3/4"ø, 2ø12, ø12ø	1.5			•	0.0	--	--	--	--	58
59	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	60
61	20	1	SPARE	--	0.0	•			0.0	--	SPARE	--	--	62
63	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	64
65	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	66
67	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	68
69	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	70
71	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	72
73	20	1	SPARE	--	0.0	•			0.0	--	SPARE	--	--	74
75	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	76
77	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	78
79	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	80
81	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	82
83	20	1	SPARE	--	0.0			•	0.0	--	SPARE	--	--	84
TOTALS PER PHASE					21.9 23.5 20.6									
GRAND TOTAL					66.2									



PARTIAL POWER RISER DIAGRAM
N.T.S.



- NOTES**
1. REFER TO FLOOR PLANS AND MECHANICAL PLANS FOR LOCATIONS AND QUANTITIES OF ALL DEVICES.
 2. CIRCUIT EVERY OTHER DEVICE TO A SEPARATE CIRCUIT.
 3. INTERCONNECTION FOR WIRING FROM SMOKE DETECTOR AND ASSOCIATED SMOKE DAMPER BY ELECTRICAL CONTRACTOR.
 4. CONTRACTOR TO VERIFY SPARE CAPACITY OF EXISTING FIRE ALARM PANEL AND CONNECT NEW DEVICES TO EXISTING PANEL (LOAD PERMITTING) IN THE EVENT THE EXISTING PANEL CANNOT SUPPORT NEW DEVICES. PROVIDE NEW EXPANDER PANEL SIZED AS REQUIRED TO ACCOMMODATE NEW DEVICES.

TYPICAL FIRE ALARM RISER DIAGRAM
SCALE: NTS

GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK REQUIRED FOR A COMPLETE FULLY OPERABLE INSTALLATION. ALL WORK TO BE DONE IN ACCORDANCE WITH THE LATEST APPROVED ISSUE OF THE NEC AND APPLICABLE LOCAL CODES.
2. PRIOR TO SUBMISSION OF BIDS GIVE WRITTEN NOTICE TO ARCHITECT AND ENGINEER OF ANY MATERIALS OR METHODS THAT ARE INADEQUATE, UNSUITABLE FOR THE USE, IN VIOLATION OF LAWS, ORDINANCES, RULES, CODES OR ANY REGULATIONS OF AUTHORITIES HAVING JURISDICTION OR ANY NECESSARY ITEMS OF WORK THAT HAS BEEN OMITTED. CONTRACTOR AFFIRMS THAT ABSENT SUCH NOTICE, THE SYSTEM SHALL BE INSTALLED WITHOUT ADDITIONAL EXTRA COMPENSATION.
3. THE ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND ADHERE TO THE CONTENTS OF THE BID DOCUMENTS. ANY DEVIATIONS FROM THE INFORMATION PROVIDED IN THE DOCUMENTS MUST BE LISTED IN WRITING. INNOVATIVE ENGINEERING SERVICES, LLC HAS THE RIGHT TO BE COMPENSATED FOR REVIEW OF VALUE ENGINEERING OR SUBSTITUTED MATERIALS AND EQUIPMENT.
4. ELECTRICAL CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO THEIR ORIGINAL CONDITION. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING, PATCHING, PAINTING, CLEAN-UP, ELECTRICAL DEBRIS REMOVAL AND GENERAL COORDINATION OF THE WORK EFFORT AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL SYSTEM.
5. THE DRAWINGS SHOW THE GENERAL LAYOUT AND SOME OF THE DETAIL, BUT THEY DO NOT SHOW EVERY FITTING, BEND, ... ETC. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SUCH MATERIALS TO MAKE A COMPLETE INSTALLATION.
6. ALL PART NUMBERS ARE PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THEY ARE NOT TO BE CONSIDERED THE COMPLETE SPECIFICATION OF THE PRODUCT. THE PART NUMBER AND DESCRIPTION WILL BE THE CONCTOR SPECIFICATION. IN THE EVENT OF A DISCREPANCY BETWEEN THE TWO, THE MORE STRINGENT, MORE COSTLY FEATURE/PERFORMANCE WILL BE REQUIRED.
7. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING OF ALL PHASES OF THE WORK AND TO DEMONSTRATE TO OWNER THAT THE EQUIPMENT IS IN FULL OPERATING ORDER.
8. DO NOT SCALE DRAWINGS; ACTUAL FIELD MEASUREMENTS AND DIMENSIONS TAKE PRECEDENCE IN ALL CASES.
9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT, AIA DOCUMENT A 201, LATEST EDITION.
10. ELECTRICAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND OR REQUIREMENTS FOR PROPER OPERATION AND MAINTENANCE.
11. IN ADDITION TO THE REQUIREMENTS SHOWN FOR LOW VOLTAGE EQUIPMENT AND RACEWAYS, THE ELECTRICAL CONTRACTOR SHALL GAIN AN ALLOWANCE FOR THE COORDINATION OF ALL RACEWAYS AND SLEEVES REQUIRED TO FACILITATE THE LOW VOLTAGE CONSULTANT WORK.
12. ELECTRICAL CONTRACTOR SHALL WARRANT AND GUARANTEE ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.
13. PROVIDE INDEPENDENT SEISMIC SUPPORT OF ALL ELECTRICAL EQUIPMENT PER THE LATEST ADOPTED VERSION OF THE INTERNATIONAL BUILDING CODE.
14. ALL ELECTRICAL PENETRATIONS TO BE FIREPROOFED TO MAINTAIN INTEGRITY OF FIRE WALLS/FLOORS/CEILINGS.
15. ALL THE WIRE SIZES ARE BASED ON COPPER. ALUMINUM IS NOT TO BE UNLESS NOTED OTHERWISE.
16. MINIMUM CONDUCTOR SIZE FOR A FULLY LOADED 20A CIRCUIT, UNLESS OTHERWISE NOTED, SHALL BE #12 FOR ALL BRANCH CIRCUIT RUNS UP TO THE FIRST OUTLET; OVER 60 FEET, #10; OVER 100 FEET, #8; INCREASE CONDUIT SIZE TO SUIT.
17. CIRCUIT NUMBERS ARE INDICATED FOR INTENT ONLY. THE ELECTRICAL CONTRACTOR SHALL ADJUST AS NECESSARY IN THE FIELD TO BALANCE CIRCUITS EVENLY ON ALL PHASES.
18. ALL WIRING METHODS ARE TO BE IN ACCORDANCE WITH THE CURRENT ISSUE OF THE NATIONAL ELECTRICAL CODE, AND APPLICABLE LOCAL CODES. ALL WIRING IS TO BE IN CONDUIT, UNLESS SPECIFICALLY NOTED OTHERWISE. ALL WIRING IS TO BE CONCEALED.
19. ELECTRICAL CONTRACTOR MUST COORDINATE LED DRIVER WITH DIMMER SWITCH FOR COMPATIBILITY.
20. SHARED NEUTRALS ARE NOT TO BE USED. PROVIDE SEPARATE NEUTRALS FOR ALL NEW CIRCUITS INCLUDING SWITCHES PER THE LATEST EDITION OF THE NEC.
21. FOR ALL ROOFTOP OR GRADE LEVEL HVAC EQUIPMENT, THE ELECTRICAL CONTRACTOR SHALL SUPPLY A GFCI WP, 20A RECEPTACLE FOR EQUIPMENT SERVICING. ALL DISCONNECT SWITCHES ARE TO BE HEAVY DUTY, FUSED, WEATHER PROOF (WP) DEVICES.
22. FOR ALL FLOOR BOXES WITH DATA COMMUNICATIONS SERVICES PROVIDE (2) 3/4" EMPTY CONDUITS TO HUNG CEILING OR OTHER ACCESSIBLE SPACE. INSTALL A DRAG WIRE.
23. FOR ALL WALL/CEILING BOXES FOR DATA COMMUNICATIONS PROVIDE 1-1/4" EMPTY CONDUITS TO HUNG CEILING OR OTHER ACCESSIBLE SPACE. INSTALL A DRAG WIRE.
24. WHERE APPLICABLE, WIRING IN AIR PLENUM CEILINGS SHALL BE TEFLON COATED AND RATED FOR USE WITHIN THE PLENUM.
25. NO LOW VOLTAGE WIRING SHALL BE PERMITTED IN THE SAME RACEWAY AS POWER WIRING.
26. EMERGENCY SERVICES SHALL BE RUN IN SEPARATE RACEWAYS FROM ALL OTHER SYSTEMS.
27. PROVIDE DRAG LINES IN ALL EMPTY RACEWAYS.
28. ELECTRICAL CONTRACTOR TO PROVIDE LIGHTING FIXTURE MOUNTING HEIGHT REQUIREMENTS FOR VARIOUS CEILING TYPES AND ORDER APPROPRIATE HARDWARE.
29. COORDINATE EXACT PLACEMENT OF EQUIPMENT WITH ARCHITECTURAL AND MECHANICAL PLANS, MAKE FIELD ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS, VERIFY WITH OWNER.
30. ELECTRICAL CONTRACTOR TO COORDINATE WITH ARCHITECTURAL AND MECHANICAL CONTRACTOR FOR ITEMS SUPPLIED BY THE MECHANICAL/OTHER DIVISIONS BUT INSTALLED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO REVIEW ALL THE PLANS FOR THE PROJECT AND ASSIST IN PROVIDING COORDINATION DRAWINGS WITH OTHER TRADES.
31. ELECTRICAL CONTRACTOR TO PROVIDE LOADS, SETTINGS, OVERCURRENT PROTECTION... ETC TO INSURE COMPATIBILITY OF EQUIPMENT.
32. PROVIDE LAMINCO NAMEPLATES AND TYPEWRITTEN PANEL SCHEDULES FOR ALL PANEL BOARDS, DISTRIBUTION AND DISCONNECT EQUIPMENT, MODIFIED OR PROVIDED AS NEW AS PART OF THE SCOPE OF WORK. ALTERNATE LABELING PROVISIONS MUST BE APPROVED BY THE ENGINEER.
33. REFER TO ARCHITECTURAL DRAWINGS FOR THE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL DEVICES AND OUTLETS.
34. DISCONNECT SWITCHES AND CIRCUIT BREAKER USED AS SWITCHES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE. "NEC" SECTION 110.26 TABLE 110.26(A)(1) AND SECTION 404.8. ALL DISCONNECT SWITCHES AND CIRCUIT BREAKERS SHALL BE LOCATED SO THAT THEY MAY BE OPERATED FROM A READILY ACCESSIBLE PLACE. BREAKERS SHALL BE INSTALLED SUCH THAT THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE SWITCH OR CIRCUIT BREAKER, WHEN IN ITS HIGHEST POSITION, IS NOT MORE THAN 6'-7" ABOVE THE FLOOR OR WORKING PLATFORM WITH 36" CLEAR IN FRONT.
35. ALL NEW FIRE ALARM SYSTEMS SHALL MATCH THE EXISTING BUILDING STANDARD MANUFACTURER. THE FIRE ALARM SYSTEM'S SOFTWARE AND DISPLAY SHALL BE UPGRADED AS REQUIRED WITH NEW REXROTH AND PNEUMATIC LAYOUT. THE FIRE ALARM SYSTEM SHALL BE TESTED AND CERTIFIED TO COMPLETION OF ALL NEW AND/OR RELOCATED FIRE ALARM DEVICES ACCORDING TO [NFPA72 14.4.1.2.1.4] WHEN CHANGES ARE MADE TO SITE SPECIFIC SOFTWARE, THE FOLLOWING SHALL APPLY:
 - 1) ALL FUNCTIONS KNOWN TO BE AFFECTED BY THE CHANGE, OR IDENTIFIED BY A MEANS THAT INDICATES CHANGES, SHALL BE 100 PERCENT TESTED.
 - 2) IN ADDITION, TO 10 PERCENT OF INITIATING DEVICES THAT ARE NOT DIRECTLY AFFECTED BY THE CHANGE, UP TO A MAXIMUM OF 50 INITIATING DEVICES, ALSO SHALL BE TESTED AND CORRECT SYSTEM OPERATION SHALL BE VERIFIED.
 - 3) A REVISED RECORD OF COMPLETION IN ACCORDANCE WITH 10.8.2.1 SHALL BE PREPARED TO REFLECT THESE CHANGES.
36. ALL WIRING ABOVE CEILING SHALL BE ROUTED AND INSTALLED ABOVE INSULATION

ABBREVIATIONS

A	AMPERE
ADA	AMERICANS WITH DISABILITIES ACT
AFG	ABOVE FINISHED FLOOR
AWF	ABOVE FINISHED GRADE
C	AMERICAN WIRE GAUGE
CB	CONDUIT
CLG	CIRCUIT BREAKER
CKT	MOUNTED IN CEILING
DW	DISHWASHER
DWG	DRAWING
ELEC	ELECTRICAL
E/EM	EMERGENCY POWER CIRCUIT
ER	EXISTING TO REMAIN
FL	FLOOR
G	GROUND FAULT CIRCUIT INTERRUPTER
JB	JUNCTION BOX
LTG	LIGHTING
MTD	MOUNTED
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OD	OUTDOOR
P	POLE
Ø	PHASE
R	REFRIGERATOR
RE	RELOCATED EXISTING
RR	TO BE REMOVED AND RELOCATED
UNON	UNLESS OTHERWISE NOTED
V	VOLT
W	WATT
WP	WEATHERPROOF

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
S	SINGLE POLE TOGGLE SWITCH
S ₃	THREE WAY TOGGLE SWITCH
S ₄	FOUR WAY TOGGLE SWITCH
S _b	SINGLE POLE DIMMER SWITCH
S _{3D}	THREE WAY DIMMER SWITCH
S _F	FAN SWITCH
S _o	OCCUPANCY SENSOR SWITCH
S _p	PILOT LIGHT SWITCH
S _{TT}	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD PROTECTION
	DUPLEX RECEPTACLE (TAMPER RESISTANT)
	DUPLEX RECEPTACLE, MOUNTED ABOVE COUNTER (TAMPER RESISTANT)
	DOUBLE DUPLEX RECEPTACLE (TAMPER RESISTANT)
	DOUBLE DUPLEX RECEPTACLE, MOUNTED ABOVE COUNTER (TAMPER RESISTANT)
	240 VOLT, RANGE RECEPTACLE (TAMPER RESISTANT)
	DUPLEX RECEPTACLE, SPLIT-WIRED FOR AUTOMATIC RECEPTACLE CONTROL WITH ONE (1) CONTROLLED RECEPTACLE AND ONE (1) UNCONTROLLED RECEPTACLE
	DOUBLE DUPLEX RECEPTACLE, SPLIT-WIRED FOR AUTOMATIC RECEPTACLE CONTROL WITH ONE (1) CONTROLLED RECEPTACLE AND ONE (1) UNCONTROLLED RECEPTACLE
	HOOD CONNECTION
	OUTLET TO SUIT EQUIPMENT (CONTRACTOR TO VERIFY)
	FLOOR RECEPTACLE (TAMPER RESISTANT)
	EXISTING PANELBOARD/LOAD CENTER
	208Y/120V PANEL
	CONDUIT AND WIRE
	CONDUIT AND WIRE, SWITCHED
	HOMERUN TO PANELBOARD, NUMBERS/LETTERS INDICATE CIRCUIT AND PANELBOARD TERMINATION UNLESS OTHERWISE INDICATED.
	JUNCTION BOX
	MOTOR
	SAFETY DISCONNECT SWITCH
	FUSIBLE SAFETY DISCONNECT SWITCH
	WALL MOUNTED TELEPHONE OUTLET
	COMBINATION TELECOMMUNICATION/DATA OUTLET. METALLIC MOUNTING PLATE BRACKET, 3/4" FROM OUTLET LOCATION TO ACCESSIBLE LOCATION ABOVE CEILING CAVITY. TERMINATE BOTH ENDS OF CONDUIT WITH CONNECTOR AND INSULATING BUSHING.
	CABLE T.V. OUTLET WITH COAXIAL CABLE BACK TO CATV SERVICE LOCATION
	OCCUPANCY SENSOR
	FIRE ALARM CONTROL PANEL
	FIRE ALARM REMOTE ANNUNCIATOR PANEL
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM DUCT SMOKE DETECTOR
	FIRE ALARM THERMAL DETECTOR
	FIRE ALARM REMOTE TEST SWITCH
	FIRE ALARM MANUAL PULL STATION
	FIRE ALARM HORN-STROBE UNIT
	FIRE ALARM STROBE ONLY UNIT
	SPRINKLER TAMPER SWITCH, (FBO)
	SPRINKLER WATER FLOW SWITCH, (FBO)
	SPRINKLER PRESSURE SWITCH, (FBO)
	CALL-FOR-AID PULL STATION
	CALL-FOR-AID AUDIO/VISUAL UNIT
	CALL-FOR-AID TRANSFORMER

LIGHTING SPECIFICATIONS

LIGHTING FIXTURE TYPE		A	
MANUFACTURER	MERCURY LIGHTING		
CATALOG NO.	LW 15 4 4500 40K		
FIXTURE DESCRIPTION	4FT LINEAR LUMINAIRE		
VOLTAGE	120V		
LAMP & DESIGNATION	LED 34W (4000K)		
DRIVER	DIMMING (0-10V)		
MOUNTING	SURFACE		
HOUSING	STEEL		
LENS/LOUVER	ACRYLIC		
REMARKS			

B

LIGHTING FIXTURE TYPE

MANUFACTURER MERCURY LIGHTING
 CATALOG NO. ML S3 M1 48 500 40K HTA
 FIXTURE DESCRIPTION 4FT LINEAR LUMINAIRE
 VOLTAGE 120V
 LAMP & DESIGNATION LED 68.4W (4000K)
 DRIVER DIMMING (0-10V)
 MOUNTING SURFACE
 HOUSING ALUMINUM
 LENS/LOUVER ACRYLIC
 REMARKS -

LIGHTING FIXTURE TYPE 

MANUFACTURERJUNO LIGHTING
CATALOG NO.JSBC 7IN 30K 90CRI WH M6
FIXTURE DESCRIPTION7" ROUND UTILITY LUMINAIRE
VOLTAGE120V
LAMP & DESIGNATIONLED 17W (3000K)
DRIVERDIMMABLE
MOUNTINGSURFACE
HOUSINGWHITE-STEEL
LENS/LOUVERFROSTED
REMARKS-

LIGHTING FIXTURE TYPE 

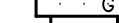
MANUFACTURERJUNO LIGHTING
CATALOG NO.IC 1LEDG4 14LM 40K 90CRI
FIXTURE DESCRIPTION4" I.C. RATED ROUND DOWN
VOLTAGE120V
LAMP & DESIGNATIONLED 17.3W (4000K)
DRIVERDIMMING (0-10V)
MOUNTINGRECESSED
HOUSINGALUMINUM
LENS/LOUVER
REMARKS-

LIGHTING FIXTURE TYPE



MANUFACTURER	HUBBELL
CATALOG NO.	VWGL-1
FIXTURE DESCRIPTION	LED WALL LUMINAIRE
VOLTAGE	120V
LAMP & DESIGNATION	LED 11W 757 LUMENS
DRIVER	LED DRIVER
MOUNTING	WALL
HOUSING	ALUMINUM, GRAY
LENS/LOUVER	FROSTED GLASS GLOBE
REMARKS	MOUNT 10'-0" ABOVE FINISH

LIGHTING FIXTURE TYPE



MANUFACTURER BROWN LEE LIGHTING
CATALOG NO. 517824 ?? H21 40K
FIXTURE DESCRIPTION 2FT VANITY LIGHT
VOLTAGE 120V
LAMP & DESIGNATION LED 21.6W (4000K)
DRIVER DIMMING (0-10V)
MOUNTING SURFACE (WALL)
HOUSING STEEL
LENS/LOUVER WHITE ACRYLIC
REMARKS FINISH BY ARCHITECT

H

LIGHTING FIXTURE TYPE

MANUFACTURER MERCURY LIGHTING
 CATALOG NO. LUC5 8 LED 24
 FIXTURE DESCRIPTION MINI UNDERCAB LUMINAIRE
 VOLTAGE 120
 WATTAGE & DESIGNATION LED 13W (3000K)
 DRIVER STANDARD
 MOUNTING SURFACE
 HOUSING ALUMINUM
 LENS/LOUVER CLEAR GLASS
 REMARKS COORDINATE LENGTH WITH

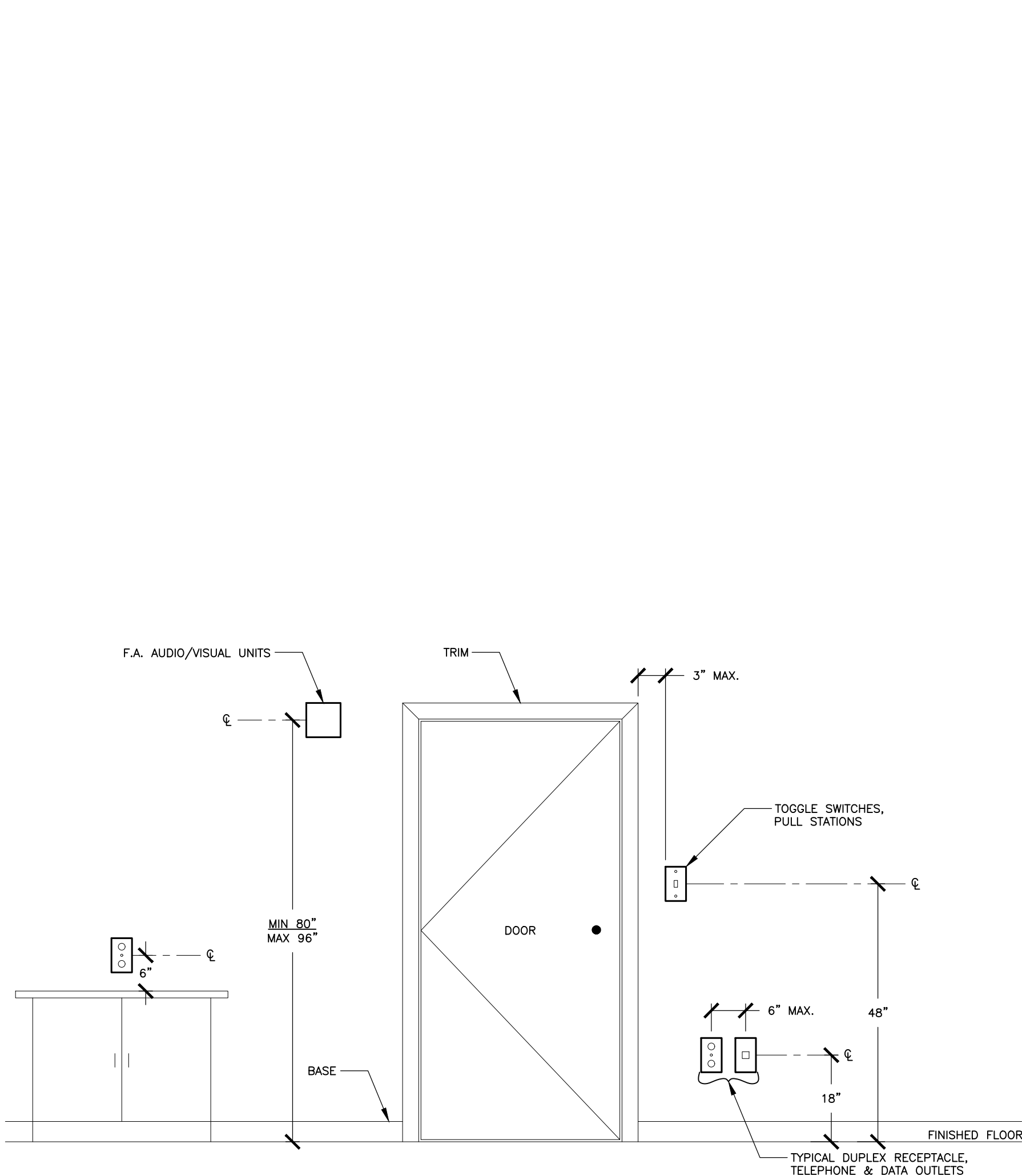
LIGHTING FIXTURE TYPE

MANUFACTURER LITHONIA LIGHTING
 CATALOG NO. LQMSW ER 120/277 M6
 FIXTURE DESCRIPTION LED EXIT SIGN
 VOLTAGE 120V
 LAMP & DESIGNATION RED LED
 DRIVER
 MOUNTING UNIVERSAL
 HOUSING THERMOPLASTIC
 LENS/LOUVER -
 REMARKS -

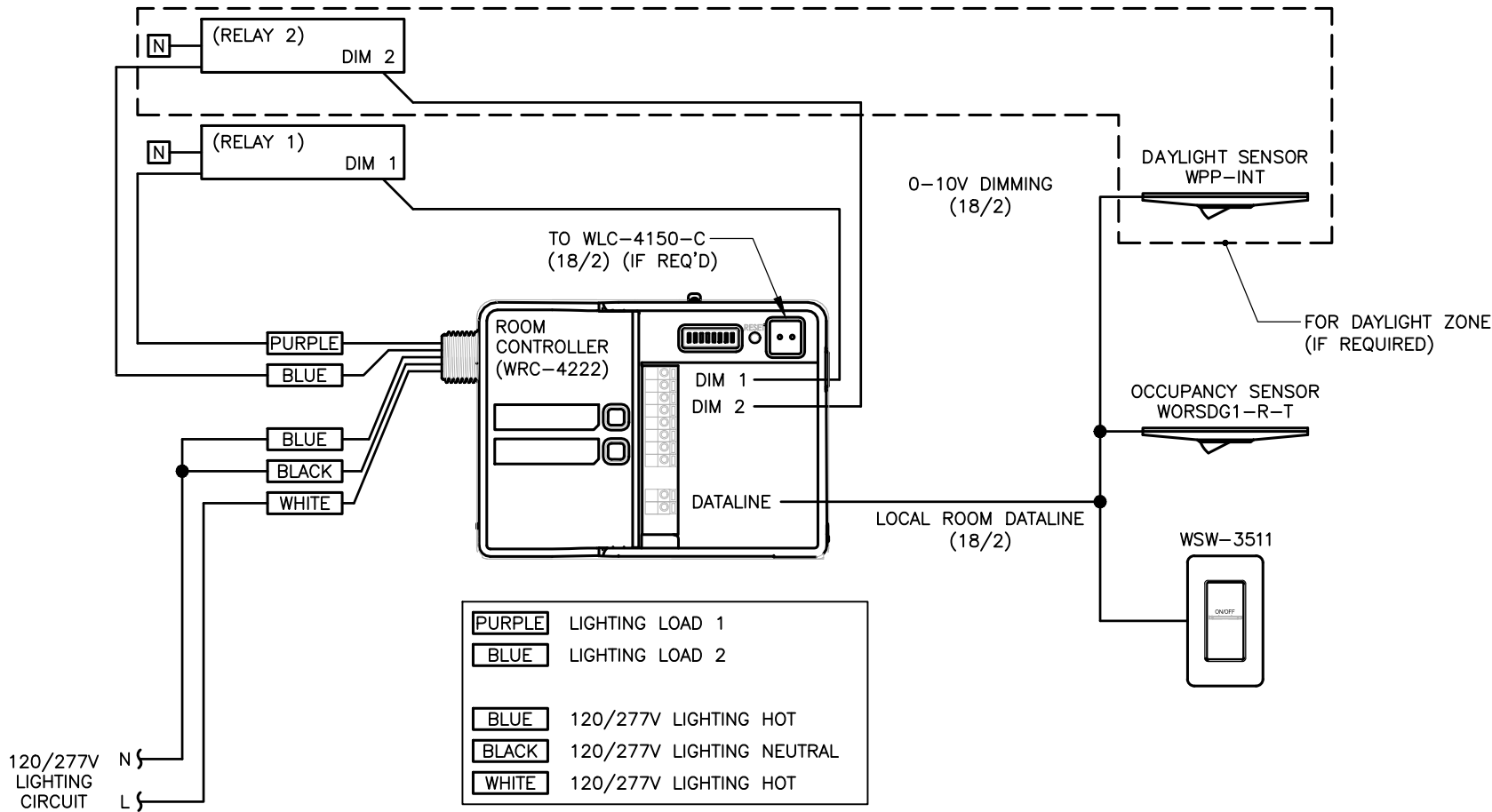
SYMBOL	V – PH	AMP	DISC. SW.	STARTER NEMA SIZE	HP (KW)	NOTES
BS-1	208V-1 ϕ	0.4	STT SWITCH 2 POLE	–	–	
BS-2	208V-1 ϕ	0.6	STT SWITCH 2 POLE	–	–	
CU-1	208V-3 ϕ	61.9	100A 3P 240V W.B. DISC. SWITCH	–	–	
ECUH-1	208V-3 ϕ	10.0	BY MECHANICAL	–	–	
EUH-1,2	208V-1 ϕ	11.0	BY MECHANICAL	–	–	
EF-1,2,3,4,5	120V-1 ϕ	0.2	STT SWITCH 1 POLE	–	–	
EF-6	208V-3 ϕ	2.4	BY MECHANICAL	0	1/2	1,4
HP-1	208V-1 ϕ	1.6	STT SWITCH 2 POLE	–	–	3
HP-2	208V-1 ϕ	0.3	STT SWITCH 2 POLE	–	–	3
HP-3	208V-1 ϕ	2.5	STT SWITCH 2 POLE	–	–	3
HP-4	208V-1 ϕ	2.5	STT SWITCH 2 POLE	–	–	3
HP-5	208V-1 ϕ	0.8	STT SWITCH 2 POLE	–	–	3
HP-6	208V-1 ϕ	1.8	STT SWITCH 2 POLE	–	–	3
HP-8	208V-1 ϕ	1.8	STT SWITCH 2 POLE	–	–	3
HP-9	208V-1 ϕ	0.4	STT SWITCH 2 POLE	–	–	3
MAU-1	208V-3 ϕ	16.6	BY MECHANICAL	–	–	2

NOTES:

- INTERCONNECT WITH SWITCH AT HOOD LOCATED WITHIN KITCHEN/DINING.
- INTERCONNECT WITH EF-6.
- INTERCONNECT INTEGRAL CONDENSATE PUMP AS REQUIRED.
- INTERCONNECT WITH FACP



DEVICE MOUNTING DETAIL
N.T.S.



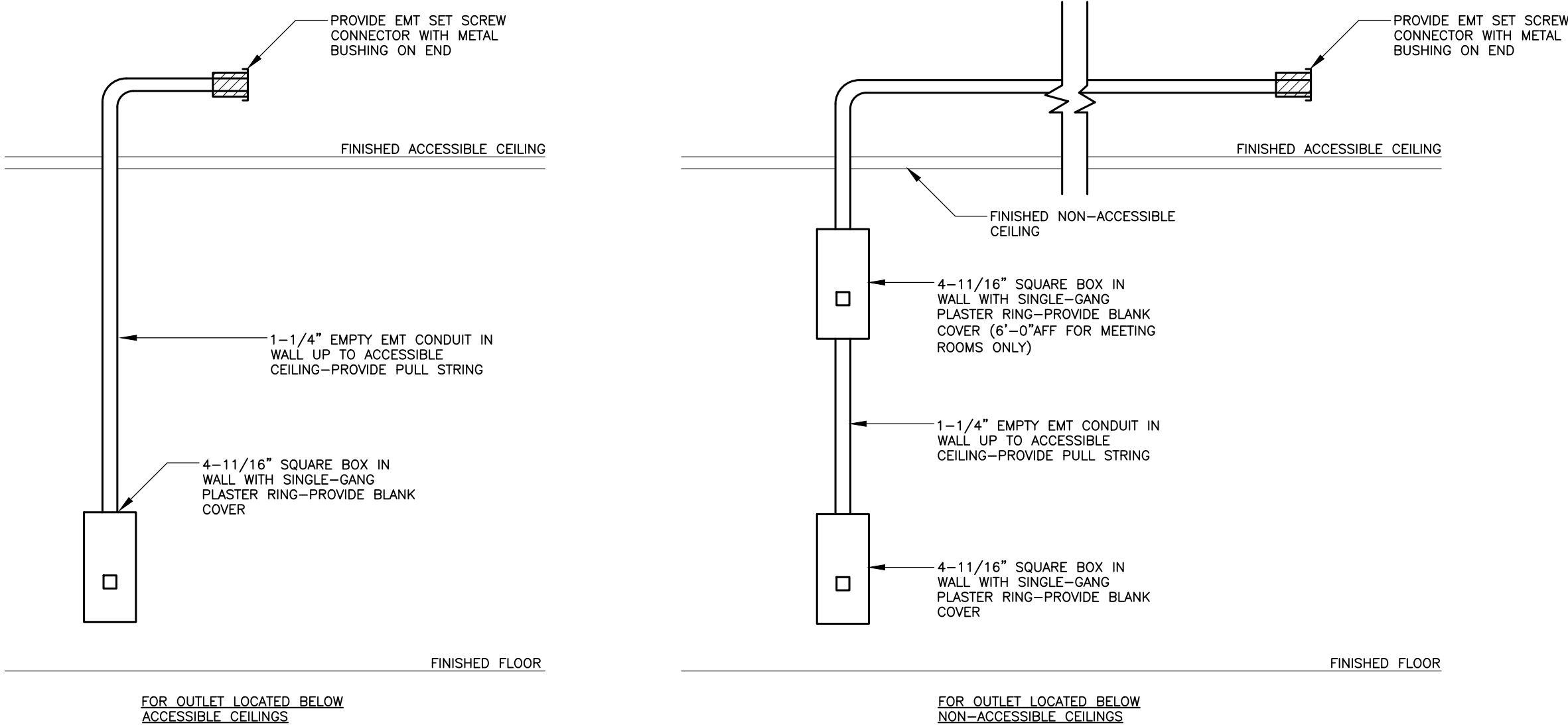
NOTES

MANUAL CONTROL SWITCH:
THERE SHALL BE AT LEAST ONE MANUAL DEVICE FOR CONTROL OF THE LIGHTING WITHIN THIS SPACE.

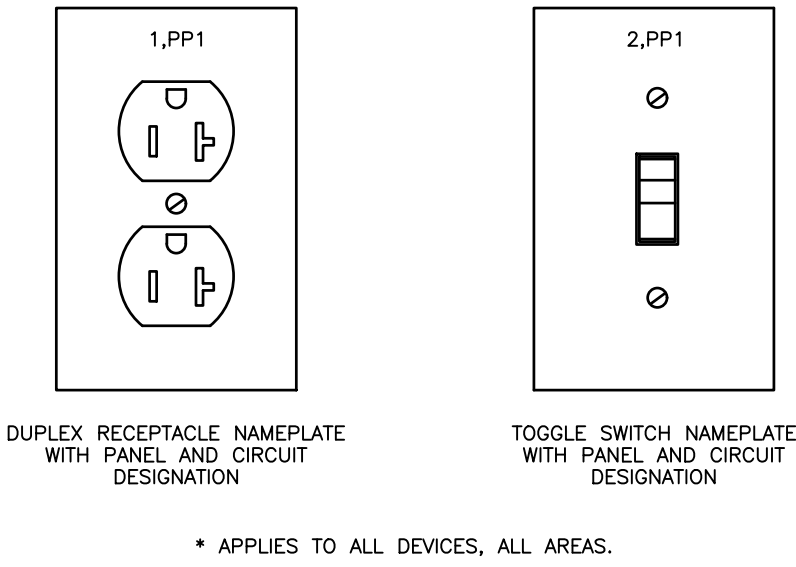
AUTOMATIC CONTROL VACANCY SENSOR:
ROOM LIGHTING TURNS ON MANUALLY BY WALL SWITCH AND TURNS FULL OFF AFTER A VACANCY OF 20 MINUTES OR LESS.

DAYLIGHTING:
AN CEILING PHOTOSENSOR IS TO BE PROVIDED FOR ROOMS HAVING GREATER THAN 150W OF INSTALLED LIGHTING POWER.

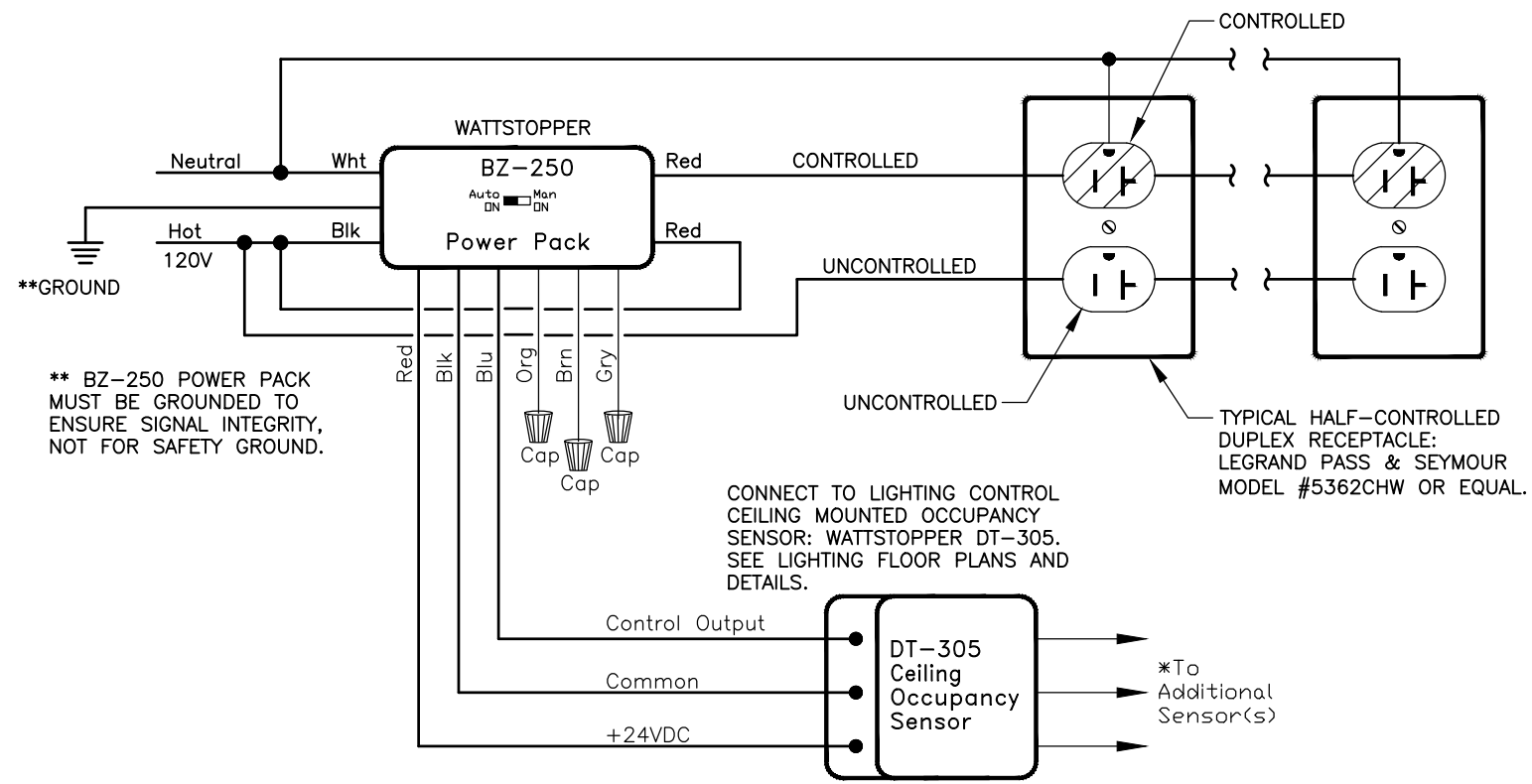
DAYLIGHT HARVESTING ROOM CONTROLLER
SCALE: N.T.S.



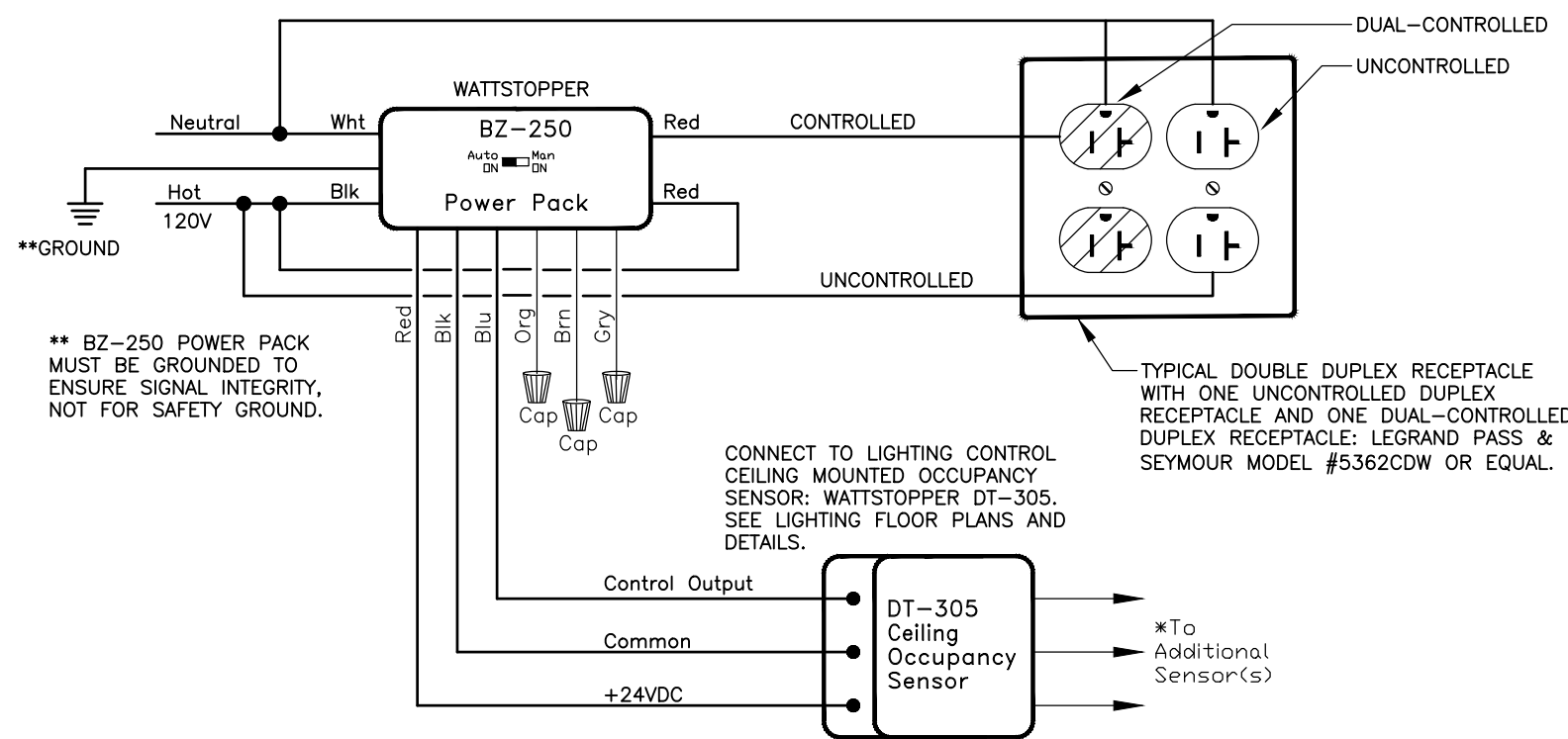
TYPICAL RACEWAY INSTALLATION DETAIL DATA, VOICE, OR VIDEO OUTLET
N.T.S.



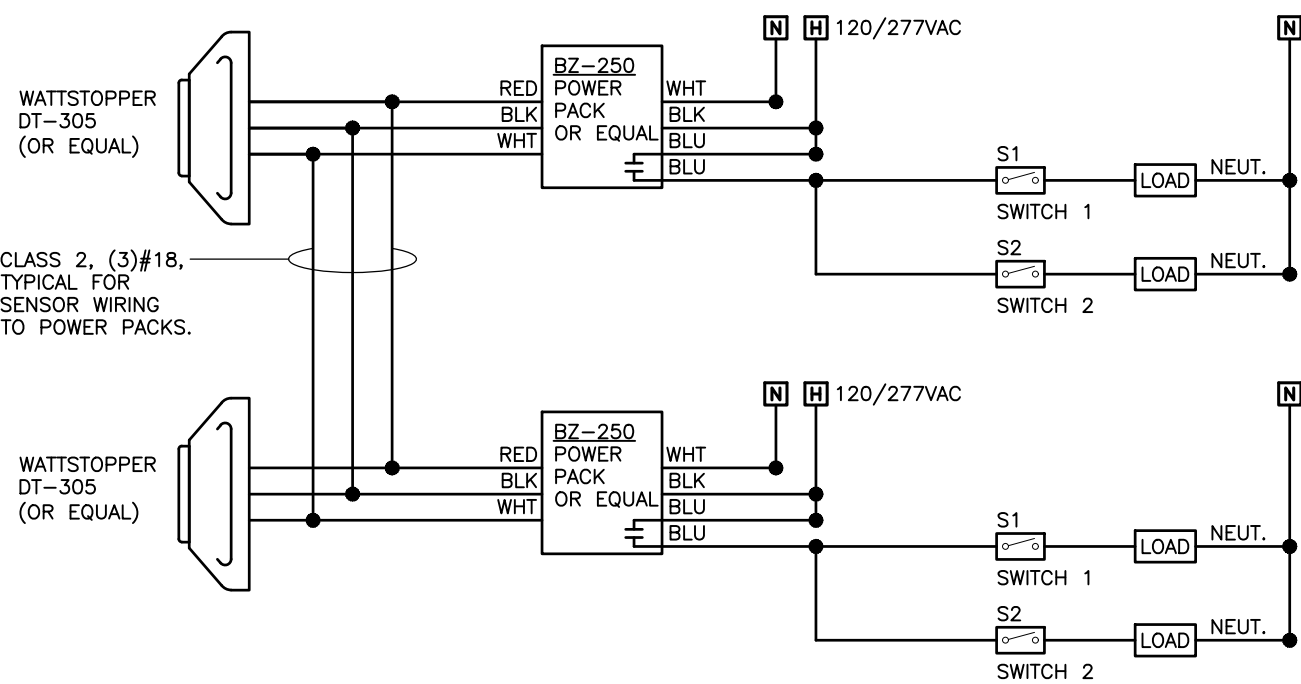
TYPICAL ELECTRICAL DEVICE ENGRAVING DETAIL
SCALE: N.T.S.



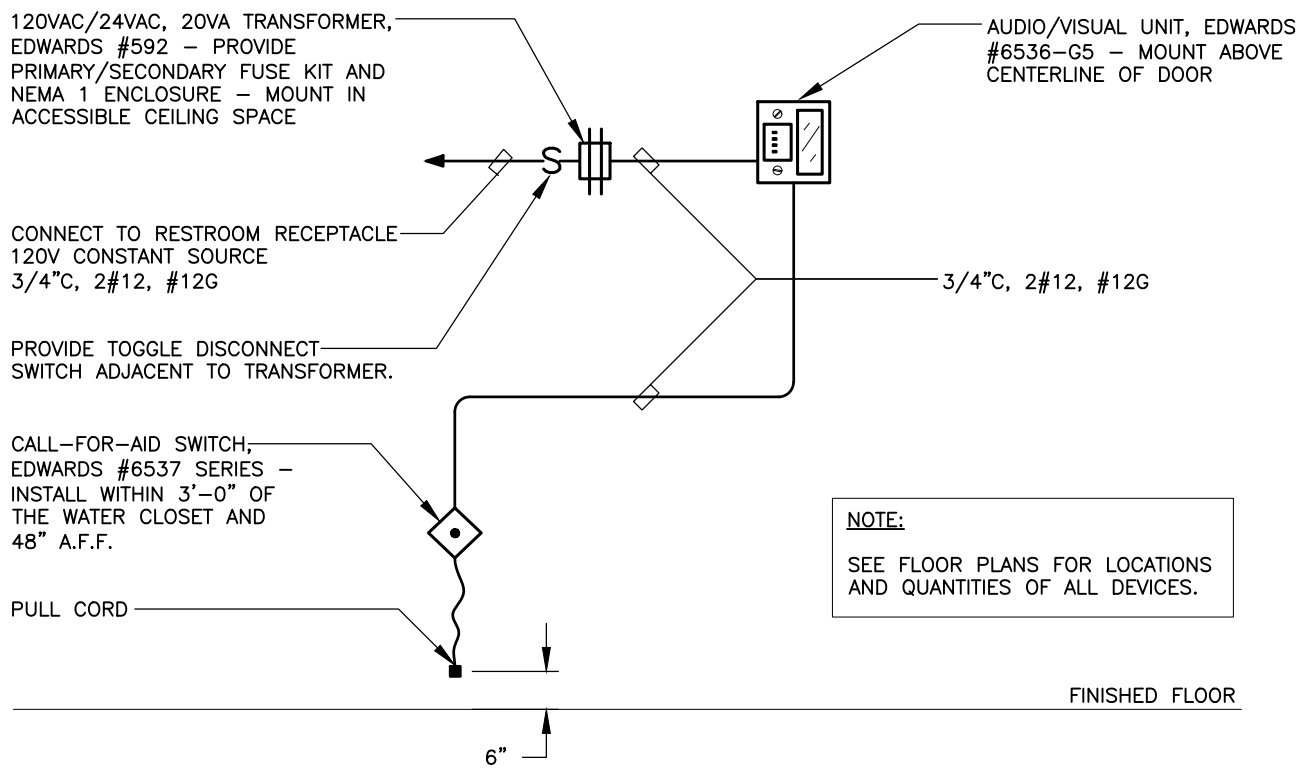
AUTOMATIC HALF-CONTROLLED DUPLEX RECEPTACLES
SCALE: N.T.S.



AUTOMATIC HALF-CONTROLLED DOUBLE DUPLEX RECEPTACLES
SCALE: N.T.S.



TYPICAL LOW-VOLTAGE OCCUPANCY SENSOR LIGHTING CONTROL SCHEMATIC
SCALE: N.T.S.



TYPICAL CALL-FOR-AID WIRING DETAIL
SCALE: N.T.S.



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No.	Description	Date

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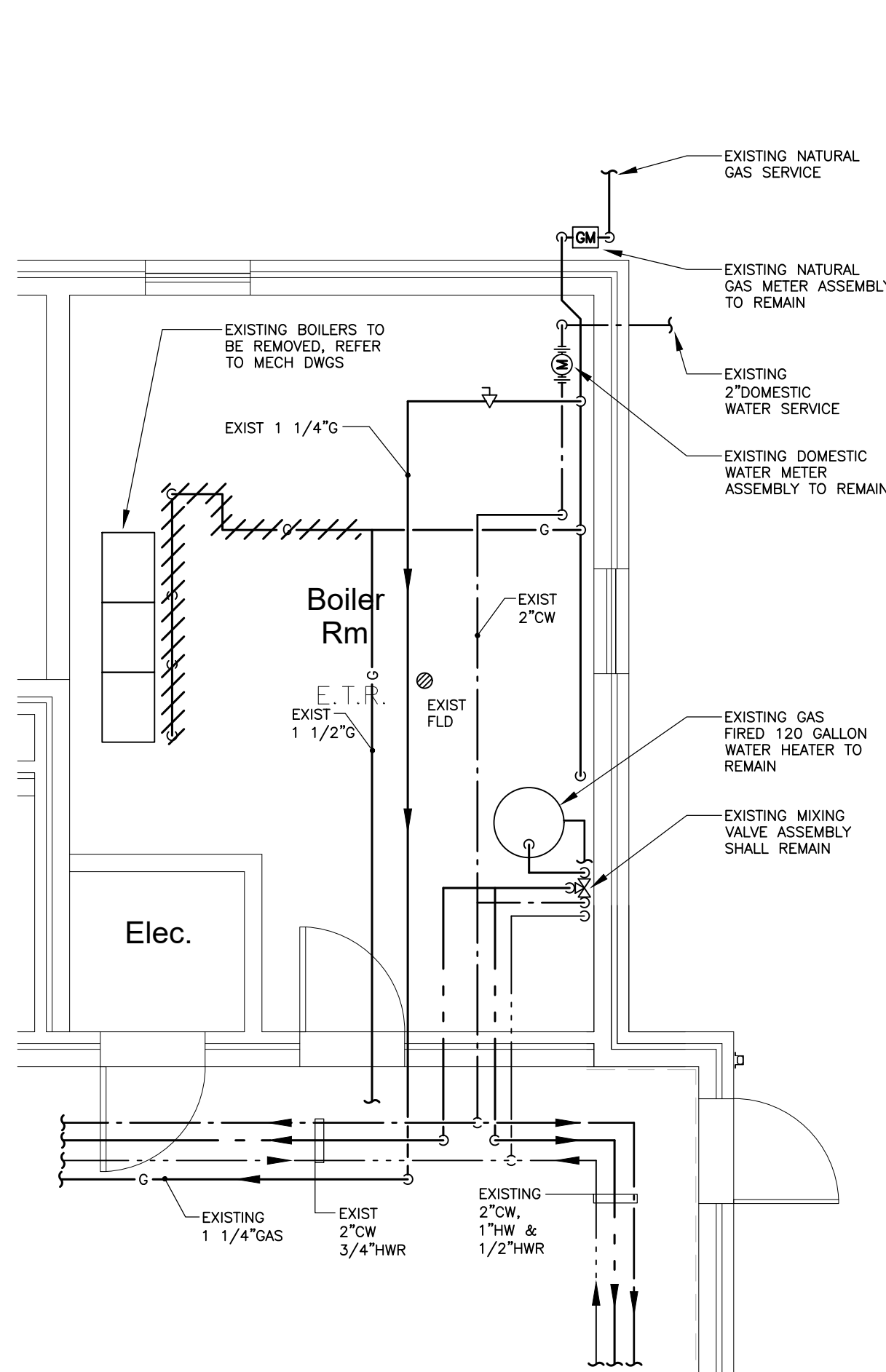
PROJECT
445 Randolph Rd
Middletown, CT 06457
South Fire District Bldg Renovations & Addition

Issued for Permit
9/21/2023

ENGINEER
ELECTRICAL DETAILS

PROJECT ID
E5

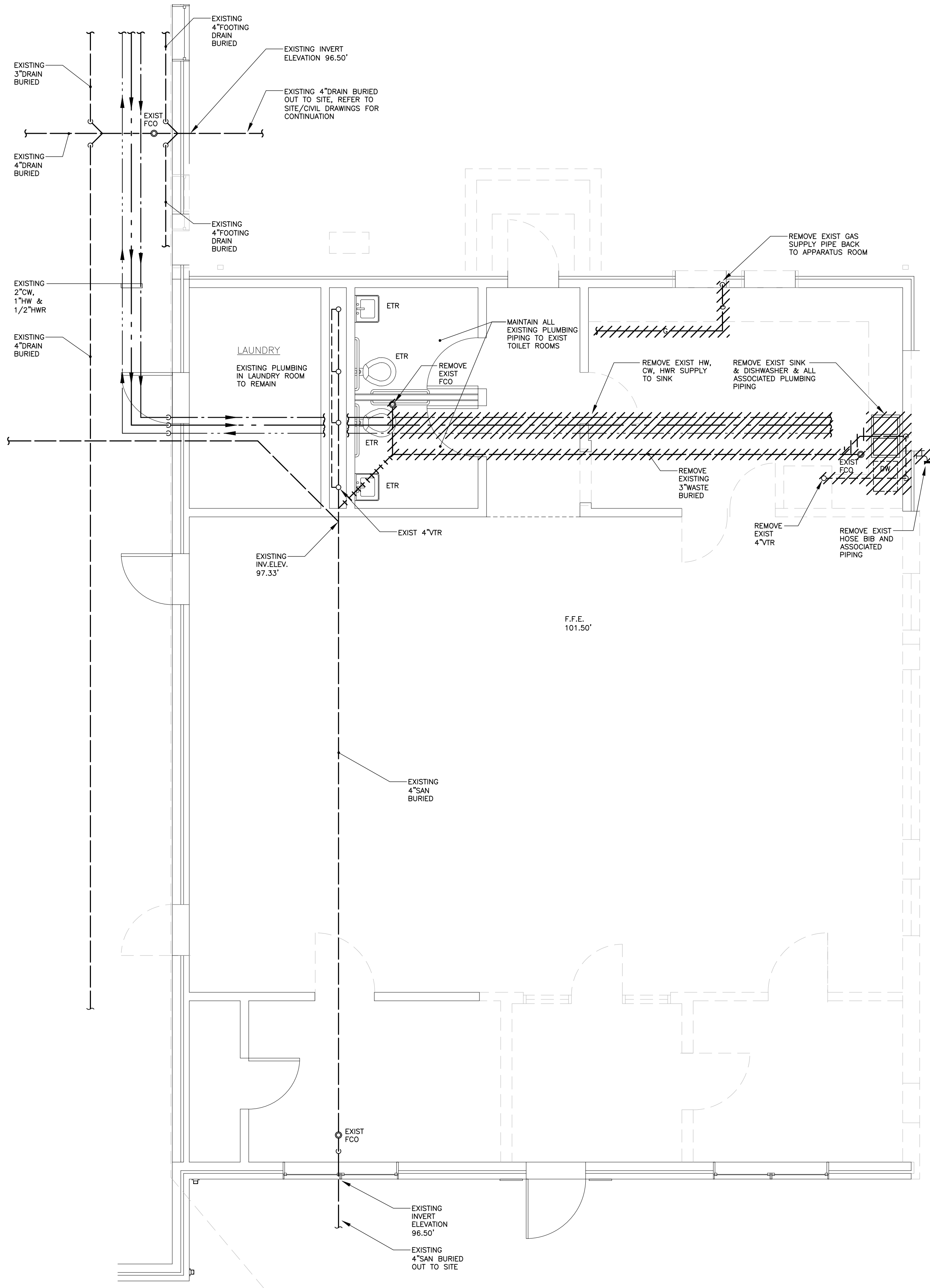
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PLUMBING DEMOLITION PARTIAL PLAN - BOILER ROOM
SCALE: 1/4"= 1'-0"

PLUMBING DEMOLITION NOTES

1. THE PLUMBING CONTRACTOR SHALL REMOVE ALL PLUMBING FIXTURES, CARRIERS, TRIM, ACCESSORIES, EQUIPMENT, FLOOR DRAINS AND PIPING AS SHOWN OR INDICATED ON THE DRAWINGS.
2. ALL PIPING TO BE REMOVED SHALL BE REMOVED COMPLETELY OR AS OTHERWISE SHOWN OR INDICATED ON DRAWINGS. ALL PIPE HANGERS, SLEEVES, RISER CLAMPS, ETC. SHALL BE REMOVED COMPLETELY WITH PIPING. NO EXISTING HANGER SYSTEMS SHALL BE REUSED FOR NEW PIPING.
3. ALL PIPING TO BE REMOVED SHALL BE REMOVED TO BELOW FLOOR, ABOVE CEILING OR IN WALLS BACK TO MAINS OR SHUT OFF VALVES AT MAINS AND PROPERLY CAPPED PER CODE WITHOUT LEAVING DEAD ENDED PIPING.
4. NO EQUIPMENT OR DEVICES THAT HAVE BEEN DISCONNECTED AND OR ABANDONED SHALL REMAIN.
5. ALL EXISTING PIPING AND EQUIPMENT SHOWN HAS BEEN TAKEN FROM THE BEST AVAILABLE EXISTING INFORMATION. THE DRAWINGS ARE DIAGRAMMATIC AND ALL FIXTURES, PIPING, AND DEVICES MAY NOT BE SHOWN. THE INTENT OF THESE DRAWINGS IS THAT IN ALL AREAS OF RENOVATION THAT THEY ARE REMOVED, WHETHER OR NOT SHOWN.
6. THE PLUMBING CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING SYSTEMS AND CONDITIONS IN AREAS OF RENOVATION.
7. ANY SYSTEMS OR EQUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE KEPT IN OPERATION BY PROVIDING TEMPORARY PIPING CONNECTIONS AS REQUIRED UNTIL NEW SYSTEMS ARE INSTALLED AND OPERATIONAL.
8. THE PLUMBING CONTRACTOR SHALL COORDINATE WITH THE OWNER, CM, AND OR GENERAL CONTRACTOR ANY AND ALL PHASING OF THE PLUMBING DEMOLITION WORK IN ORDER TO SATISFY THE CONSTRUCTION SCHEDULE AND OWNERS OCCUPANCY REQUIREMENTS.
9. ANY FIXTURE OR EQUIPMENT TO BE REMOVED AND REUSED OR TURNED OVER TO THE OWNER, AT OWNERS REQUEST, OR AS INDICATED ON THE DRAWINGS SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE.
10. THE PLUMBING CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITION DRAWINGS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
11. ALL SERVICE INTERRUPTIONS SHALL BE COORDINATED AND APPROVED WITH THE OWNER IN ADVANCE PRIOR TO COMMENCEMENT OF ANY WORK.
12. THE PLUMBING CONTRACTOR SHALL COORDINATE HIS DEMOLITION WORK WITH THAT OF OTHER TRADES IN ORDER TO AVOID CONFLICTS.



PLUMBING DEMOLITION PLAN
SCALE: 1/4"= 1'-0"



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PROJECT
445 Randolph Rd
Middletown, CT 06457
**South Fire District Bldg
Renovations & Addition**

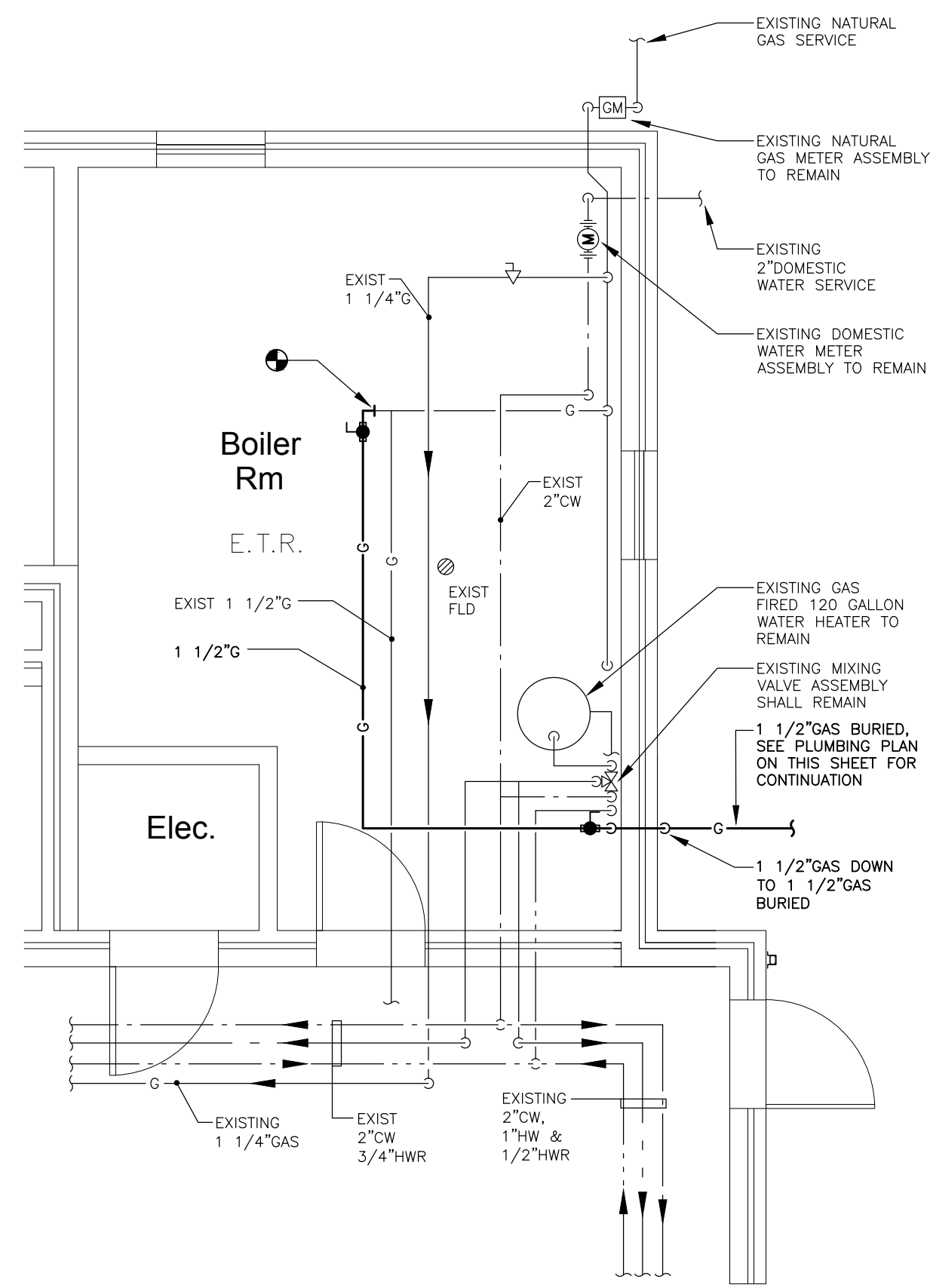
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PROJECT TITLE
**PLUMBING
DEMOLITION
PLANS**

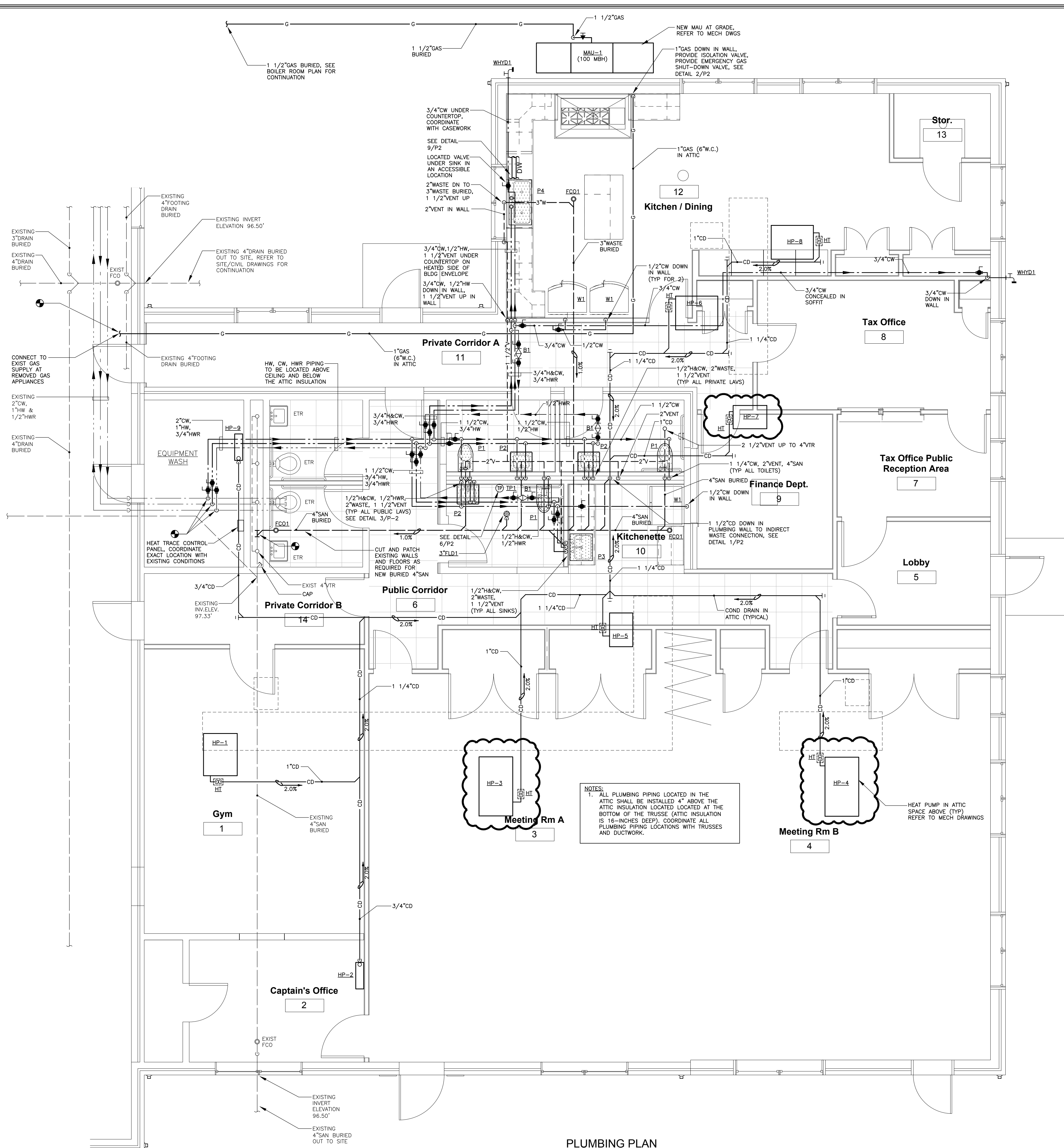
PROJECT ID
DP1

5/16/2023 2:12:04 PM

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BOILER AND ELECTRICAL ROOM PLUMBING PLAN
SCALE: 1/4" = 1'-0"



NOTES:
1. ALL PLUMBING PIPING LOCATED IN THE ATTIC SHALL BE INSTALLED 4" ABOVE THE BOTTOM OF THE TRUSSE (ATTIC INSULATION IS 16-INCHES DEEP). COORDINATE ALL PLUMBING PIPING LOCATIONS WITH TRUSSES AND DUCTWORK.

PLUMBING PLAN
SCALE: 1/4" = 1'-0"



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1	BULLETIN #1	10/17/23

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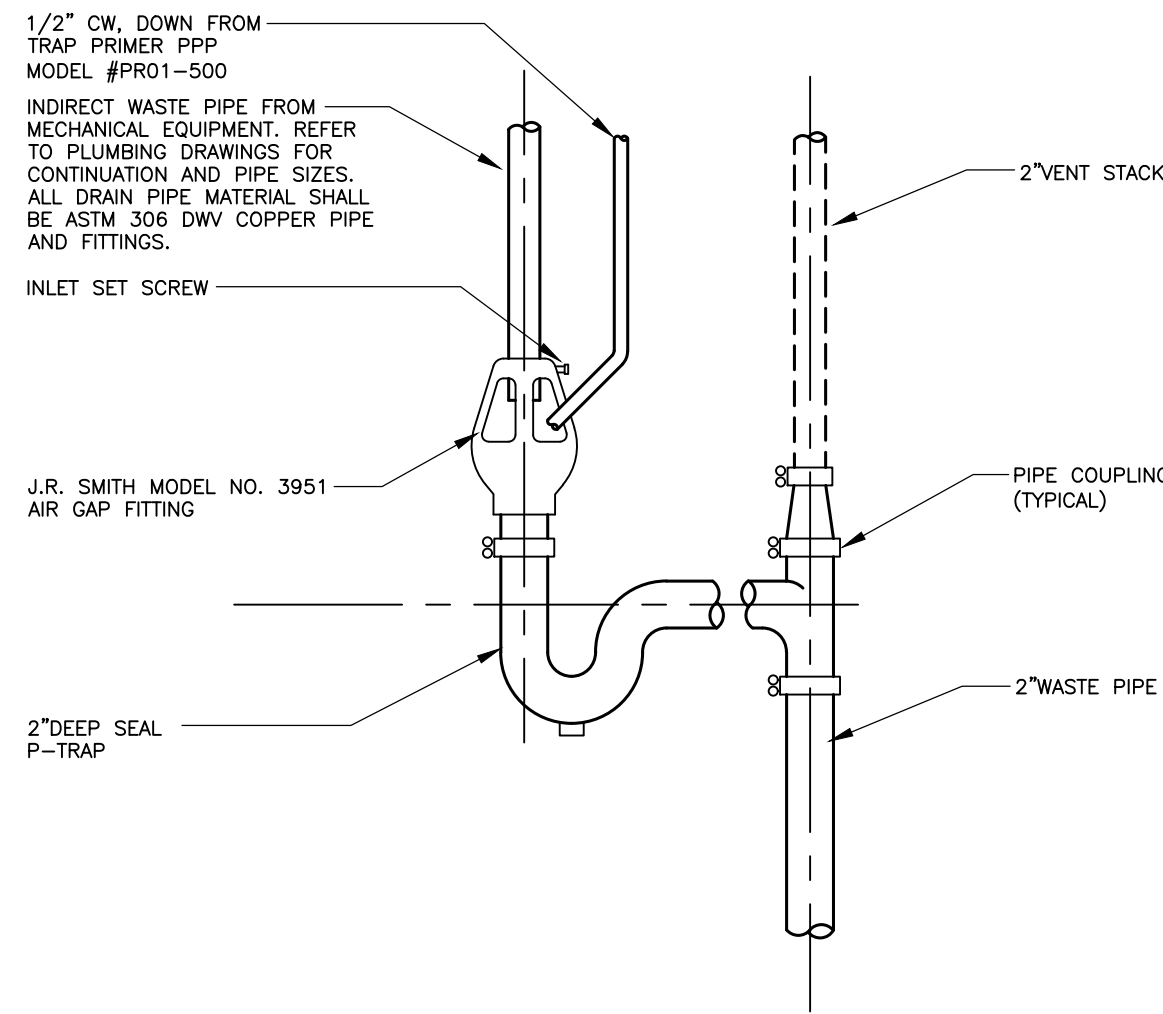
PROJECT
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South Fire District Bldg Renovations & Addition

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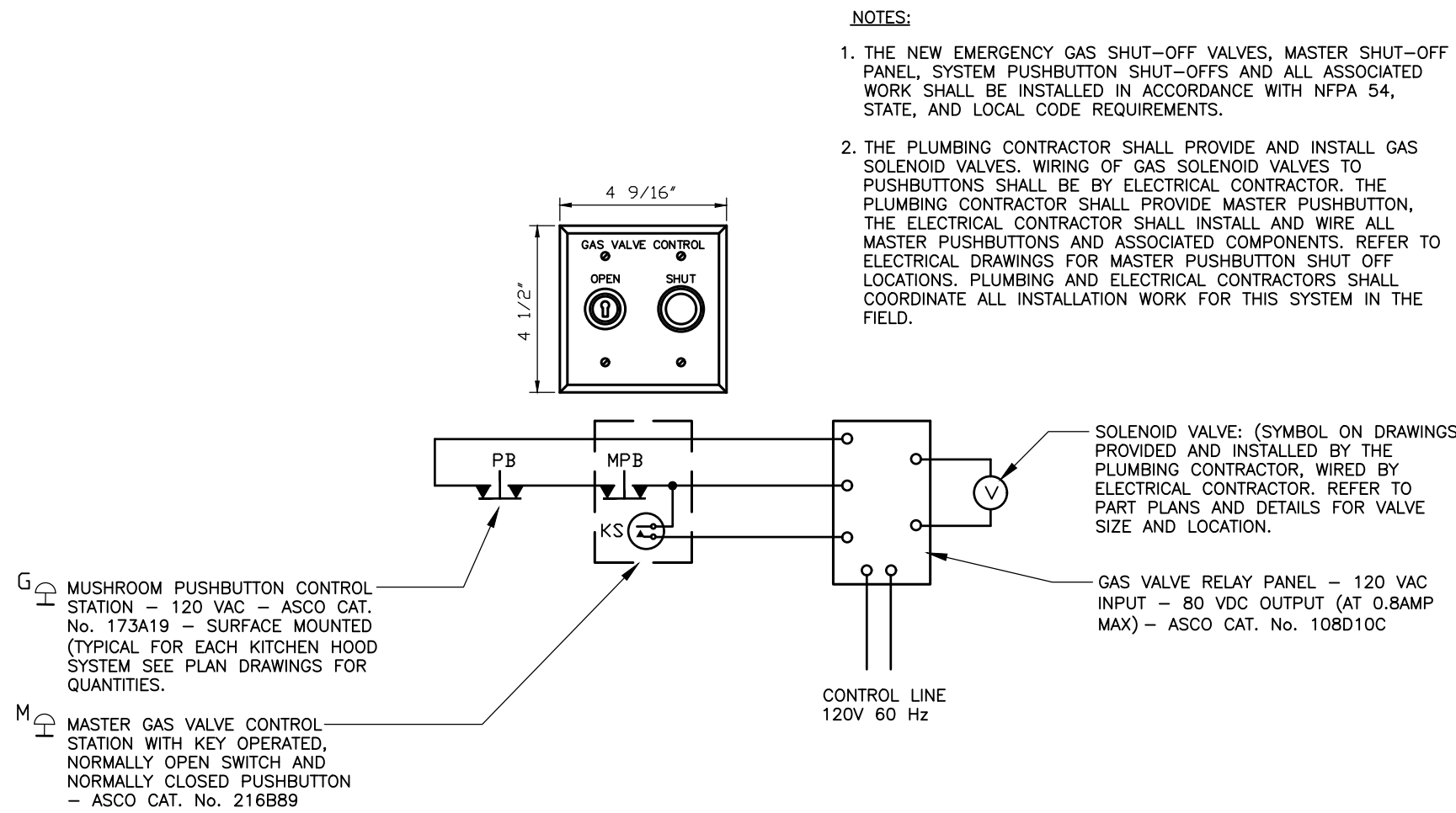
PROJECT TITLE
PLUMBING PLAN

PROJECT ID
P1

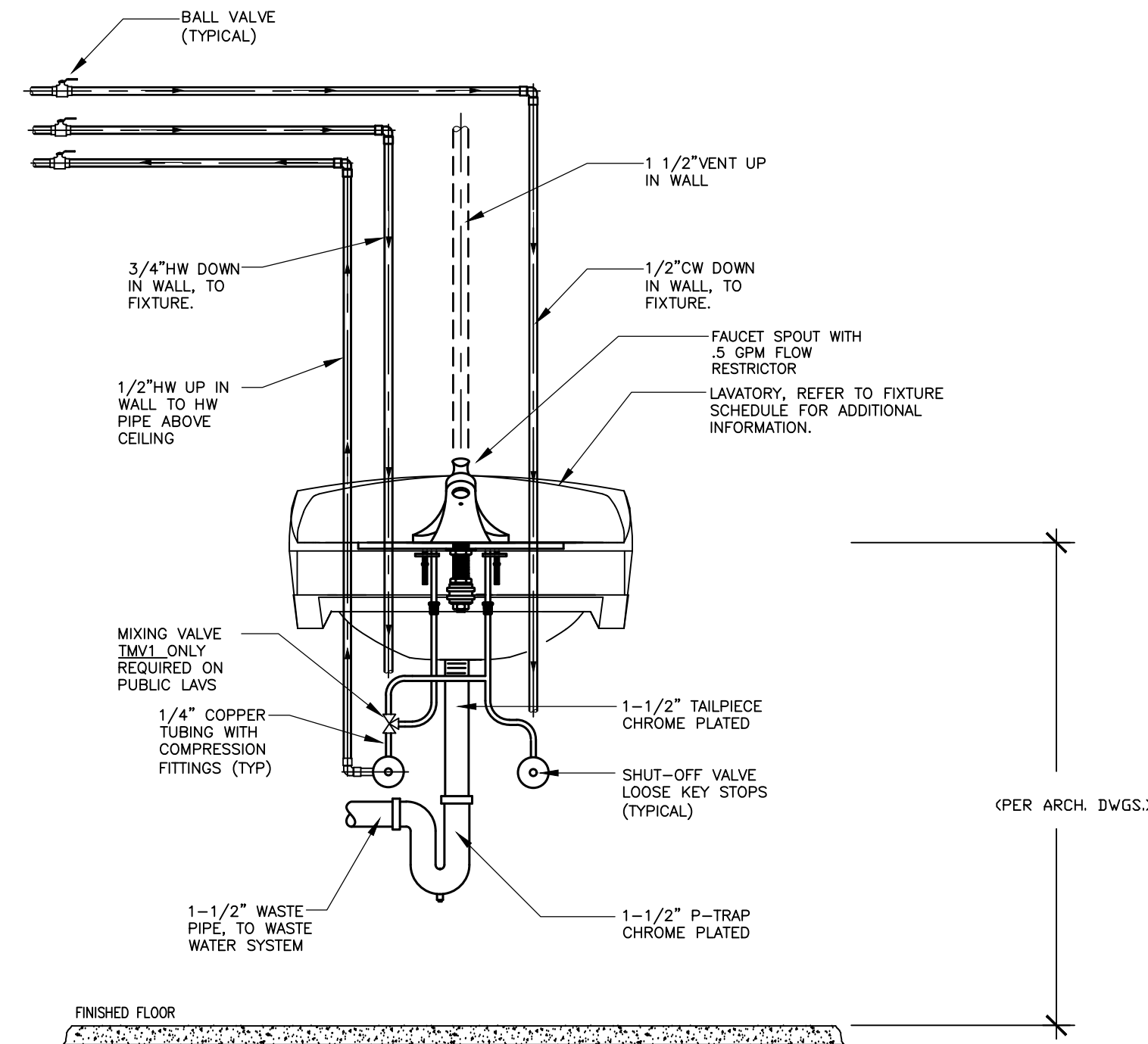
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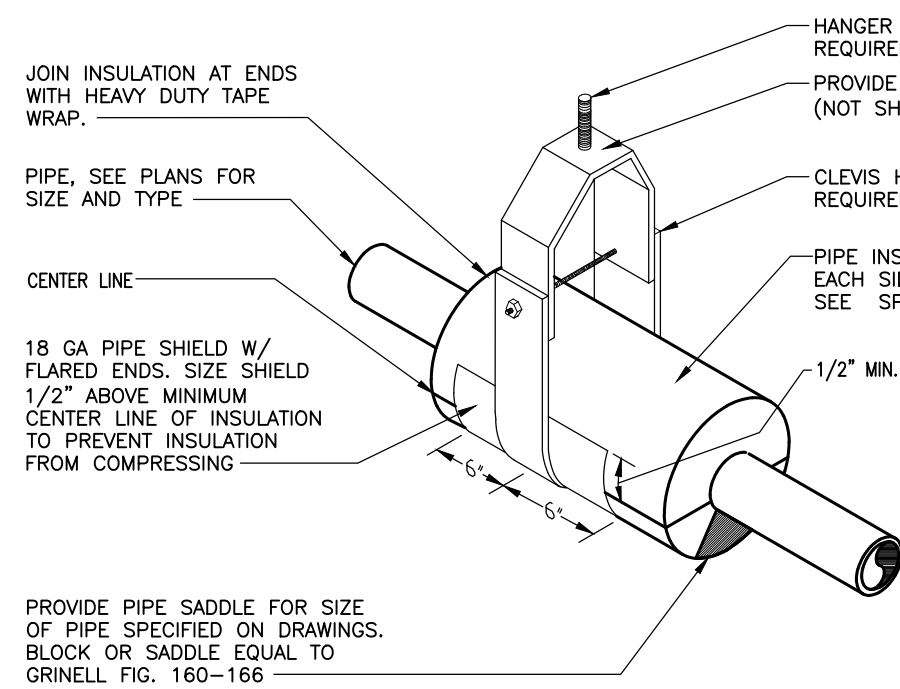
1 TYPICAL INDIRECT WASTE TO SANITARY - WASTE CONNECTION DETAIL
N.T.S.



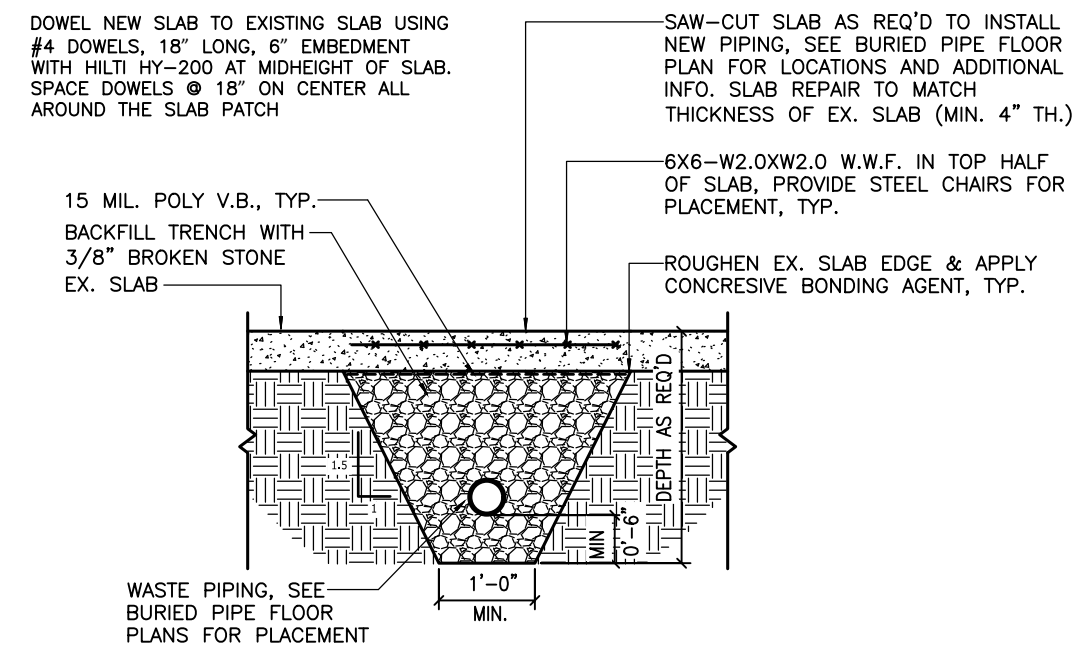
2 TYPICAL EMERGENCY GAS SHUT-DOWN PUSH BUTTON CONTROL SYSTEM DETAIL
N.T.S.



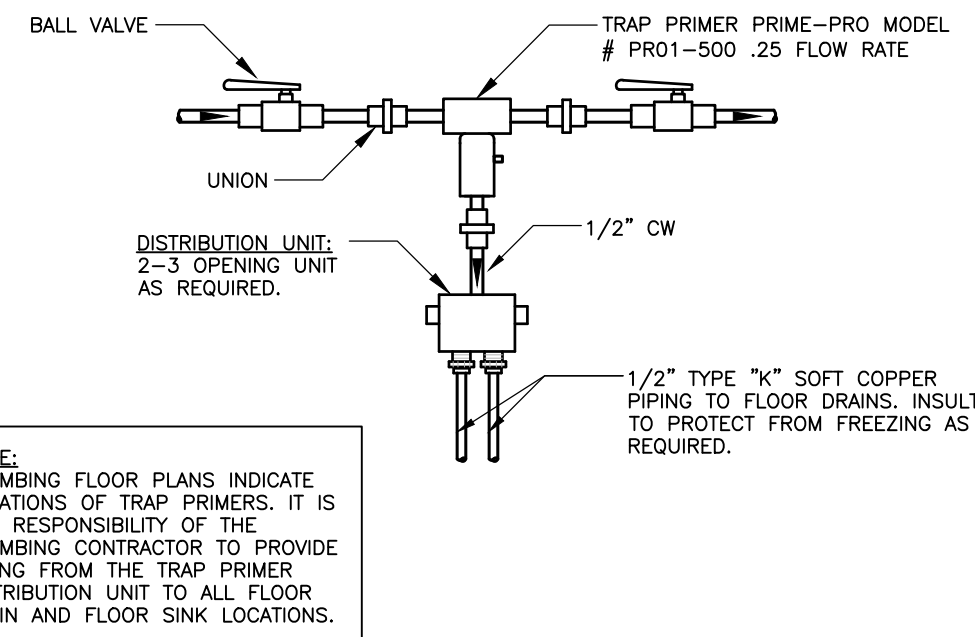
3 TYPICAL WALL HUNG LAVATORY WITH MANUAL FAUCET PIPING DIAGRAM
N.T.S.



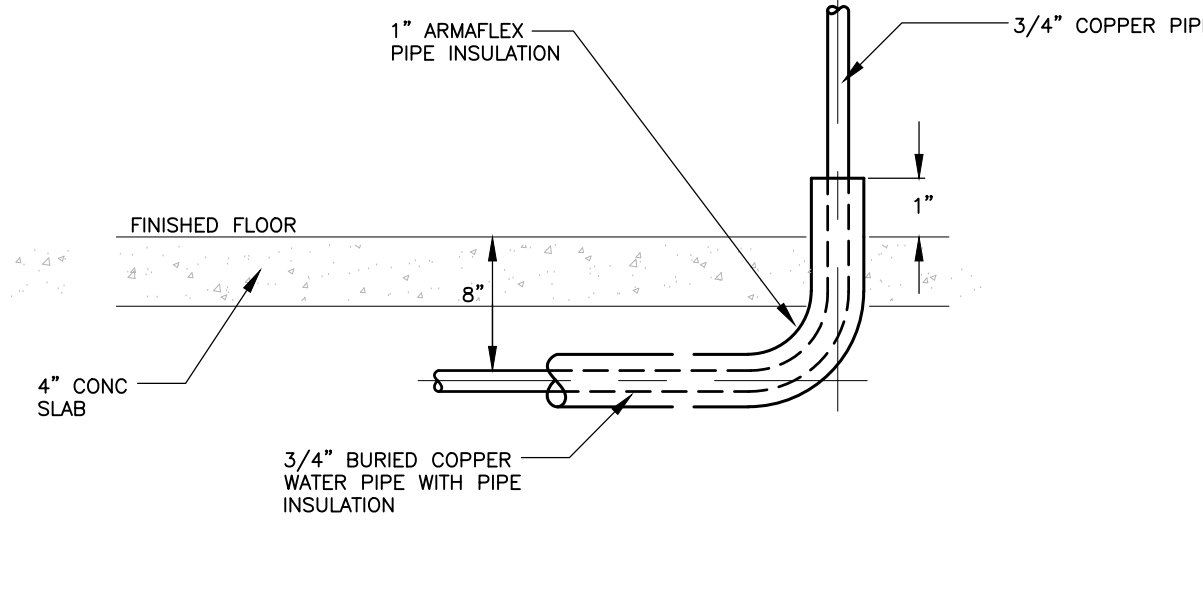
4 PIPE HANGER DETAIL
N.T.S.



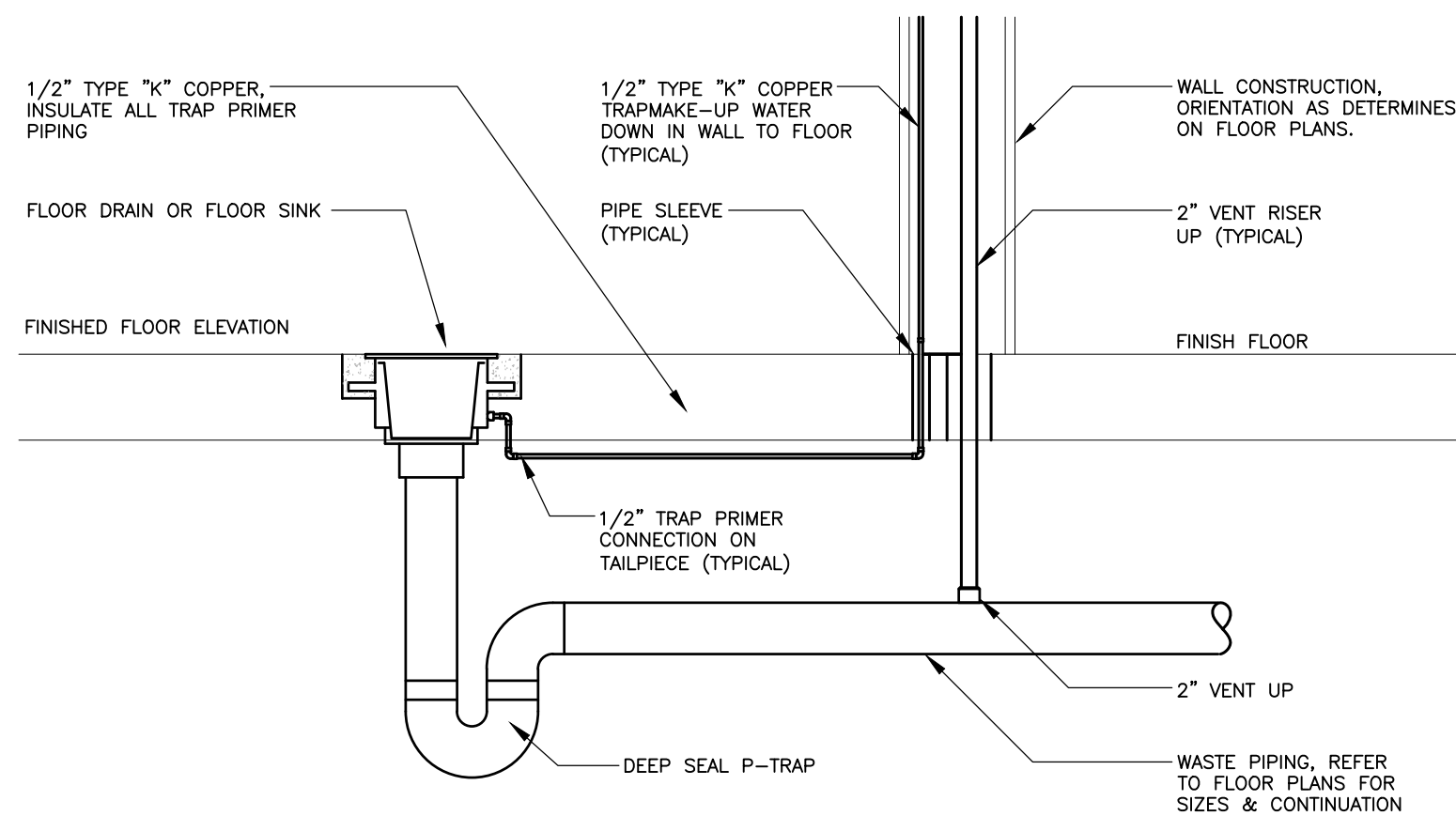
5 BURIED PIPING DETAIL
N.T.S.



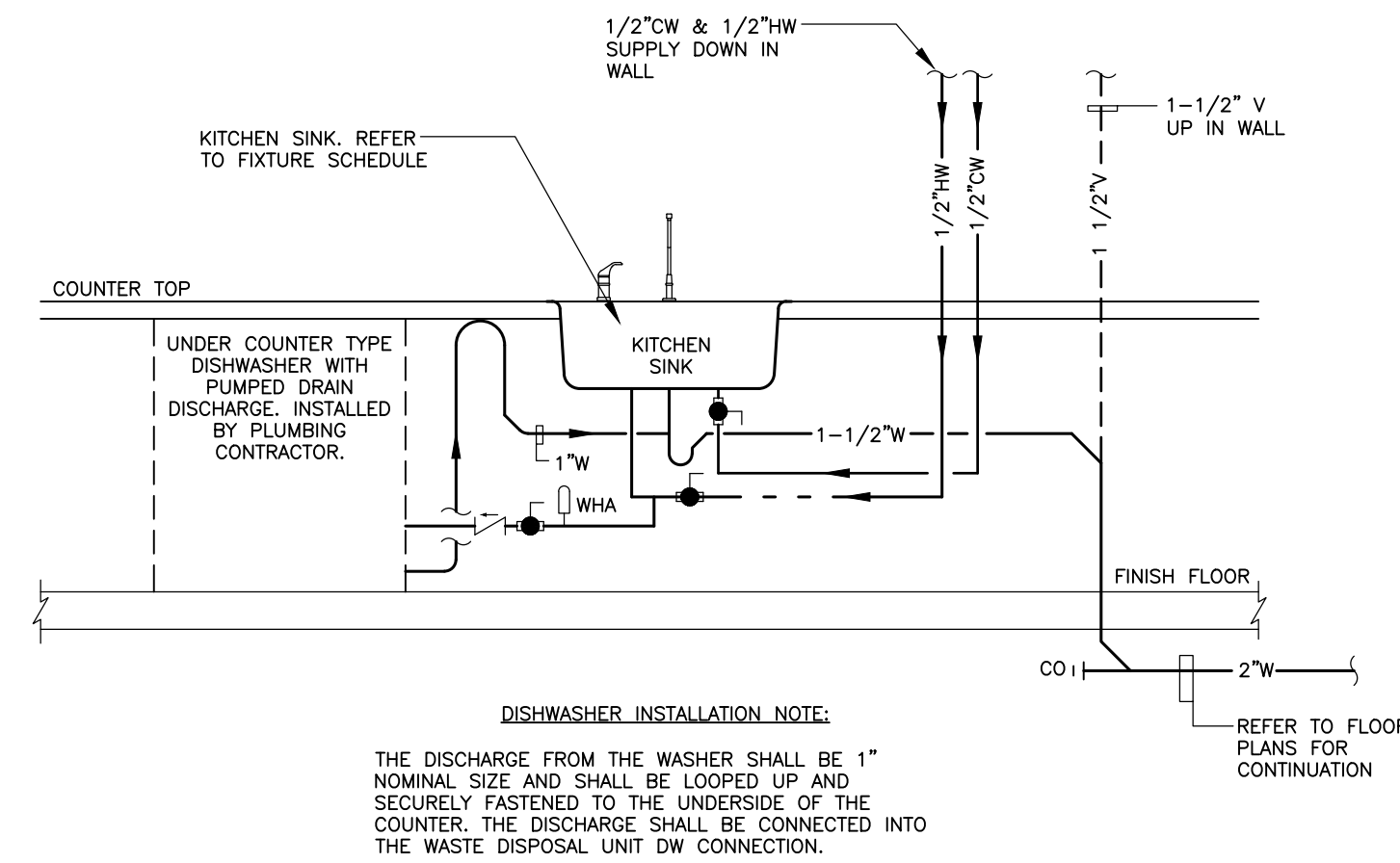
6 TYPICAL TRAP PRIMER INSTALLATION DETAIL
N.T.S.



7 BURIED WATER PIPE DETAIL
N.T.S.



8 TYPICAL FLOOR DRAIN PIPING INSTALLATION DETAIL
N.T.S.



9 TYPICAL SINK WITH UNDER COUNTER DISHWASHER
N.T.S.



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No.	Description	Date

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PROJECT
445 Randolph Rd
Middletown, CT 06457
**South Fire District Bldg
Renovations & Addition**

Issued for Permit
9/21/2023

PROJECT TITLE
**PLUMBING
DETAILS**

PROJECT ID
P2

PLUMBING WATER SPECIALTIES SCHEDULE					
SYMBOL	FIXTURE TYPE	MANUFACTURER/ MODEL NUMBER	DESCRIPTION	ACCESSORIES AND TRIM	REMARKS
B1	BALANCING VALVE	B&G CIRCUIT SETTER SERIES CB	BALANCING VALVE; LEAD FREE, CALIBRATED, STAINLESS STEEL BALL, INTERNAL INSERTS/CHECK VALVES	-	#1,2
HB1	HOSE BIB	WOODFORD MODEL # 25	HOSE BIB; ANTI-SIPHON, AUTOMATIC DRAINING, FREEZELESS WALL FAUCET, BRASS FINISH, METAL HANDLE	VACUUM BREAKER	#2
TMV1	THERMOSTATIC MIXING VALVE	LEONARD MODEL #170-LF	TEMP CONTROL THERMOSTATIC MIXING VALVE, LEAD FREE, INTEGRAL STOPS, 5 PSI PRESSURE DROP AT 1.7 GPM	SHUT-OFF VALVES	#2
TP1	TRAP PRIMER	PPP MODEL # PRO1-500	TRAP PRIMER; CORROSION RESISTANT BRASS	-	# 2,3,5
WL	RECESSED ICE MAKER OUTLET BOX	OATEY MODEL # 38574	ICE MAKER BOX; RECESSED IN WALL NSF61 1/2 TURN BALL VALVE, COMPLETE WITH RECESSED ABS BOX AND FRAME.	PROVIDE ALL REQUIRED MOUNTING HARDWARE AND MOUNTING ACCESSORIES. PROVIDE COPPER TUBING SUPPLY FROM VALVE TO REFRIGERATOR.	# 2
WHA	WATER HAMMER ARRESTOR	PPP MODEL # SC-500A	WATER HAMMER ARRESTOR; CORROSION RESISTANT BRASS	-	# 4
WHYD	WALL HYDRANT	WOODFORD MODEL # B65	WALL HYDRANT; FREEZELESS WALL HYDRANT SELF DRAINING, LOCKABLE POLISHED BRASS BOX	VACUUM BREAKER, LOOSE TEE KEY.	# 2
REMARKS: 1. REFER TO FLOOR PLANS FOR SIZES. 2. PROVIDE ISOLATION VALVE ON WATER SUPPLY. 3. SEE DETAIL 6/P2. 4. PROVIDE ON ALL FLUSH VALVE TOILETS. 5. PROVIDE WITH DISTRIBUTION UNIT FOR SERVING MULTIPLE FLOOR DRAINS.					

PLUMBING DRAIN SPECIALTIES SCHEDULE					
SYMBOL	FIXTURE TYPE	MANUFACTURER/ MODEL NUMBER	DESCRIPTION	ACCESSORIES AND TRIM	REMARKS
CQ	CLEANOUT	JR SMITH MODEL # 4505-Y	CLEANOUT; DUCO CAST IRON CLEANOUT TEE AND COUNTER-SUNK GASKET TYPE SEAL WITH BROZE CLOSURE PLUG.	-	# 1
EQ01	FLOOR CLEANOUT	JR SMITH MODEL # 4021S-PB	FLOOR CLEANOUT; DUCO CAST IRON BODY WITH FLASHING CLAMP, ADJUSTABLE SCORIATED POLISHED BRONZE TOP, BRONZE PLUG.	-	# 1
FLD1	FLOOR DRAIN	JR SMITH MODEL # 2005Y-P050-NB	FLOOR DRAIN; DUCO CAST IRON BODY WITH FLASHING COLLAR, ADJUSTABLE POLISHED NICKEL BRONZE STRAINER HEAD.	TRAP PRIMER CONNECTION	# 1,2,3
REMARKS: 1. REFER TO FLOOR PLANS FOR SIZES. 2. PROVIDE WITH TRAP PRIMER <u>IF</u> 1 UNLESS NOTED OTHERWISE. 3. ALL FLOOR DRAINS NOTED ON DRAWINGS TO COLLECT CONDENSATE DRAIN SHALL BE PROVIDED WITH A FUNNEL.					

PLUMBING FIXTURE SCHEDULE					
SYMBOL	FIXTURE TYPE	MANUFACTURER/ MODEL NUMBER	DESCRIPTION	ACCESSORIES AND TRIM	REMARKS
P1	WATER CLOSET	AMERICAN STANDARD "LUCERNE" MODEL # 3351.101	ACCESSIBLE; WALL HUNG, VITREOUS CHINA, EVERCLEAN, ELONGATED BOWL, SIPHON JET, 1-1/2" TOP GRID, 1.1 - 1.6 GPF.	FLUSH VALVE, 1.28 GPF, DIAPHRAGM TYPE, HIGH EFFICIENCY, CHROME PLATED, EXPOSED MANUAL, VACUUM BREAKER, OSCILLATING HANDLE. SLOAN MODEL #111-1.28, COMMERCIAL GRADE SEAT AMERICAN STANDARD MODEL #5901.100SS, JR SMITH WALL CARRIER SERIES 400	#1,2,4,5,6
P2	LAVATORY	AMERICAN STANDARD "LUCERNE" MODEL # 0355.012	ACCESSIBLE; WALL HUNG LAVATORY, VITREOUS CHINA, FRONT OVERFLOW, 4"CENTERS, CONCEALED ARM SUPPORTS.	CHROME PLATED FAUCET, SINGLE LEVER EXTRA LONG HANDLE, 4" CENTERS, 4 1/2-INCH SPOUT, .5 GPM FLOW RESTRICTOR, GRID DRAIN ASSEMBLY, SYMMONS MODEL # S-20-2-G-W-0.5, JR SMITH WALL CARRIER MODEL # 700.	#1,2,3,5,6,7,8
P3	SINK	ELKAY "LUSTERTONE" MODEL # LR402219	ACCESSIBLE; ASME A112.19.3 22"x19"x6 1/2" DEEP, 18 GAUGE TYPE 304 STAINLESS STEEL SINGLE BOWL WITH 3-1/2-INCH DRAIN LOCATED BACK OF BOWL, (4) 4-INCH CENTER HOLE DRILLING, ELKAY GRID STRAINER LK-18	SINGLE LEVER KITCHEN FAUCET, EXTRA LONG HANDLE, LIMIT STOPS, 8-3/4-INCH SWING SPOUT WITH AERATOR, POLISHED CHROME FINISH, 2.2 GPM, 8" CENTERS, SYMMONS MODEL # S-23-W	#2,3,5,6,7
P4	SINK	ELKAY "LUSTERTONE" MODEL # LR4372210	STANDARD; ASME A112.19.3, 37"x22"x10" DEEP, COUNTER MOUNTED, 18 GAUGE TYPE 304 STAINLESS STEEL DOUBLE BOWL WITH 3-1/2-INCH DRAINS, ELKAY GRID STRAINER LK-18.	SINGLE HOLE KITCHEN FAUCET, LEVER HANDLE, 1.8 GPM, CHROME FINISH, HI ARC SPOUT WITH AERATED SPRAY HEAD, ELKAY MODEL LKAV0081, STRAINER, TAIL PIECE, 3/8" COPPER SUPPLIES AND ANGLE STOPS, P-TRAP WITH CLEANOUT.	#5,6,7
REMARKS: 1. FIXTURE SHALL BE WHITE. 2. FIXTURE SHALL BE ADA ACCESSIBLE AND SHALL MEET ALL OF THE REQUIREMENTS OF ANSI A117.1. 3. PROVIDE FIXTURE WITH ADA PIPE INSULATION ON P-TRAP AND STOPS, TRUEBRO MODEL # 102. 4. PROVIDE WITH WATER HAMMER ARRESTOR. 5. PROVIDE ISOLATION VALVE ON WATER SUPPLY. 6. REFER TO ARCHITECTURAL DRAWINGS FOR FIXTURE MOUNTING HEIGHTS. 7. PROVIDE WITH STRAINER, TAIL PIECE, 3/8" COPPER SUPPLIES AND ANGLE STOPS; P-TRAP WITH CLEANOUT. 8. SEE DETAIL 3 ON DRAWING P2.					

PLUMBING FIXTURE CONNECTION SCHEDULE

FIXTURE TYPE	HOT WATER	COLD WATER	SAN. WASTE	VENT	TEPID WATER	REMARKS
WATER CLOSET FLUSH VALVE	-	1 1/2"	4"	2"	-	-
LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	-	-
MOP BASIN	1/2"	1/2"	3"	2"	-	-
WATER COOLER	-	1/2"	1 1/2"	1 1/2"	-	-
SINK	1/2"	1/2"	1 1/2"	1 1/2"	-	-

REMARKS: -

ABBREVIATIONS

AFF AHU BFP BTU CW CO CFH CFC CTE COND DF EWC EWH EXP FLD FLS FLU CI FCU GW GV G GPM GSV HW HB HWR IW INV. ELEV. LAV MBH NIC PRV PSI RPD RTU RWL SFP ST SAN T&P TP TMV TYP UH URINAL V VF VTR W WC WHYD WCO WHA	ABOVE FINISHED FLOOR AIR HANDLING UNIT BACKFLOW PREVENTER DEVICE BRITISH THERMAL UNIT COLD WATER CLEANOUT CUBIC FEET PER HOUR CONNECT TO EXISTING CONDENSATE DRINKING FOUNTAIN ELECTRIC WATER COOLER ELECTRIC WATER HEATER EXPANSION TANK FLOOR DRAIN FLOOR SINK FAN COIL UNIT GREASE INTERCEPTOR GREASE WASTE GAS VENT G GALLONS PER MINUTE GAS SOLENOID VALVE HOT WATER HOSE BIBB HANDICAP ACCESSIBLE HOT WATER RECIRCULATION INDIRECT WASTE INVERT ELEVATION LAVATORY THOUSAND B.T.U. PER HOUR NOT IN CONTRACT PRESSURE REDUCING VALVE POUNDS PER SQUARE INCH RECIRCULATOR PUMP REDUCED PRESSURE BACKFLOW PREVENTER ROOF TOP UNIT RAIN WATER LEADER SUMP PUMP STORM SANITARY TEMPERATURE & PRESSURE RELIEF VALVE TRENCH DRAIN TRAP PRIMER THERMOSTATIC MIXING VALVE TYPICAL UNIT HEATER URINAL VENT VERIFY IN FIELD VENT THRU ROOF WASTE WC WALL HYDRANT WALL CLEANOUT WATER HAMMER ARRESTOR
--	---

PLUMBING GENERAL NOTES

- THESE GENERAL NOTES ARE APPLICABLE TO ALL PLUMBING DRAWINGS.
- DRAWINGS ARE DIAGRAMMATIC AND SHOW GENERAL INTENT OF WORK. SEE DETAILS, SCHEDULES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- PLUMBING CONTRACTOR MUST REVIEW DRAWINGS OF THE OTHER TRADES AS PART OF THIS CONTRACT FOR ADDITIONAL WORK REQUIRED AND OR COORDINATION OF HIS WORK FOR OPERATIONS OR CONNECTIONS TO OTHER SYSTEMS.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF FOOD SERVICE AND OR KITCHEN EQUIPMENT PLUMBING ACCESSORIES FURNISHED BY DIVISION 11, INCLUDING BUT NOT LIMITED TO: FAUCETS, VACUUM BREAKERS, SOLENOIDS, PRESSURE REDUCING VALVES, GAS SUPPLY HOSES, DRAINS, SINK TAILPIECES, AND OTHER TRIM SUPPLIED WITH EQUIPMENT. THE PLUMBING CONTRACTOR MUST REVIEW THE KITCHEN DESIGN DOCUMENTS AND SPECIFICATIONS AS PART OF THIS CONTRACT FOR ADDITIONAL WORK AND OR COORDINATION REQUIRED.
- THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND INSTALLING ALL SERVICES TO HVAC EQUIPMENT INCLUDING BUT NOT LIMITED TO: GAS SUPPLY PIPING, CONDENSATE PIPING, COLD WATER SUPPLY PIPING, DRAINS, AND CONNECTIONS TO AIR HANDLING UNITS, FAN COIL UNITS, UNIT HEATERS, BOILERS, CHILLERS, ETC. ALSO, DEVICES REQUIRED INCLUDE BACKFLOW PREVENTERS, REGULATORS, UNIONS, TRAPS, AND SHUT-OFF VALVES REQUIRED FOR THIS EQUIPMENT. REFER TO HVAC DRAWINGS FOR ADDITIONAL INFORMATION AND COORDINATION.
- THE PLUMBING CONTRACTOR SHALL PROVIDE PIPE EXPANSION JOINTS ON PIPING PASSING THRU ALL BUILDING EXPANSION JOINT LOCATIONS AS REQUIRED PER BUILDING CODES WHETHER OR NOT SHOWN ON DRAWINGS. REVIEW ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT BUILDING EXPANSION JOINT LOCATIONS AND EXPANSION DIMENSIONS.
- THE PLUMBING CONTRACTOR SHALL INSTALL ALL PIPING EQUIPMENT AND ACCESSORIES IN ACCORDANCE WITH THE LATEST STATE BUILDING CODE AND LOCAL AUTHORITIES HAVING JURSDICTION. COORDINATION BETWEEN TRADES IS REQUIRED TO INSURE COMPLIANCE WITH THE GOVERNING CODES.
- ALL PIPING, EQUIPMENT OR ACCESSORIES INSTALLED IN PLENUM RATED CEILINGS SHALL BE LISTED AND APPROVED FOR SUCH INSTALLATION.

PLUMBING PIPING LEGEND

—CW—	COLD WATER
—HW—	HOT WATER
—HWR—	HOT WATER RECIRCULATION
—	WASTE, SANITARY OR SOIL
—	WASTE, SANITARY, SOIL BURIED
—ST—	STORM
—ST—	STORM BURIED
----	VENT
—CD—	CONDENSATE WASTE
—CPD—	CONDENSATE WASTE - PUMP DISCHARGE
—IW—	INDIRECT WASTE
—G—	GAS (NATURAL OR LPG)
—GV—	GAS VENT
—WS—	WATER SERVICE
////	DIRECTION OF FLOW
—G—	PIPE DOWN
—G—	PIPE DROP
—	PIPE RISE
—	PLUGGED OR CAPPED PIPE
—I—	CLEANOUT
—O—	FLOOR CLEANOUT

PLUMBING SYMBOL LEGEND

	TEMPERATURE GAUGE
	PRESSURE GAUGE
	WATER HAMMER ARRESTOR
	STRAINER - "Y" TYPE
	P-TRAP
	FLOOR DRAIN
	FLOOR SINK
	TRAP PRIMER
	UNION
	PETCOCK
	BALANCING VALVE
	BALL VALVE
	CURB GATE VALVE & BOX
	CHECK VALVE
	BACKFLOW PREVENTER (DOUBLE CHECK VALVE TYPE)
	BACKFLOW PREVENTER ASSEMBLY (RPD W/ DRAIN PIPING)
	THERMOSTATIC MIXING VALVE
	SOLENOID VALVE
	GATE VALVE
	GAS VALVE (BALL OR PLUG)
	OUTSIDE SCREW & YOKE (OS&Y) GATE VALVE
	VALVE IN PIPE DROP
	VALVE IN PIPE RISER
	ANGLE VALVE
	HOSE BIBB (H.B.)
	WATER PRESSURE REDUCING VALVE (* = PSI SETTING)
	GAS PRESSURE REGULATOR
	DRAIN VALVE
	TEMPERATURE & PRESSURE RELIEF VALVE (T&P)
	WATER METER
	GAS METER
	CIRCULATOR PUMP
	PLUMBING WORK ITEM NOTE
	PLUMBING FIXTURE DESIGNATION
	CONNECT TO EXISTING
	CIRCUIT SETTER
	HEAT TRACE AT P-TRAP

PIPING & MATERIALS SCHEDULE

PIPING SYSTEM	SIZE	PIPING MATERIALS	JOINTS	FITTINGS	ADDITIONAL COMMENTS
DOMESTIC HOT, COLD & RETURN WATER PIPING	1/2" - 2"	HARD COPPER TUBE; ASTM B 88, TYPE L WATER TUBE, DRAWN TEMPER	SOLDER FILLER METALS; ASTM B 32, LEAD-FREE ALLOYS	WROUGHT-COPPER SOLDER-JOINT FITTINGS; ASME B16.22, WROUGHT-COPPER PRESSURE FITTINGS	PROVIDE 1" INSULATION ON ALL CW, HW & HWR PIPING IN ALL AREAS
DOMESTIC HOT, COLD & RETURN WATER PIPING (BELOW SLAB)	1/2" - 2"	PEX-AL-HDPE TUBE ASTM F 1986	METAL-INSERT TYPE WITH STAINLESS STEEL CRIMPING	PEX-AL-HDPE ASTM F 1986 FITTINGS	PROVIDE 1/2" INSULATION ON ALL CW & HW PIPING IN ALL AREAS. PROVIDE PVC SLEEVES FOR ALL PIPING PENETRATING THROUGH SLAB
ABOVE AND BELOW GROUND SOIL, WASTE & VENT PIPING	ALL	PVC PIPE AND DWV FITTINGS & SOLID-WALL PVC PIPE SCHEDULE 40 ASTM D 2665	SOCKET GLUE JOINT; ADHESIVE PRIMER ASTM F 656, SOLVENT CEMENT ASTM D 2554	PVC SOCKET FITTINGS ASTM D 2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE	TRANSITION COUPLINGS, SHIELDED, NONPRESSURE TRANSITION COUPLINGS ASTM C 1460. PROVIDE 1" INSULATION INTERIOR STORM PIPING (NEW & EXISTING)
INDIRECT DRAIN PIPING	ALL	COPPER L TUBE; ASTM B 88, DRAINAGE TUBE, DRAWN TEMPER	SOLDERED JOINTS; ASTM B 813, WATER - FLUSHABLE FLUX TO END OF TUBE	ASME B16.22, WROUGHT-DWV COPPER PRESSURE FITTINGS	-
ABOVE GROUND NATURAL GAS PIPING	1/4" - 2"	SCHEDULE 40 BLACK STEEL PIPE; ASTM A53 TYPE E OR S, GRADE B	THREADED	BLACK MALLEABLE-IRON THREADED FITTINGS ASME B16.3 150# CLASS STANDARD PATTERN	ALL PIPING MATERIALS TO BE IN ACCORDANCE WITH N.F.P.A. 54
ABOVE GROUND NATURAL GAS PIPING	2-1/2" & LARGER	SCHEDULE 40 BLACK STEEL PIPE; ASTM A53 TYPE E OR S, GRADE B	BUTT WELDED OR SOCKET WELDED	WROUGHT BLACK STEEL FITTINGS, ASTM A234	ALL GAS PIPING MATERIALS 2-1/2" & LARGER SHALL BE WELDED IN ACCORDANCE WITH N.F.P.A. 54, A.G.A. & N.B.F.U.



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Renovations & Addition

Issued for Permit
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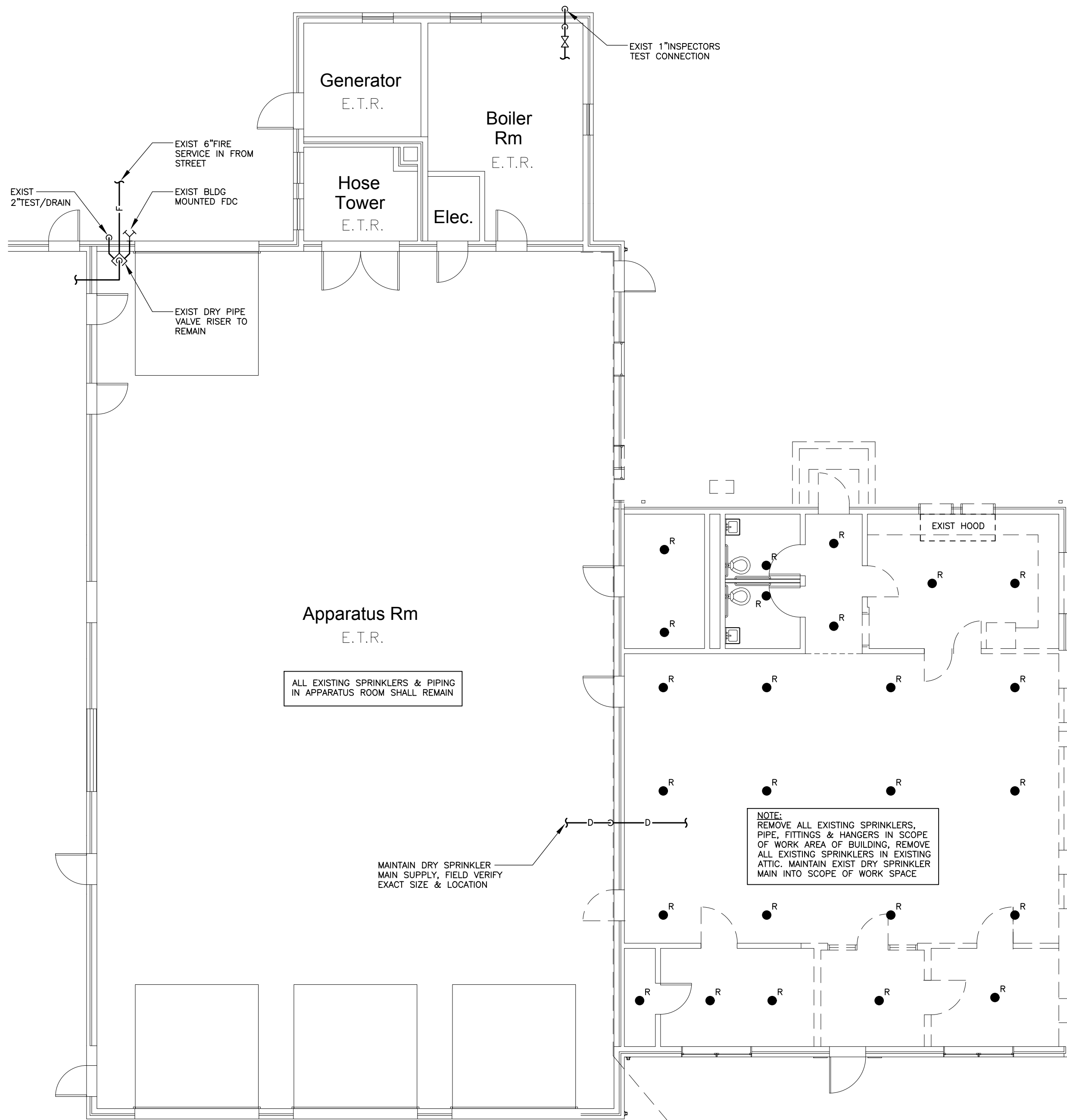
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PLUMBING
NOTES, LEGENDS
AND SCHEDULES

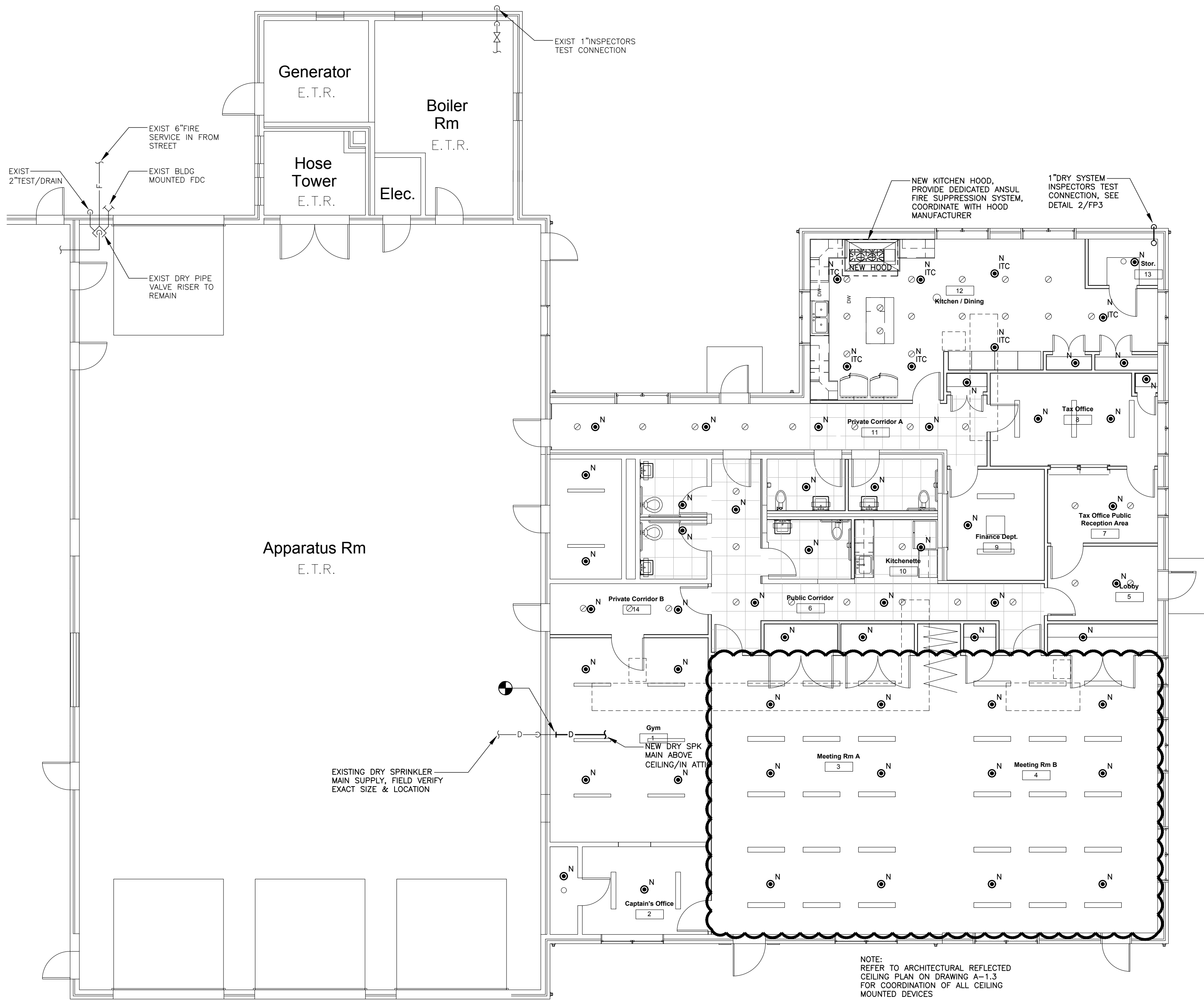
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P3

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FIRE PROTECTION DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



FIRE PROTECTION CONSTRUCTION PLAN
SCALE: 1/8" = 1'-0"

FIRE PROTECTION DEMOLITION NOTES

- THE FIRE PROTECTION CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING SYSTEMS AND CONDITIONS IN AREAS OF RENOVATION.
- ALL EXISTING PIPING AND EQUIPMENT SHOWN HAS BEEN TAKEN FROM THE BEST AVAILABLE EXISTING INFORMATION. THE DRAWINGS ARE DIAGRAMMATIC AND ALL PIPING AND DEVICES MAY NOT BE SHOWN. THE INTENT OF THESE DRAWINGS IS THAT IN ALL AREAS OF RENOVATIONS THAT THESE SYSTEMS ARE REMOVED AS NOTED WHETHER OR NOT SHOWN.
- THE FIRE PROTECTION CONTRACTOR SHALL REMOVE ALL FIRE PROTECTION PIPING SYSTEMS INCLUDING BUT NOT LIMITED TO SPRINKLER/STANDPIPE, SPRINKLERS HANGERS, VALVES, SWITCHES, AND DEVICES AS SHOWN OR INDICATED ON THE DRAWINGS. COORDINATE WITH ELECTRICAL CONTRACTOR ALL WIRING WORK RELATED TO DEVICES BEING REMOVED.
- ALL PIPING TO BE REMOVED SHALL BE REMOVED COMPLETELY OR CAPPED AS SHOWN WITHOUT LEAVING ANY DEAD ENDED PIPING OR ABANDONED PIPING.
- NO FIRE PROTECTION EQUIPMENT OR DEVICES THAT HAVE BEEN DISCONNECTED OR ABANDONED SHALL REMAIN.
- IT IS THE INTENT OF THESE DRAWINGS THAT ANY AND ALL DEVICES REMOVED SHALL NOT BE REUSED SUCH AS SPRINKLERS, BUT ONLY NEW SHALL BE INSTALLED.
- ANY SYSTEM OR EQUIPMENT TO REMAIN ACTIVE DURING RENOVATION SHALL BE KEPT IN OPERATION BY PROVIDING TEMPORARY CONNECTIONS AS REQUIRED UNTIL NEW SYSTEMS ARE INSTALLED AND OPERATIONAL.
- ALL SERVICE INTERRUPTIONS SHALL BE COORDINATED WITH THE OWNER AND, THE FIRE MARSHAL MUST BE CONTACTED IN ADVANCE PRIOR TO COMMENCEMENT OF ANY WORK.
- THE FIRE MARSHAL AND OR THE INSURANCE UNDERWRITER SHALL BE CONTACTED TO REVIEW AND APPROVE THE EXTENT OR PHASING OF THE FIRE PROTECTION DEMOLITION IN ORDER TO PROTECT THE OCCUPANTS AND PROPERTY. THESE DOCUMENTS DO NOT ADDRESS THE PHASING OF THE SYSTEM REMOVAL, ONLY THE EXTENT.
- THE FIRE PROTECTION CONTRACTOR SHALL ALSO REVIEW THE ARCHITECTURAL DEMOLITION DRAWINGS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

SPRINKLER DEMOLITION LEGEND

- | | |
|---|--|
| ● | REMOVE EXISTING DRY PENDENT SPRINKLER, REMOVE ALL ASSOCIATED PIPING BACK TO MAIN & CAP |
|---|--|

FIRE PROTECTION GENERAL NOTES

- THESE GENERAL NOTES ARE APPLICABLE TO ALL FIRE PROTECTION DRAWINGS.
- DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL INTENT OF WORK. SEE DETAILS, RISERS, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- THE DRAWINGS INDICATE A SUGGESTED SPRINKLER HEAD LAYOUT AND THAT EACH AREA IS COVERED BY SPRINKLER PROTECTION AS REQUIRED PER CODE. THE SPRINKLER QUANTITIES SHALL NOT BE COUNTED, AS A TAKE OFF OR AS EXACT LOCATIONS. REFER TO NFPA 13 FOR EXACT SPACING, DENSITY, AND LOCATION REQUIREMENTS.
- SPRINKLERS IN FINISHED CEILING AREAS SHALL ALWAYS BE LOCATED IN THE CENTER OF CEILING TILES UNLESS INDICATED OTHERWISE.
- THE FIRE PROTECTION CONTRACTOR SHALL REVIEW THE ARCHITECTURAL REFLECTED CEILING PLANS AS PART OF THIS CONTRACT FOR ADDITIONAL INFORMATION SUCH AS CEILING HEIGHTS, TYPES, SOFFITS AND OR OTHER DEVICE LOCATIONS.
- THE FIRE PROTECTION CONTRACTOR SHALL REVIEW THE ELECTRICAL DIVISION DRAWINGS AND COORDINATE THE FIRE PROTECTION WORK WITH LOCATIONS OF LIGHTS, AND CEILING MOUNTED DEVICES WHICH MAY INTERFERE WITH SPRINKLER HEAD LOCATIONS OR SPRAY PATTERNS.
- THE FIRE PROTECTION CONTRACTOR SHALL REVIEW THE HVAC DIVISION DRAWINGS AND COORDINATE THE FIRE PROTECTION WORK WITH LOCATIONS OF CEILING MOUNTED DEVICES SUCH AS DIFFUSERS, GRILLS, REGISTERS, AND ALSO THE LOCATIONS OF HEAT PRODUCING EQUIPMENT AND DUCTWORK REQUIRING SPRINKLER PROTECTION BELOW IT.
- THE FIRE PROTECTION CONTRACTOR SHALL PROVIDE PIPE EXPANSION JOINTS ALL BUILDING EXPANSION JOINT LOCATIONS AND EXPANSION LOOPS AT ALL BUILDING EXPANSION/SEISMIC JOINT LOCATIONS AS REQUIRED PER NFPA 13 AND BUILDING CODES. REVIEW ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT LOCATIONS OF EXPANSION AND SEISMIC JOINTS.
- THE FIRE PROTECTION CONTRACTOR SHALL INSTALL ALL PIPING EQUIPMENT AND ACCESSORIES IN ACCORDANCE WITH THE LATEST STATE BUILDING CODE AND LOCAL AUTHORITIES HAVING JURISDICTION. COORDINATION BETWEEN TRADES IS REQUIRED TO INSURE COMPLIANCE WITH THE GOVERNING CODES.
- ALL PIPING, EQUIPMENT OR ACCESSORIES INSTALLED IN PLENUM RATED CEILINGS SHALL BE LISTED AND APPROVED FOR SUCH INSTALLATION.

SPRINKLER LEGEND

- | | |
|---|--|
| ● | NEW DRY CONCEALED SPRINKLER, PROVIDE ALL NEW SPK PIPE |
| ○ | NEW INTERMEDIATE TEMP CLASSIFICATION UPRIGHT SPRINKLER, PROVIDE ALL NEW SPK PIPE |
| ● | NEW INTERMEDIATE TEMP CLASSIFICATION DRY CONCEALED SPRINKLER, PROVIDE ALL NEW SPRINKLER PIPE |

SPRINKLER DESIGN CRITERIA

- CONTRACTOR SHALL PROVIDE ALL REQUIRED PIPE, FITTINGS, EQUIPMENT, ETC., FOR A FULLY NFPA 13 COMPLIANT SYSTEM.
- ALL SPRINKLERS INSTALLED IN A LIGHT HAZARD CLASSIFICATION SHALL BE QUICK RESPONSE TYPE.
- CONTRACTOR SHALL CONDUCT A NEW FIRE FLOW TEST. CONTRACTOR TO PAY ALL ASSOCIATED FEES FOR FLOW TEST. CONTRACTOR SHALL USE THESE TEST RESULTS FOR HIS HYDRAULIC CALCULATIONS.
- PROVIDE 10% SAFETY FACTOR.
- MAXIMUM VELOCITY SHALL BE 18 FPS.
- INSTALLATION OF SPRINKLERS SHALL BE AS FOLLOWS:

AREA	CLASSIFICATION	DENSITY/SQ.FT.
STORAGE ROOMS	ORDINARY HAZARD GROUP II	.20/1500
MECHANICAL SPACES	ORDINARY HAZARD GROUP I	.15/1500
KITCHEN	ORDINARY HAZARD GROUP II	.20/1500
ATTIC SPACES	LIGHT HAZARD	.10/1500
ALL OTHER AREAS	LIGHT HAZARD	.10/1500



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No.	Description	Date
1	BULLETIN #1	10/17/23

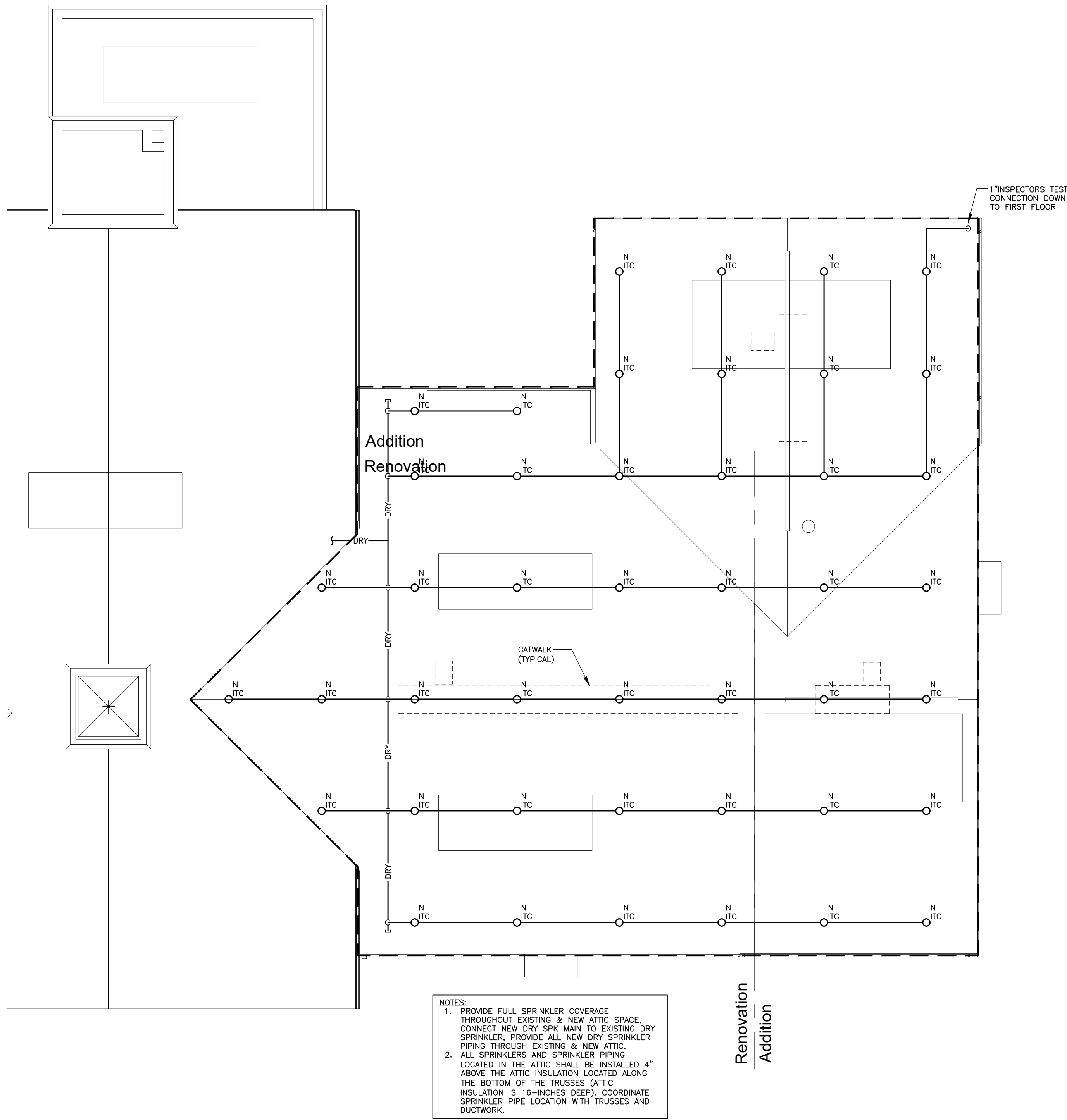
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PROJECT TITLE
FIRE PROTECTION PLANS
PROJECT ID
FP1

5/16/2023 2:12:04 PM



NOTES:
1. PROVIDE FULL SPRINKLER COVERAGE THROUGHOUT EXISTING & NEW ATTIC SPACE. CONNECT NEW DRY SPR MAIN TO EXISTING DRY SPRINKLER. PROVIDE ALL NEW DRY SPRINKLER PIPING THROUGH EXISTING & NEW ATTIC.
2. ALL SPRINKLERS AND SPRINKLER PIPING LOCATED IN THE ATTIC SHALL BE INSTALLED 4" ABOVE THE ATTIC INSULATION LOCATED ALONG THE BOTTOM OF THE TRUSSES (ATTIC INSULATION IS 16-INCHES DEEP). COORDINATE SPRINKLER PIPE LOCATION WITH TRUSSES AND DUCTWORK.

FIRE PROTECTION ATTIC PLAN
SCALE: 1/8"= 1'-0"

FIRE PROTECTION PIPING LEGEND	
	FLOW DIRECTION
	FIRE LINE
	FIRE SERVICE BURIED
	WET SPRINKLER SYSTEM
	DRY PIPE SPRINKLER SYSTEM
	DRAIN PIPING
	FIRE DEPARTMENT CONNECTION SUPPLY
	REMOVE EXISTING PIPING OR EQUIPMENT
	PIPE DOWN
	PIPE UP
	PIPE DROP
	FLUSHING CONNECTION
	PLUGGED OR CAPPED PIPE

FIRE PROTECTION SYMBOL LEGEND	
	CONCEALED SPRINKLER
	PENDANT SPRINKLER
	UPRIGHT SPRINKLER WITH GUARD
	UPRIGHT SPRINKLER
	DRY SIDEWALL SPRINKLER
	WET SIDEWALL SPRINKLER
	DRY PIPE VALVE RISER ASSEMBLY
	SPRINKLER FLOW SWITCH
	PRESSURE SWITCH
	ANGLE HOSE VALVE W/ REDUCER, CAP & CHAIN
	ANGLE HOSE VALVE
	VALVE IN PIPE DROP
	VALVE IN PIPE RISER
	OUTSIDE SCREW & YOKE GATE VALVE (SUPERVISED)(OS&Y)
	GATE VALVE
	BALL VALVE
	BUTTERFLY VALVE
	CHECK VALVE
	BACKFLOW PREVENTER (DOUBLE CHECK TYPE)
	BACKFLOW PREVENTER ASSEMBLY (RPD)
	PRESSURE REDUCING VALVE
	WALL MOUNTED FIRE DEPARTMENT CONNECTION (SIAMESE)
	PRESSURE GAUGE
	ELECTRIC ALARM BELL
	WATER MOTOR GONG
	THRUST BLOCK
	CONNECT TO EXISTING
	TEST & DRAIN ASSEMBLY

ABBREVIATIONS	
AFF	ABOVE FINISH FLOOR
BFP	BACKFLOW PREVENTER
CIE	CONNECT TO EXISTING
DCV	DOUBLE CHECK VALVE
EX	EXISTING
ETR	EXTENDED TO REMAIN
EXT	EXTENDED COVERAGE (SPRINKLER HEAD)
ELEV	ELEVATION
FS	FLOW SWITCH
FDC	FIRE DEPARTMENT CONNECTION
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE BACK W/ HOSE
FHV	FIRE HOSE VALVE
FVC	FIRE VALVE CABINET
FHVC	FIRE HOSE VALVE CABINET
G	GAGE GUARD (SPRINKLER)
GPM	GALLONS PER MINUTE
HT	HIGH TEMPERATURE (SPRINKLER)
IT	INTERMEDIATE TEMPERATURE (SPRINKLER)
LPS	LOW PRESSURE SWITCH
NIC	NOT IN CONTRACT
PIV	POST INDICATOR VALVE
PRV	PRESSURE REGULATING VALVE
PS	PRESSURE SWITCH
PSI	POUNDS PER SQUARE INCH
RR	REMOVE & RELOCATE
RPD	REDUCED PRESSURE BACKFLOW PREVENTER
SS	SUPERVISORY SWITCH
TS	TAMPER SWITCH
TYP	TYPICAL
VIF	VERIFY IN FIELD

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No.	Description	Date

PROJECT

445 Randolph Rd
Middletown, CT 06457
**South Fire District Bldg
Renovations & Addition**

Issued for Permit

9/21/2023

PROJECT TITLE

**FIRE PROTECTION
ATTIC PLAN, NOTES
AND LEGENDS**

PROJECT ID

FP2

C:\IES Projects\2023 Projects\Team PJP\23085 South Fire Addition\Contract Documents\23085_FP3.dwg Plotted by Irogalski on Sep 21, 2023 - 3:53pm

HYDRAULIC-SYSTEM

THIS BUILDING IS PROTECTED BY A HYDRAULICALLY DESIGNED AUTOMATIC SPRINKLER SYSTEM

LOCATION

NO. OF SPRINKLERS

BASIS OF DESIGN

1. DENSITY

2. DESIGNED AREA OF DISCHARGE

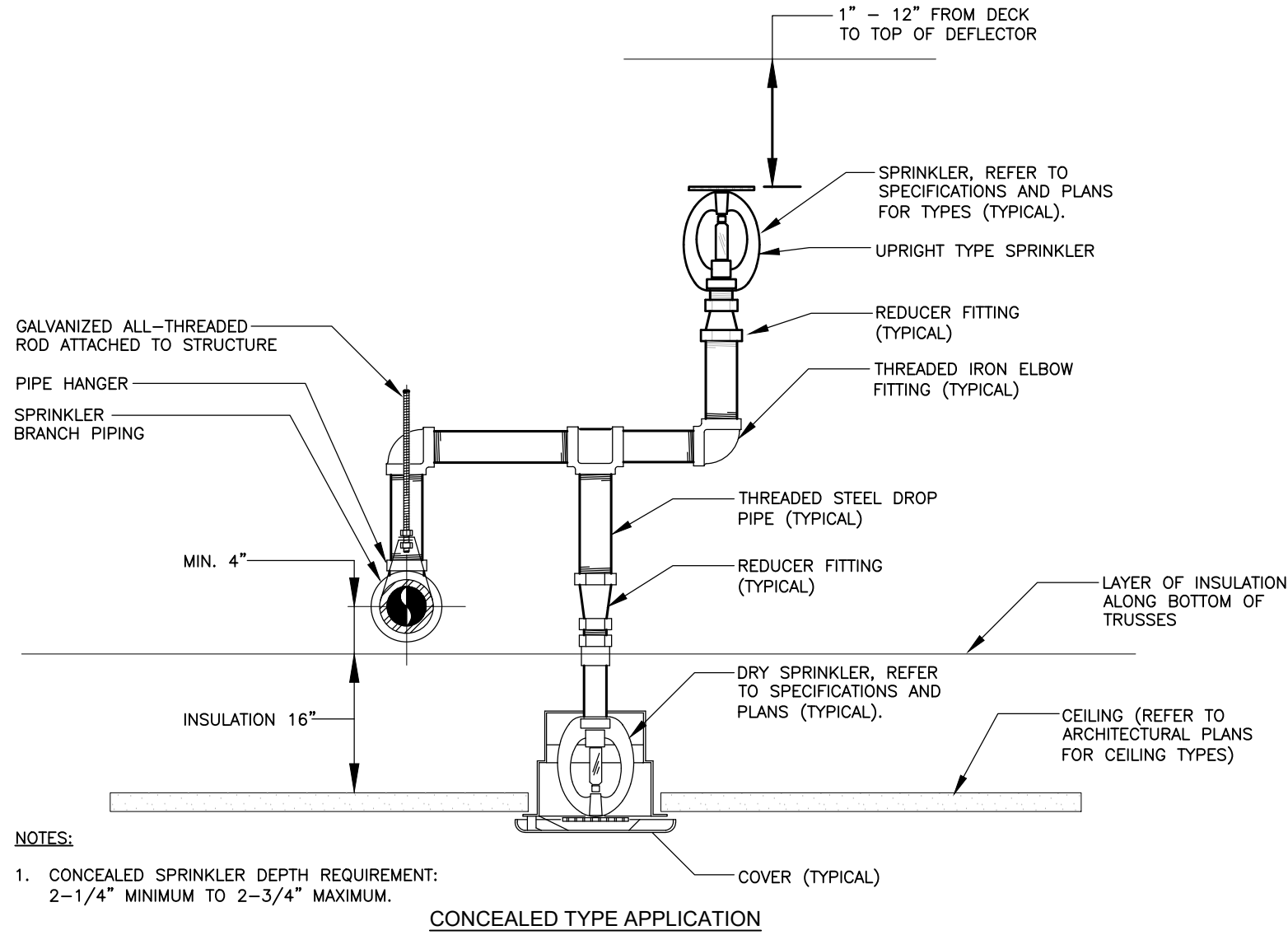
SYSTEM DEMAND

1. GPM DISCHARGE

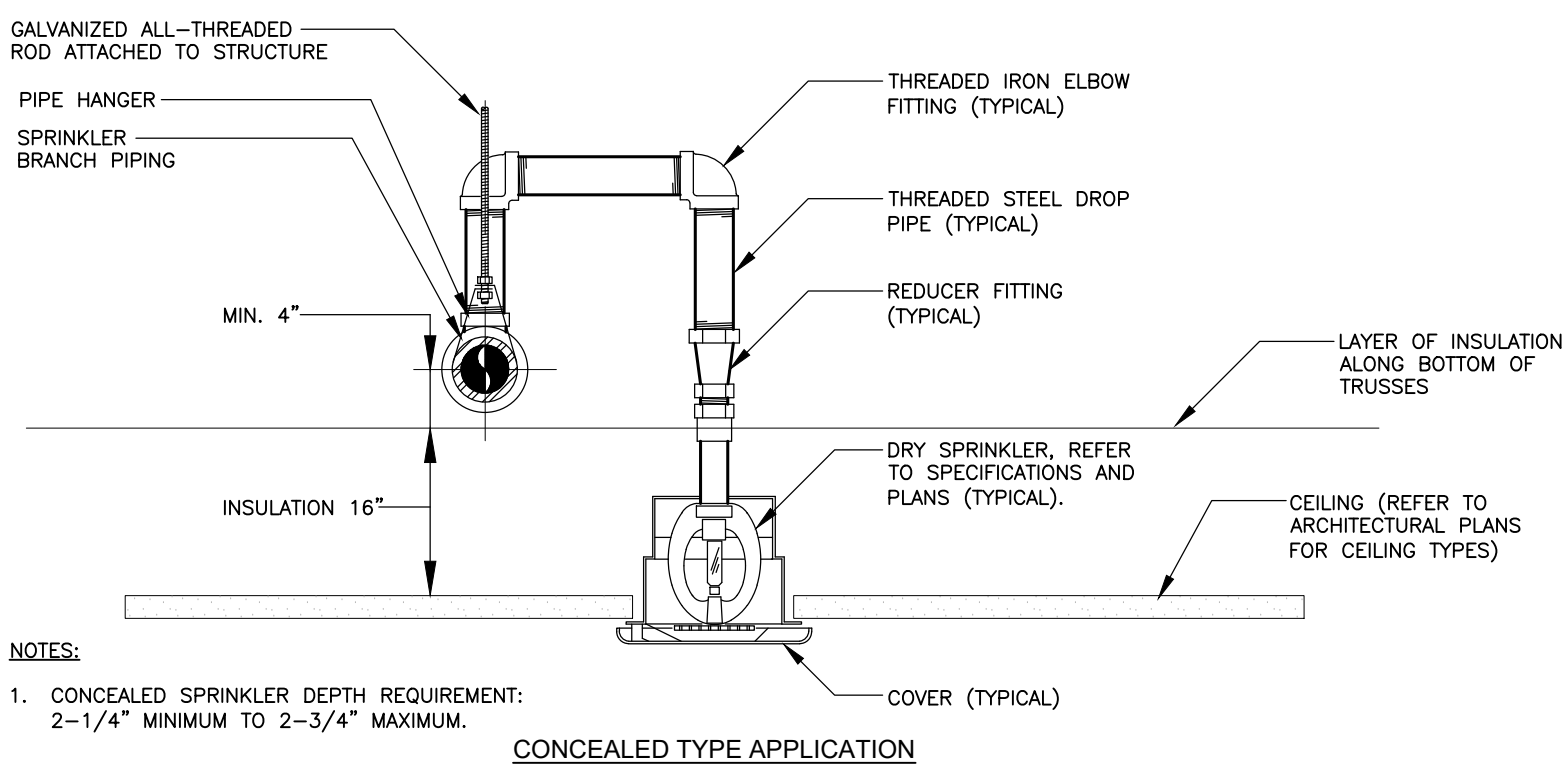
2. RESIDUAL PRESSURE AT THE BASE OF THE RISER

- HYDRAULIC SIGN NOTES:
1. THE FIRE PROTECTION CONTRACTOR SHALL IDENTIFY EACH HYDRAULIC DESIGNED SPRINKLER SYSTEM WITH A PERMANENTLY MARKED, WATERPROOF METAL SIGN SECURED WITH CORROSION-RESISTANT WIRE, CHAIN OR OTHER APPROVED MEANS. SUCH SIGNAGE SHALL BE PLACED AT EACH ALARM VALVE SUPPLYING THE CORRESPONDING HYDRAULICALLY DESIGNED AREA. THE SIGN SHALL INCLUDE THE FOLLOWING INFORMATION:
- A. LOCATION OF DESIGN AREA OR AREAS.
B. DISCHARGE DENSITIES OVER THE DESIGN AREA OR AREAS.
C. REQUIRED FLOW AND RESIDUAL PRESSURE DEMAND AT BASE OF RISER.
D. OCCUPANCY CLASSIFICATION OR COMMODITY CLASSIFICATION AND MAXIMUM PERMITTED STORAGE HEIGHT AND CONFIGURATION.
E. HOSE STREAM DEMAND INCLUDED IN ADDITION TO THE SPRINKLER DEMAND.

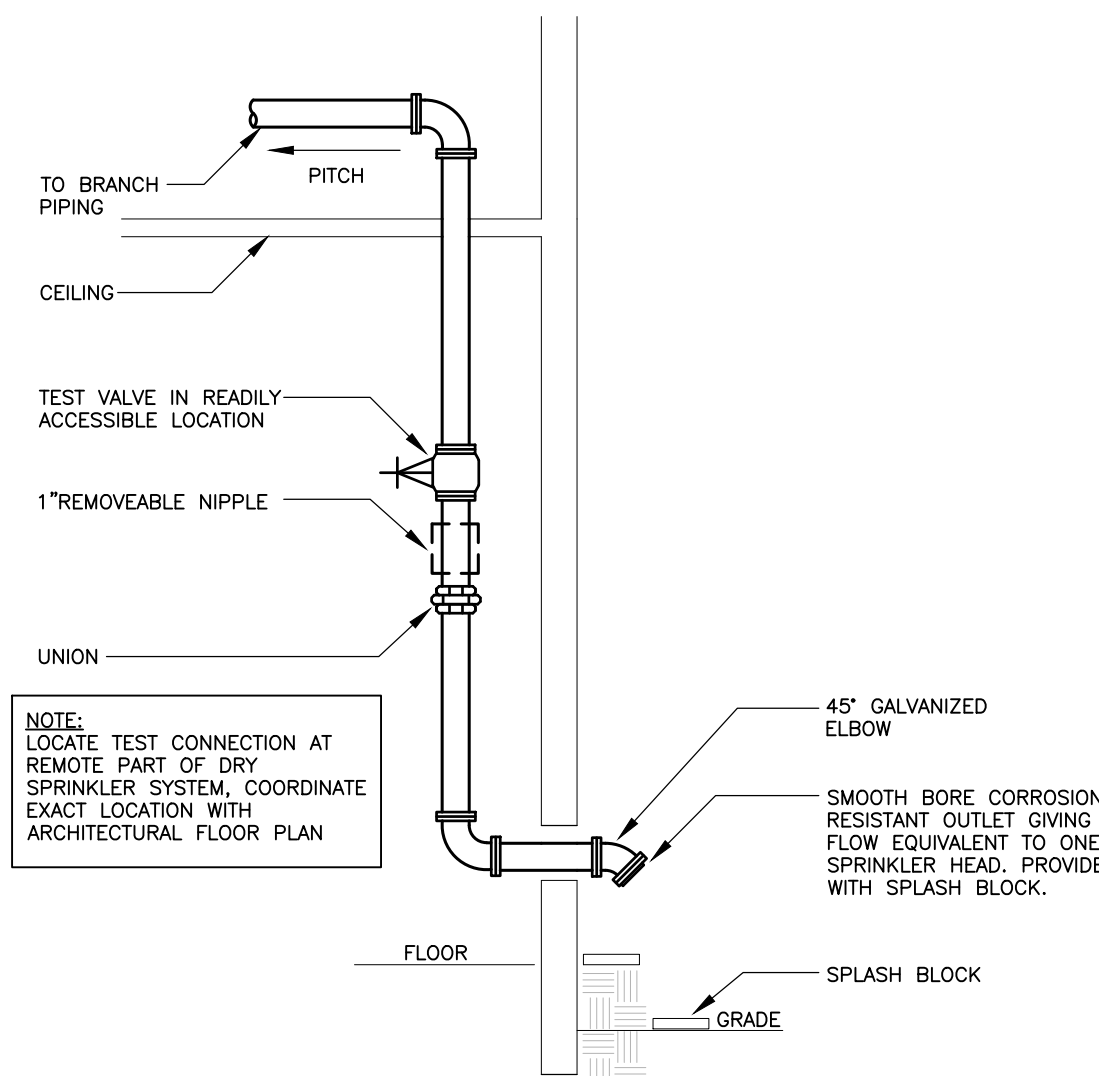
1 HYDRAULIC SYSTEM SIGNAGE DETAIL
SCALE: N.T.S.



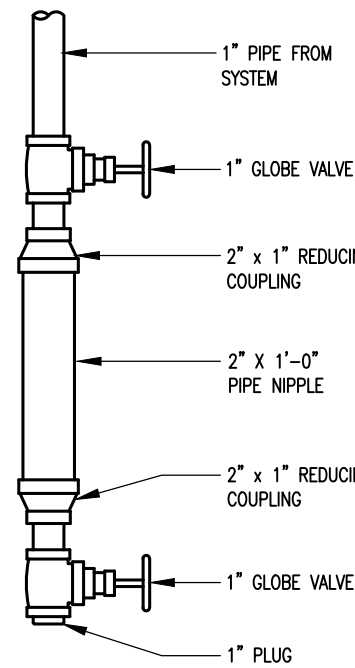
4 TYPICAL SPRINKLER ABOVE AND BELOW CEILING DETAIL
SCALE: N.T.S.



5 TYPICAL SPRINKLER ARM OVER INSTALLATION DETAIL
SCALE: N.T.S.

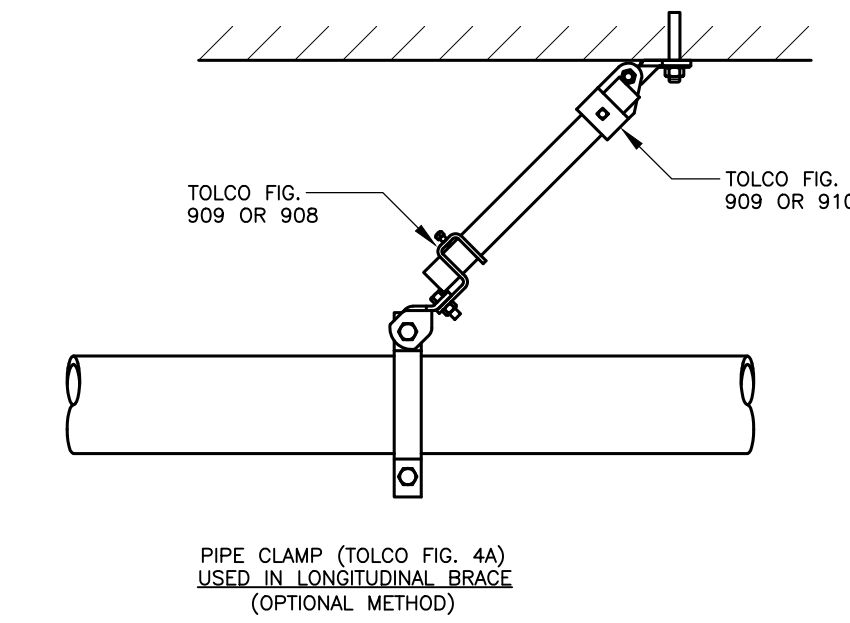
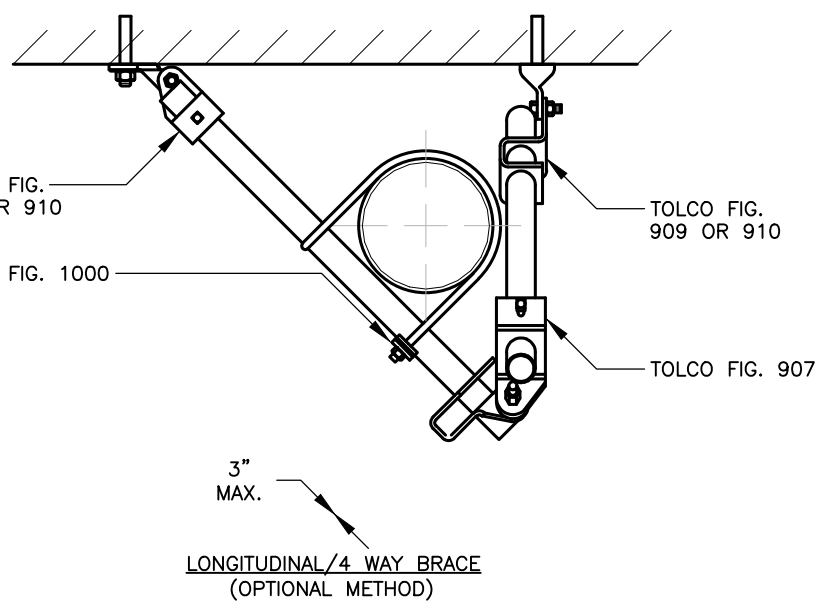
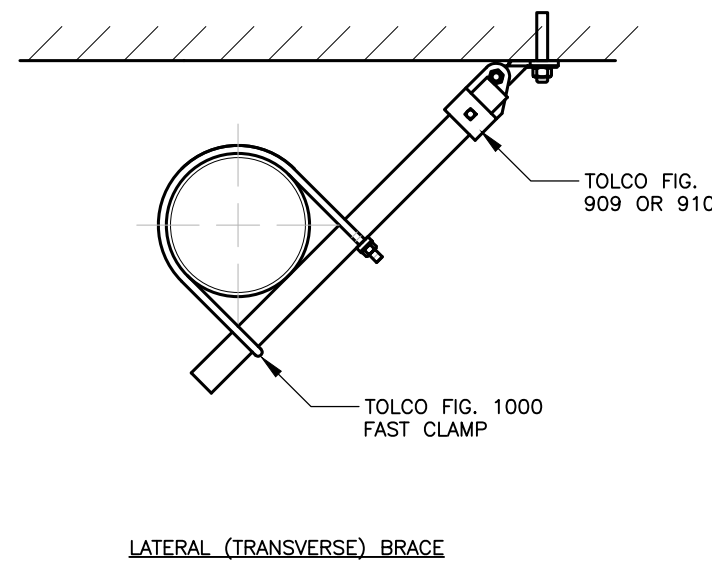


2 DRY PIPE SYSTEM TEST CONNECTION DETAIL
N.T.S.



3 DRUM DRIP ASSEMBLY
DRY SYSTEM AUXILIARY DRAIN
N.T.S.

PIPE SIZE	STEEL SIZE	BOLT SIZE	TORQUE VALUE (FOOT POUNDS)
UP TO 1-1/2"	1/8"x1-1/8"	3/8"	19
2" TO 5"	1/4"x1-1/4"	3/8"	19
6"	3/8"x1-1/2"	1/2"	50



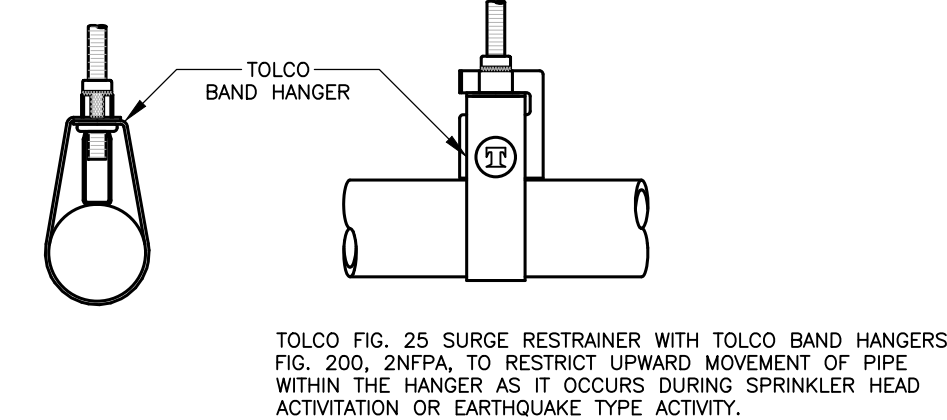
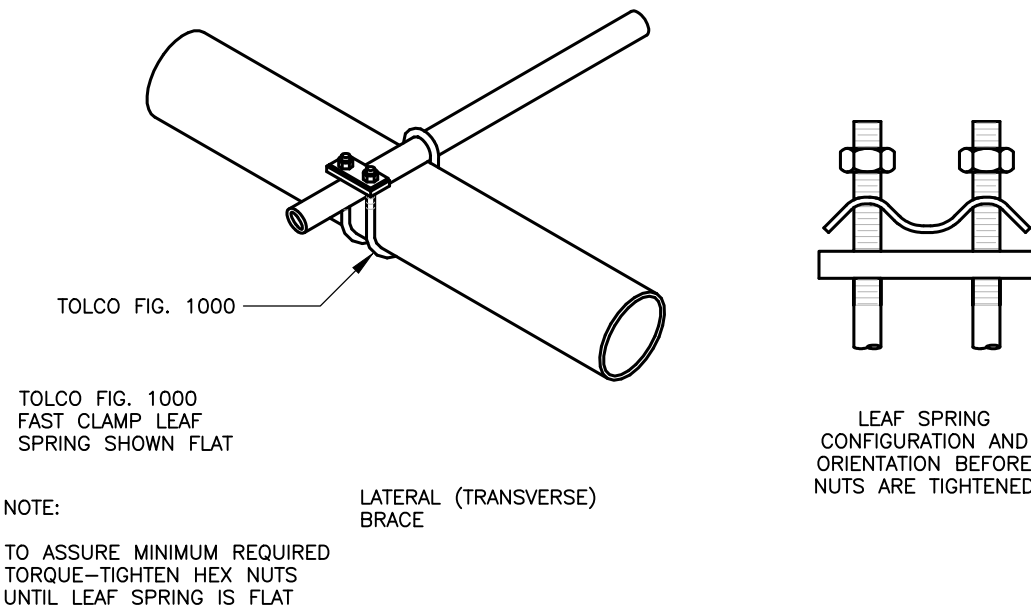
EARTHQUAKE BRACE AND SURGE RESTRAINT COMPONENTS

TOLCO FIG. 1000 FAST CLAMPS UNDERWRITERS LABORATORIES LISTED, MUST BE USED WITH TOLCO U.L. LISTED ATTACHMENTS FIG. 909 OR 910 SWIVEL FITTINGS OR FIG. 975 OR FIG. 908 STRAIGHT FITTINGS

NOTE: INSTALL ALL BRACES SHOWN ON THIS PAGE WITHIN 4" OF HANGERS

PIPE SIZE	BOLT SIZE	DIM. A
UP TO 1-1/2"	1/2"	1/8"
2" TO 6"	3/4"	1/4"

TOLCO FIG. 25 SURGE RESTRAINER
TYPE 1 - FOR USE WITH 1" AND 1 1/4" PIPE AND HANGER.
TYPE 2 - FOR USE WITH 1 1/2" AND 2" PIPE AND HANGER.



6 PIPES - BRACING, ATTACHMENT DETAIL
SCALE: N.T.S.



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PERMIT TYPE
FIRE
PROTECTION
DETAILS
FP3

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