

# State of Alaska Department of Transportation / Village of Newtok

## MERTARVIK EVACUATION CENTER

### Nelson Island, Alaska

#### Owner

STATE OF ALASKA DEPT. OF TRANSPORTATION  
2200 STATEWIDE PUBLIC FACILITIES  
2200 EAST 42ND AVENUE  
ANCHORAGE, AK 99508  
(907) 269-0822  
KIM MAHONEY kim.mahoney@alaska.gov

#### Architect

BEZEK DURST SEISER ARCHITECTS  
3330 C STREET  
SUITE 200  
ANCHORAGE, AK 99503  
(907) 562-6076  
ERIC SPANGLER erics@bdsak.com  
NICHELLE SEELY nichelles@bdsak.com

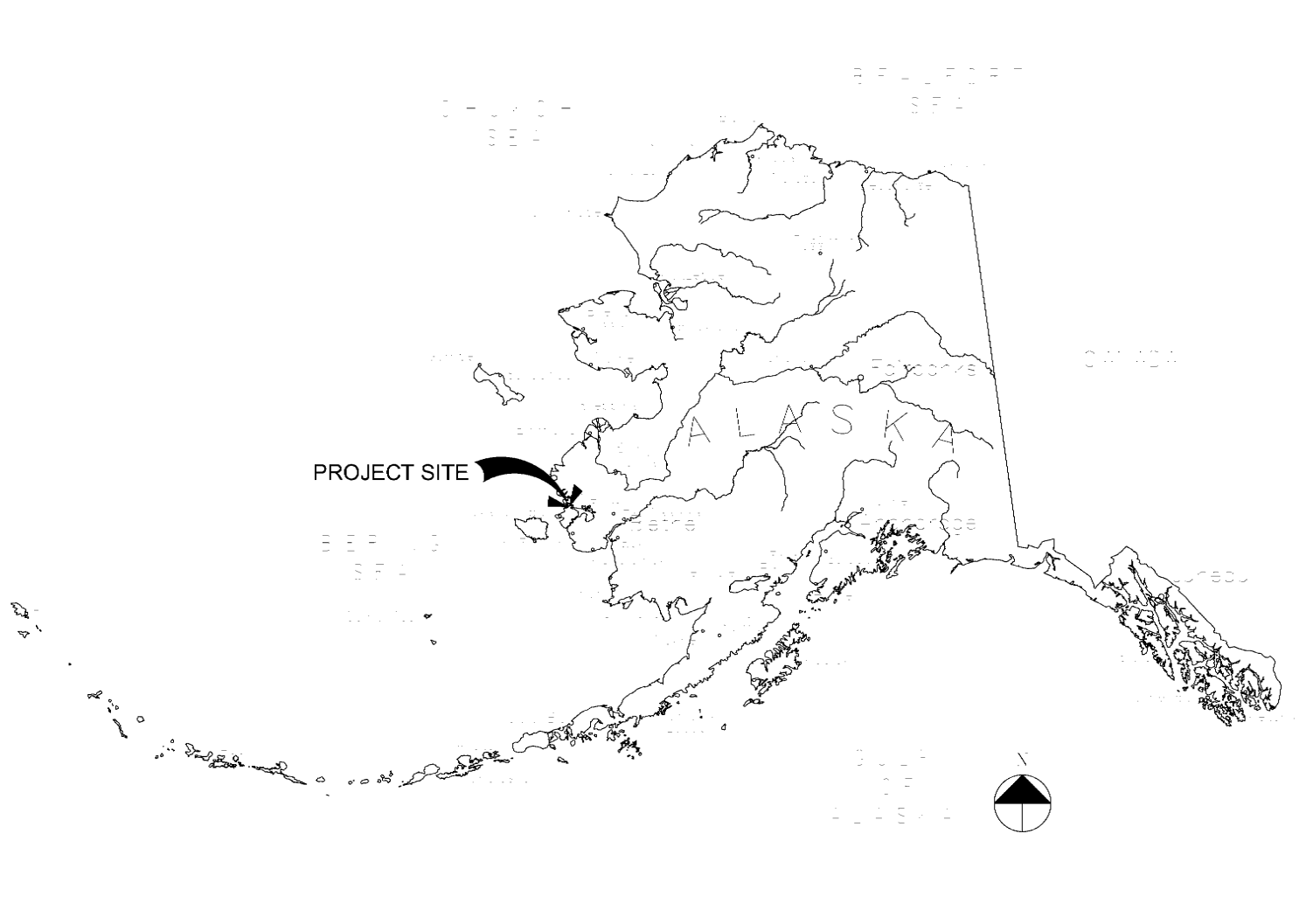
#### Engineer

PDC INC. ENGINEERS  
2700 GAMBELL STREET  
SUITE 500  
ANCHORAGE, AK 99503  
(907) 743-3200  
MATT EMERSON MattEmerson@pdceng.com

#### Water and Wastewater

STATE OF ALASKA  
DEPT. OF ENVIRONMENTAL CONSERVATION  
DIVISION OF WATER  
VILLAGE SAFE WATER  
555 CORDOVA STREET  
4TH FLOOR  
ANCHORAGE, AK 99501  
(907) 269-7606  
DAVID LONGTIN, P.E. david.longtin@alaska.gov

## CONSTRUCTION DOCUMENTS - BID SET



PROJECT SITE

### DRAWINGS INDEX:

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REVISIONS		
No	Description	Date
1	Addendum 1	2/18/11

BDS

Architecture | Planning | Real Technology

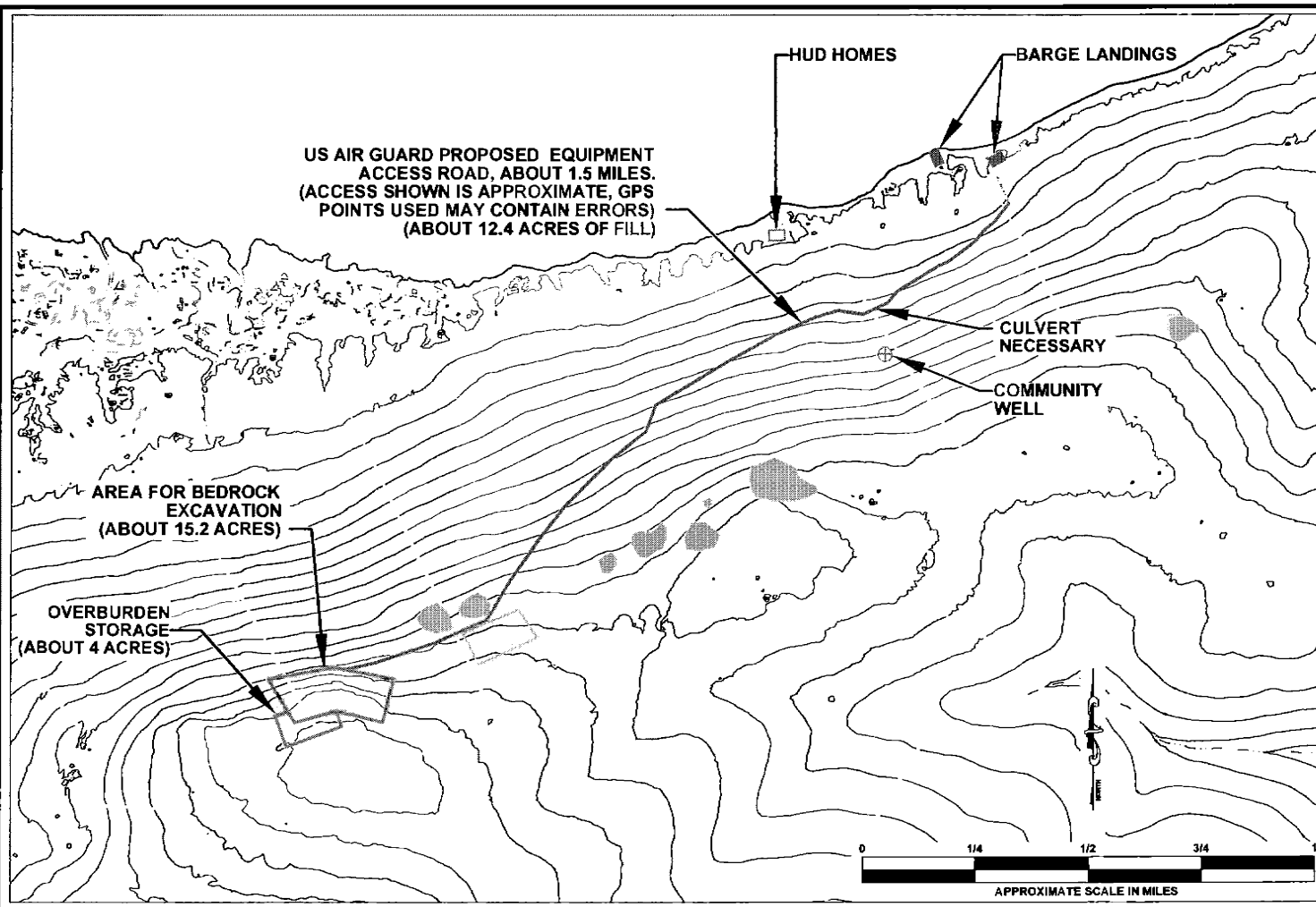
BEZEK DURST SEISER, Inc.  
3330 C Street, Suite 200  
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T: 907.562.6076 | F: 907.562.6635  
W: www.bdsak.com

**Mertarvik**  
Evacuation Center  
Nelson Island, Alaska

BDS Project No.: 609013  
Construction Documents  
February 4, 2011

Title Sheet  
**G1.0**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No	DATE	DESCRIPTION



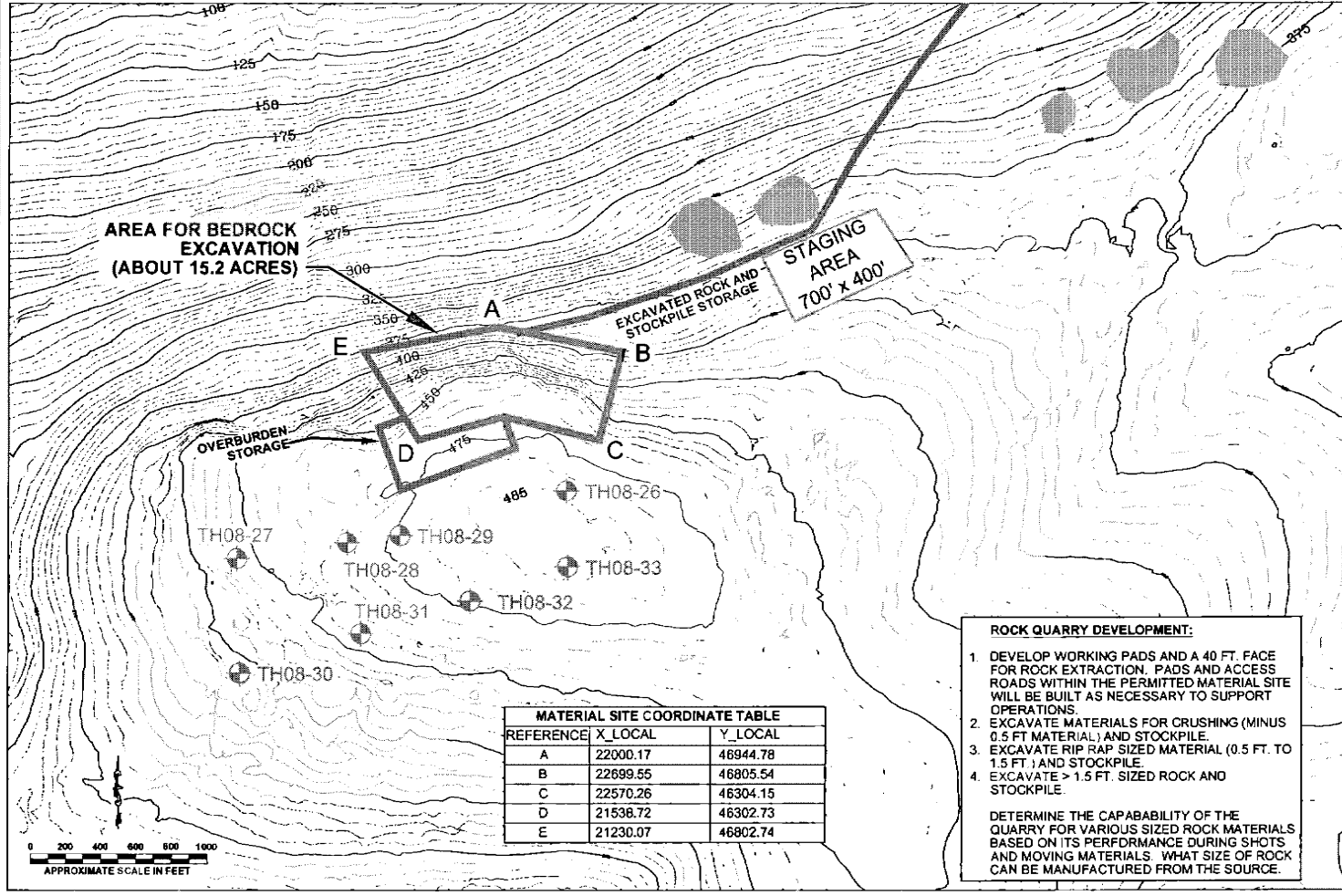
**NOTE:**

1. STAKE ROAD ALIGNMENT AND MATERIAL SITE BOUNDARIES PRIOR TO MOVING EQUIPMENT UP THE HILL OR PERFORMING STRIPPING OF OVERBURDEN AT THE MATERIAL SITE.
2. NO EXCAVATED MATERIALS SHALL BE PLACED OUTSIDE THE MATERIAL SITE BOUNDARIES.
3. EXCAVATED SLOPES IN ROCK SHALL BE 0.5 FT. (HORZ.), 1 FT. (VERT.).
4. OVERBURDEN SOILS SHALL BE PLACED INTO STOCKPILES NO MORE THAN 10 FT. IN HEIGHT. SLOPES SHALL BE 4 FT. (HORZ.), 1 FT. (VERT.).
5. REFER TO TEST HOLE LOGS FOR SOIL TYPES AND ANALYTICAL RESULTS.
6. STAGING PAD SHALL BE MINIMUM 4 FT. IN HEIGHT WITH 4:1 SIDE SLOPES.
7. CONTROL SURFACE WATER RUN-OFF AND/OR RESEED AS INDICATED IN THE SWPP PLAN.
8. MATERIAL SOURCE DEVELOPMENT, HALL ROAD CONSTRUCTION, MAINTENANCE OF HAUL ROAD, AND MAINTENANCE AND RECLAMATION OF DISTURBED AREAS SHALL BE SUBSIDIARY TO OTHER ITEMS OF WORK.
9. ACCESS ROAD SHALL BE 6 FT. OF FILL. USE STABILIZATION FABRIC PRIOR TO PLACING FILL. THE ROAD WILL BE CONSTRUCTED IN STAGES (BUILT UP TO 6 FT. OF FILL) DURING 2011 TO 2013 WORK SEASONS AS THE USAF ANG IS ABLE TO EXTRACT AND MOVE THE SHOT ROCK MATERIAL.
  - A. INSTALL 30 INCH CULVERTS WHERE NECESSARY.

**LEGEND**

- TEST HOLE
- BOULDER FIELDS

**VERSION 2  
PRELIMINARY PLAN FOR REVIEW  
DEC. 6, 2010**

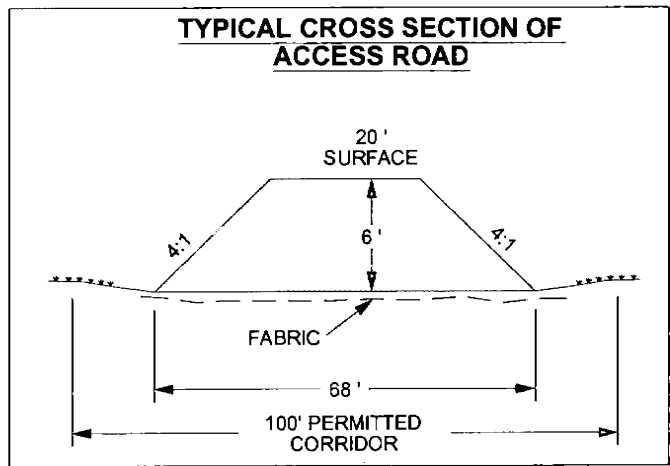
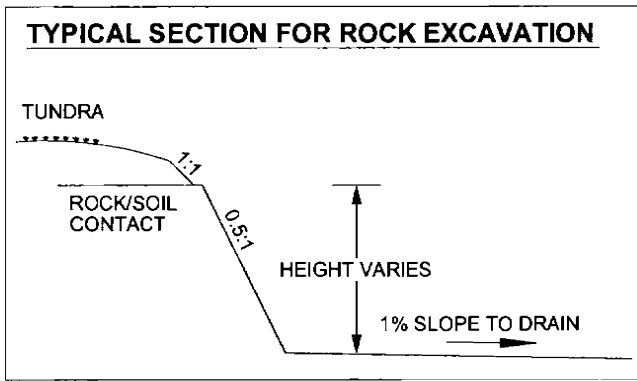
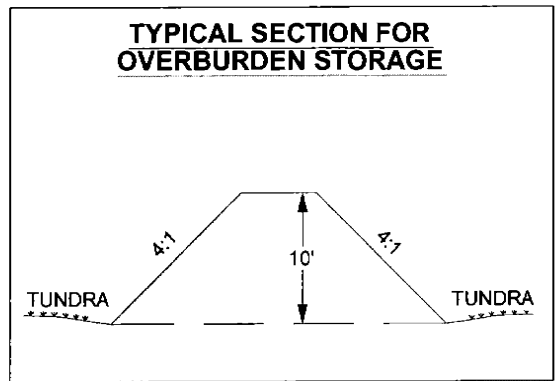


REFERENCE	X_LOCAL	Y_LOCAL
A	22000.17	46944.78
B	22699.55	46805.54
C	22570.26	46304.15
D	21536.72	46302.73
E	21230.07	46802.74

**ROCK QUARRY DEVELOPMENT:**

1. DEVELOP WORKING PADS AND A 40 FT. FACE FOR ROCK EXTRACTION. PADS AND ACCESS ROADS WITHIN THE PERMITTED MATERIAL SITE WILL BE BUILT AS NECESSARY TO SUPPORT OPERATIONS.
2. EXCAVATE MATERIALS FOR CRUSHING (MINUS 0.5 FT MATERIAL) AND STOCKPILE.
3. EXCAVATE RIP RAP SIZED MATERIAL (0.5 FT. TO 1.5 FT.) AND STOCKPILE.
4. EXCAVATE > 1.5 FT. SIZED ROCK AND STOCKPILE.

DETERMINE THE CAPABILITY OF THE QUARRY FOR VARIOUS SIZED ROCK MATERIALS BASED ON ITS PERFORMANCE DURING SHOTS AND MOVING MATERIALS. WHAT SIZE OF ROCK CAN BE MANUFACTURED FROM THE SOURCE.



**WORK TO BE PERFORMED BY:**  
USAF ANG 201 RHS

**TIME PERIOD:**  
SUMMER 2011 TO 2013

DESIGNED BY:  
DRAWN BY: DR DODGE

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES  
CENTRAL REGION MATERIALS

**MERTARVIK RELOCATION PROJECT**



**MERTARVIK MINING PLAN**

PROJECT DESIGNATION  
**80573**

STATE	YEAR
<b>ALASKA</b>	<b>2010</b>
SHEET NUMBER	TOTAL SHEETS
<b>1</b>	<b>1</b>

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

**LEGEND**

 TEST HOLE  
 BOULDER FIELDS

**VERSION 2  
 PRELIMINARY PLAN FOR REVIEW  
 DEC. 6, 2010**

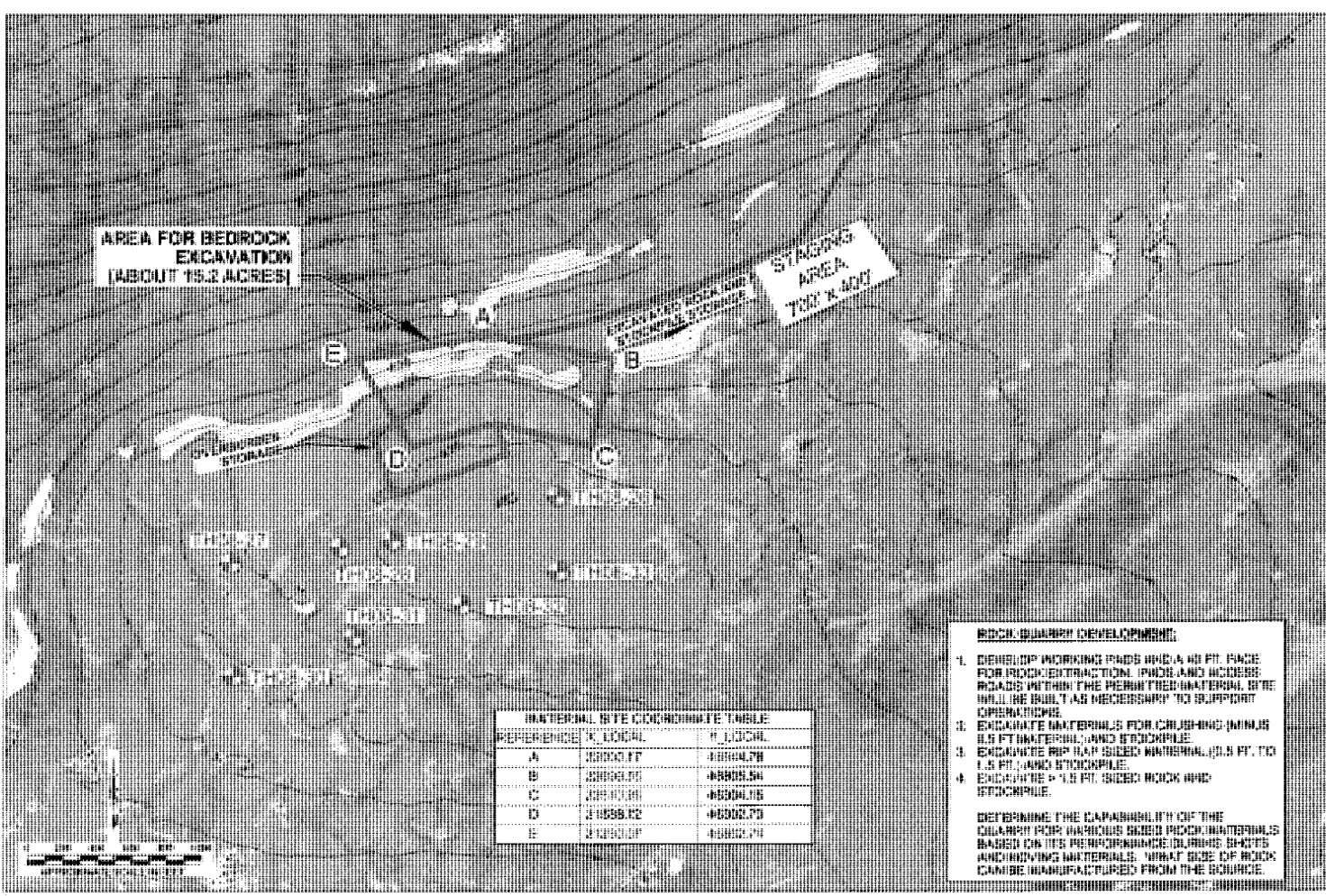
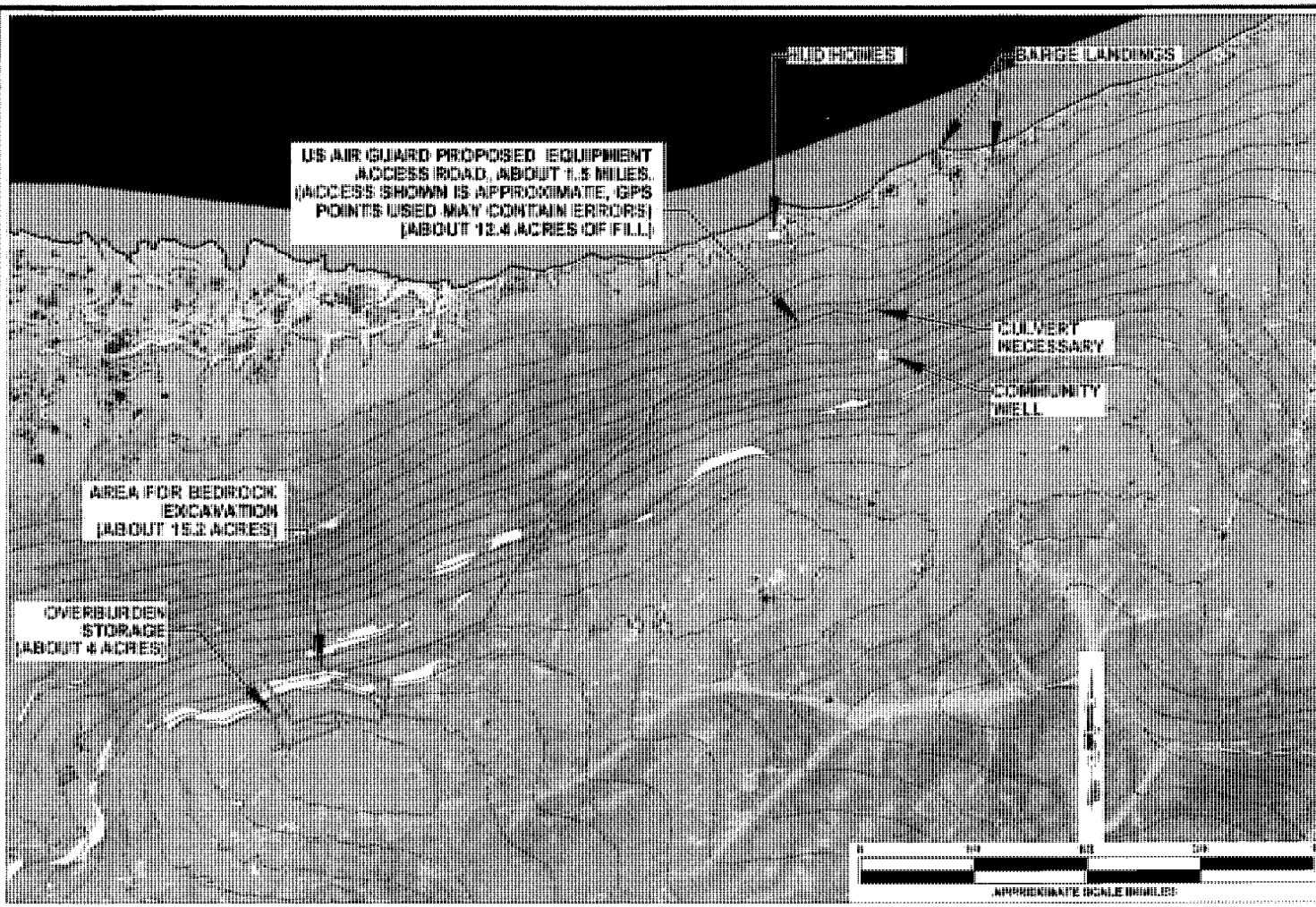
**WORK TO BE PERFORMED BY:**  
 USAF ANG 201 RHS  
**TIME PERIOD:**  
 SUMMER 2011 TO 2013

DESIGNED BY:  
 DRAWN BY: DR DODGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 AND PUBLIC FACILITIES  
 CENTRAL REGION MATERIALS  
**MERTARVIK RELOCATION PROJECT**

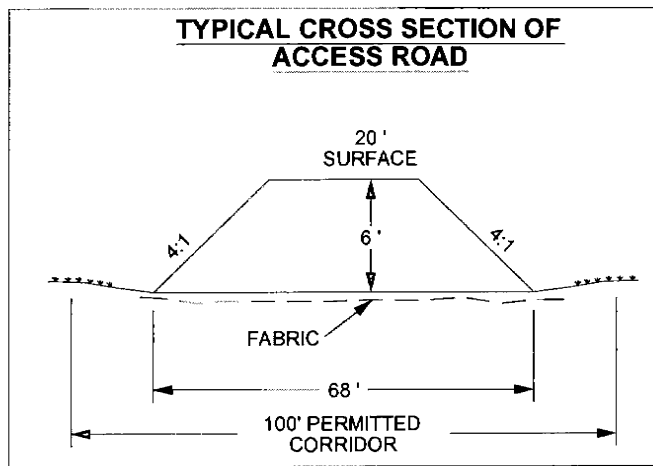
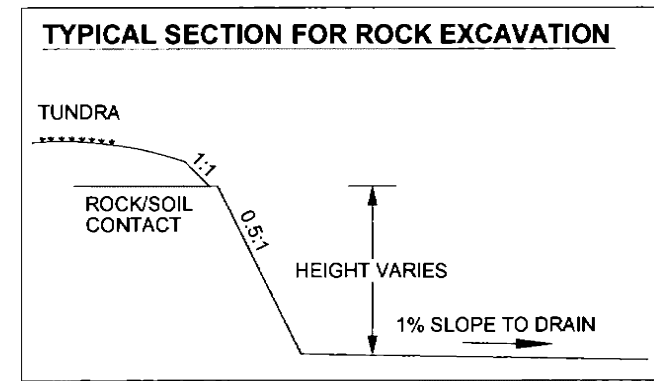
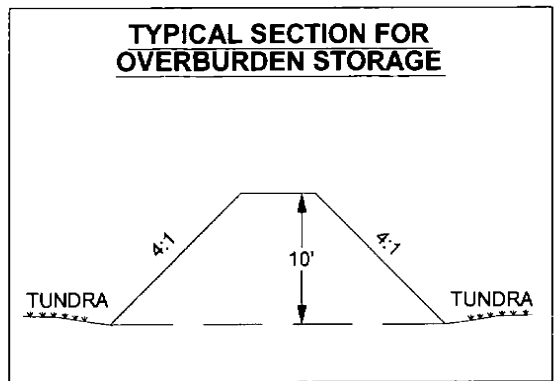
**MERTARVIK  
 MINING PLAN**

PROJECT DESIGNATION	
80573	
STATE	YEAR
ALASKA	2010
SHEET NUMBER	TOTAL SHEETS
1	1



**NOTE:**

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  - A. INSTALL 30 INCH CULVERTS WHERE NECESSARY.





# CIVIL LEGEND, ABBREVIATIONS, AND GENERAL NOTES

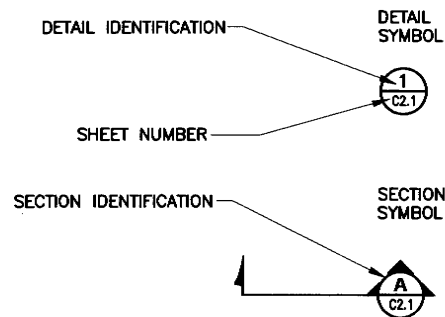
## LEGEND

NEW	EXISTING	
83	86	CONTOURS
		DRAINAGE DIRECTION
		FENCE
		SANITARY SEWER
		WATER
		CULVERT
		SOIL BORING TEST HOLE
		SPOT ELEVATION
		EDGE OF SURVEY
		IRON POST FUTURE ROAD MARKING
		PLASTIC MATTING
		GRAVEL

### MONUMENT LEGEND

	RECOVERED BLM MONUMENT
	GPS PROJECT CONTROL STATION
	SECONDARY SURVEY CONTROL STATION
	SURVEY POINT NUMBER

### DETAIL AND SECTION IDENTIFICATION



## ABBREVIATIONS

E	EAST	O.C.	ON CENTER
FF	FINISH FLOOR ELEV.	R	RADIUS
FT	FOOT OR FEET	TBM	TEMPORARY BENCH MARK
GSP	GALVANIZED STEEL PIPE	(TYP)	TYPICAL
MAX	MAXIMUM	W	WEST
MIN	MINIMUM	W/	WITH
N	NORTH		
NIC	NOT IN CONTRACT		
N.T.S., NTS	NOT TO SCALE		

## GENERAL NOTES

### SURVEY NOTES

1. THIS SURVEY WAS COMPLETED BETWEEN JULY 22 AND JULY 27, 2008, BY R&M CONSULTANTS, INC.
2. ALL DIMENSIONS AND COORDINATES SHOWN ARE IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
3. REFERENCE RECORD OF SURVEY PLAT 2008-13, B.B.R.D.
4. SECTION LINES ARE PROTRACTED: ALL PROTRACTED LINES SHOWN ARE CONSTRAINED AT RECOVERED BLM MONUMENT NO. 705 AND ROTATED TO RECOVERED BLM MONUMENT NO. 706.

### HORIZONTAL CONTROL STATEMENT

COORDINATE SYSTEM:  
THIS PROJECT IS LOCATED ENTIRELY WITHIN THE MERTARVIK ADJUSTMENT, A U.S. SURVEY FOOT LOCAL SURFACE GRID COORDINATE SYSTEM DEVELOPED BY THE ALASKA DEPARTMENT OF TRANSPORTATION.

BASIS OF COORDINATES:  
THE BASIS OF COORDINATES IS MERT-4, LOCATED NEAR THE TOP OF THE HILL SOUTH OF THE PROPOSED BARGE LANDING SITE. SAID STATION HAS LOCAL COORDINATES OF 50000.0000 N, 30000.0000 E.

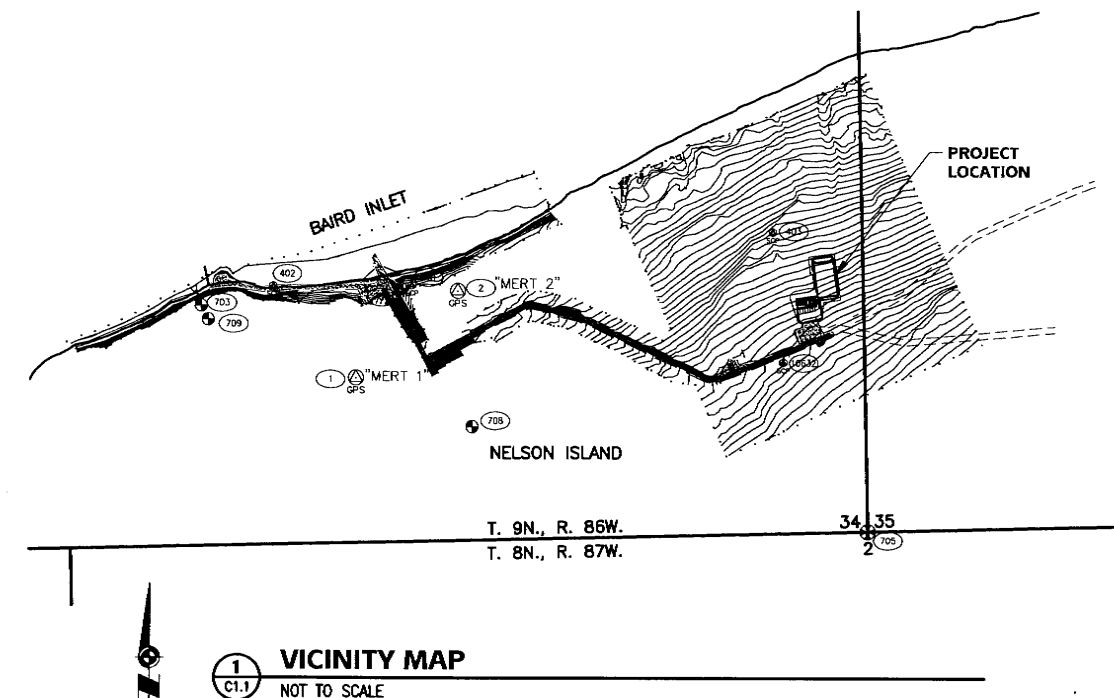
BASIS OF BEARINGS:  
PROJECT BEARINGS ARE STATE PLANE GRID BEARINGS TRANSLATED TO THE LOCAL COORDINATE SYSTEM AND BASED ON MINIMALLY CONSTRAINED GPS MEASUREMENTS.

TRANSLATION PARAMETERS:  
TO CONVERT THE LOCAL COORDINATES TO NAD83(CORS96) (EPOCH 2003.0000) STATE PLANE U.S. SURVEY FOOT COORDINATES, TRANSLATE USING +2442332.0315 N, +1876688.0857 E, AND SCALE USING 0.99997118722.

### VERTICAL CONTROL STATEMENT

THE VERTICAL DATUM IS MEAN LOW LOWER WATER (MLLW), AS DETERMINED BY ELECTRONIC TIDAL OBSERVATIONS PERFORMED BY R&M CONSULTANTS OVER A 9 DAY PERIOD IN JUNE 2008 AND PROCESSED BY JOHN OSWALD & ASS., LLC. TEMPORARY BENCH MARK "BEACH" WAS SET RELATIVE TO THE TIDE GAUGE, AN ALUMINUM DRIVE ROD DRIVEN TO REFUSAL WITH AN ESTABLISHED MLLW ELEVATION OF 9.35 FEET. ELEVATIONS WERE TRANSFERRED FROM TBM BEACH TO PROJECT CONTROL USING DIFFERENTIAL LEVEL LOOPS PERFORMED BY R&M CONSULTANTS, INC., ALSO IN JUNE, 2008.

REFERENCE SURVEY CONTROL DIAGRAM (SCD) RECORD OF SURVEY (ROS) MERTARVIK BARGE LANDING SITE, PLAT 2008-13, BRISTOL BAY RECORDING DISTRICT. SURVEY CONTROL STATION "MERT 2", WAS HELD THIS SURVEY. "MERT 2" ELEVATION = 27.55 FEET. NOTE: MEASUREMENTS INDICATE THAT "MERT 1" HAS JACKED UP 0.2 FEET IN RELATION TO OTHER PROJECT CONTROL SINCE JUNE, 2008.



**BDS**

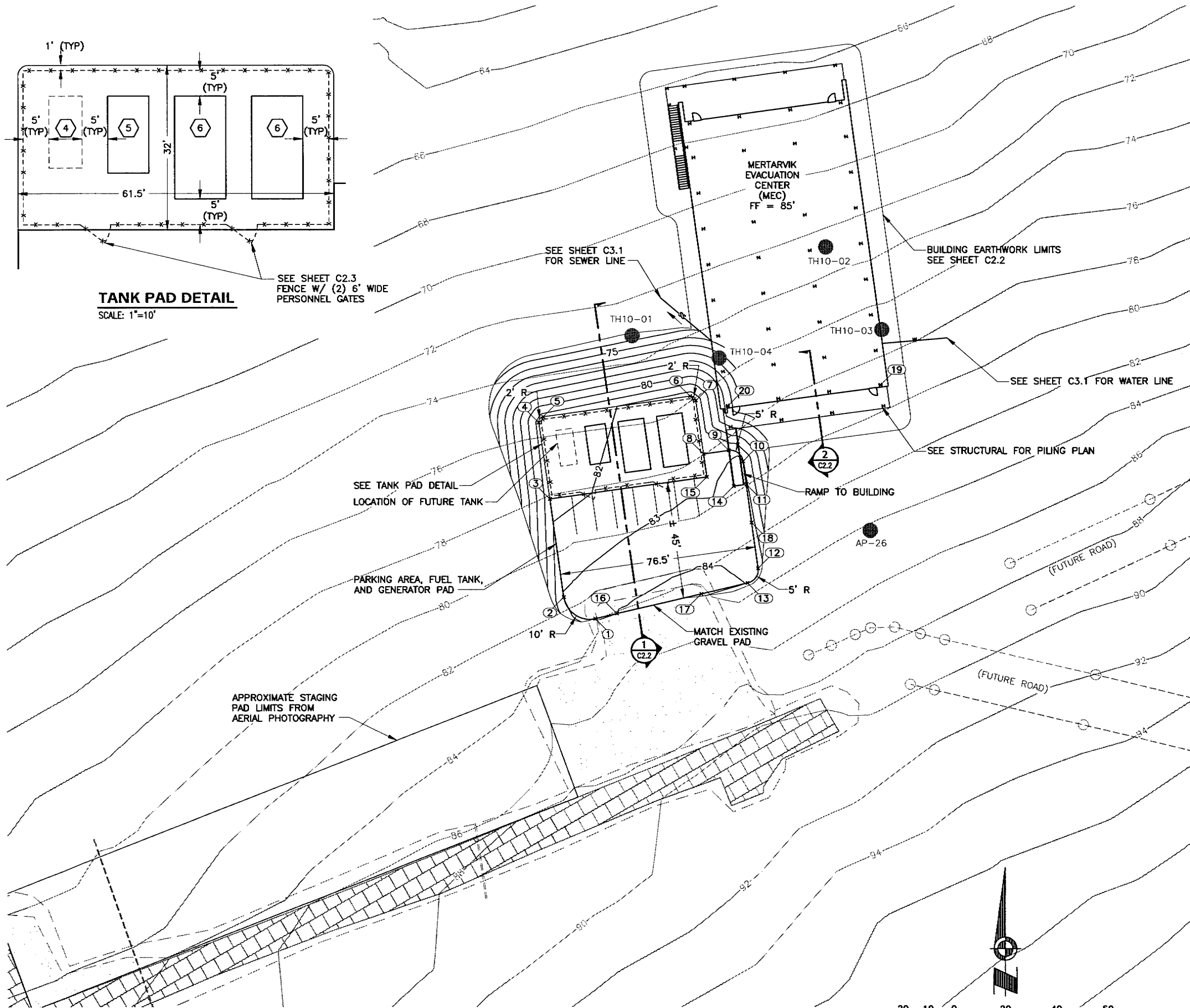
Bezek Durst Selsler, Inc.  
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P.907.562.6076 F.907.562.6635

**Mertarvik  
Evacuation Center**  
Mertarvik, Alaska

BDS Project No.: 609013

Construction Documents  
February 04, 2011

GENERAL  
NOTES  
**C1.1**



- SHEET NOTES**
- SEE MECHANICAL FOR FUEL TANK PIPING.
  - SEE ELECTRICAL FOR GENERATOR CONNECTION.
  - SEE VILLAGE SAFEWATER (VSW) FOR UTILITIES.
- ④ 3,000 GALLON FUEL TANK.
  - ⑤ 5,000 GALLON FUEL TANK.
  - ⑥ GENERATOR MODULE.

**TANK PAD DETAIL**  
SCALE: 1"=10'

**1 SITE PLAN**  
C2.1 SCALE: 1"=20'

CONTROL POINT TABLE				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	52867.38	30936.93	83.68	SHLDR
2	52875.73	30924.75	83.08	SHLDR
3	52913.92	30919.38	81.67	SHLDR
4	52943.62	30915.21	81.37	SHLDR
5	52945.88	30916.91	81.42	SHLDR
6	52953.89	30973.85	82.57	SHLDR
7	52952.18	30976.11	82.60	SHLDR
8	52931.39	30979.03	82.81	SHLDR
9	52932.78	30988.93	82.94	SHLDR
10	52928.52	30994.58	83.04	SHLDR
11	52919.61	30995.83	83.16	SHLDR
12	52886.93	31000.42	83.80	SHLDR
13	52881.29	30996.17	83.98	SHLDR
14	52918.92	30990.88	83.15	RAMP
15	52922.48	30980.28	82.90	GRADE BREAK
16	52869.36	30945.37	84.00	GRADE BREAK
17	52877.01	30978.06	84.40	GRADE BREAK
18	52904.73	30997.92	83.39	GRADE BREAK
19	52958.19	31048.07		PILE
20	52950.04	30988.62		PILE

**REVISIONS**

No	Description	Date
1	Addendum 1	2/18/11
2	Addendum 2	2/18/11

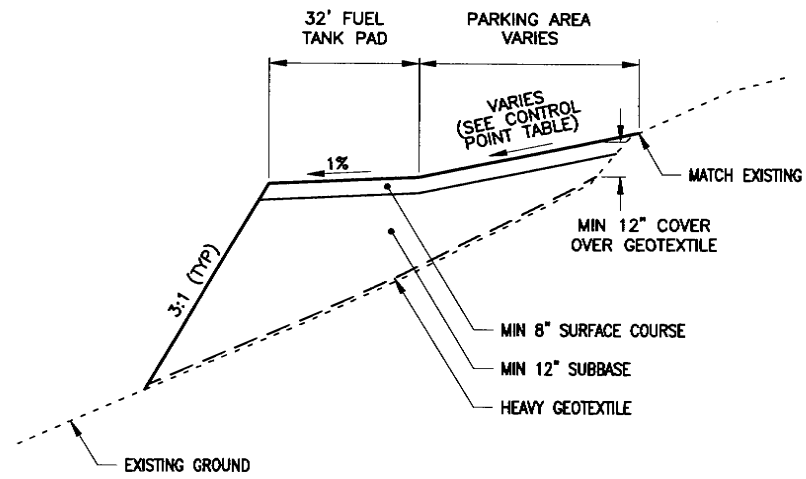


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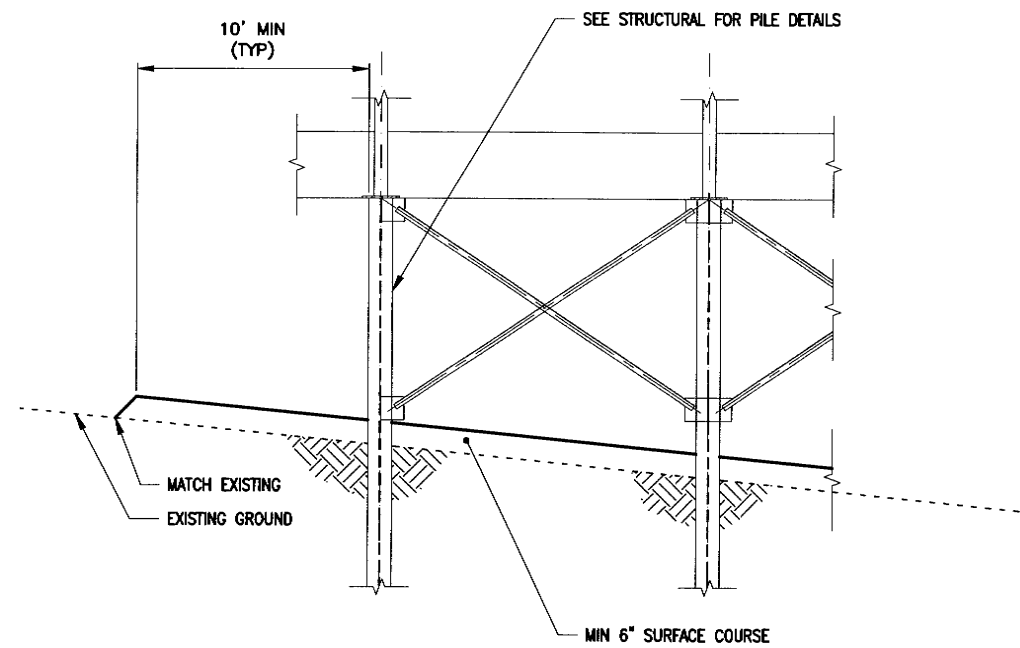
**Mertarvik Evacuation Center**  
Nelson Island, Alaska  
BDS Project No.: 609013

Construction Documents  
February 04, 2011

**SITE PLAN**  
**C2.1**



**1** **PARKING SECTION**  
 C2.2 SCALE: NOT TO SCALE



**2** **BUILDING EARTHWORK SECTION**  
 C2.2 SCALE: NOT TO SCALE

**PDC INC. ENGINEERS**  
 2700 Cordell Street, Suite 900, Anchorage, Alaska 99503



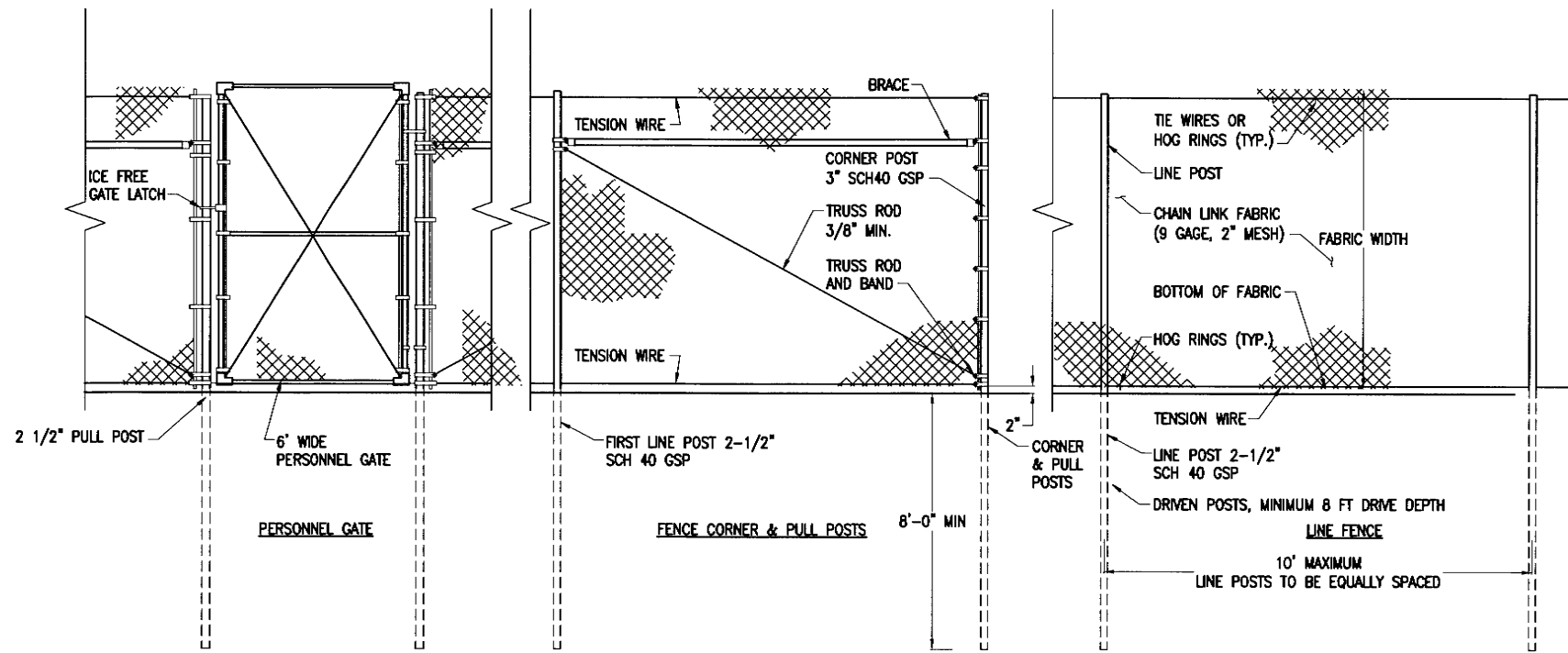
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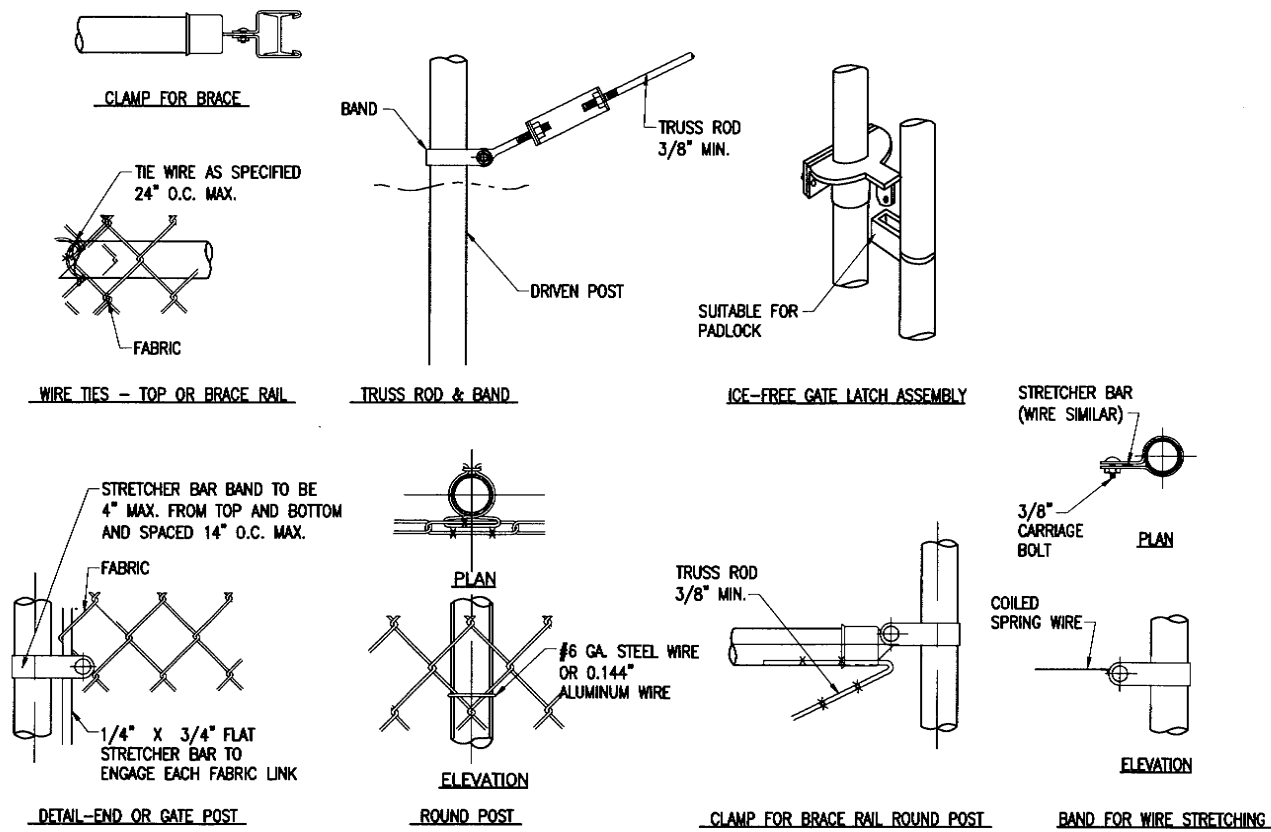
**Mertarvik**  
**Evacuation Center**  
 Mertarvik, Alaska

BDS Project No.: 609013  
 Construction Documents  
 February 04, 2011

**DETAILS**  
**(1 OF 2)**  
**C2.2**



**1 PERSONNEL GATE, FENCE CORNER, AND LINE FENCE**  
 C2.3 SCALE: NOT TO SCALE



**2 FENCE DETAILS**  
 C2.3 SCALE: NOT TO SCALE



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 Mertarvik, Alaska

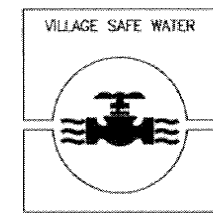
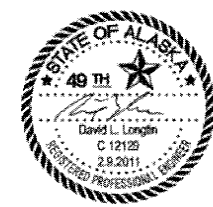
BDS Project No.: 609013  
 Construction Documents  
 February 04, 2011

DETAILS  
 (2 OF 2)  
**C2.3**



**NOTES**

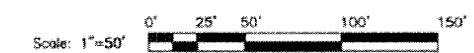
1. OUTFALL PIPE ALIGNMENT IS APPROXIMATE. FIELD ENGINEER WILL ESTABLISH ACTUAL ALIGNMENT.
2. CONSTRUCT FIRST CLEANOUT 200' DOWNSTREAM OF CHLORINE CONTACT TANK. CONSTRUCT ADDITIONAL CLEANOUTS SPACED 400' APART DOWNSTREAM FROM FIRST CLEANOUT.
3. PIPE IS TO BE LAID PERPENDICULAR TO GENERAL CONTOUR OF LAND WITH MINIMUM SLOPE OF 2% AND MAXIMUM SLOPE OF 12%.
4. SEPTIC TANK, MANHOLE, DIVERTER VALVES, GRAVELLESS SOIL ABSORPTION SYSTEM, TABLET CHLORINATOR CONTACT TANK, AND OUTFALL PIPE TERMINATION WILL BE FIELD-LOCATED BY ENGINEER.



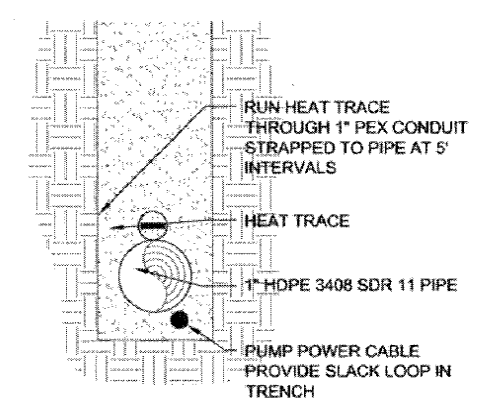
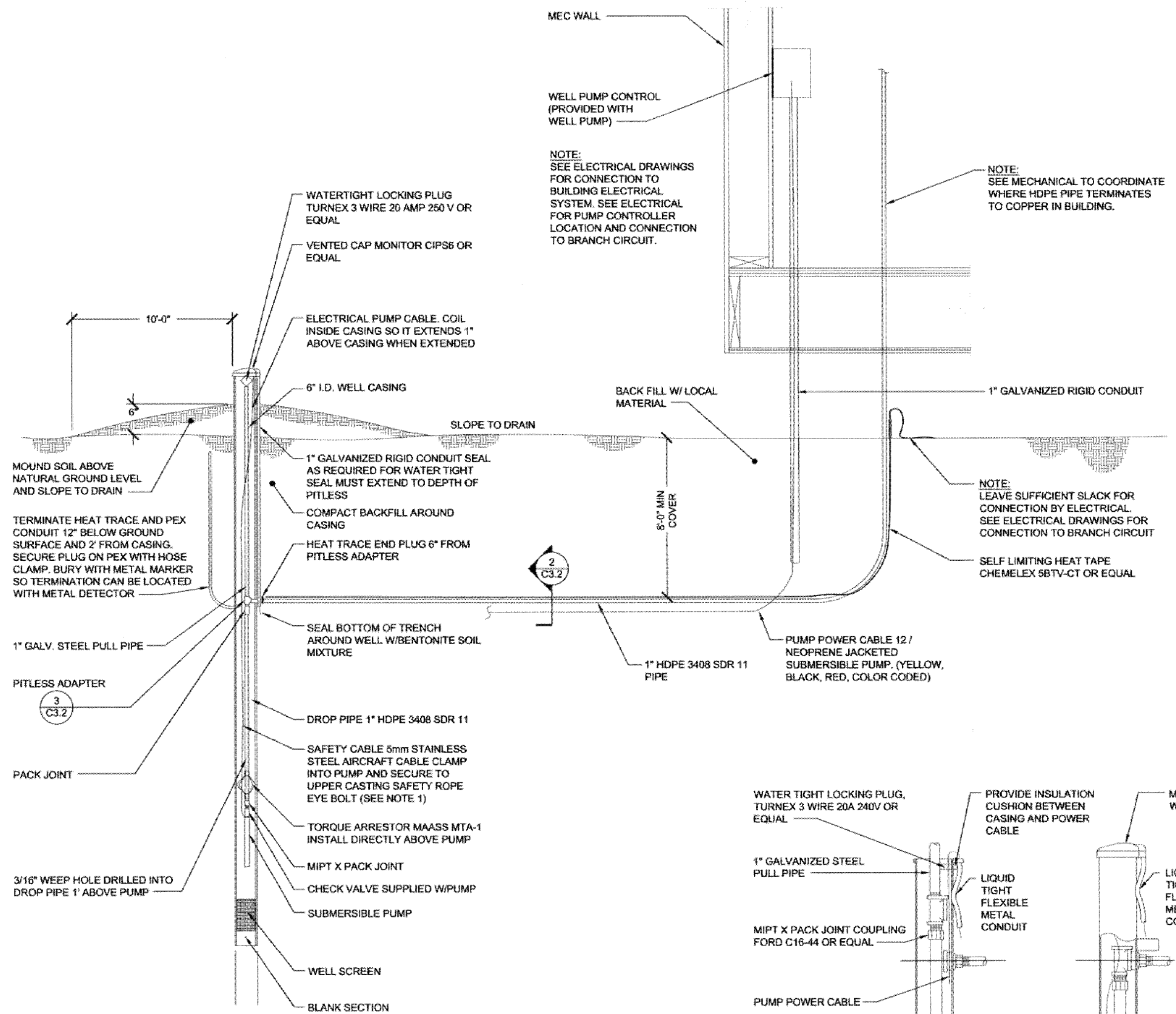
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**Mertarvik**  
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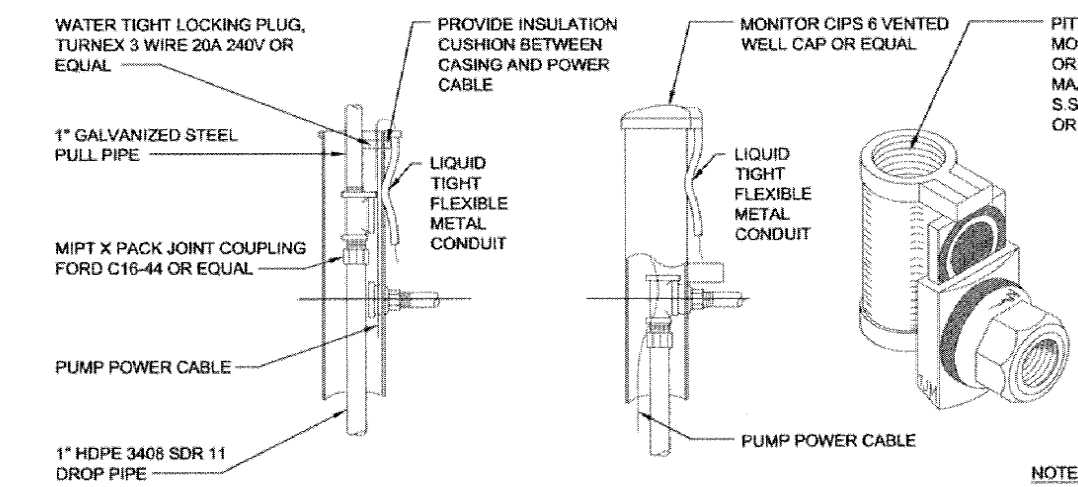
**WATER AND WASTEWATER**  
**SITE PLAN**  
**C3.1**







**2 PIPE SECTION**  
SCALE: NTS

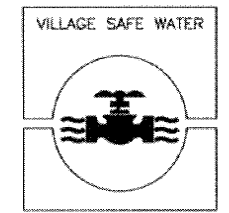
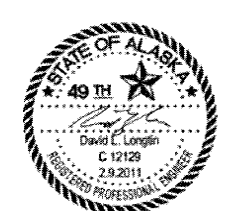


**3 PITLESS ADAPTER AND CAP DETAIL**  
SCALE: NTS

**1 WATER WELL DETAIL**  
SCALE: NTS

NOTE: WELL DOES NOT EXIST, THIS IS A CONCEPTUAL DRAWING

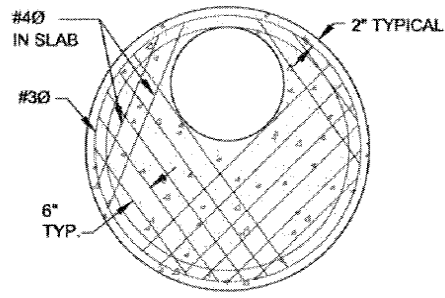
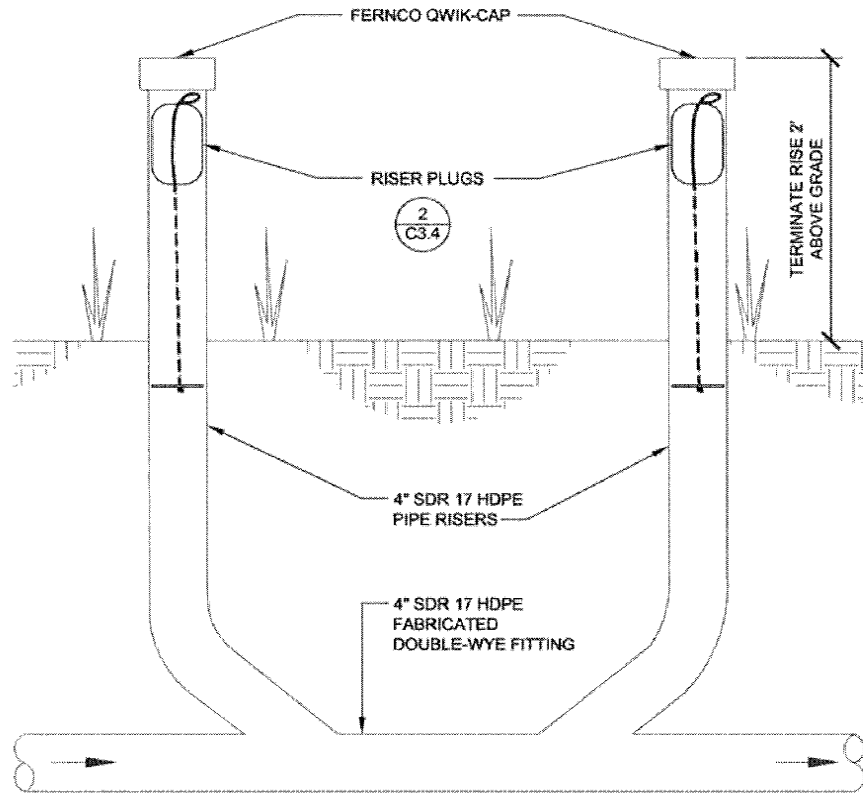
- NOTES:
1. A SAFETY CABLE STEEL EYE BOLT SHALL BE WELDED ONTO THE INSIDE OF THE UPPER CASING.
  2. SUBMERSIBLE PUMP INTAKE DEPTH TO BE SET 5' ABOVE SCREEN, UNLESS OTHERWISE DIRECTED BY PROJECT ENGINEER.



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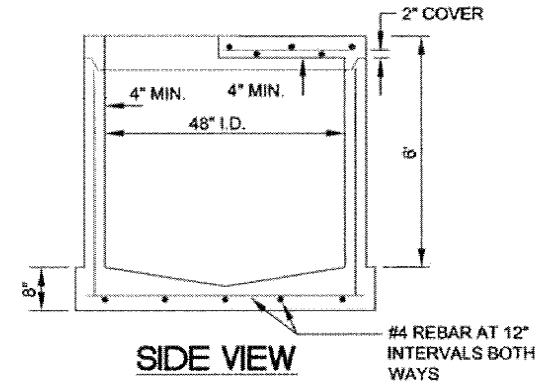
**WATER WELL  
DETAILS  
C3.2**



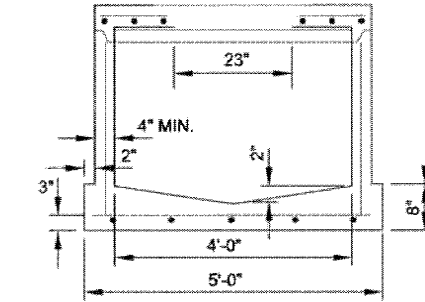
**REDUCING SLAB**

**MANHOLE NOTES:**

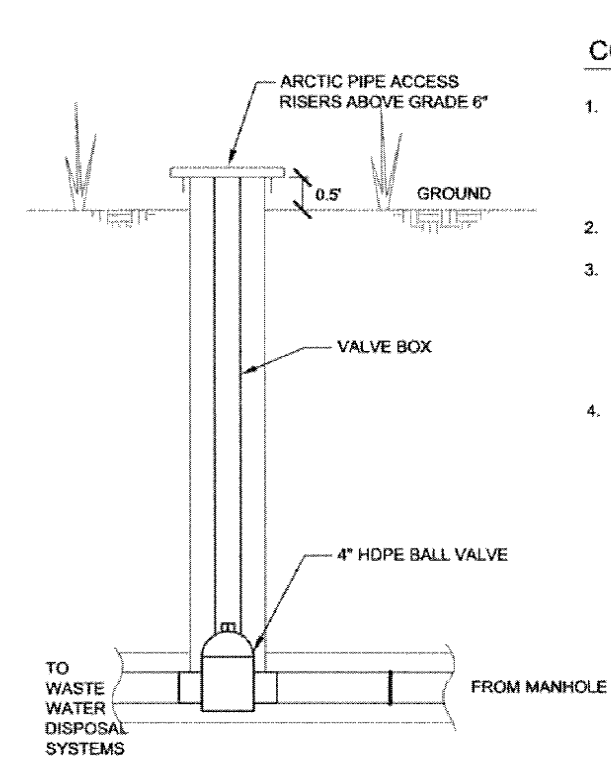
1. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE MINIMUM 4000 P.S.I., EXCEPT BASE SLAB WHICH MAY BE 3000 P.S.I. CONNECT BASE & BARREL WITH CONTINUOUS STEEL.
2. SEE ASTM C-478 FOR DESIGN REQUIREMENTS AND MINIMUM REINFORCING STEEL REQUIRED.
3. IMBED MANHOLE RING IN REDUCING SLAB AND PROVIDE MANHOLE COVER LABELED "SEWER" WITH 3" TEXT.
4. PROVIDE 3 MANHOLE PENETRATIONS FOR 4" SDR 17 HDPE PIPE 120" APART. THE INVERT OF THE INLET WILL BE 0.1' HIGHER THAN THE INVERT OF THE OUTLETS. THE INVERT OF THE OUTLETS SHALL BE 6" BELOW THE TOP OF THE MANHOLE.
5. MANHOLE PENETRATIONS SHALL BE CAST IN PLACE Z-LOC OR KOR-N-SEAL BOOTS.



**SIDE VIEW**



**FRONT VIEW**



**3 DIVERTER VALVE**

SCALE: NTS

**CONVENTIONAL SYSTEM NOTES**

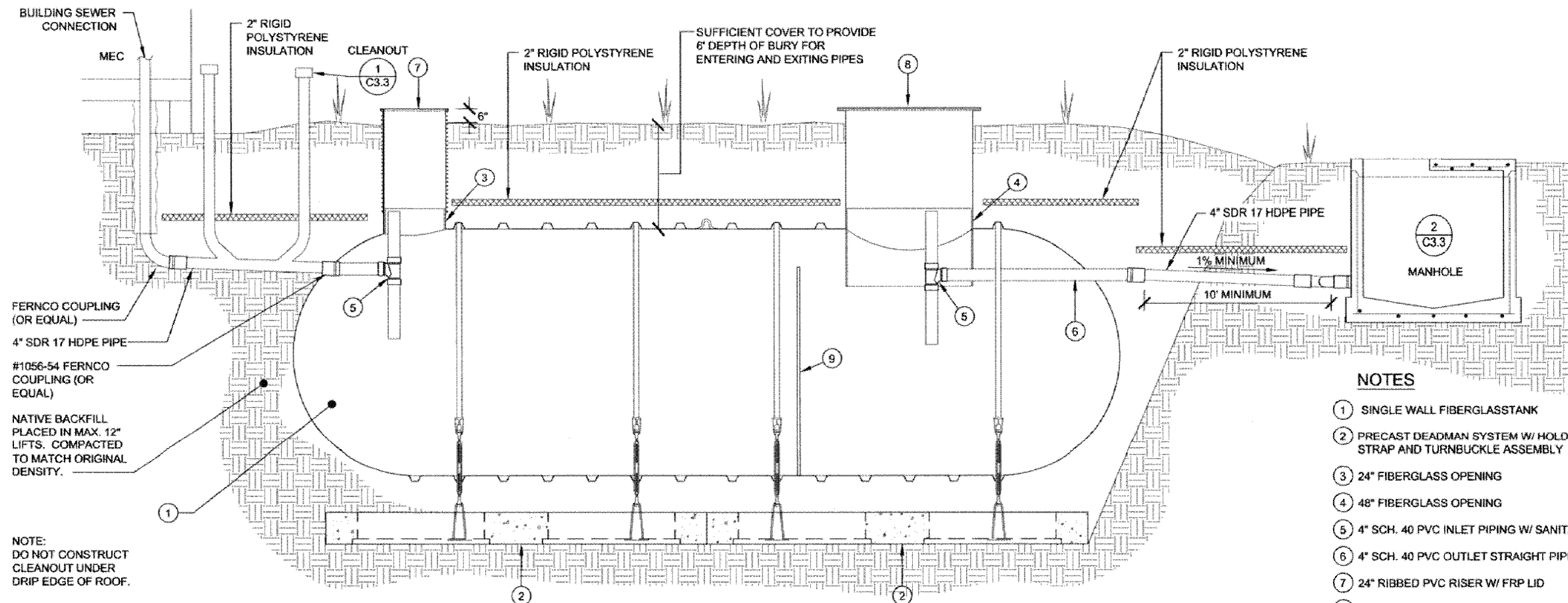
1. THE DESIGN AND CONSTRUCTION OF THE SEPTIC TANK SHALL MEET THE MINIMUM SPECIFICATIONS CONTAINED IN APPENDIX K OF THE MOST CURRENT EDITION OF THE "UNIFORM PLUMBING CODE".
2. ACCESS OPENINGS SHALL BE WATERTIGHT.
3. PIPING 10 FEET IMMEDIATELY PRECEDING THE SEPTIC TANK SHALL BE INSTALLED WITH A MAXIMUM 2% SLOPE. PIPING GREATER THAN 10 FEET PRIOR TO THE SEPTIC TANK SHALL BE INSTALLED WITH A MINIMUM SLOPE OF 2%.
4. REVEGETATE ONSITE SYSTEM WITH SEED MIX AND FERTILIZER CONSISTING OF THE FOLLOWING:  
  
SEED MIX APPLIED AT A RATE OF 40 POUNDS PER ACRE:  
  
SEED PROPORTION  
BERING HAIRGRASS (NORCOAST) 45% BY WEIGHT  
ARCTARED RED FESCUE 30% BY WEIGHT  
WAINWRIGHT SLENDER WHEATGRASS 20% BY WEIGHT  
ANNUAL RYE GRASS 5% BY WEIGHT  
  
FERTILIZER APPLIED AT A RATE OF 450 POUNDS PER ACRE:  
  
20-20-10 (N-P-K) CONTAINING NO CYANAMID COMPOUNDS OR HYDRATED LIME.

**1 DOUBLE-WYE CLEANOUT**

SCALE: NTS

**2 MANHOLE**

SCALE: NTS



NOTE:  
DO NOT CONSTRUCT CLEANOUT UNDER DRIP EDGE OF ROOF.

**4 SEPTIC TANK**

SCALE: NTS

**NOTES**

- 1 SINGLE WALL FIBERGLASSTANK
- 2 PRECAST DEADMAN SYSTEM W/ HOLD DOWN STRAP AND TURNBUCKLE ASSEMBLY
- 3 24" FIBERGLASS OPENING
- 4 48" FIBERGLASS OPENING
- 5 4" SCH. 40 PVC INLET PIPING W/ SANITARY TEE
- 6 4" SCH. 40 PVC OUTLET STRAIGHT PIPE
- 7 24" RIBBED PVC RISER W/ FRP LID
- 8 48" RIBBED PVC RISER W/ FRP LID
- 9 7/8" HIGH BAFFLE WALL W/ 3-4" CROSSOVER HOLES

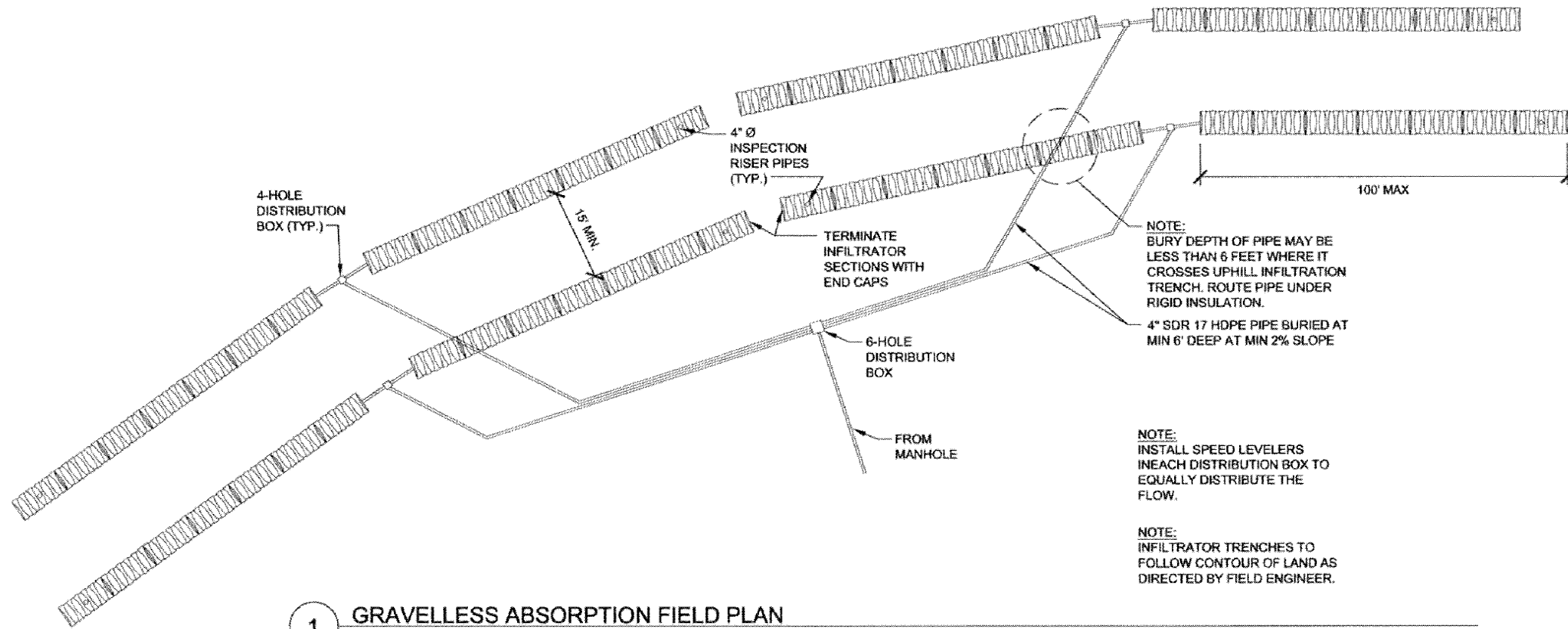


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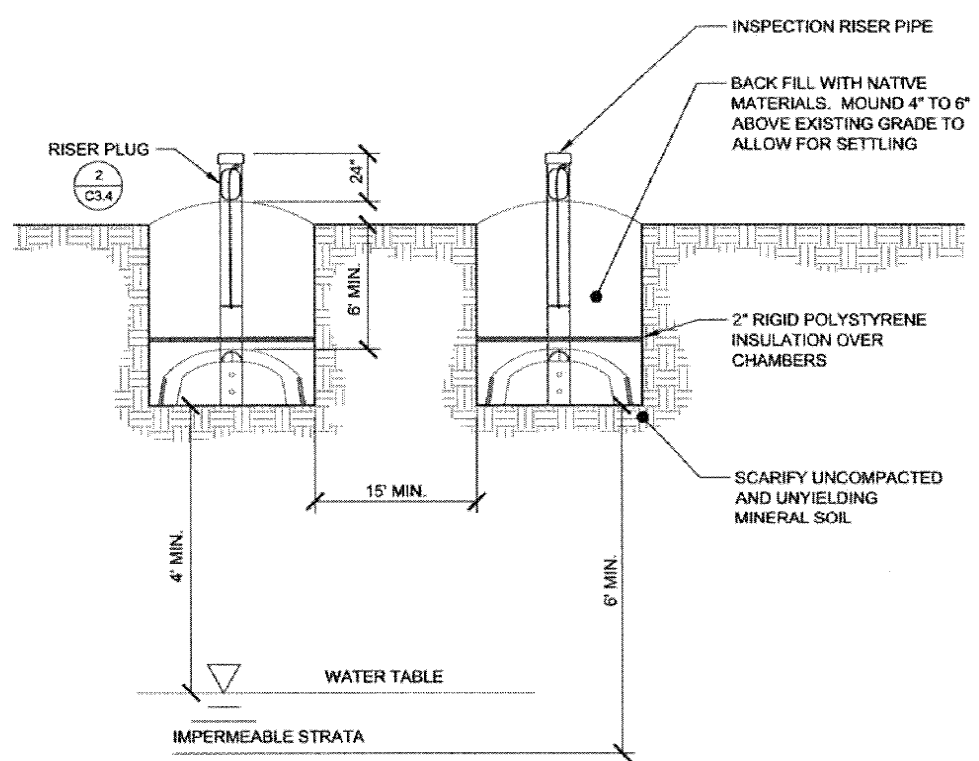
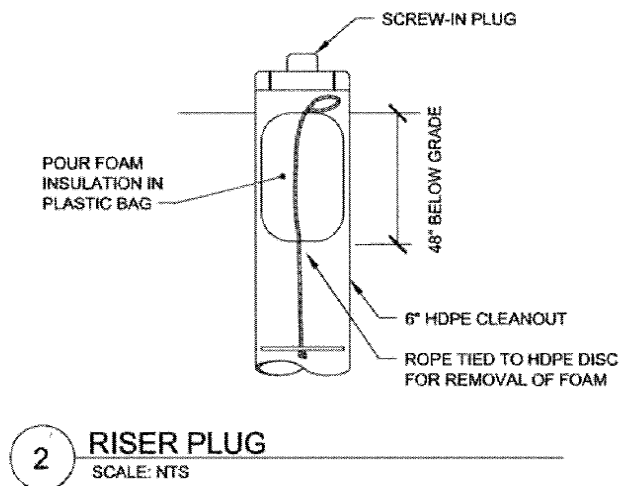
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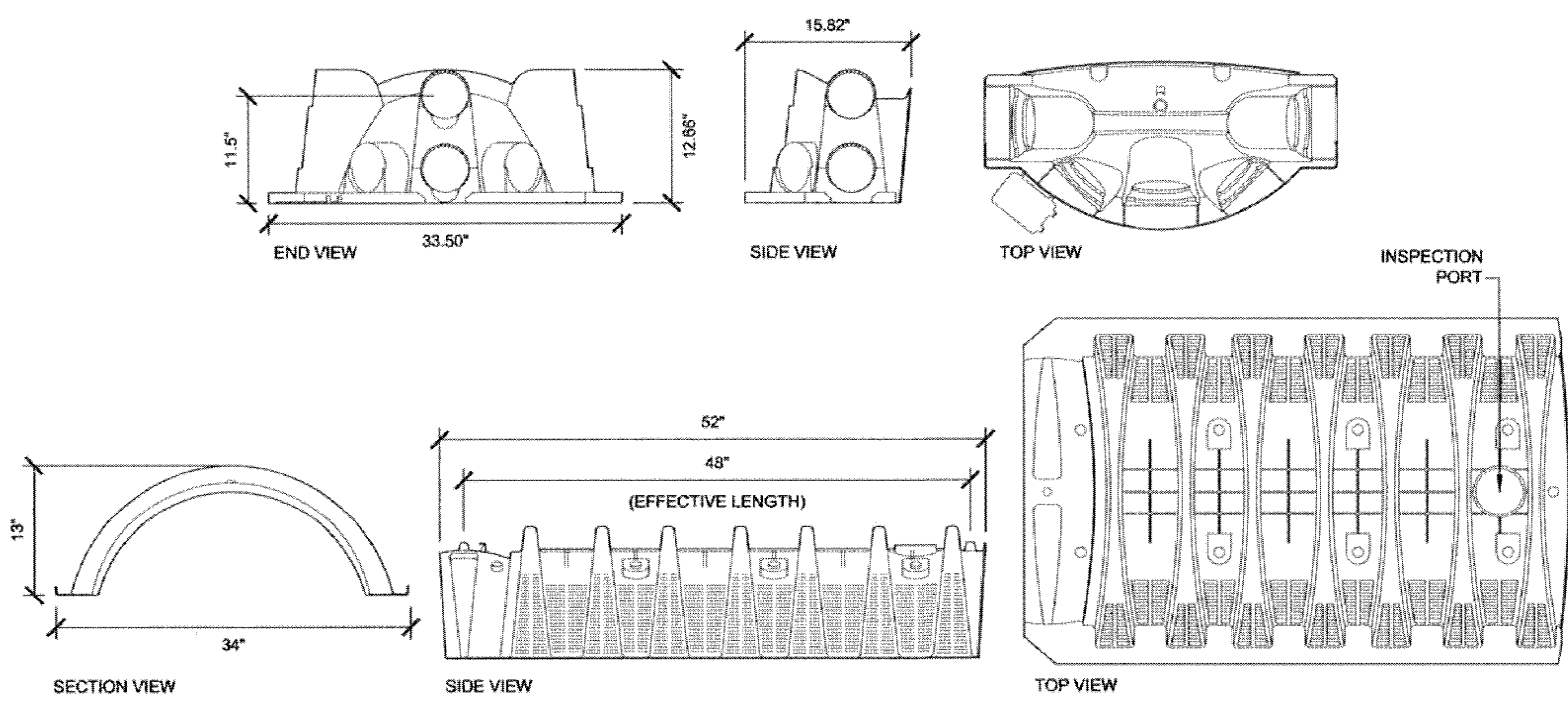
**CONVENTIONAL  
WASTEWATER  
DISPOSAL  
DETAILS  
C3.3**



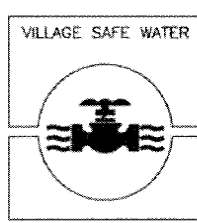
**1 GRAVELLESS ABSORPTION FIELD PLAN**  
SCALE: NTS



**3 GRAVELLESS ABSORPTION FIELD SECTION**  
SCALE: NTS



**4 STANDARD EFFLUENT CHAMBER DETAILS**  
SCALE: NTS

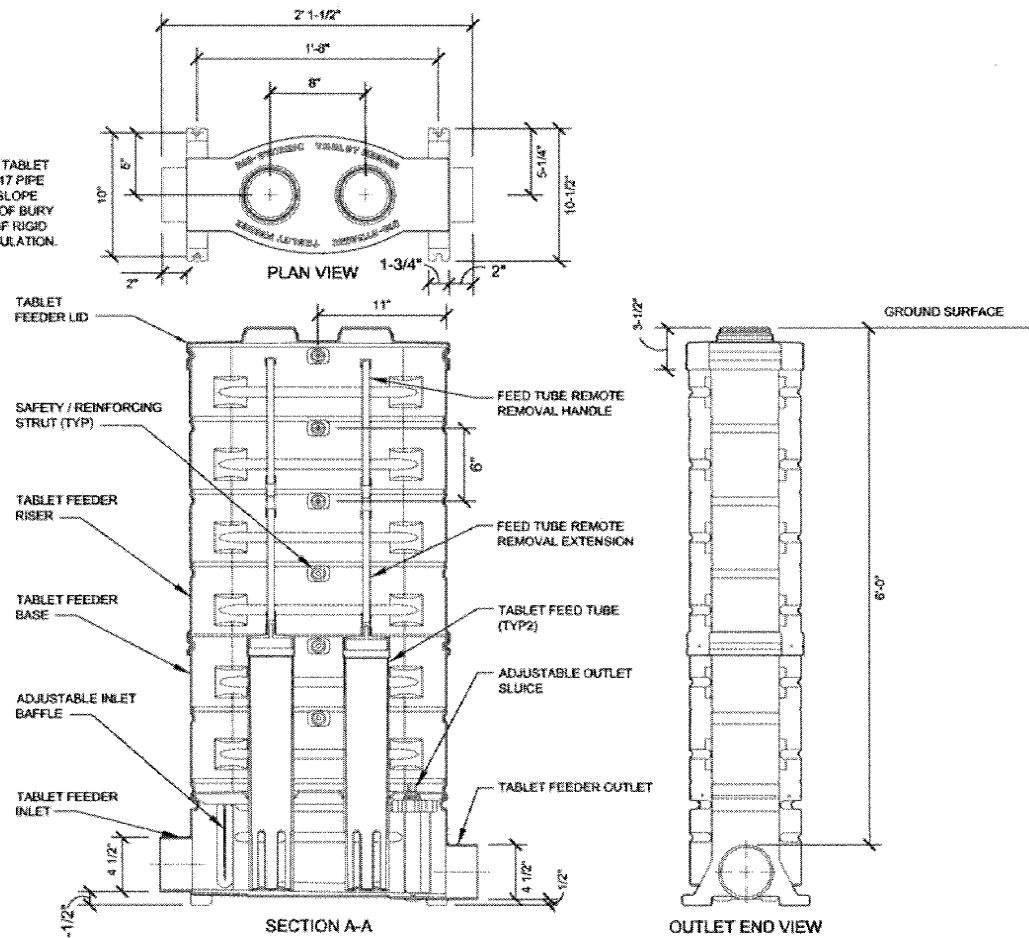


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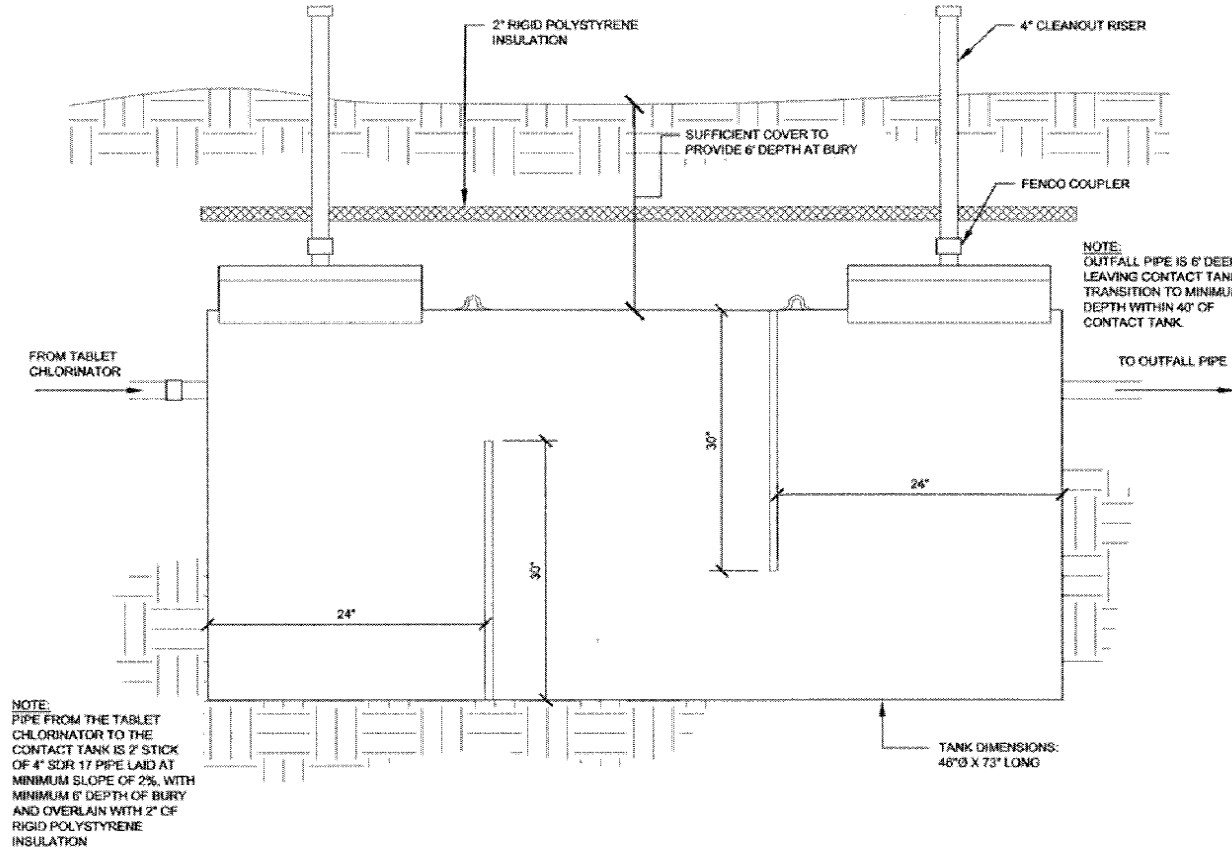
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**GRAVELLESS  
SOIL  
ABSORPTION  
SYSTEM DETAILS  
C3.4**

NOTE:  
PIPE FROM MANHOLE TO TABLET CHLORINATOR IS 4" SDR 17 PIPE LAID AT MINIMUM OF 2% SLOPE WITH MINIMUM 6" DEPTH OF BURY AND OVERLAIN WITH 2" OF RIGID POLYSTYRENE FOAM INSULATION.

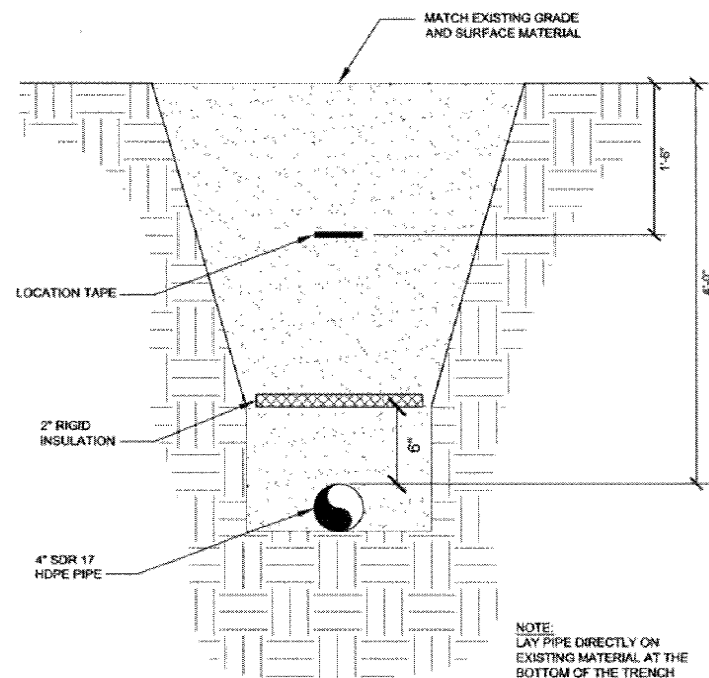


**1** TABLET CHLORINATOR  
SCALE: NTS

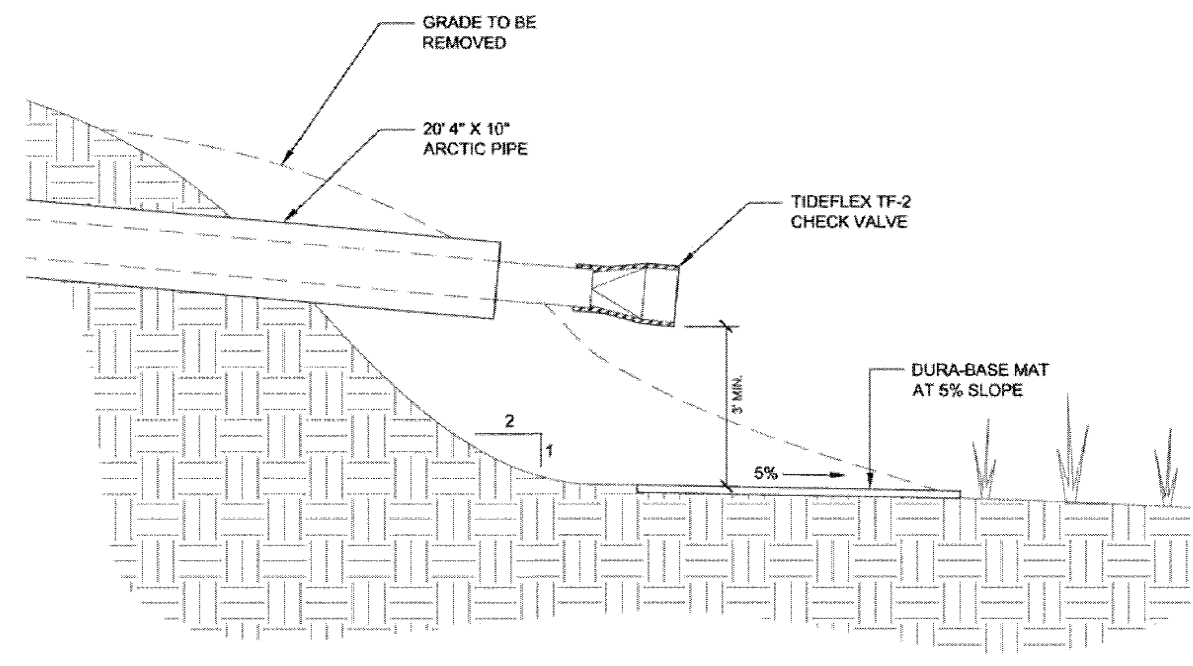


**2** CONTACT TANK  
SCALE: NTS

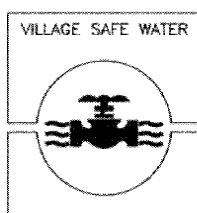
- NOTES:
- CONTACT TANK SHALL MEET OR EXCEED THE REQUIREMENTS OUTLINED IN APPENDIX K, SECTION 5 OF THE UNIFORM PLUMBING CODE.
  - THE TANK END PLATES SHALL BE WELDED FOR A WATER TIGHT SEAL USING A CONTINUOUS WELD. BEFORE LEAVING FACTORY, TANK SHALL BE GIVEN A 3 PSI PRESSURE AIR TEST TO ENSURE WATER TIGHTNESS.
  - TANK SHALL BE IDENTIFIED BY STENCILING THE NAME OR TRADE NAME OF MATERIAL AND NOMINAL THICKNESS (GAUGE).
  - THE TANK SHALL HAVE TRUE DIMENSIONAL SHAPE, SMOOTH EDGES AND ENDS, GOOD WELDS, AND BE FREE OF OTHER DEFECTS WHICH, DUE TO THEIR NATURE, OR EXTENT, DETRIMENTALLY AFFECT THE SERVICEABILITY OF THE PRODUCT.
  - THE MATERIALS SHALL BE PACKAGED AND CRATED FOR OCEAN TRANSPORT AND ROUGH HANDLING.
  - THE WORDS "INLET" AND "OUTLET" SHALL BE STENCILED ON APPROPRIATE END PLATE JUST ABOVE THE INLET / OUTLET NIPPLES.
  - CONTRACTOR SHALL PROVIDE ALL HARDWARE FOR FIELD INSTALLATION. (I.E. BOLTS, NUTS, WASHERS, GASKETS, ETC.)
  - THE ENTIRE TANK INTERIOR SHALL BE COATED WITH MINIMUM OF 2 COATS OF BITUMASTIC OR SIMILAR COMPOUND TO MINIMIZE CORROSION.
  - LIFTING EYES SHALL BE DESIGNED AND FABRICATED TO LIFT THE TANK DURING SHIPMENT AND INSTALLATION WITHOUT DAMAGE TO THE TANK.
  - TANK SHALL BE INSPECTED FOR NICKS, SCRAPES AND IF REQUIRED ADDITIONAL COATING SHALL BE ADDED. THIS COATING SHALL BE SAME AS THAT PROVIDED AT PURCHASE.



**3** OUTFALL TRENCH DETAIL  
SCALE: NTS



**4** OUTFALL PIPE TERMINATION  
SCALE: NTS

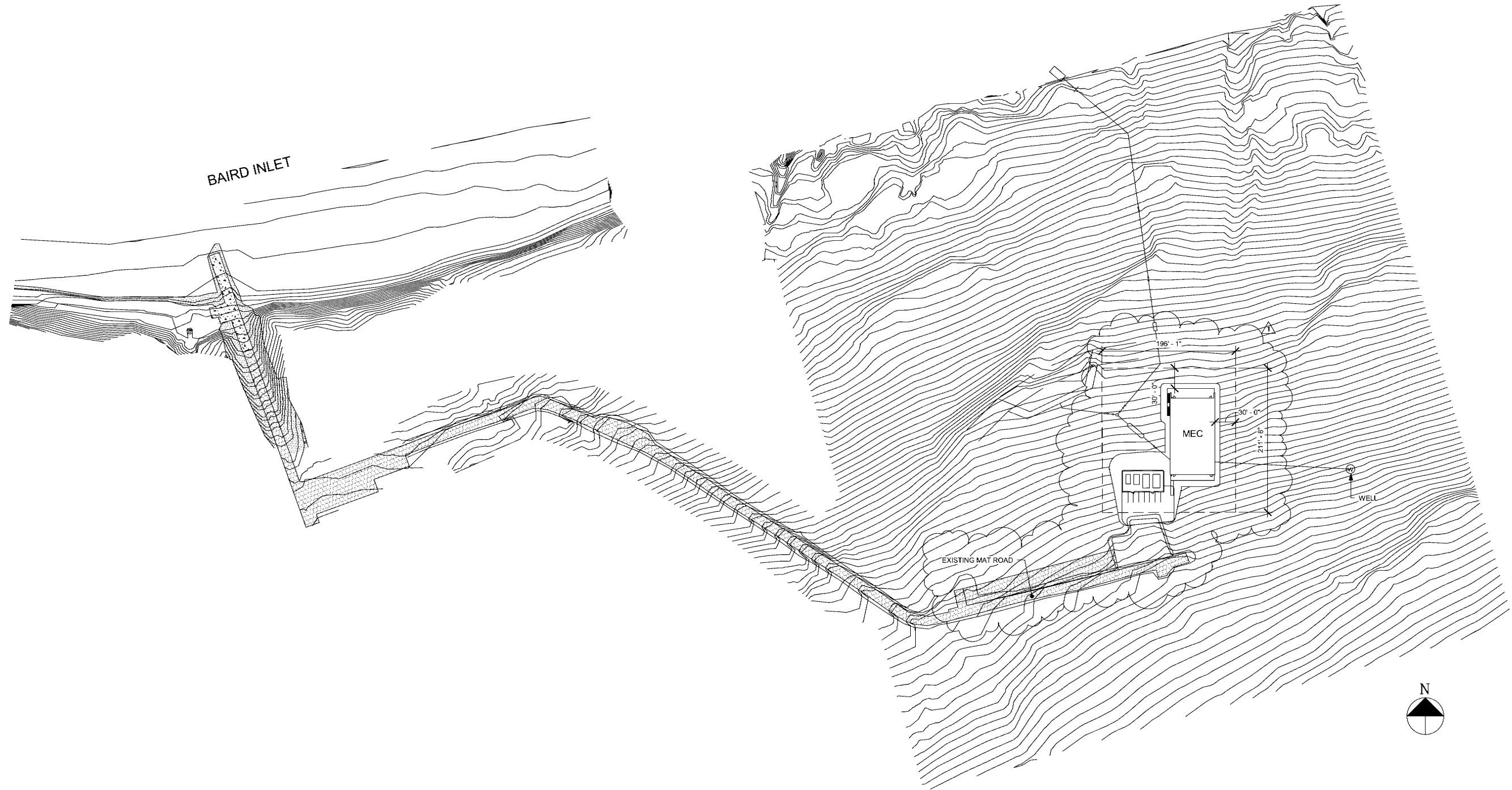


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**CHLORINATION  
AND OUTFALL  
PIPE DETAILS  
C3.5**

**NOTE:**  
 ARCHITECTURAL SITE PLAN SHOWN FOR  
 GENERAL LAYOUT AND INFORMATION ONLY. SEE  
 CIVIL DRAWINGS FOR EXACT EXISTING  
 BUILDING AND EXISTING SITE ELEMENT  
 LOCATIONS.



REVISIONS		
No	Description	Date
1	Addendum 1	2/18/11



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**Overall Site  
 Plan  
 A0.1**

1 SITE  
 A0.1 SCALE: 1" = 80'-0"



ARCHITECTURAL ABBREVIATIONS		
#	NUMBER	FD FLOOR DRAIN
&	AND	FF FINISHED FLOOR
@	AT	FL FLOOR
ACM	ASBESTOS CONTAINING MATERIALS	FOS FACE OF STUD
ACOUS	ACOUSTICAL	FOC FACE OF CONCRETE
AFF	ABOVE FINISHED FLOOR	FRMG FRAMING
ALUM	ALUMINUM	FRP FIBERGLASS REINFORCED PLASTIC
APPROX	APPROXIMATELY	FTG FOOTING
ATC	ACOUSTIC TILE CEILING	GA GAGE
AWW	ALL WEATHER WOOD	GALV GALVANIZED
BD	BOARD	GLB GLUE LAMINATED BEAM
BLDG	BUILDING	GWB GYPSUM WALL BOARD
BLKG	BLOCKING	GYP GYPSUM BOARD
BO	BOTTOM OF	H HORIZONTAL
BUR	BUILT UP ROOFING (ASPHALT)	HM HOLLOW METAL
CJ	CONTROL JOINT	HR HOUR
CL	CLEAR	IBC INTERNATIONAL BUILDING CODE
CLG	CEILING	IHM INSULATED HOLLOW METAL
CMP	CORRUGATED METAL PIPE	INFO INFORMATION
CMU	CONCRETE MASONRY UNIT	INSUL INSULATION
COL	COLUMN	J-BOX JUNCTION BOX
CONC	CONCRETE	JT JOINT
CONST	CONSTRUCTION	LAV LAVATORY
CONT	CONTINUOUS	LF LINEAR FOOT
COORD	COORDINATE	LG LIGHT GUARD INSULATION BOARD
CT	CERAMIC TILE	MAX MAXIMUM
CTR	CENTER	MECH MECHANICAL
CUH	CABINET UNIT HEATER	MFR MANUFACTURER
DF	DRINKING FOUNTAIN	MIN MINIMUM
DIA	DIAMETER	MISC MISCELLANEOUS
DIM	DIMENSION	N NEW
DTL	DETAIL	NA NOT APPLICABLE
DWG	DRAWING	NFS NON FROST SUSCEPTIBLE
(E)	EXISTING	NIC NOT IN CONTRACT
EA	EACH	NRCA NATIONAL ROOFING CONTRACTOR'S ASSOCIATION
EFIS	EXTERIOR INSULATION AND FINISH SYSTEM	NTS NOT TO SCALE
EJ	EXPANSION JOINT	OC ON CENTER
ELEC	ELECTRICAL	OD OUTSIDE DIAMETER
ELEV	ELEVATION	OFS OVERFLOW SCUPPER
EPDM	ETHYLENE PROPYLENE DIENE MONOMER	OH OVERHEAD
EPS	EXPANDED POLYSTYRENE INSULATION	OPNG OPENING
EO	EQUAL	OPP OPPOSITE
ETR	ELECTRICAL THROUGH ROOF	ORD OVERFLOW ROOF DRAIN
EXIST	EXISTING	
		PLYWD PLYWOOD
		POLY POLYETHYLENE SHEET
		POLYISO POLYISOCYANURATE INSULATION
		PR PAIR
		PREFAB PREFABRICATE
		PSF POUNDS PER SQUARE FOOT
		PT PRESERVATIVE TREATED
		PTD PAINTED
		PTR PIPE THROUGH ROOF
		RA RELIEF AIR
		RD ROOF DRAIN
		REQD REQUIRED
		RL RAIN LEADER
		RM ROOM
		RO ROUGH OPENING
		REF REFERENCE
		REFRIG REFRIGERATOR
		SAM SELF ADHERING MEMBRANE
		SBS STYRENE-BUTADIENE-STYRENE
		SEBS STYRENE-ETHYLENE-BUTADIENE-STYRENE
		SF SQUARE FEET
		SHT SHEET
		SIM SIMILAR
		SM SHEET METAL
		SPF SPRAY POLYURETHANE FOAM
		SS STAINLESS STEEL
		STRUC STRUCTURAL
		TB TACK BOARD
		TO TOP OF
		TOD TOP OF DECK
		TOFF TOP OF FINISHED FLOOR
		TOS TOP OF SLAB
		TYP TYPICAL
		UON UNLESS OTHERWISE NOTED
		VEST VESTIBULE
		VIF CONTRACTOR TO VERIFY IN FIELD
		VR VAPOR RETARDER
		VTR VENT THROUGH ROOF
		W/ WITH
		W/O WITHOUT
		WD WOOD
		XPS EXTRUDED POLYSTY

REFERENCE SYMBOLS		MATERIAL SYMBOLS
<b>ASSEMBLY TYPES</b>	<b>EXTERIOR ELEVATIONS</b>	<b>KEYNOTE</b>
V-1		
<b>DETAIL</b>	<b>INTERIOR ELEVATIONS</b>	<b>LEVEL LINE</b>
<b>DETAIL</b>	<b>GRID LINES</b>	
<b>SECTION</b>		

**REVISIONS**  
No Description Date



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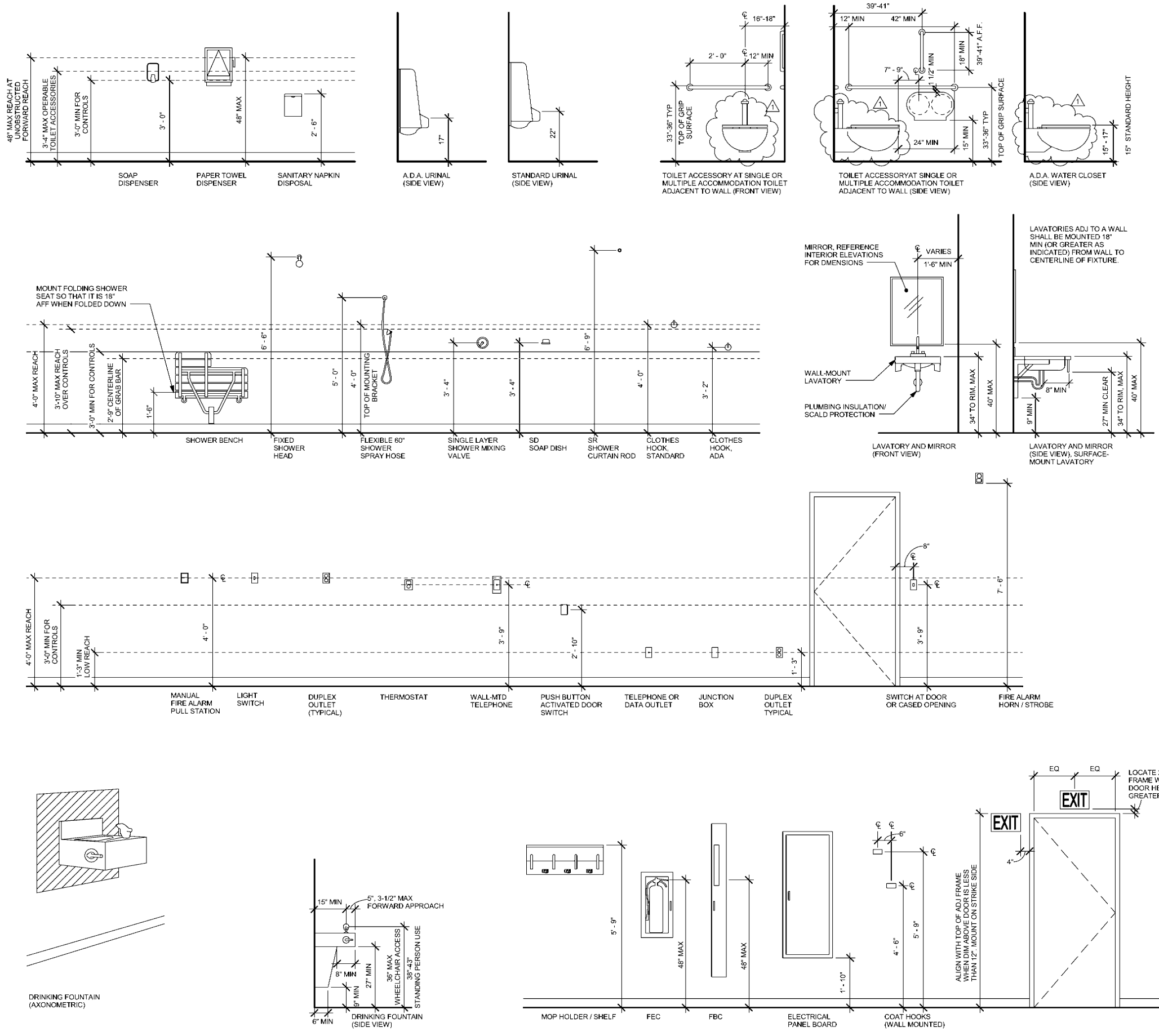
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**Abbreviations and Symbols**  
**A0.2**

# TYPICAL MOUNTING HEIGHTS AND CLEARANCES FOR INTERIOR AREAS

# SHEET NOTE

THE PURPOSE OF THIS SHEET IS TO ILLUSTRATE TYPICAL MOUNTING HEIGHTS AND, WHERE APPLICABLE, TYPICAL MINIMUM OR MAXIMUM CLEARANCES, AND/OR TYPICAL MOUNTING CONFIGURATIONS FOR A VARIETY OF ITEMS. REFER TO THE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES TO DETERMINE WHICH ITEMS AND CONFIGURATIONS APPLY TO THE WORK OF THIS PROJECT.



REVISIONS		
No	Description	Date
1	Addendum 1	2/18/11

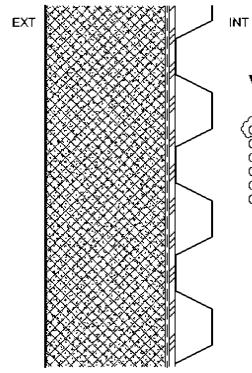


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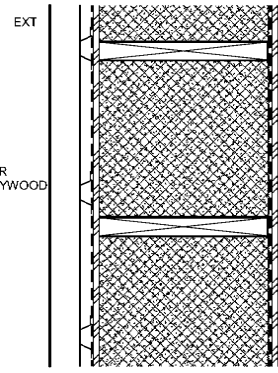
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**Architectural**  
 Mounting  
 Heights  
**A0.3**

**DOOR SCHEDULE**

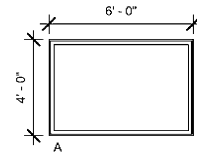
NO.	DOOR					FRAME		FIRE RATING	HARDWARE GROUP	DETAILS			REMARKS
	WIDTH	HEIGHT	THK.	TYPE	MATERIAL	TYPE	MATERIAL			HEAD	JAMB	SILL	
1A	3'-0"	6'-8"	0'-1 3/4"	2	IHM	A	HM	-	1	6/A6.2	5/A6.2	4/A6.2	09900 REFLECTIVE EMERGENCY TAPE SURROUND AT FRAME, THERMALLY BROKEN FRAME
1B	3'-0"	6'-8"	0'-1 3/4"	2	IHM	A	HM	- /2	1	6/A6.2	5/A6.2	4/A6.2	09900 REFLECTIVE EMERGENCY TAPE SURROUND AT FRAME, THERMALLY BROKEN FRAME
3	3'-0"	6'-8"	0'-1 3/4"	1	HM	A	HM	45 MIN	3	8/A7.1	9/A7.1		
4A	3'-0"	6'-8"	0'-1 3/4"	1	HM	A	HM	-	5	8/A7.1	9/A7.1		
4B	2'-6"	6'-8"	0'-1 3/4"	1	HM	A	HM	-	3	8/A7.1	9/A7.1		
5A	3'-0"	6'-8"	0'-1 3/4"	1	HM	A	HM	-	5	8/A7.1	9/A7.1		
5B	2'-6"	6'-8"	0'-1 3/4"	1	HM	A	HM	-	3	8/A7.1	9/A7.1		
6	3'-0"	6'-8"	0'-1 3/4"	1	HM	A	HM	45 MIN	3	8/A7.1	9/A7.1		
7A	3'-0"	6'-8"	0'-1 3/4"	2	IHM	A	HM	-	1	6/A6.2	5/A6.2	4/A6.2	09900 REFLECTIVE EMERGENCY TAPE SURROUND AT FRAME, THERMALLY BROKEN FRAME
7B	3'-0"	6'-8"	0'-1 3/4"	2	HM	A	HM	-	4	8/A7.1	9/A7.1		09900 REFLECTIVE EMERGENCY TAPE SURROUND AT FRAME
8	3'-0"	6'-8"	0'-2"	3	HM	A	HM	60 MIN	2	8/A7.1	9/A7.1		
9	3'-0"	6'-8"	0'-2"	3	HM	A	HM	60 MIN	2	8/A7.1	9/A7.1		
10A	3'-0"	6'-8"	0'-1 3/4"	2	IHM	A	HM	-	1	6/A6.2	5/A6.2	4/A6.2	09900 REFLECTIVE EMERGENCY TAPE SURROUND AT FRAME, THERMALLY BROKEN FRAME
10B	3'-0"	6'-8"	0'-1 3/4"	2	HM	A	HM	-	4	8/A7.1	9/A7.1		09900 REFLECTIVE EMERGENCY TAPE SURROUND AT FRAME
12	6'-0"	6'-6"	0'-1 3/4"	1	HM	A	HM	45 MIN	6	8/A7.1	9/A7.1		
14	3'-0"	6'-8"	0'-1 3/4"	1	HM	A	HM	-	3	8/A7.1	9/A7.1		



TYPICAL EXTERIOR WALL/ROOF

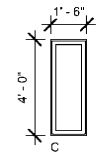
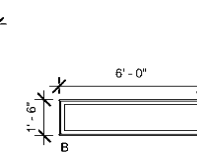


EXTERIOR GABLE ENDWALL



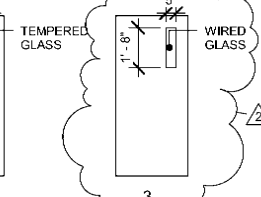
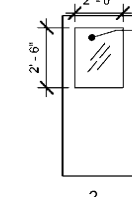
Window Types

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



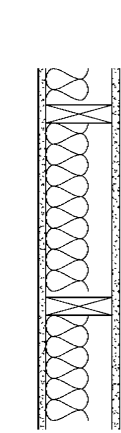
Door Types

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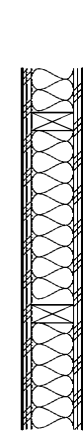


Frame Types

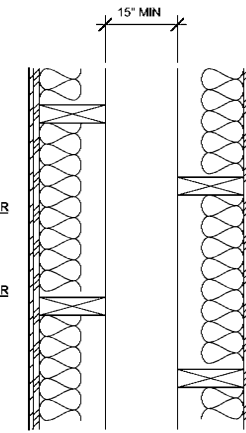
SCALE: 1/4" = 1'-0"



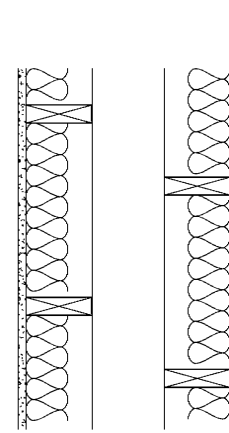
1-HR INTERIOR PARTITION  
UL DESIGN U309 SIM



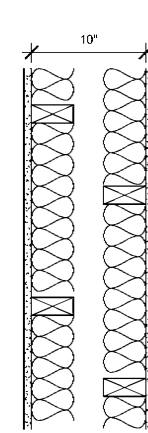
INTERIOR PARTITION



PLUMBING CHASE



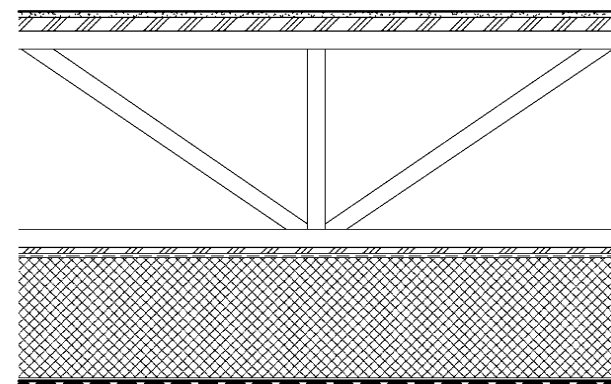
1-HR PLUMBING CHASE  
UL DESIGN U305 SIM



1-HR SOUND WALL

**Assemblies - Vertical**

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

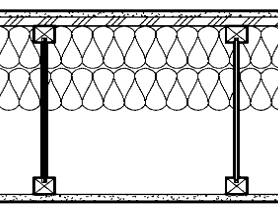
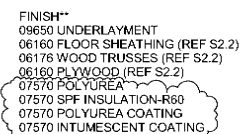


TYPICAL FLOOR ASSEMBLY

**Assemblies - Horizontal**

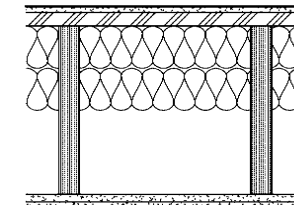
SCALE: 1 1/2" = 1'-0"

**H1**



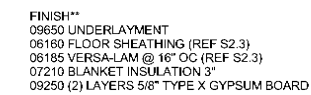
MEZZANINE FLOOR ASSEMBLY

**H2**



MECHANICAL FLOOR ASSEMBLY (1HR)  
FMFC 172, 2-25-72 SIM

**H2X**



**REVISIONS**

No	Description	Date
1	Addendum 1	2/18/11
2	Revision	3/18/11



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**Schedules and Assemblies A0.4**

# CODE ANALYSIS

## APPLICABLE CODES AND REGULATORY REQUIREMENTS

International Building Code 2006 Edition  
 International Mechanical Code 2006 Edition  
 International Energy Conservation Code (IECC) (Climate Zone 7) 2006 Edition

Uniform Plumbing Code 2006 Edition  
 International Fire Code 2006 Edition  
 National Electrical Code 2006 Edition  
 National Electrical Safety Code 2006 Edition  
 Americans with Disabilities Act Accessibility Guidelines 2006 Edition  
 Accessible and Usable Buildings and Facilities (ICC/ANSI A117.1) 2006 Edition

## OCCUPANCY CLASSIFICATION

New Building, Group A3  
 (IBC Section 304)

## CONSTRUCTION TYPE

Type V-B

## BUILDING HEIGHT

Total Allowable height: 40'-0" (1 story)  
 (IBC Table 503)

Actual Average height: 31'-8" (1 Story + Mezzanine)

## BUILDING AREA

Tabular Allowable Area (Type V-B) 6000 SF (IBC Table 503)  
 Allowable area: 10500 SF

Actual Area: First Floor: 8406 SF  
 Mezzanine + Mech: 745 SF (Mezzanine doesn't add to area)  
 Total: 7151 SF

## ACCESSORY OCCUPANCIES

Clinic (B occ): 359 SF  
 Washeteria (F1 occ): 347 SF  
 Total: 706 SF (<10% of First Floor Area)

## INCIDENTAL USE AREAS

Mechanical Room w/ 400,000 BTU equipment

## REQUIRED SEPARATION OF AREAS

(IBC Table 508.2) Mechanical Room: 1 hour  
 (IBC Table 508.3.3) Occ. Type A3 to F11 hour

## FIRE-RESISTANCE REQUIREMENTS FOR BUILDING ELEMENTS (IBC Table 601)

Structure, Frame (Primary girders/beams): 0 hour  
 Structural Columns: 0 hour  
 Floor Construction (including Mezzanine Level): 0 hour  
 Roof Construction (including Framing): 0 hour

## INTERIOR FINISHES (IBC Table 603.5)

Exit enclosures and passageway:  
 Corridors: A  
 Rooms and enclosed spaces: C

## ROOF CLASSIFICATION

C

## FIRE BARRIER

1-hr wall and doors

## STAIRS

Category or "Seismic Use Group" (IBC Table 1604.5)

## OCCUPANT LOAD

Fire Area 1:	Area	Occupants
Gathering Space:	3311/15	221
Kitchen:	315/200	2
Foyer A:	254	0 (accessory area)
Foyer B:	303	0 (accessory area)
Men's Room:	418	0 (accessory area)
Women's Room:	417	0 (accessory area)
Vestibule A:	162	0 (accessory area)
Vestibule B:	162	0 (accessory area)
Mezzanine:	1079/15	72
Total:	6997	295

## Fire Area 2:

Clinic:	359/100	4
Washeteria:	347/100	4
Mechanical Room:	745/300	3
Total:	1451	11

## EGRESS REQUIREMENTS

Common path of egress travel: 75' max  
 Overall travel distance: 200' max  
 Two (2) means of egress required, (2 provided)  
 Minimum egress width = 18" (3'-0" min. provided)  
 Minimum stair width = 3' (4' provided)  
 Minimum corridor width = 44" (no corridors in project)

## ACCESSIBILITY REQUIREMENTS

Accessible means of egress required per Section 1007.

## PLUMBING REQUIREMENTS (IBC Table 2902.1)

Water Closets: Male: 3 (3 provided + 2 urinals)  
 Female: 6 (6 provided)

Lavatories: 1 per 200 (3 provided for each restroom)  
 Drinking Fountains: 1 per 500 (1 provided)

## THERMAL BARRIER

15-minute thermal barrier is req'd between foam plastic insulation and building interior.

## FIRE EXTINGUISHERS

Low Hazard Occupancy: (2) ABC in Gathering Space  
 (1) ABC in Mezzanine  
 Kitchen: (1) 20-ABC  
 Mechanical Room: (1) 20-ABC

TYPE: Larsen Extinguisher MP-10

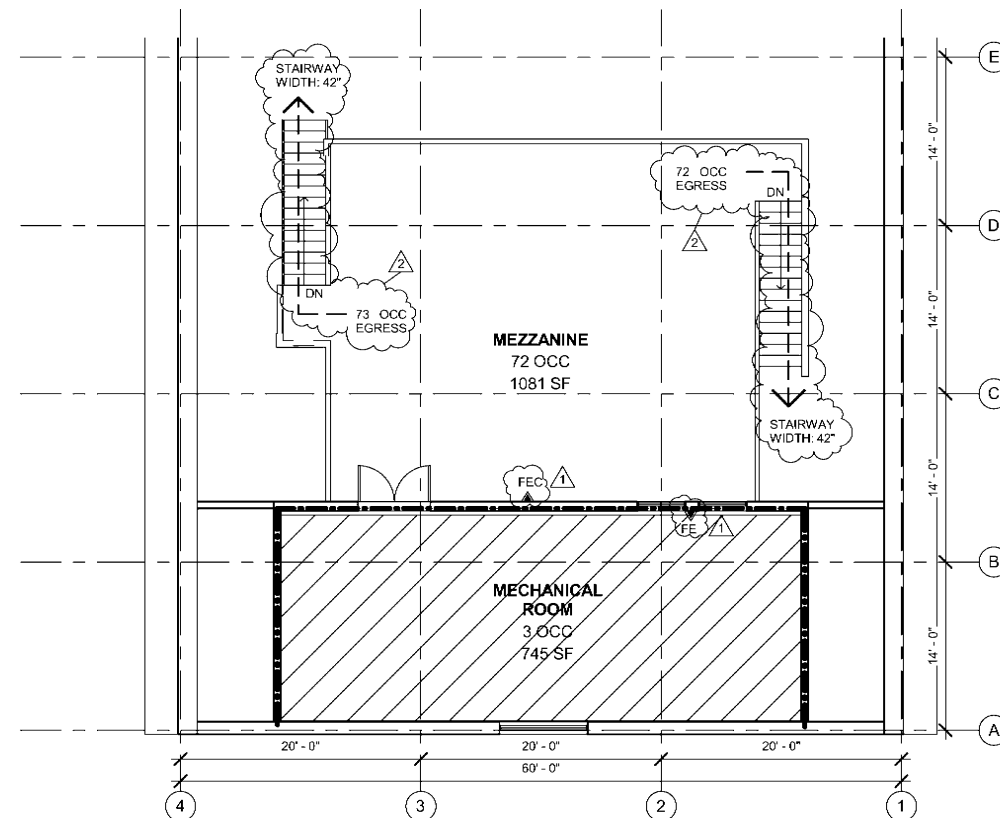
## SECURITY REQUIREMENTS FOR ELEVATED BUILDINGS

Building is provided with chain link fencing below exterior walls to prevent unauthorized access.

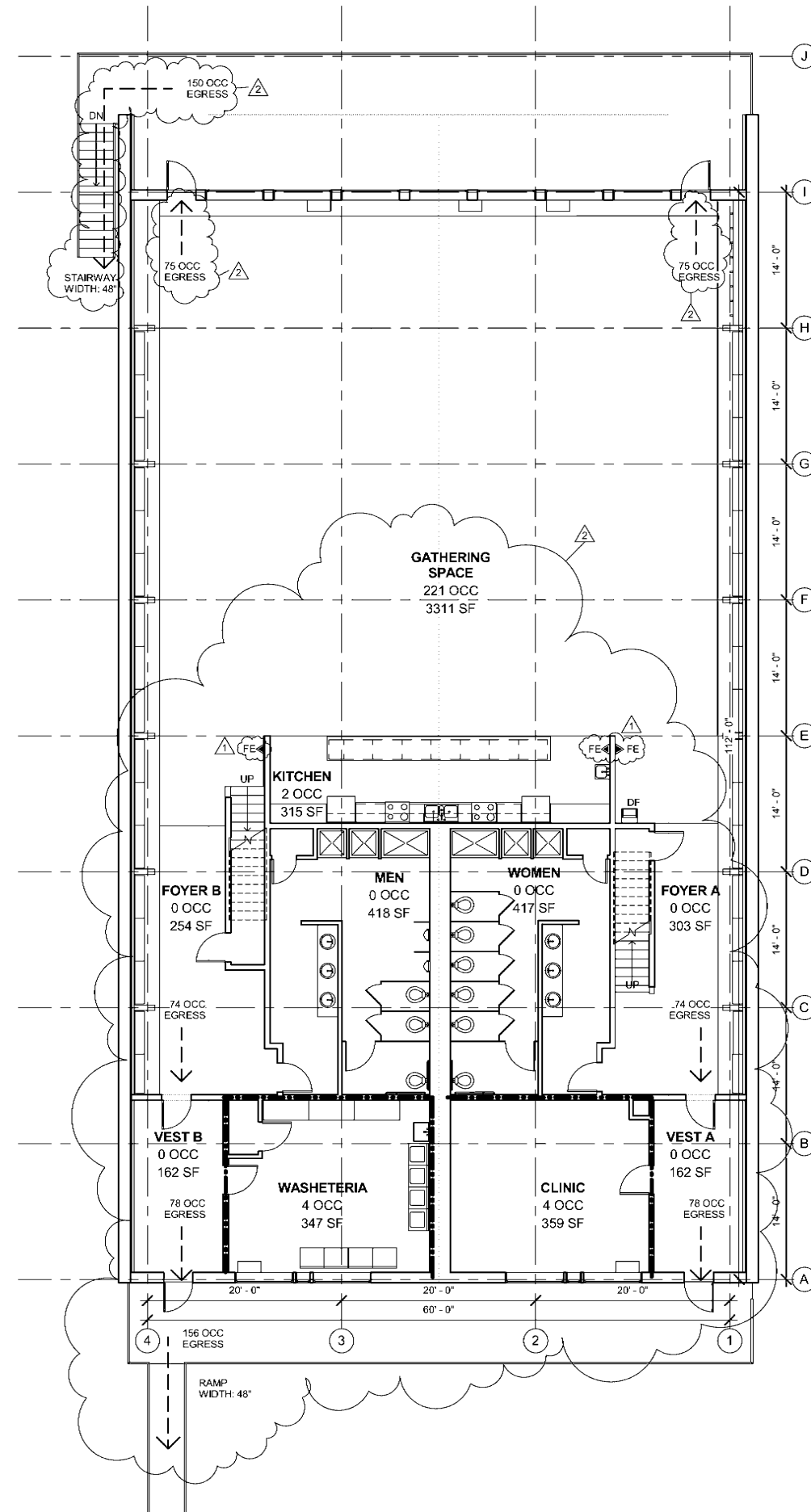
## CODE LEGEND

----- 1 HOUR RATED WALL

▨ 1 HOUR RATED FLOOR / CEILING



2 Mezzanine Code Plan  
 A2.0 SCALE: 1/8" = 1'-0"



1 First Floor Code Plan  
 A2.0 SCALE: 1/8" = 1'-0"

## REVISIONS

No	Description	Date
1	Addendum 1	2/18/11
2	Revision	3/18/11



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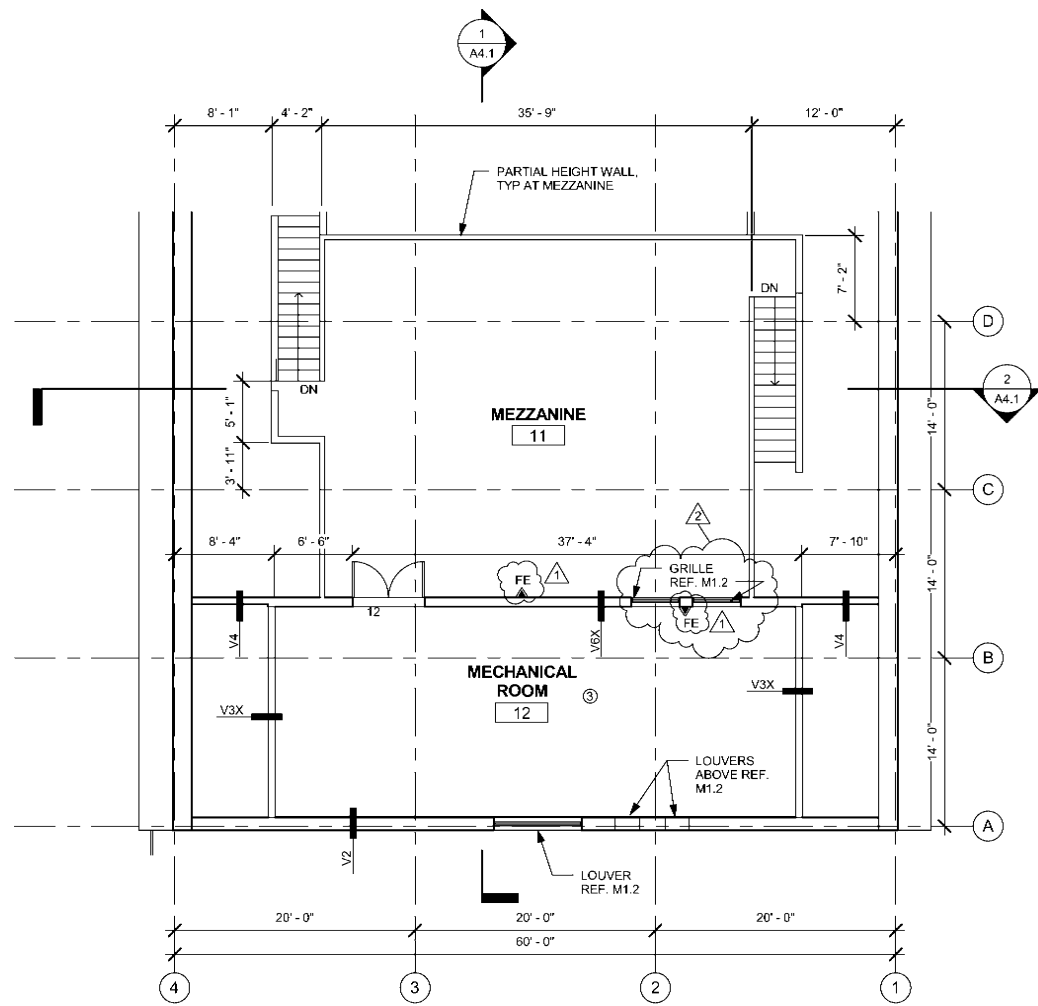
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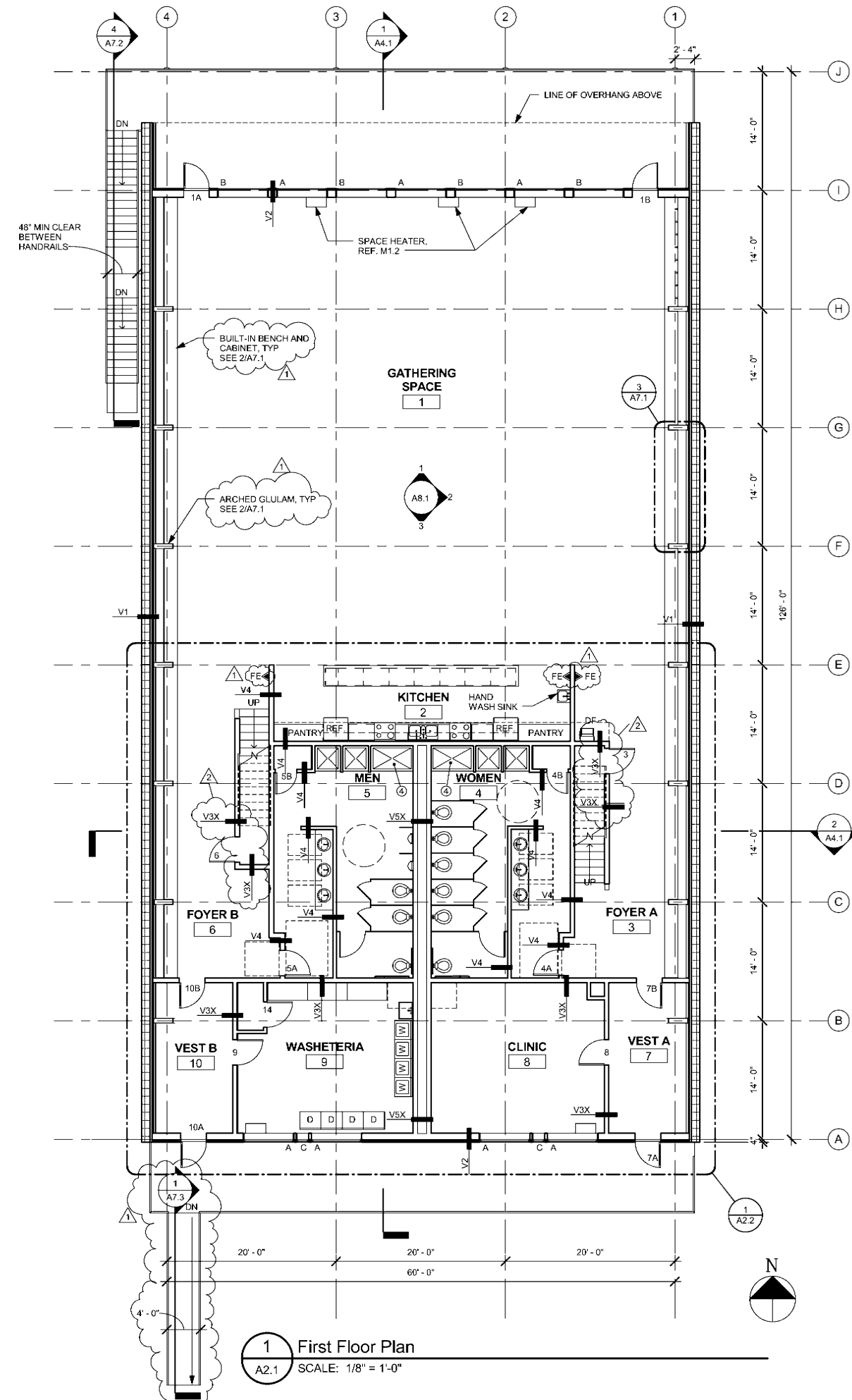
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Code Plan  
**A2.0**



**2** Mezzanine Plan  
A2.1 SCALE: 1/8" = 1'-0"



**1** First Floor Plan  
A2.1 SCALE: 1/8" = 1'-0"

- SHEET NOTES**
1. DIMENSIONS ARE FACE OF STUD
  2. 09650 RUBBER FLOORING THROUGHOUT ENTIRE BUILDING
  3. 09900 PAINT WALLS AT MECHANICAL ROOM.
  4. RECESS AT ADA SHOWER. CUT FLOORING AND ADD FRAMING TO SUPPORT ADA SHOWER CABINET

- LEGEND**
- V1 - WALL ASSEMBLY REFERENCE
- FOYER - ROOM NAME
- 4 - ROOM NUMBER

**REVISIONS**

No	Description	Date
1	Addendum 1	2/18/11
2	Revision	3/18/11

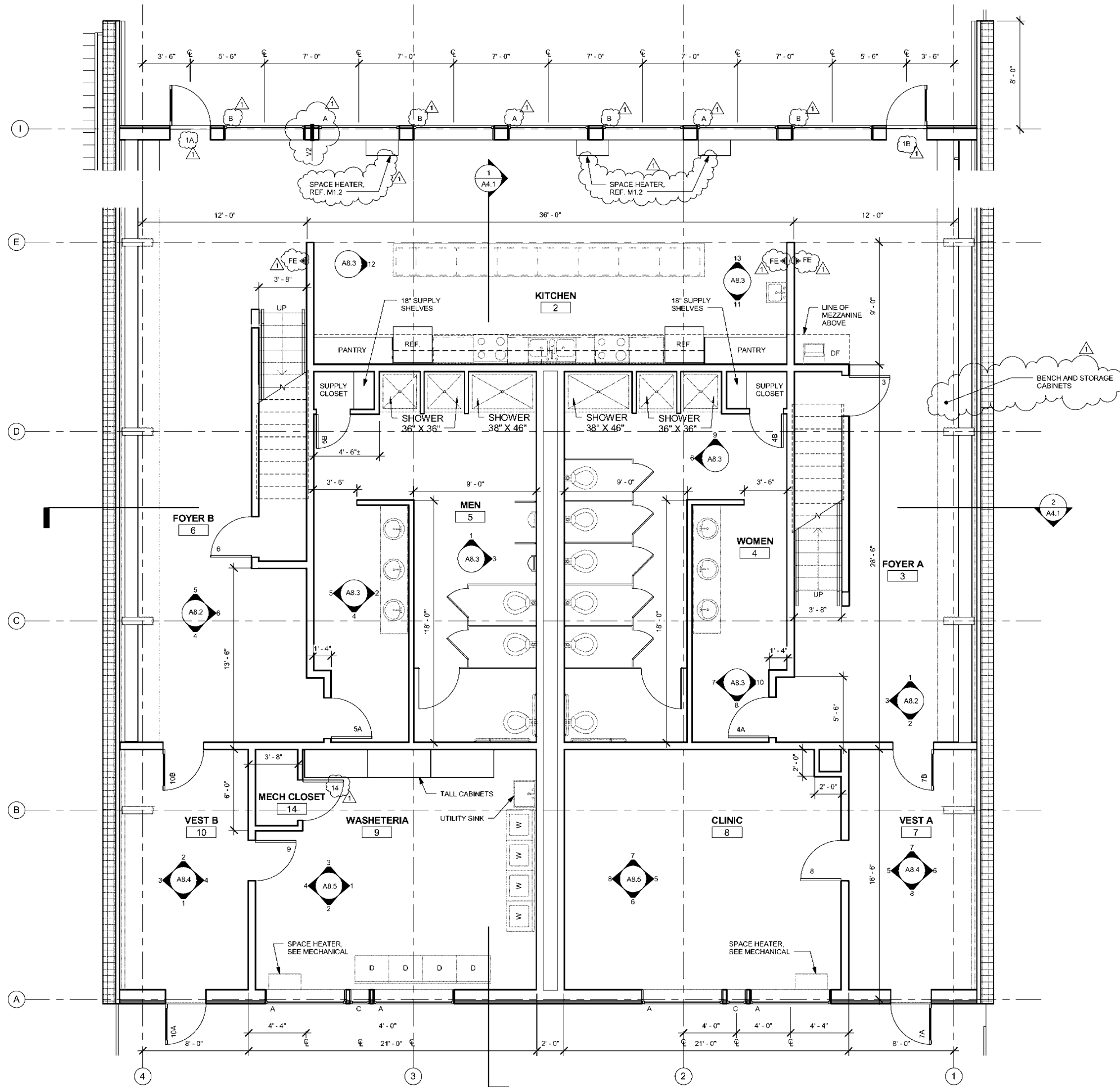


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**Floor Plans  
A2.1**





- SHEET NOTES**
- DIMENSIONS ARE FACE OF STUD
  - 09650 RUBBER FLOORING THROUGHOUT ENTIRE BUILDING
  - 09900 PAINT WALLS AT MECHANICAL ROOM.
  - RECESS AT ADA SHOWER, CUT FLOORING AND ADD FRAMING TO SUPPORT ADA SHOWER CABINET

**REVISIONS**

No	Description	Date
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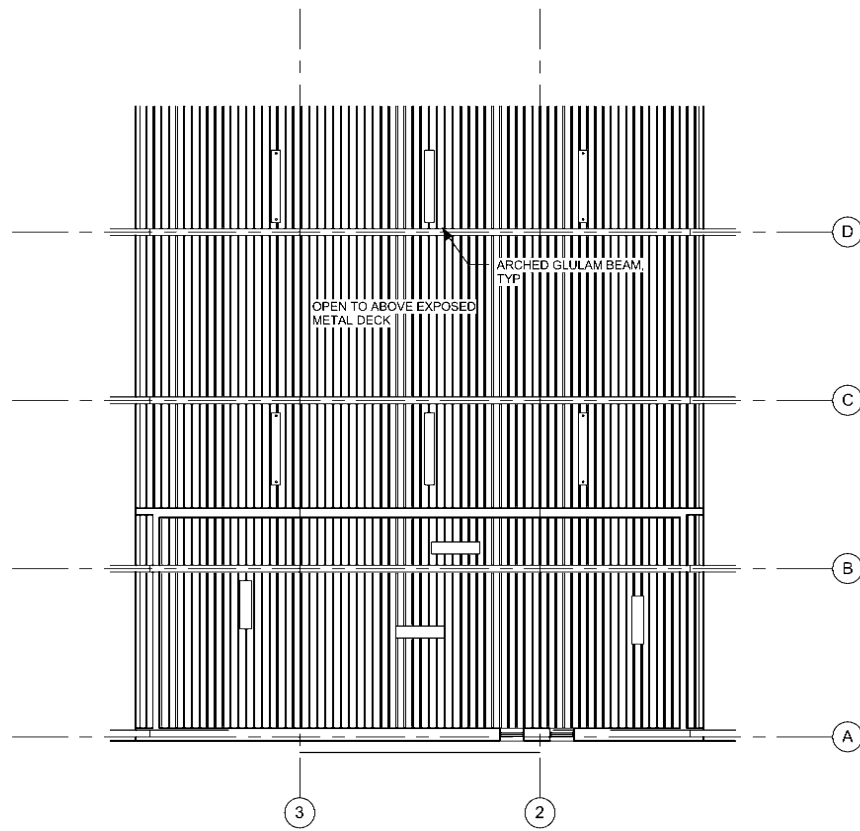


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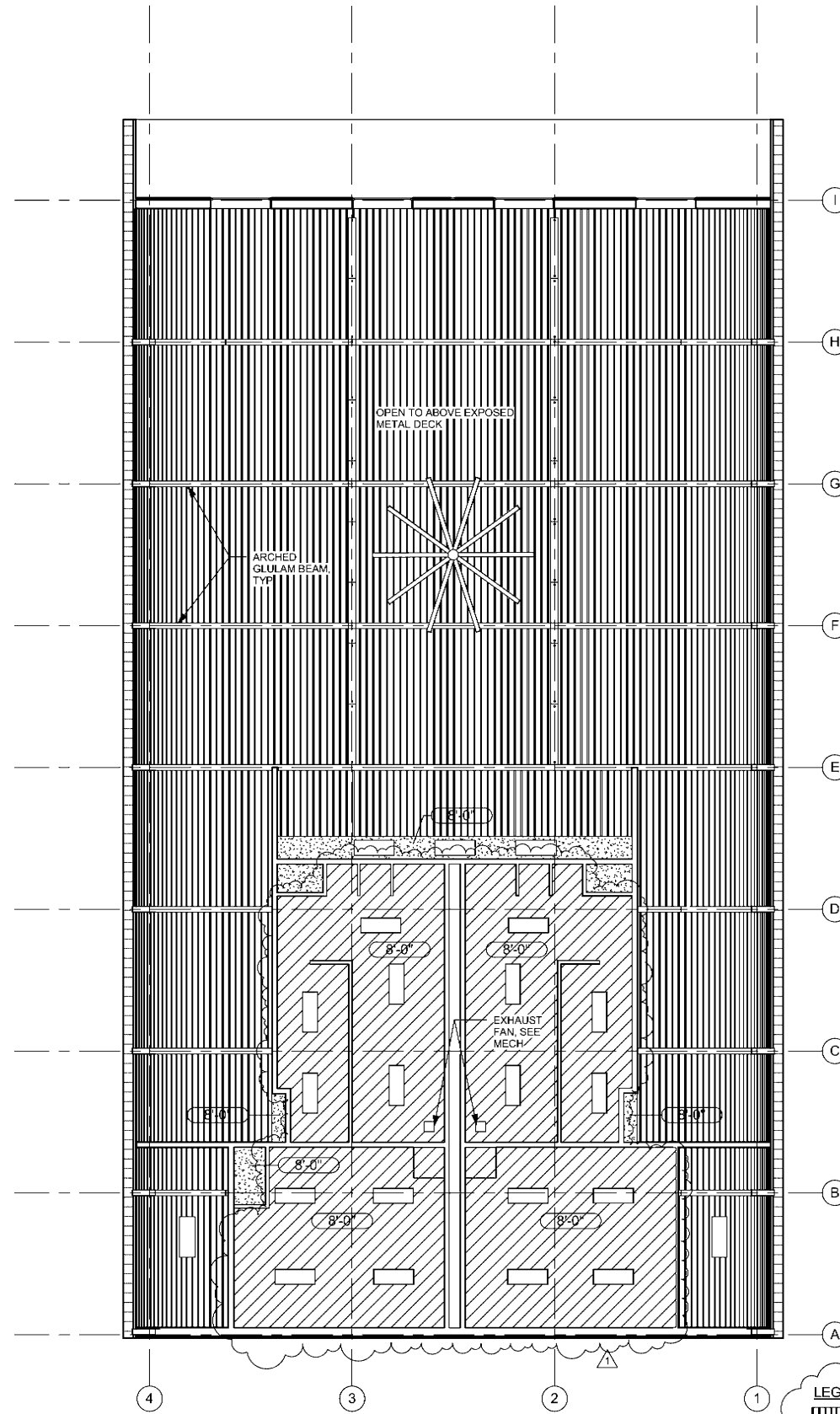
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**1** Enlarged Floor Plan  
 A2.2 SCALE: 1/4" = 1'-0"

**Enlarged  
 Floor Plan  
 A2.2**






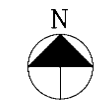
**2** Mezzanine RCP  
A2.3 SCALE: 1/8" = 1'-0"



**1** First Floor RCP  
A2.3 SCALE: 1/8" = 1'-0"

**LEGEND**

-  EXPOSED METAL DECK CEILING, 09900 PAINT
-  09250, GYPSUM BOARD CEILING, 09900 PAINT
-  06700, FRP CEILING



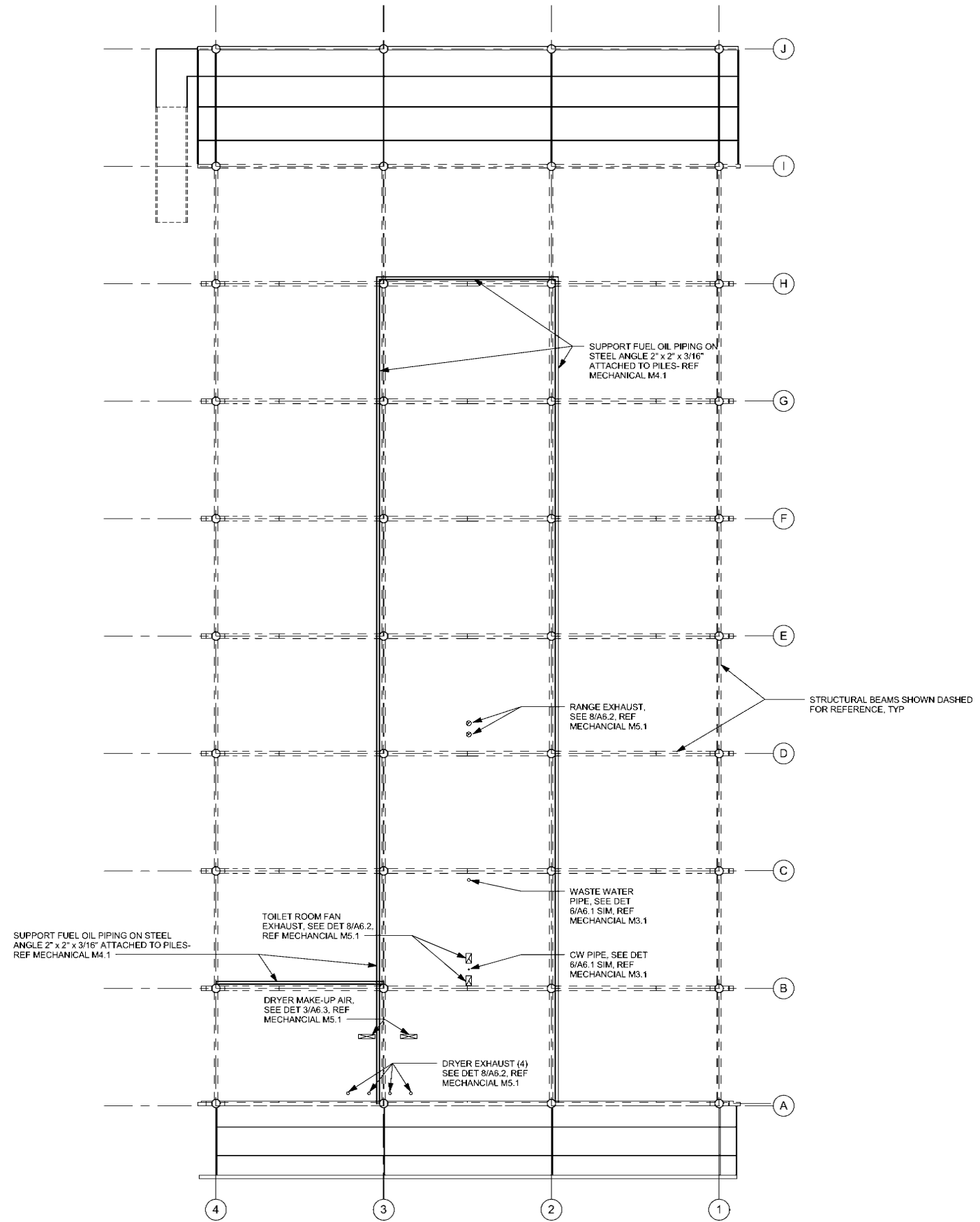
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1	Addendum 1	2/18/11



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**Reflected  
Ceiling Plans  
A2.3**



REVISIONS		
No	Description	Date

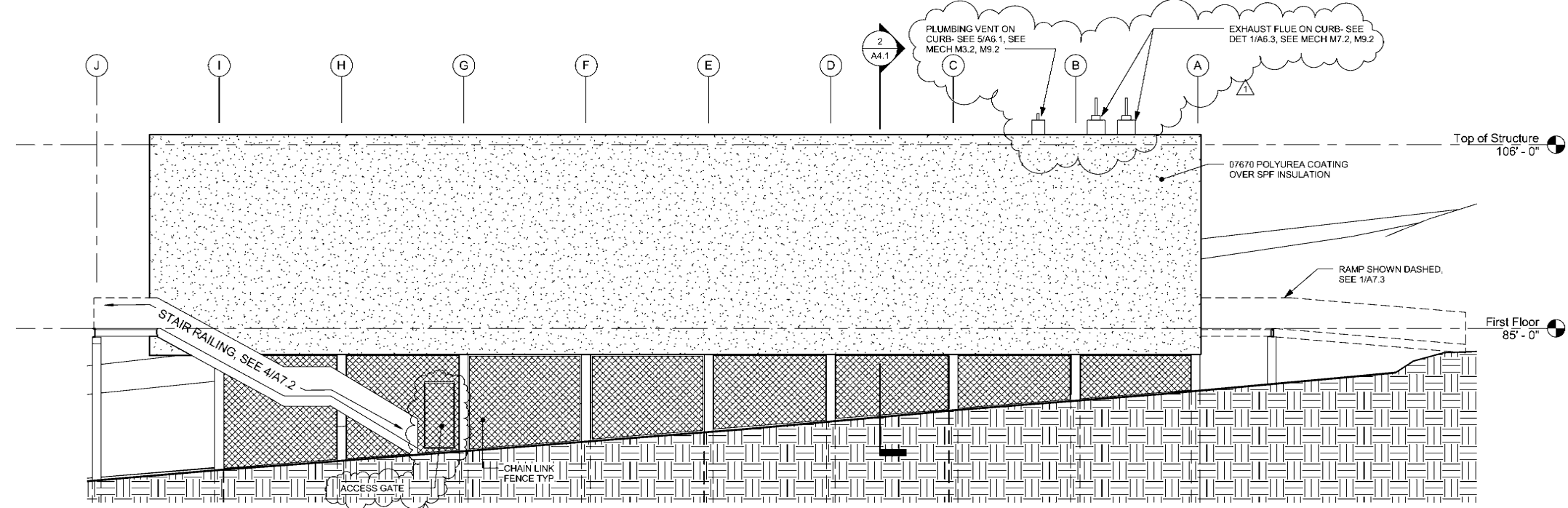


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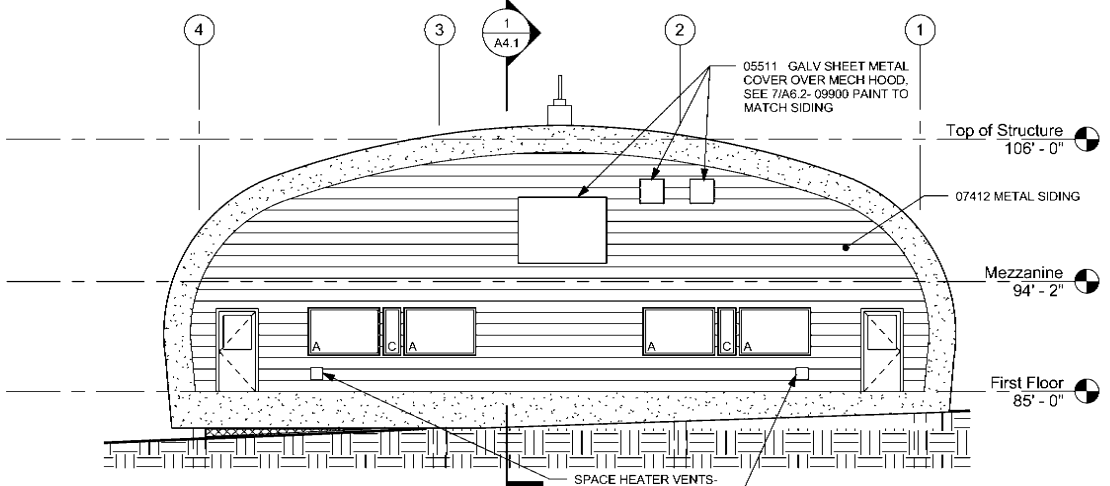
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**1** Reflected Soffit Plan  
 A2.4 SCALE: 1/8" = 1'-0"

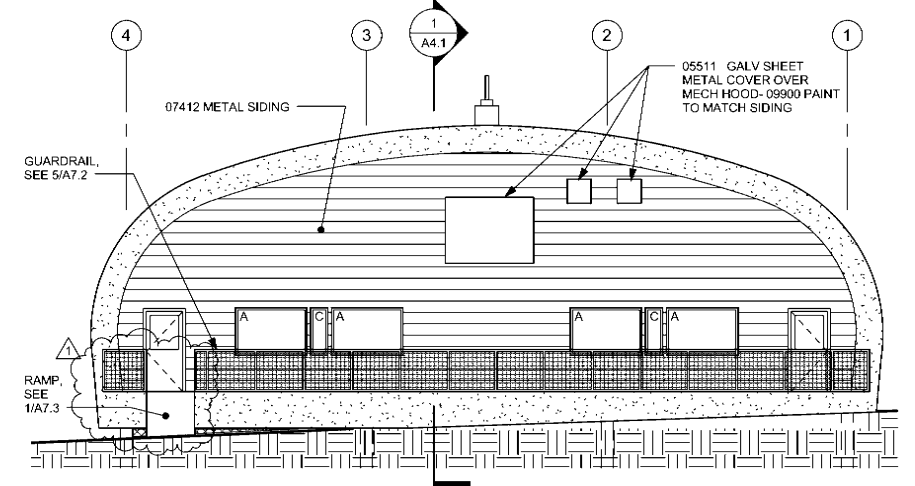
**Reflected**  
**Soffit Plan**  
**A2.4**



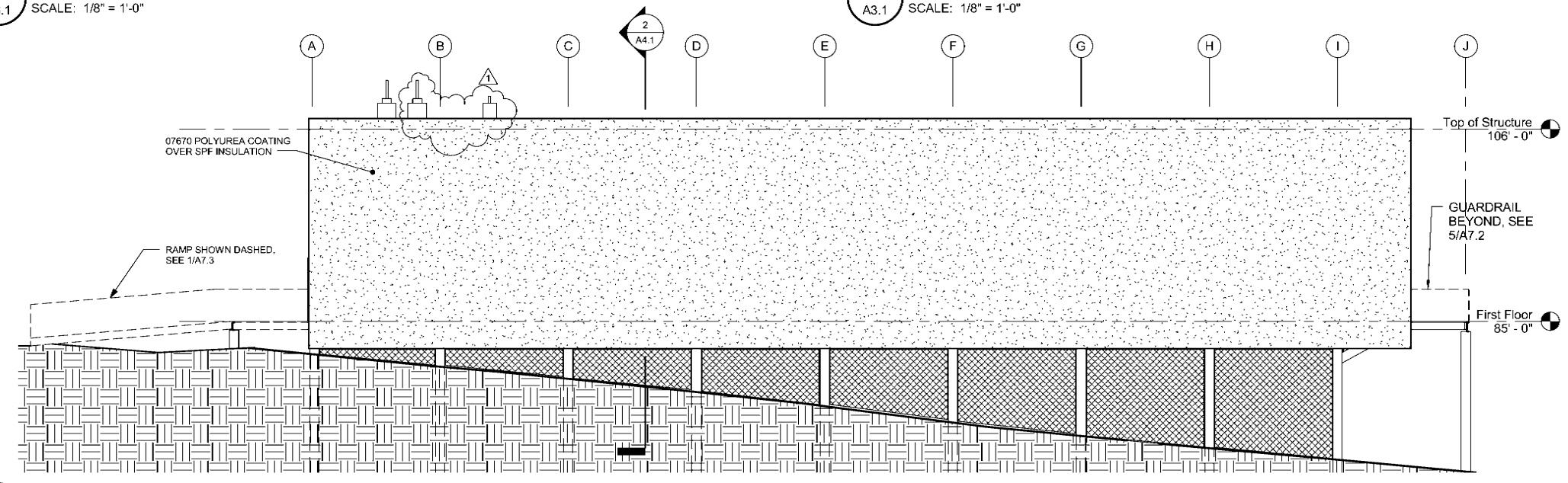
**4** West Elevation  
A3.1 SCALE: 1/8" = 1'-0"



**3** South Elevation - Without Guardrail  
A3.1 SCALE: 1/8" = 1'-0"



**2** South Elevation - With Guardrail  
A3.1 SCALE: 1/8" = 1'-0"



**1** East Elevation  
A3.1 SCALE: 1/8" = 1'-0"

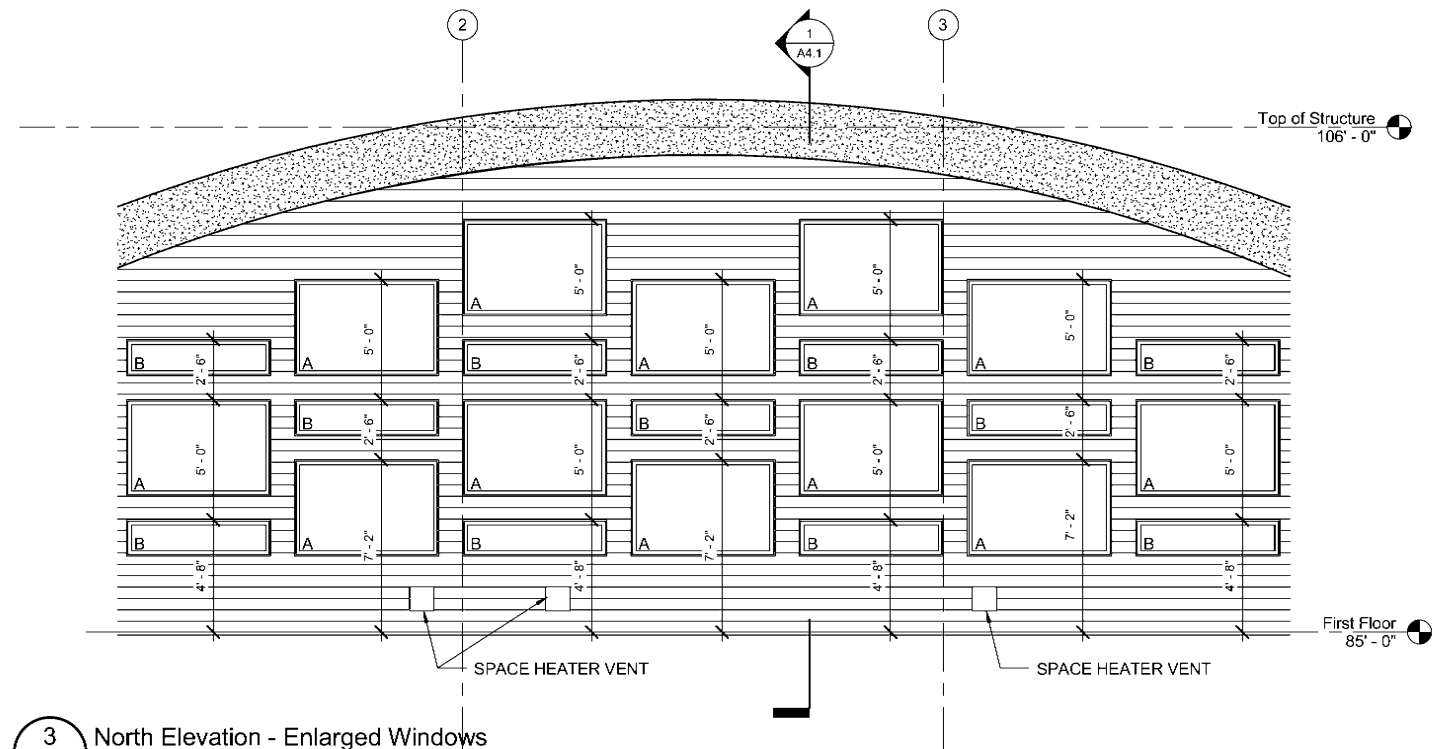
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1	Addendum 1	2/18/11



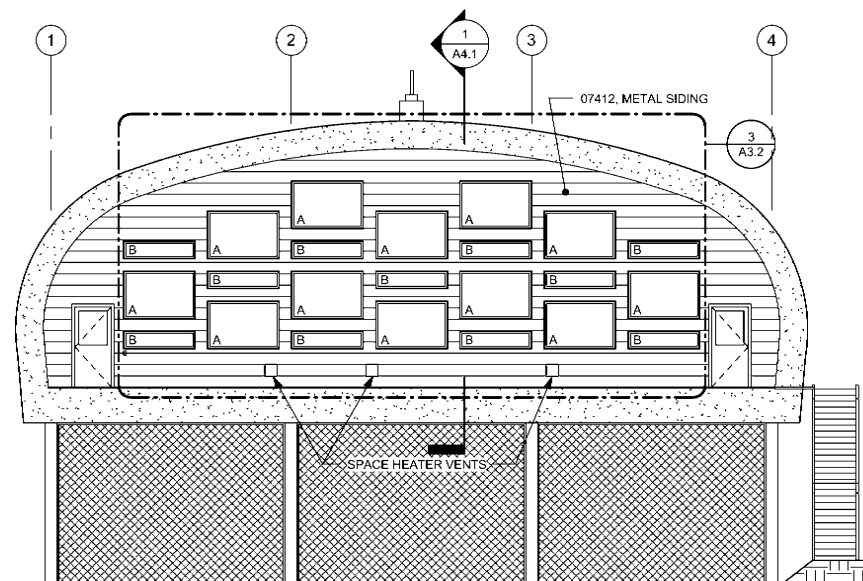
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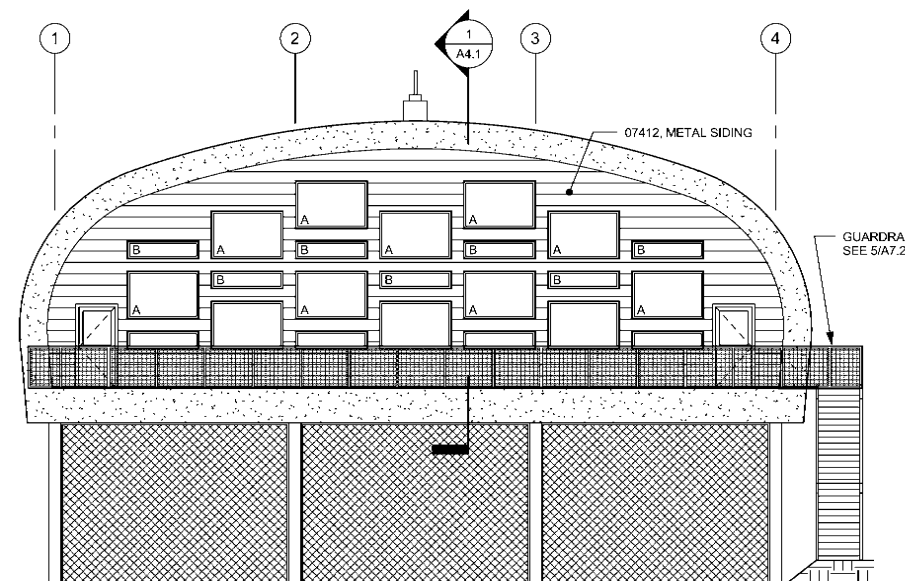
Exterior Elevations  
**A3.1**



3 North Elevation - Enlarged Windows  
A3.2 SCALE: 1/4" = 1'-0"



2 North Elevation - Without Guardrail  
A3.2 SCALE: 1/8" = 1'-0"



1 North Elevation - With Guardrail  
A3.2 SCALE: 1/8" = 1'-0"

REVISIONS		
No	Description	Date
1	Addendum 1	2/18/11

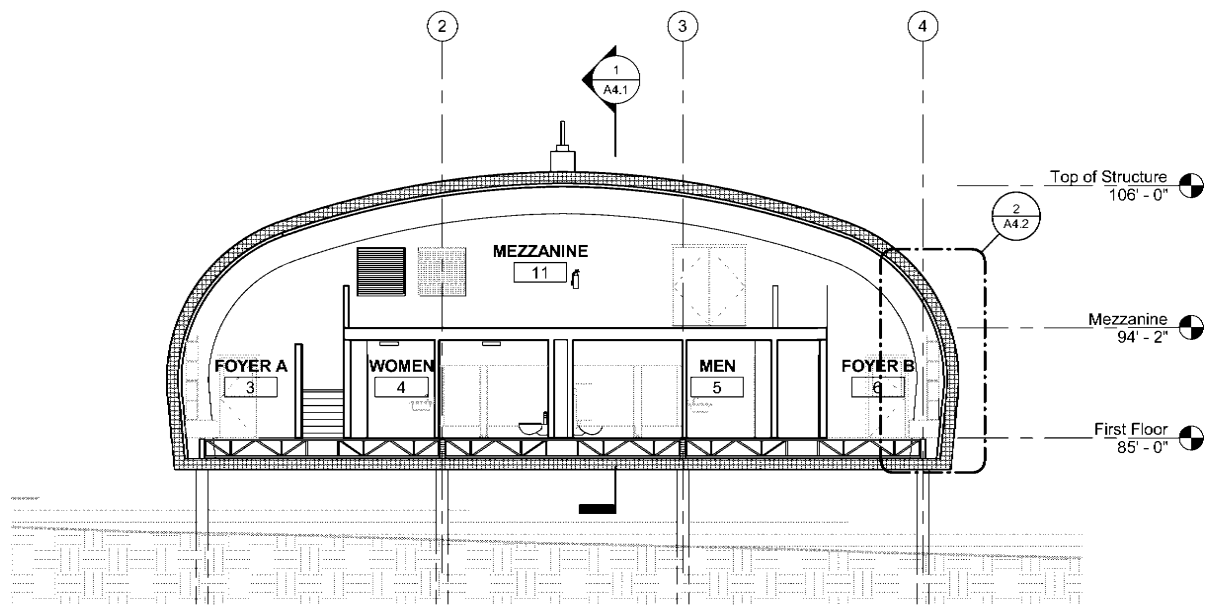


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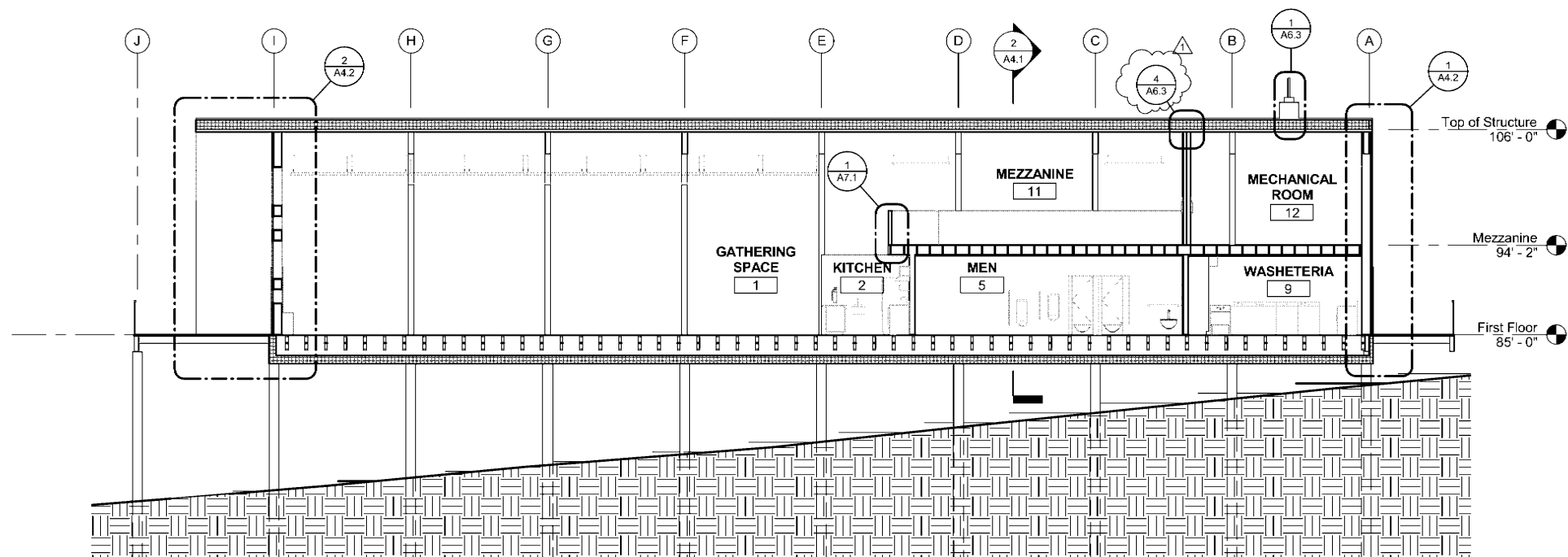
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Exterior  
Elevations  
**A3.2**





**2** East-West Section  
A4.1 SCALE: 1/8" = 1'-0"



**1** North-South Section  
A4.1 SCALE: 1/8" = 1'-0"

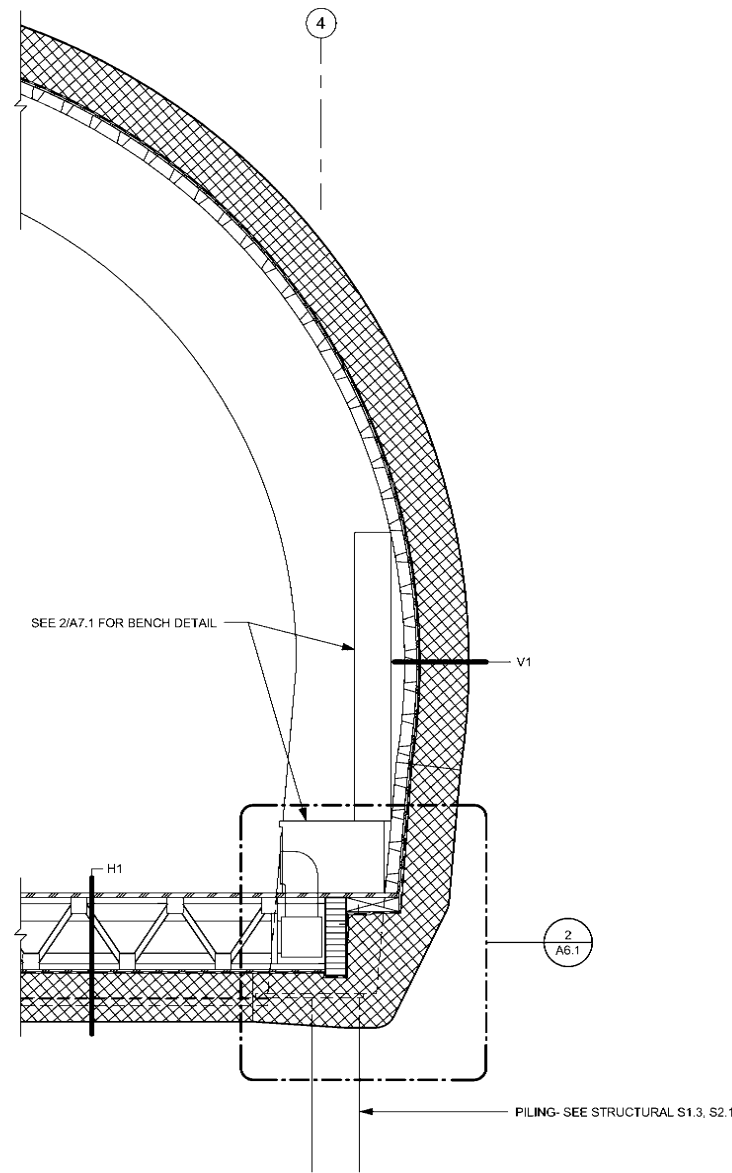
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1	Addendum 1	2/18/11



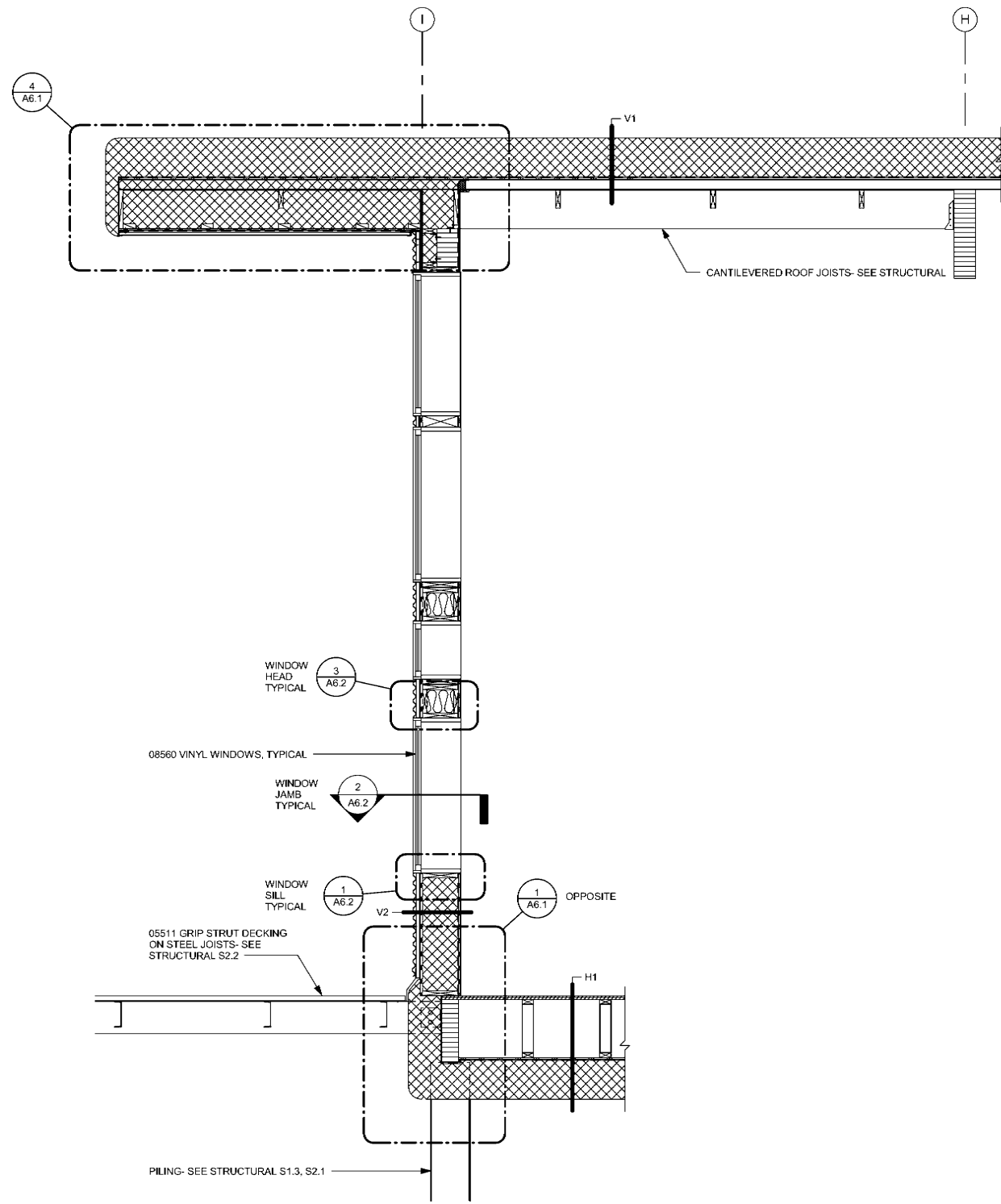
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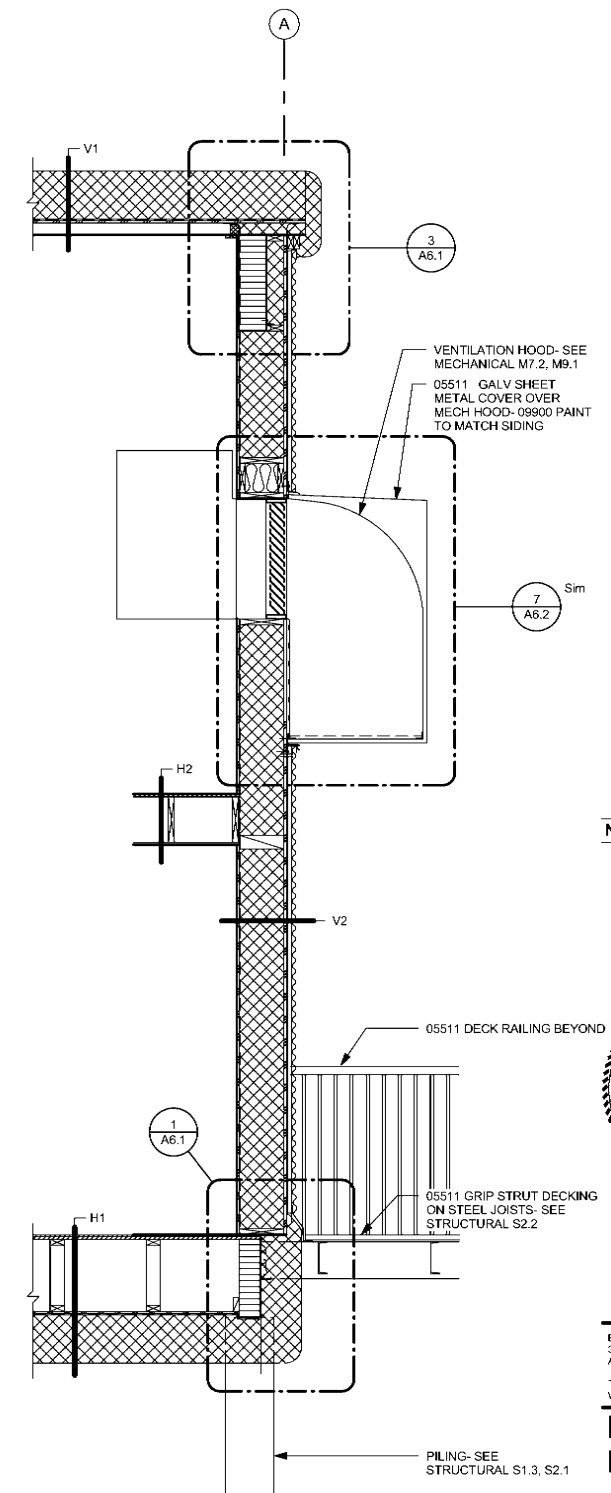
**Building**  
**Sections**  
**A4.1**



**3** WALL SECTION C  
A4.2 SCALE: 1/2" = 1'-0"



**2** WALL SECTION B  
A4.2 SCALE: 1/2" = 1'-0"



**1** WALL SECTION A  
A4.2 SCALE: 1/2" = 1'-0"

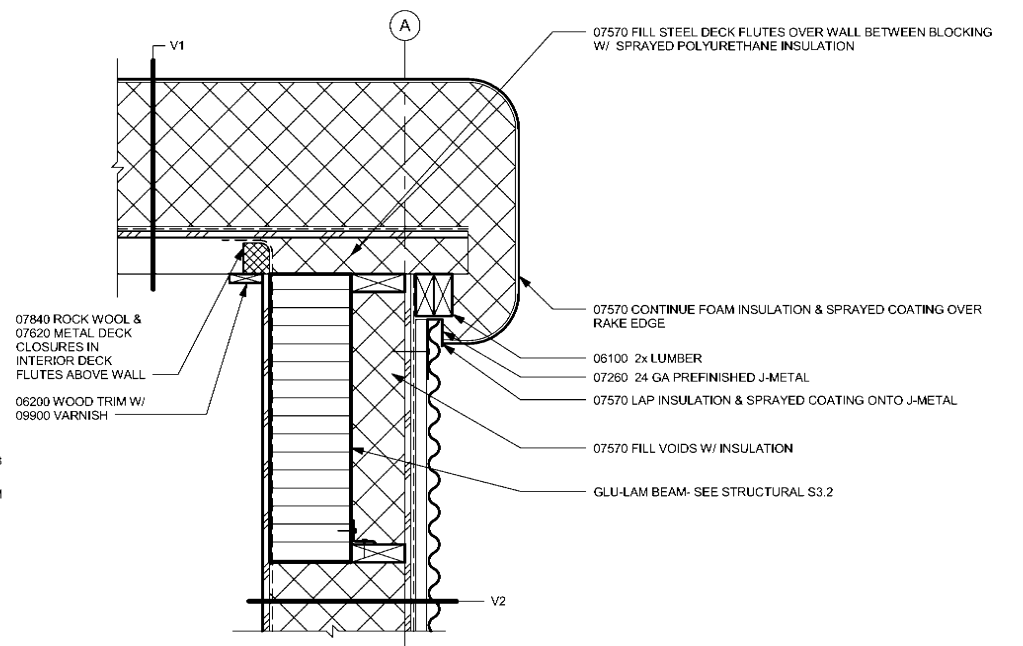
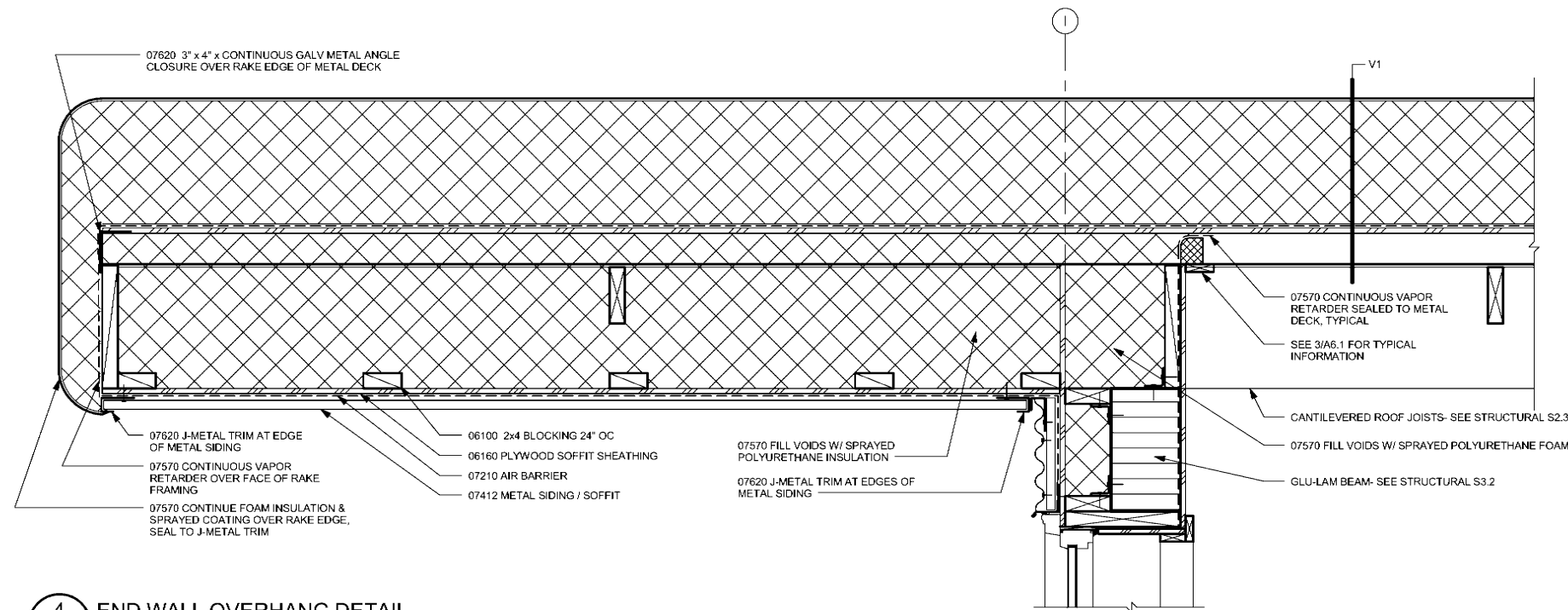
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No	Description	Date



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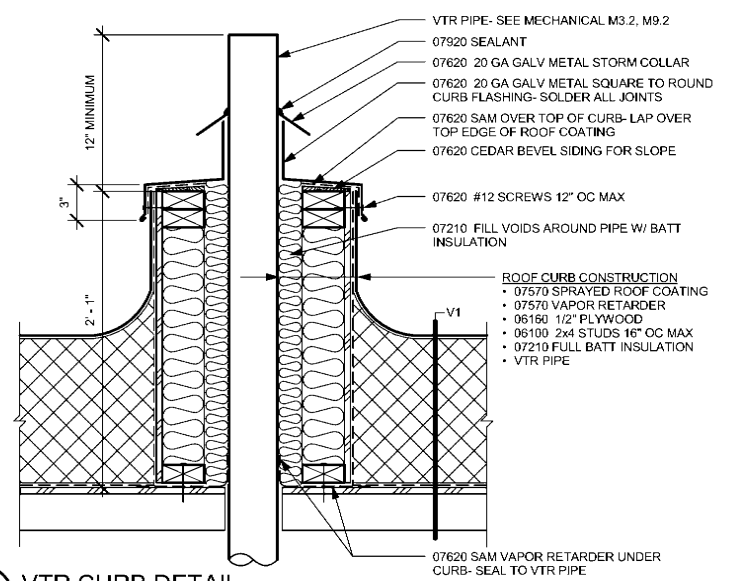
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**Wall Sections**  
**A4.2**

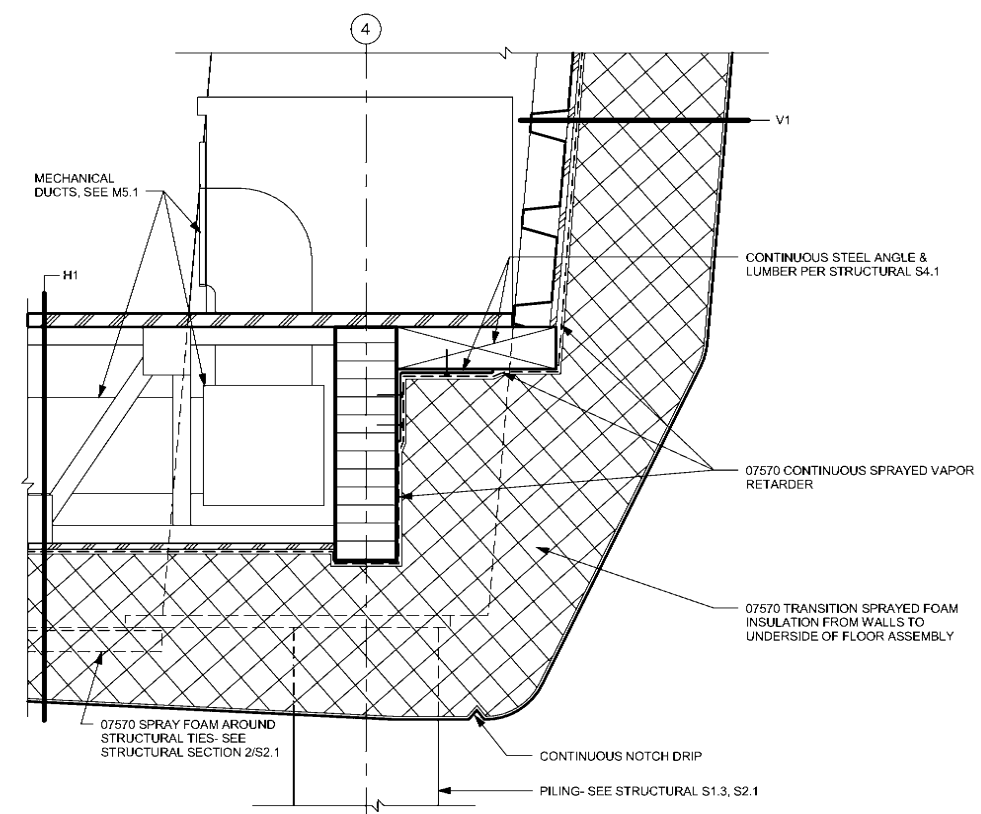


**4** END WALL OVERHANG DETAIL  
A6.1 SCALE: 1 1/2" = 1'-0"

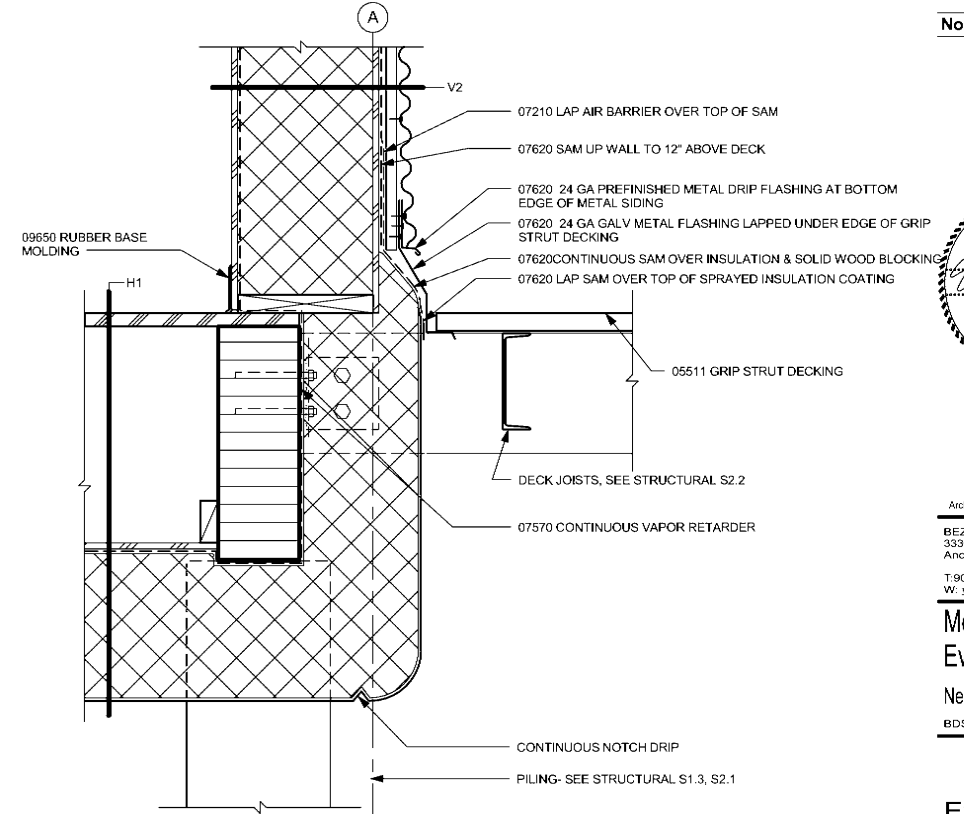
**3** END WALL TOP DETAIL  
A6.1 SCALE: 1 1/2" = 1'-0"



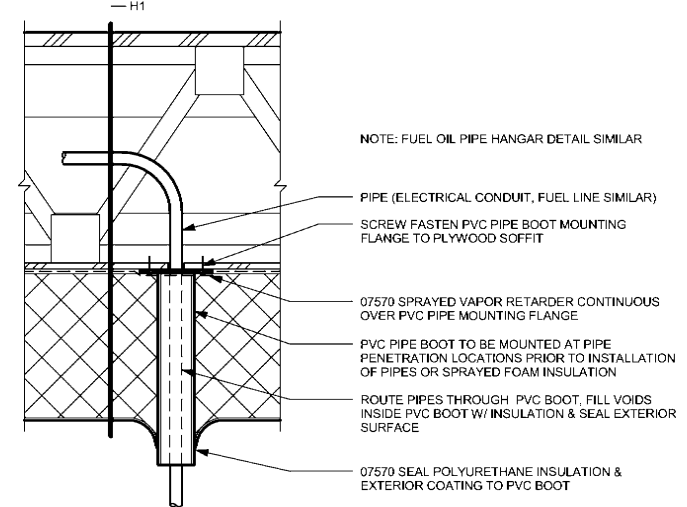
**5** VTR CURB DETAIL  
A6.1 SCALE: 1 1/2" = 1'-0"



**2** WALL BASE DETAIL  
A6.1 SCALE: 1 1/2" = 1'-0"



**1** END WALL BASE DETAIL  
A6.1 SCALE: 1 1/2" = 1'-0"



**6** UNDERFLOOR PIPE PENETRATION  
A6.1 SCALE: 1 1/2" = 1'-0"

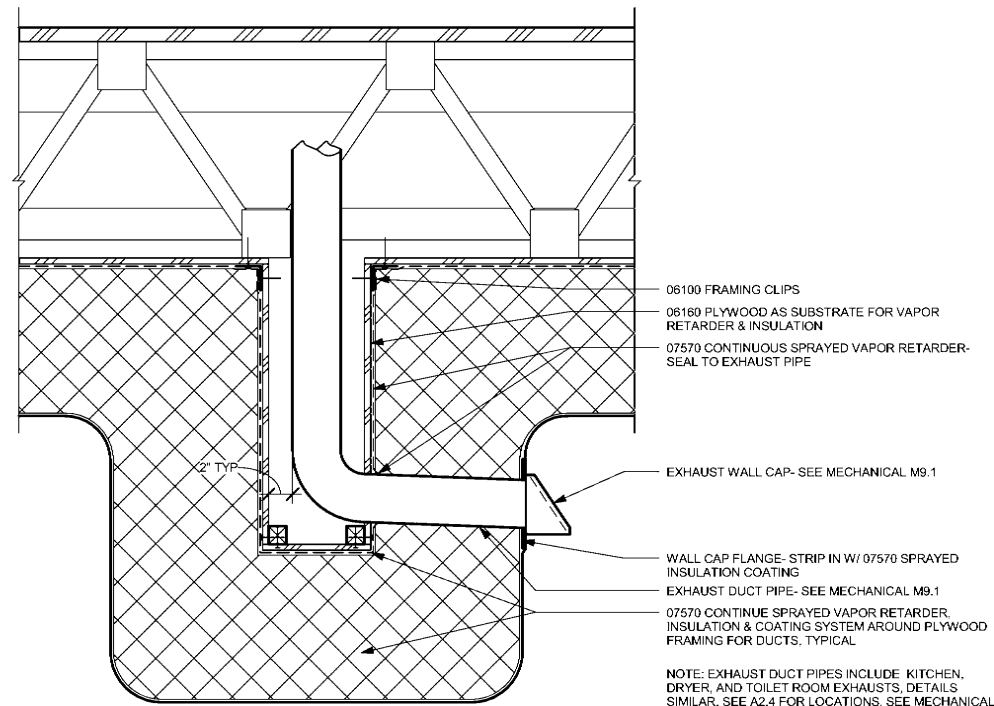
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Exterior  
Details  
**A6.1**

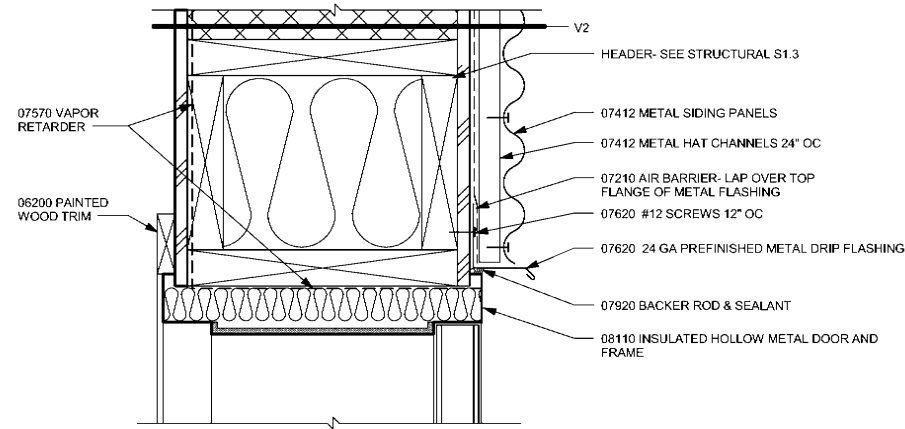


**8 UNDERFLOOR EXHAUST PENETRATION**

A6.2 SCALE: 1 1/2" = 1'-0"

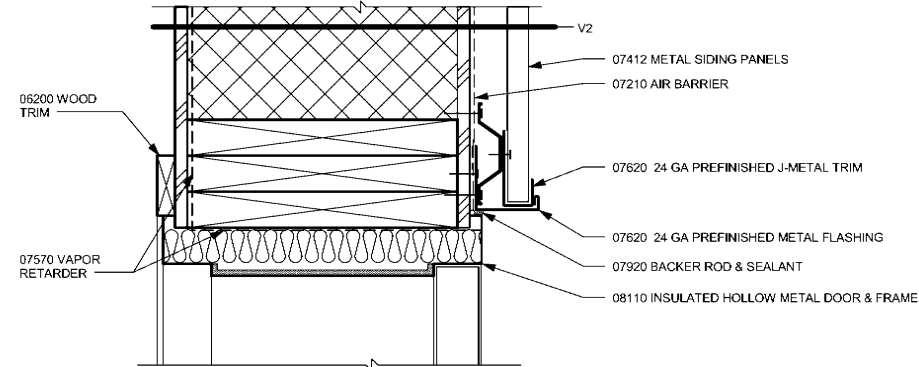
- 06100 FRAMING CLIPS
- 06160 PLYWOOD AS SUBSTRATE FOR VAPOR RETARDER & INSULATION
- 07570 CONTINUOUS SPRAYED VAPOR RETARDER- SEAL TO EXHAUST PIPE
- EXHAUST WALL CAP- SEE MECHANICAL M9.1
- WALL CAP FLANGE- STRIP IN W/ 07570 SPRAYED INSULATION COATING
- EXHAUST DUCT PIPE- SEE MECHANICAL M9.1
- 07570 CONTINUE SPRAYED VAPOR RETARDER- INSULATION & COATING SYSTEM AROUND PLYWOOD FRAMING FOR DUCTS, TYPICAL

NOTE: EXHAUST DUCT PIPES INCLUDE KITCHEN, DRYER, AND TOILET ROOM EXHAUSTS. DETAILS SIMILAR. SEE A2.4 FOR LOCATIONS. SEE MECHANICAL PLANS FOR SIZES.



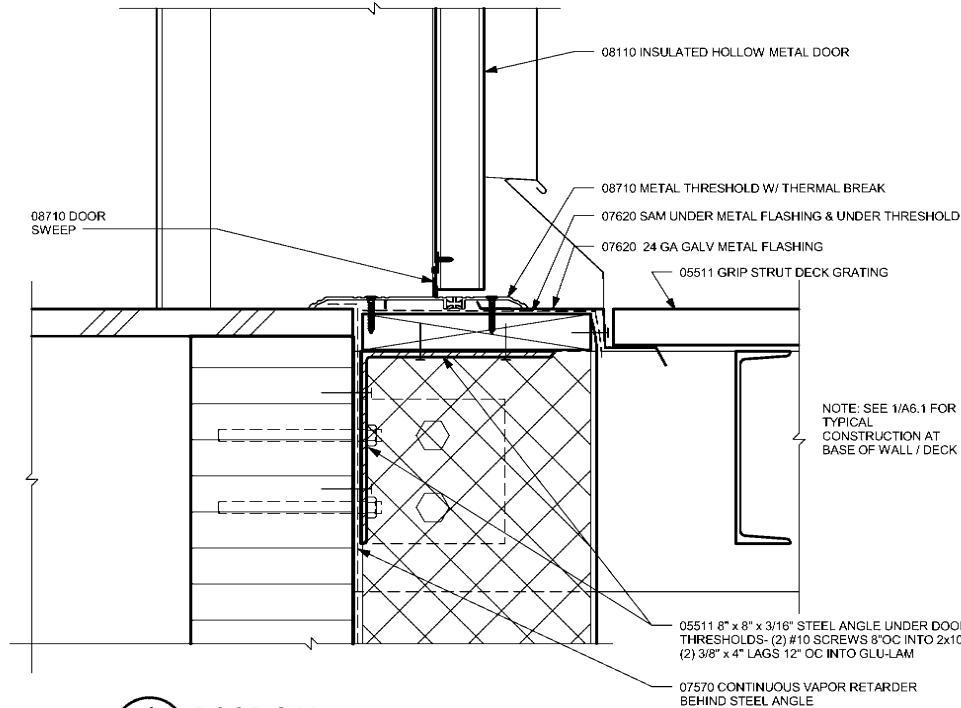
**6 DOOR HEAD**

A6.2 SCALE: 3" = 1'-0"



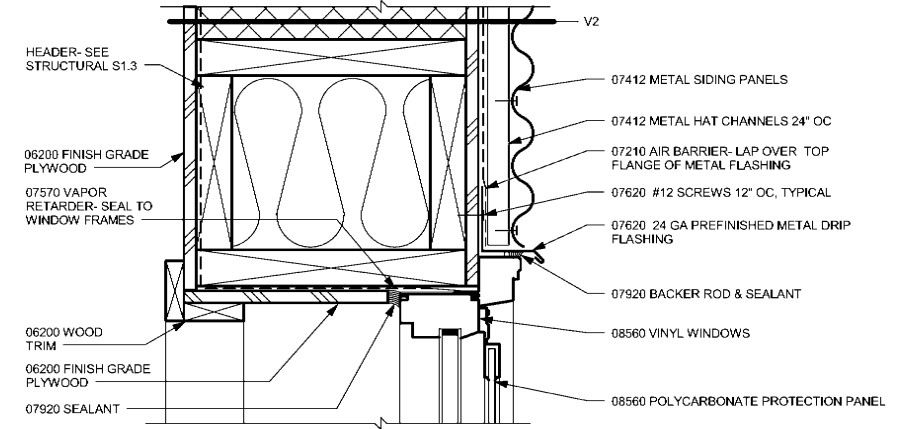
**5 DOOR JAMB**

A6.2 SCALE: 3" = 1'-0"



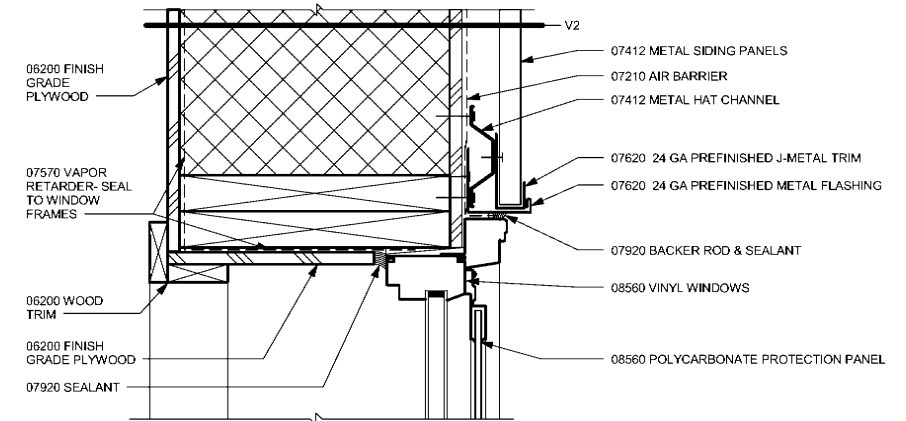
**4 DOOR SILL**

A6.2 SCALE: 3" = 1'-0"



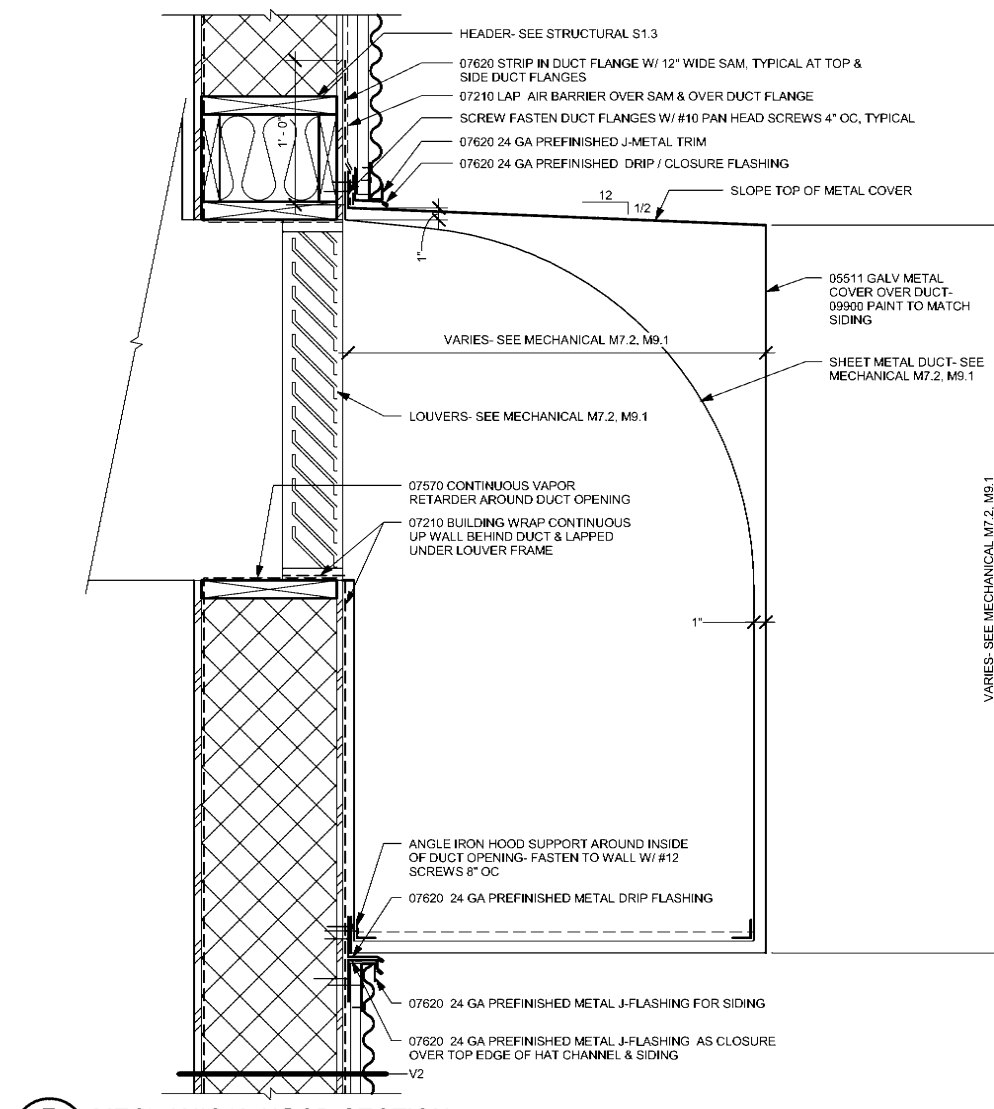
**3 WINDOW HEAD**

A6.2 SCALE: 3" = 1'-0"



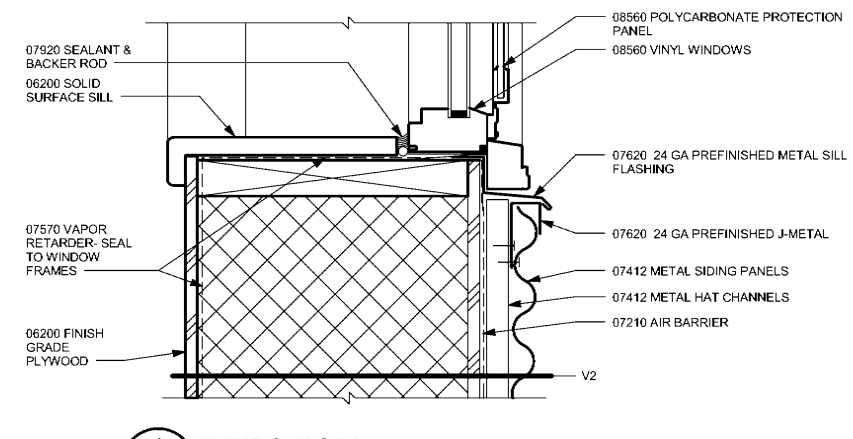
**2 WINDOW JAMB**

A6.2 SCALE: 3" = 1'-0"



**7 MECHANICAL HOOD SECTION**

A6.2 SCALE: 1 1/2" = 1'-0"



**1 WINDOW SILL**

A6.2 SCALE: 3" = 1'-0"

REVISIONS		
No	Description	Date

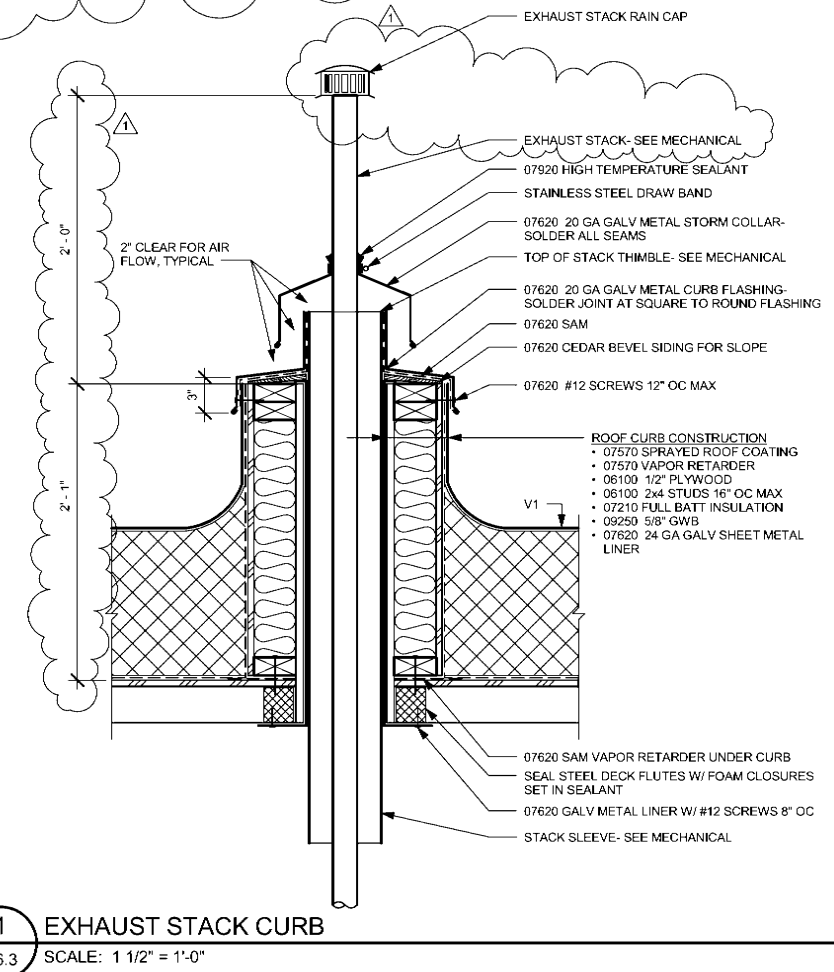
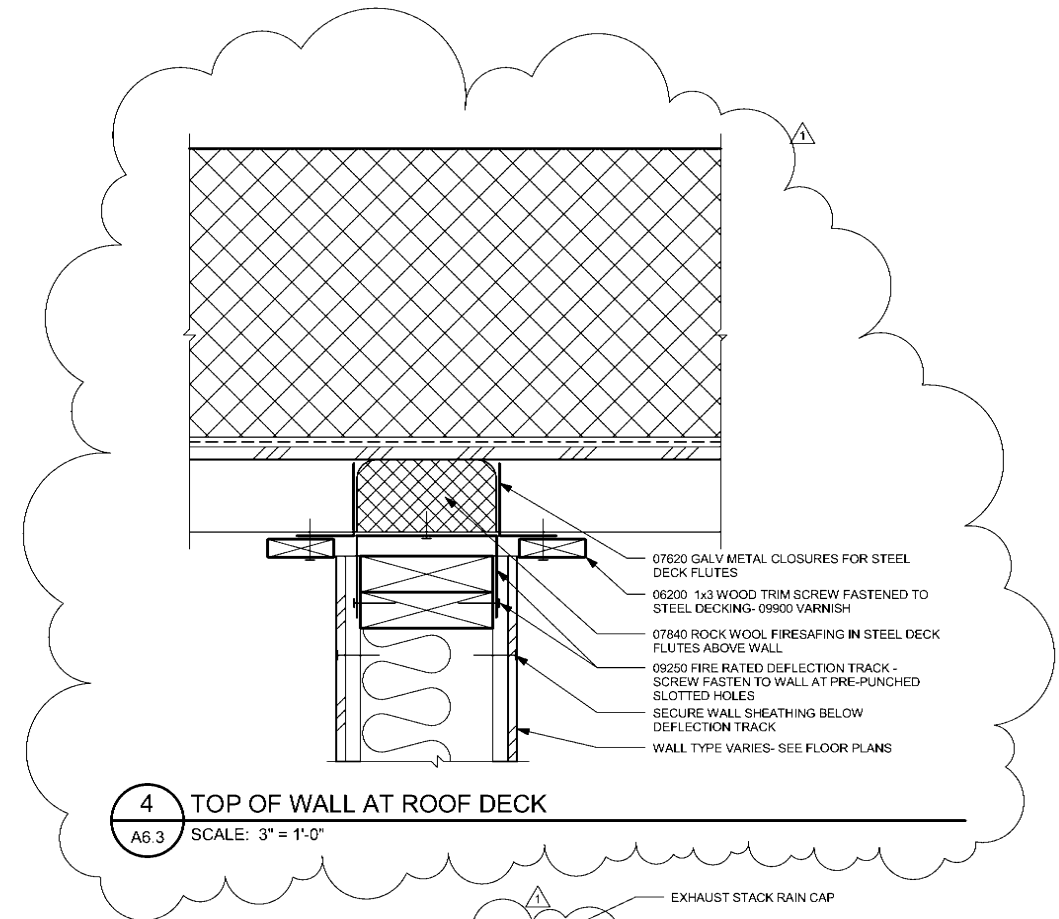
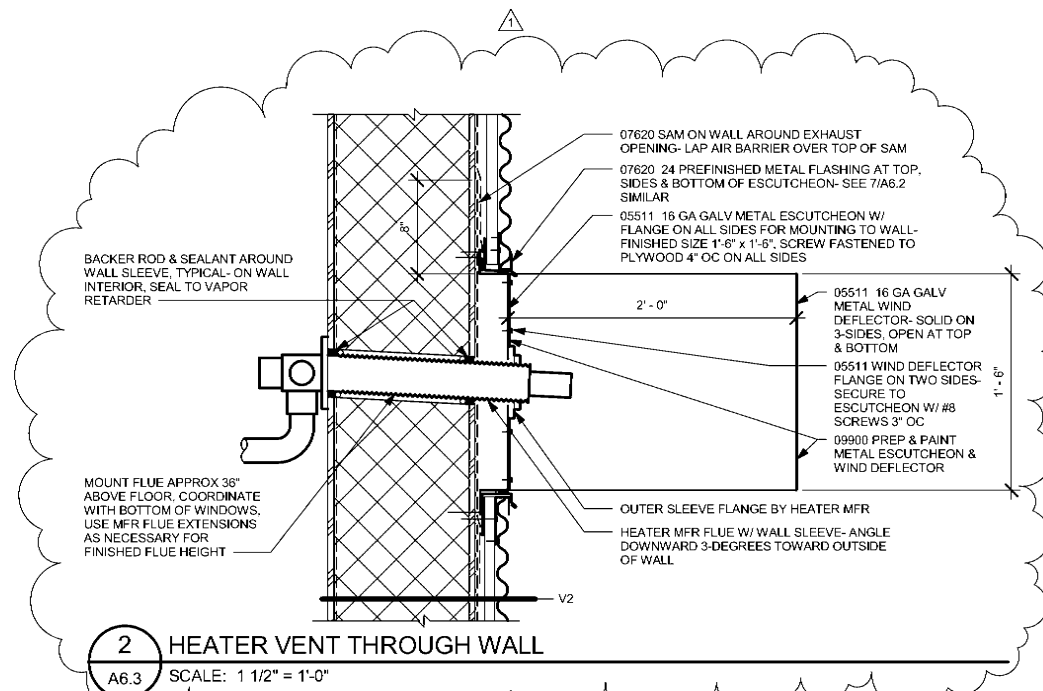
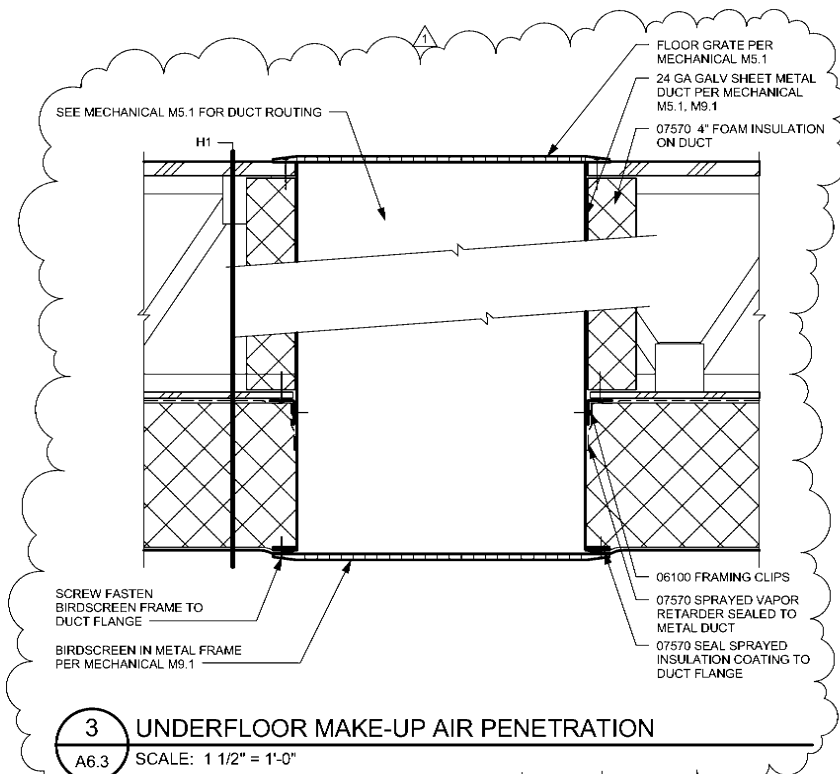


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Exterior  
 Details  
**A6.2**



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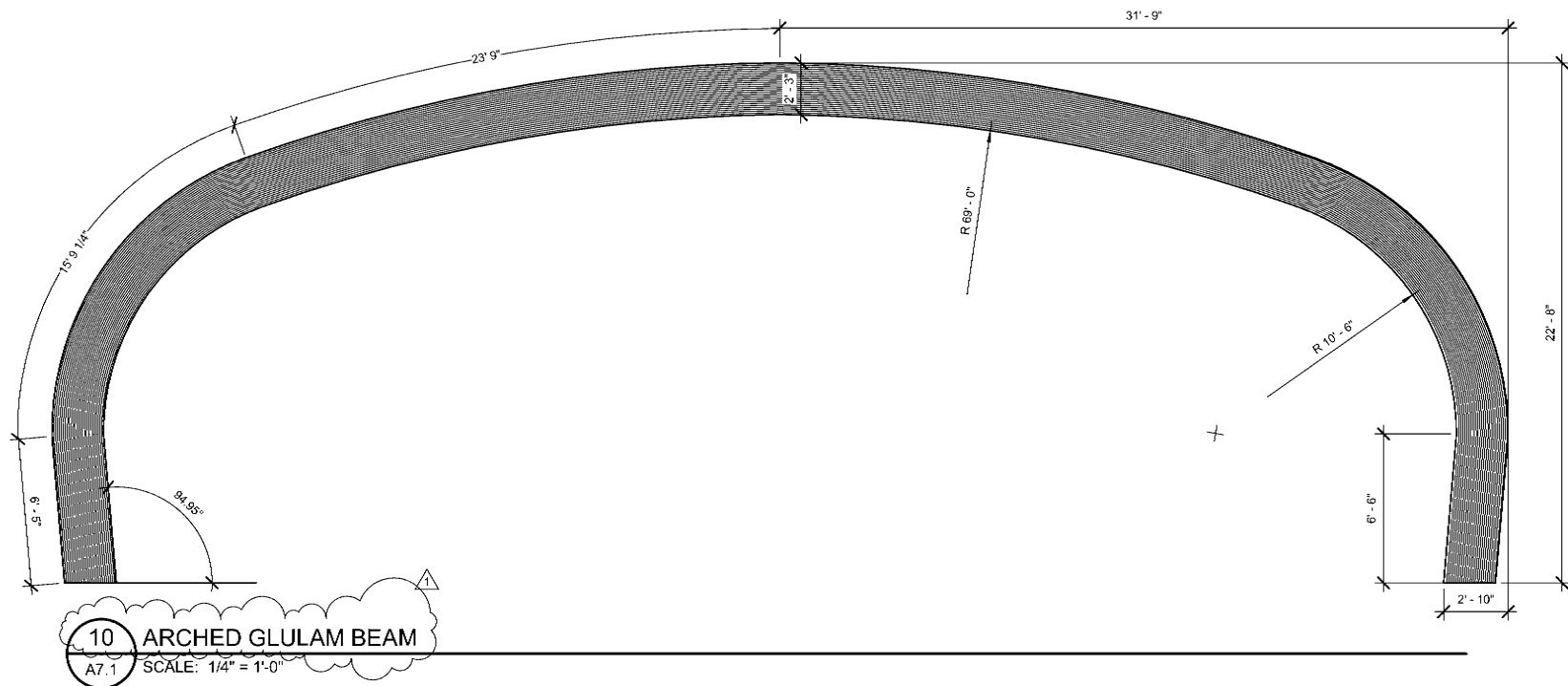


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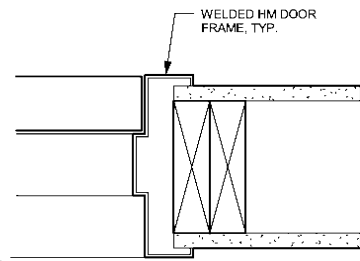
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Details  
**A6.3**

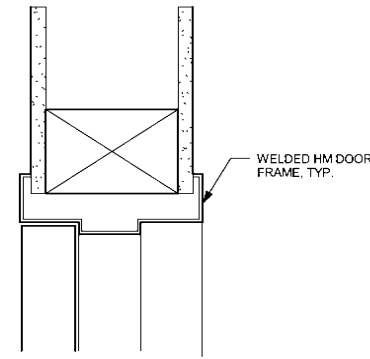




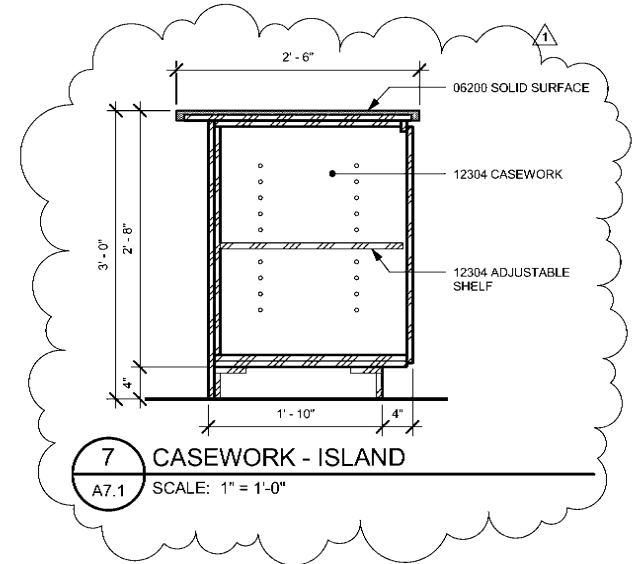
**10** **ARCHED GLULAM BEAM**  
A7.1 SCALE: 1/4" = 1'-0"



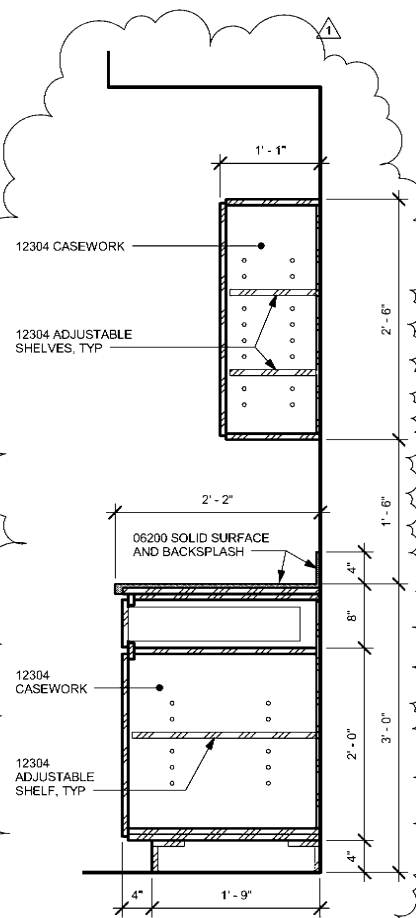
**9** **INTERIOR DOOR JAMB DETAIL**  
A7.1 SCALE: 3" = 1'-0"



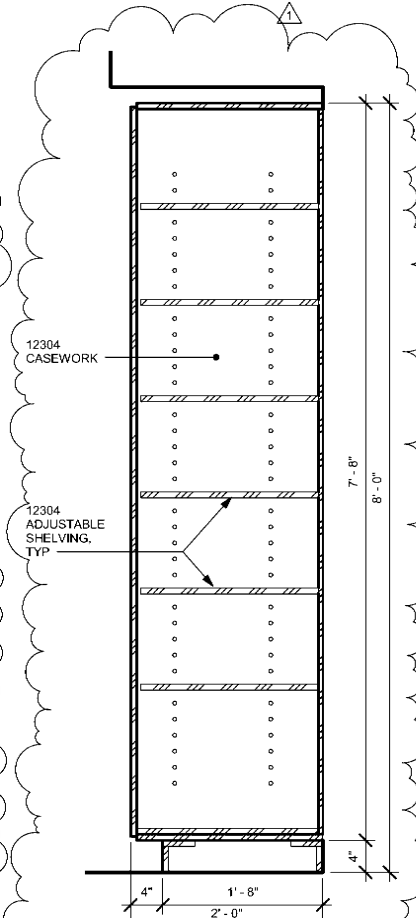
**8** **INTERIOR DOOR HEAD DETAIL**  
A7.1 SCALE: 3" = 1'-0"



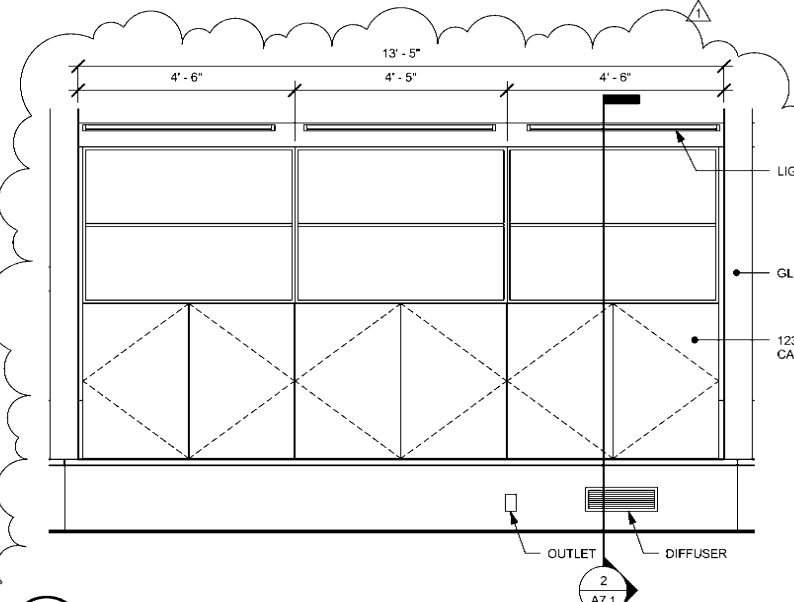
**7** **CASEWORK - ISLAND**  
A7.1 SCALE: 1" = 1'-0"



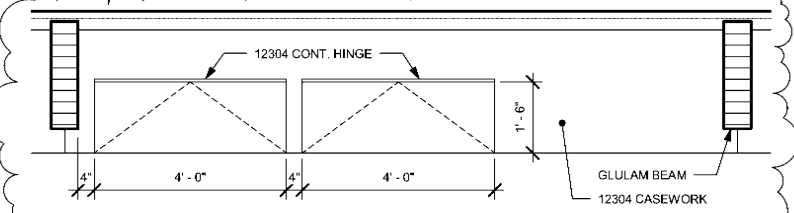
**6** **CASEWORK - KITCHEN**  
A7.1 SCALE: 1" = 1'-0"



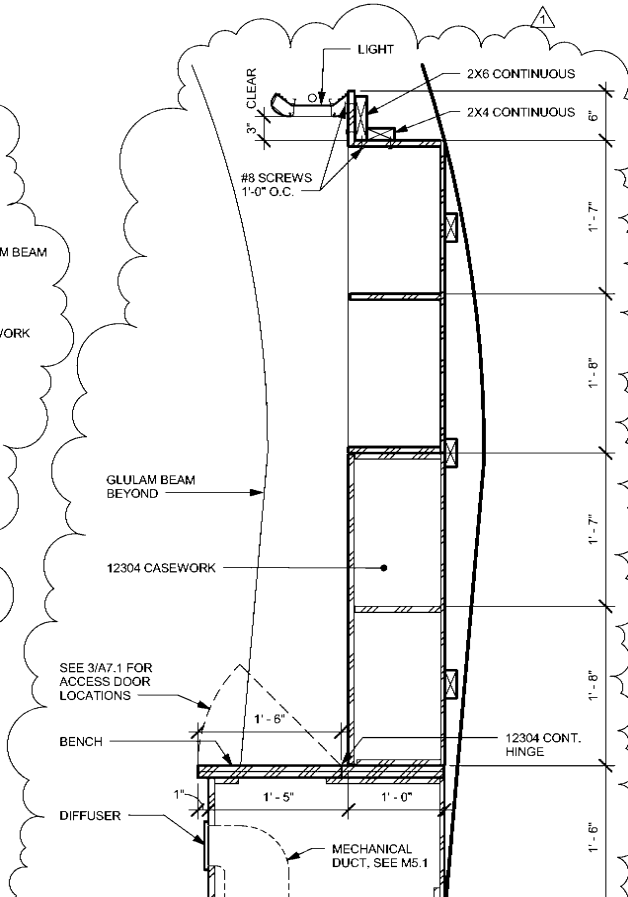
**5** **CASEWORK - PANTRY**  
A7.1 SCALE: 1" = 1'-0"



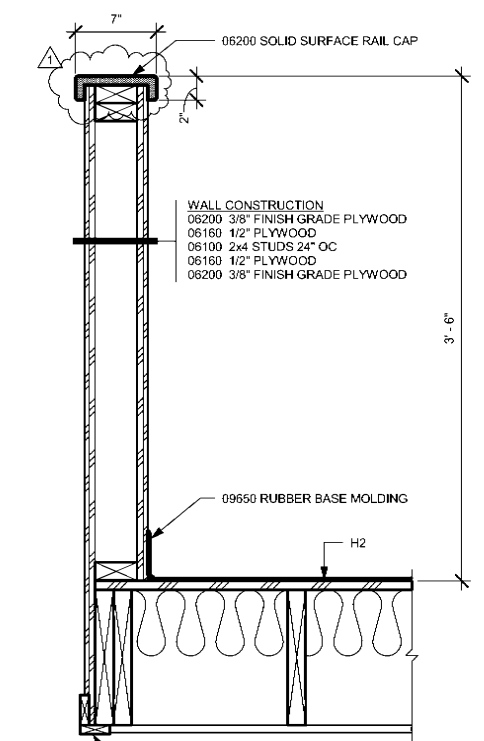
**4** **ENLARGED BENCH ELEVATION**  
A7.1 SCALE: 1/2" = 1'-0"



**3** **ENLARGED BENCH PLAN**  
A7.1 SCALE: 1/2" = 1'-0"



**2** **BENCH DETAIL**  
A7.1 SCALE: 1" = 1'-0"



**1** **MEZZANINE EDGE DETAIL**  
A7.1 SCALE: 1 1/2" = 1'-0"

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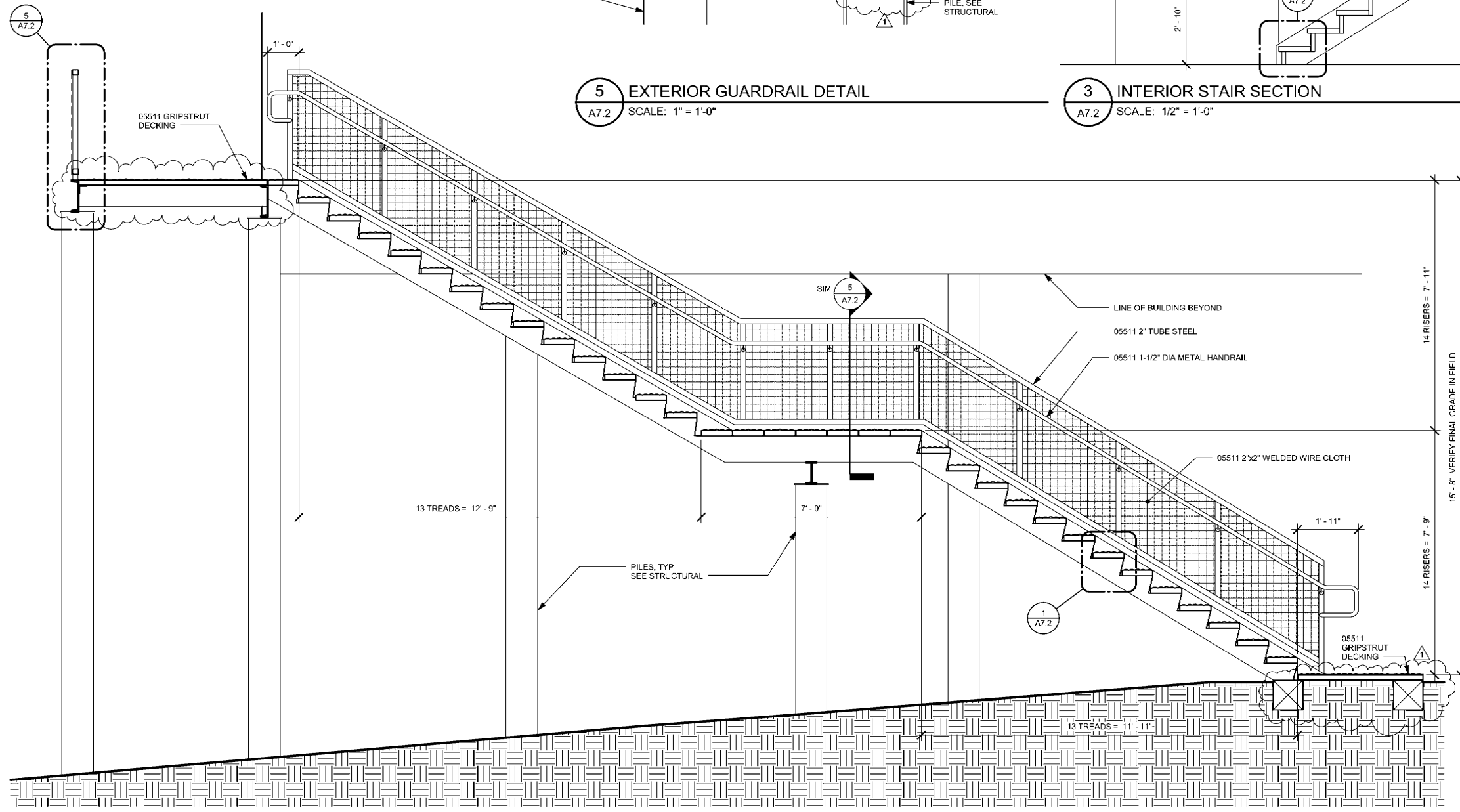


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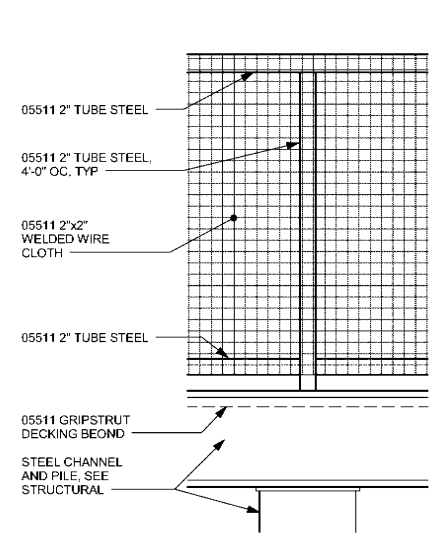
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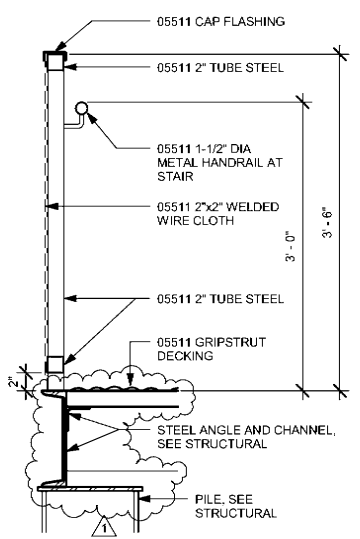
Interior  
Details  
**A7.1**



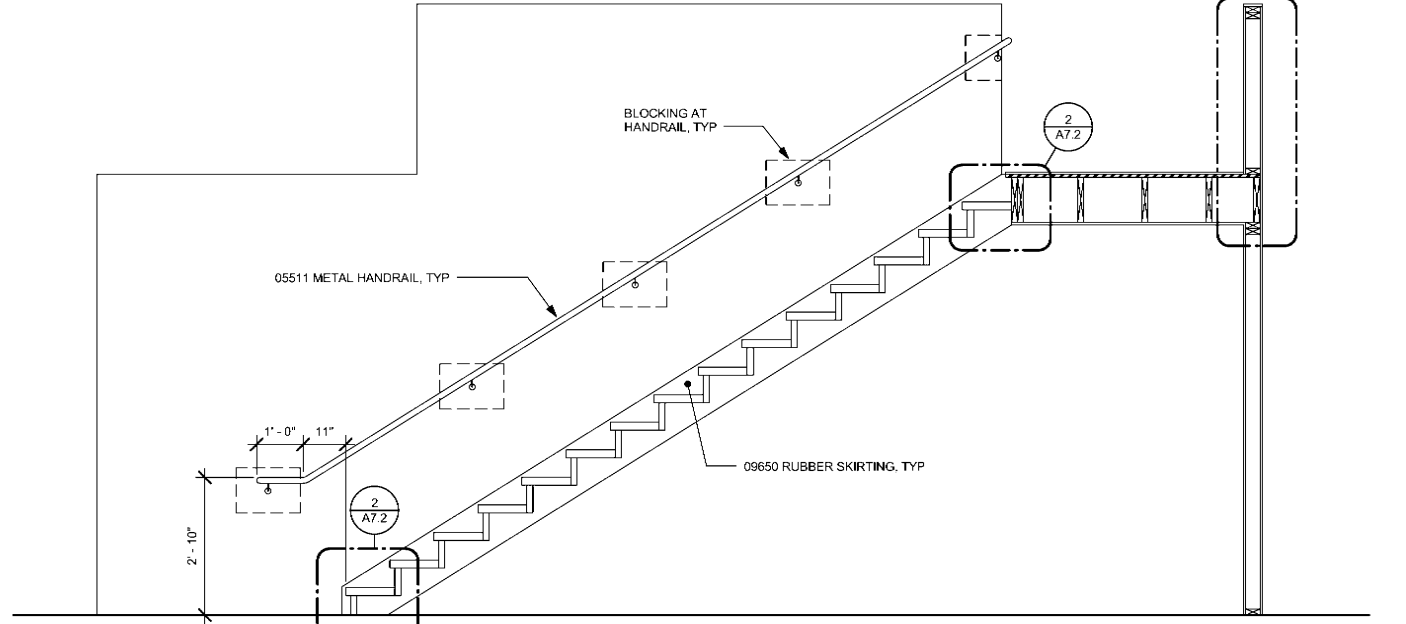
**4** EXTERIOR STAIR AND DECK SECTION  
A7.2 SCALE: 1/2" = 1'-0"



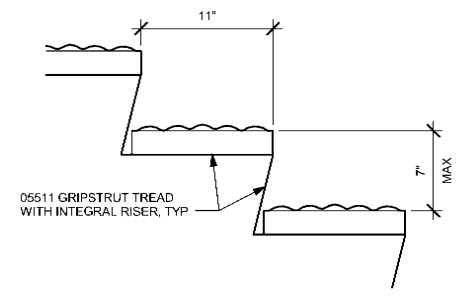
**5** EXTERIOR GUARDRAIL DETAIL  
A7.2 SCALE: 1" = 1'-0"



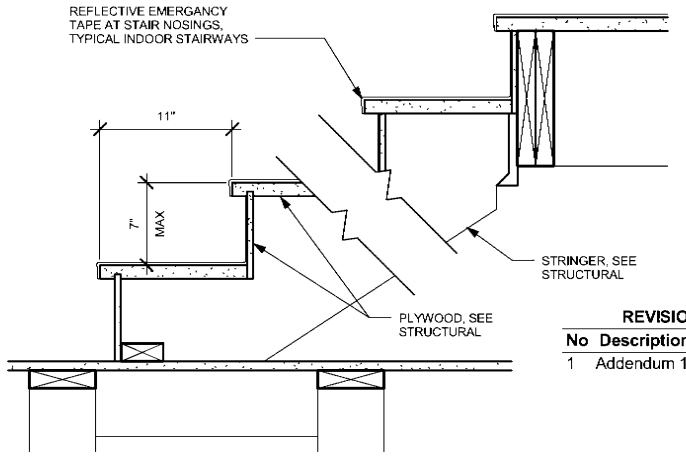
**3** INTERIOR STAIR SECTION  
A7.2 SCALE: 1/2" = 1'-0"



**2** INTERIOR STAIR DETAIL  
A7.2 SCALE: 1 1/2" = 1'-0"



**1** EXTERIOR STAIR DETAIL  
A7.2 SCALE: 1 1/2" = 1'-0"



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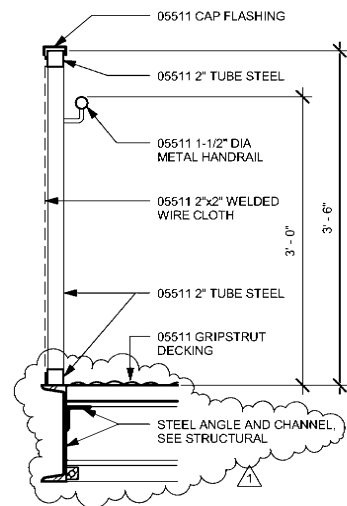
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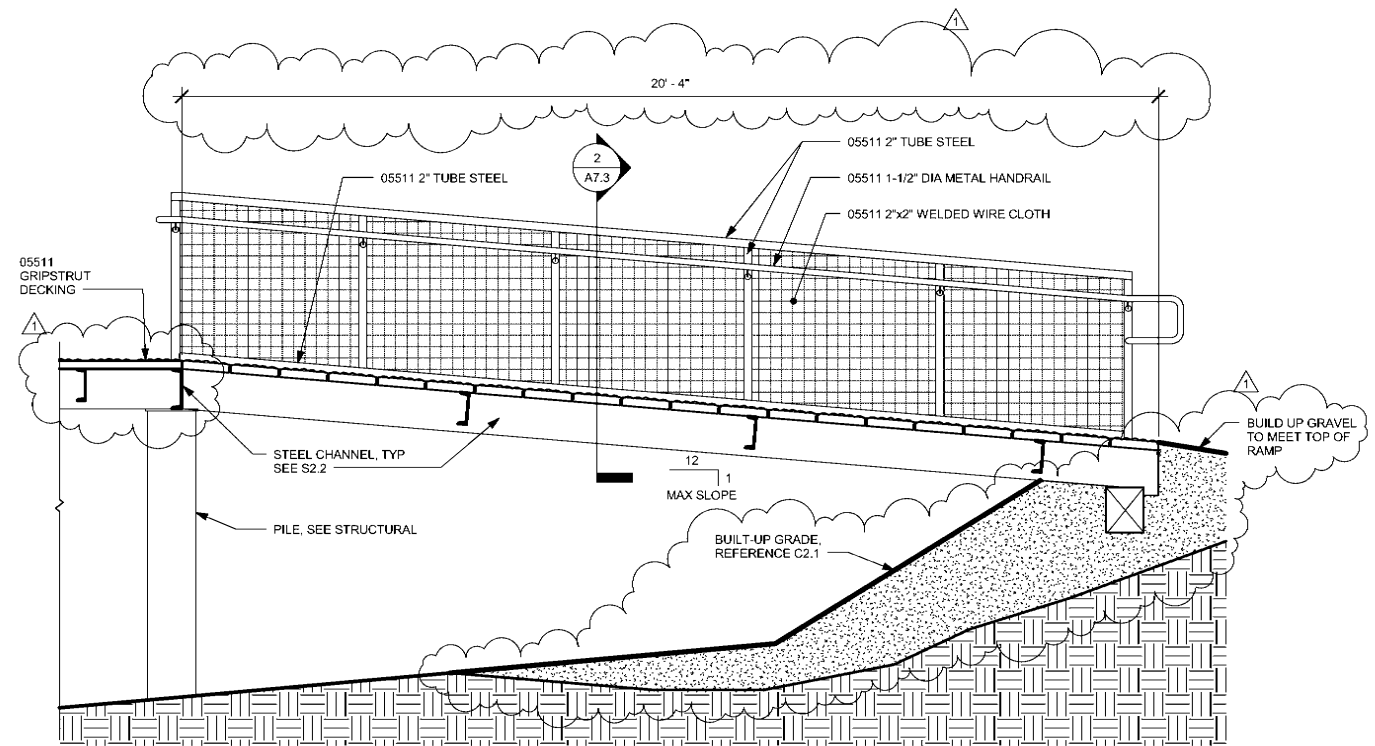
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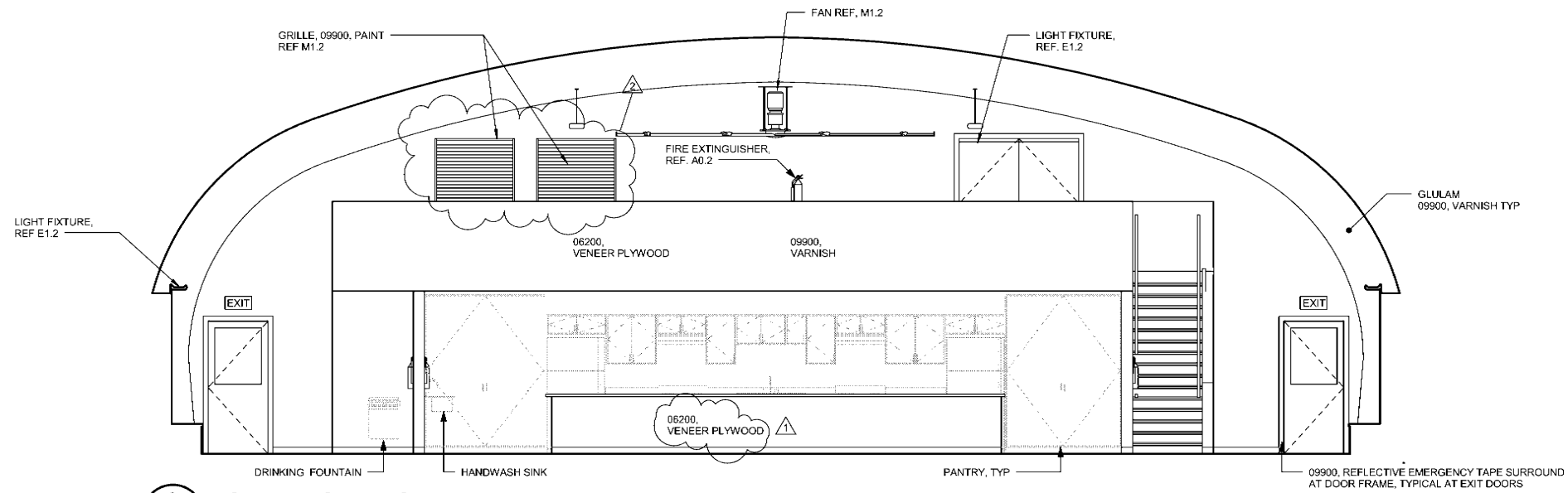
**Ramp Details**  
**A7.3**



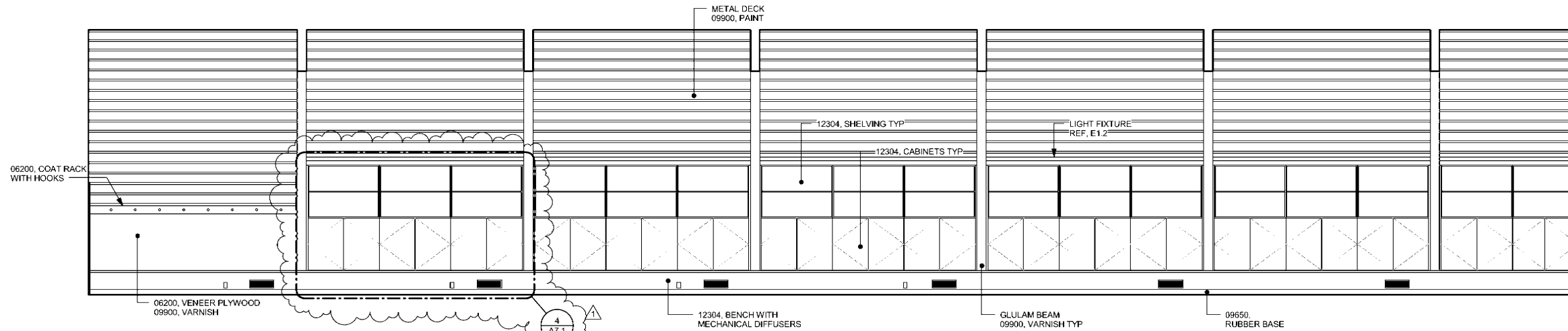
**2 RAMP GUARDRAIL**  
 A7.3 SCALE: 1" = 1'-0"



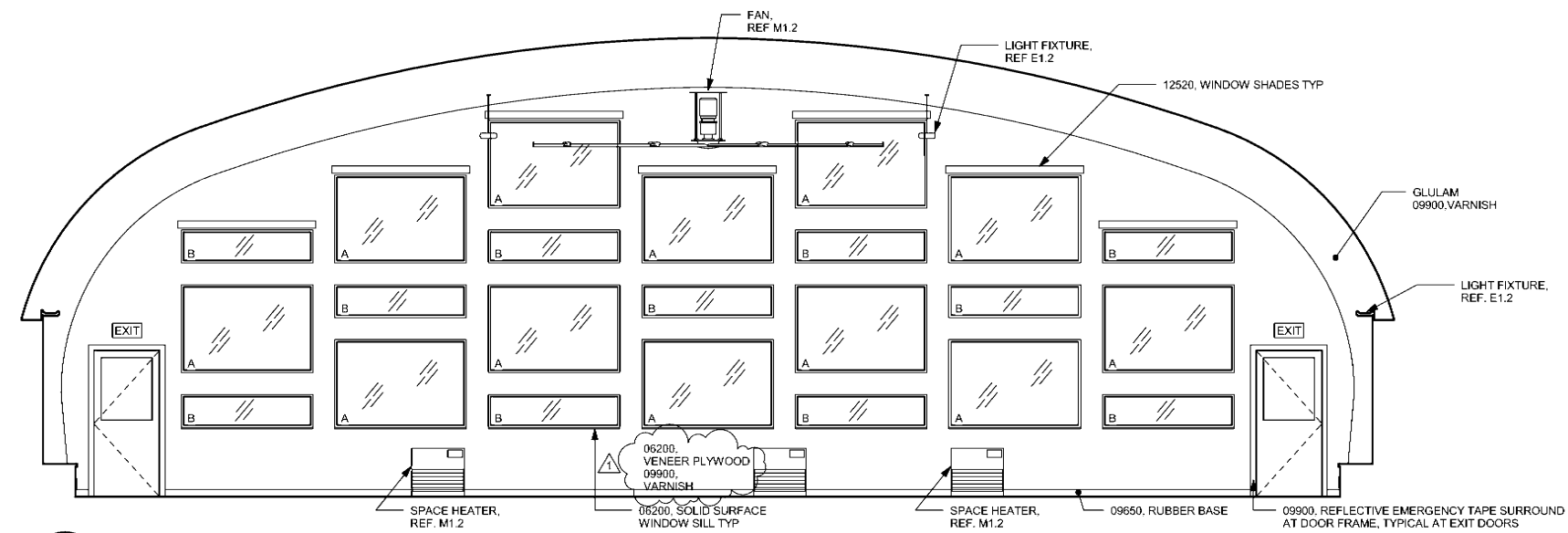
**1 RAMP SECTION**  
 A7.3 SCALE: 1/2" = 1'-0"



**3** 2 Gathering Space - South  
 A8.1 SCALE: 1/4" = 1'-0"



**2** 1 Gathering Space - East / West Mirror  
 A8.1 SCALE: 1/4" = 1'-0"



**1** 1 Gathering Space - North  
 A8.1 SCALE: 1/4" = 1'-0"

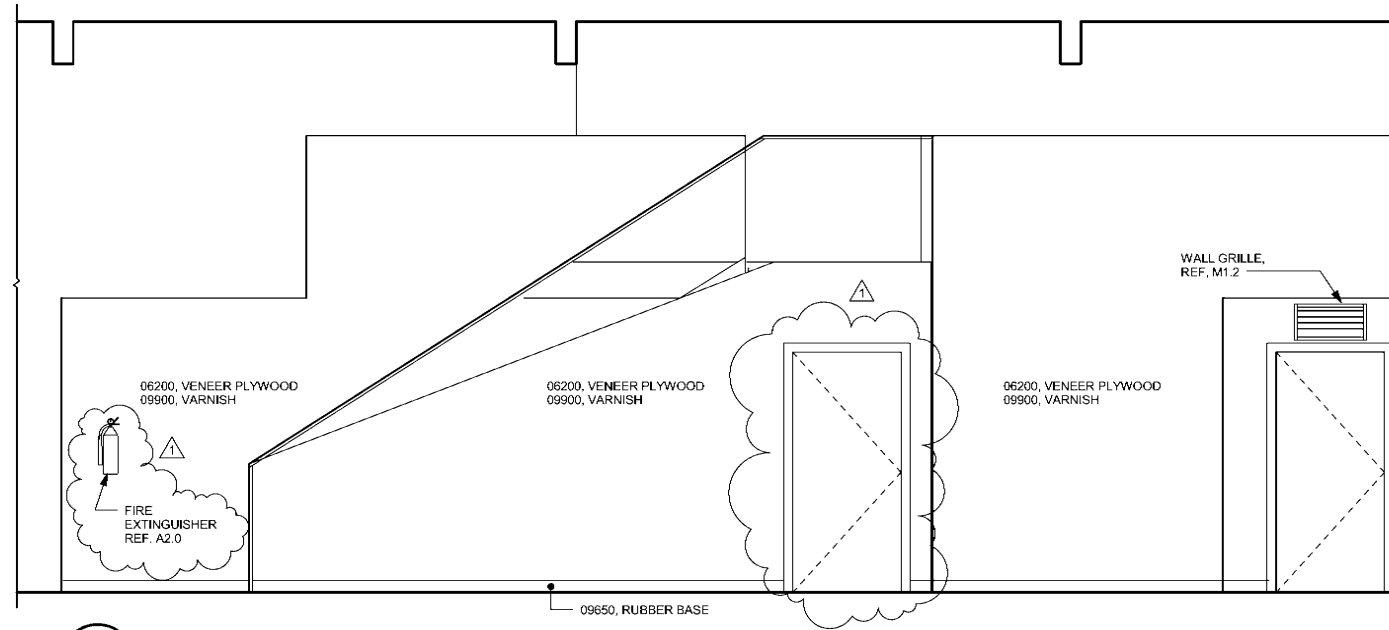
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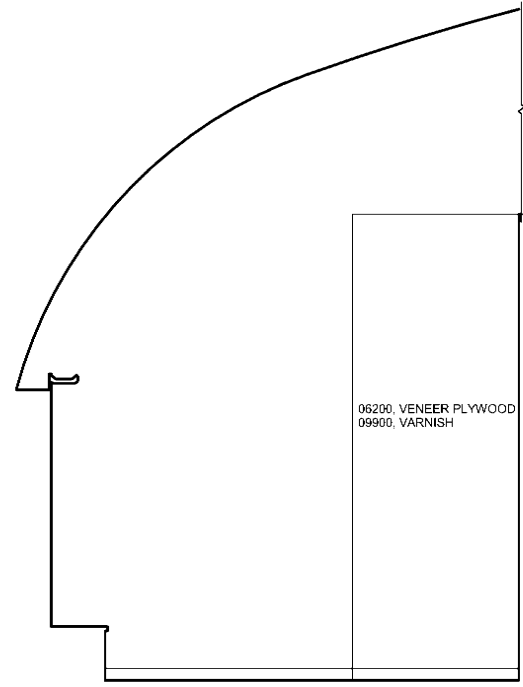
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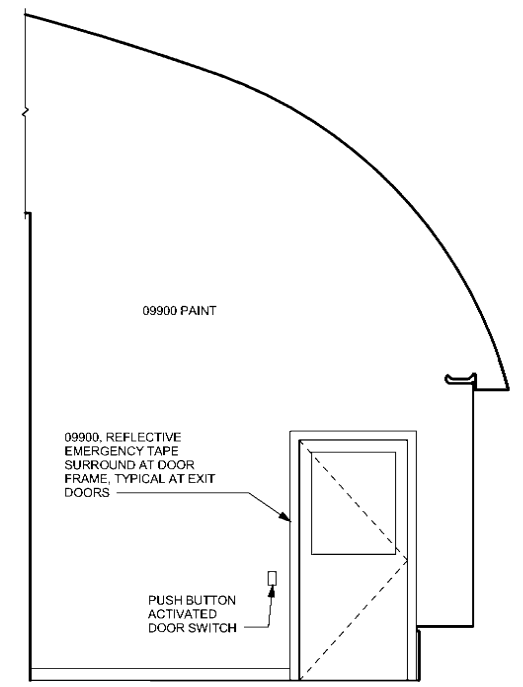
**Interior Elevations**  
**A8.1**



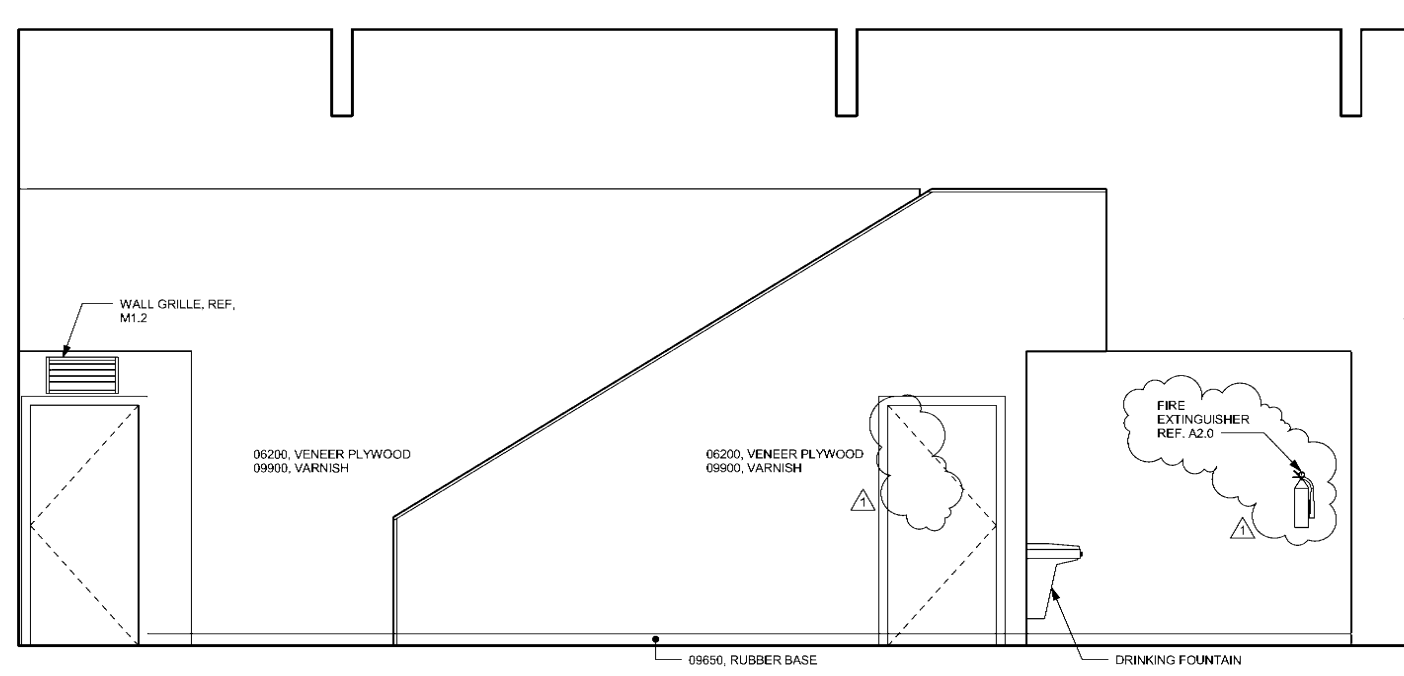
6 6 Foyer B - East  
A8.2 SCALE: 3/8" = 1'-0"



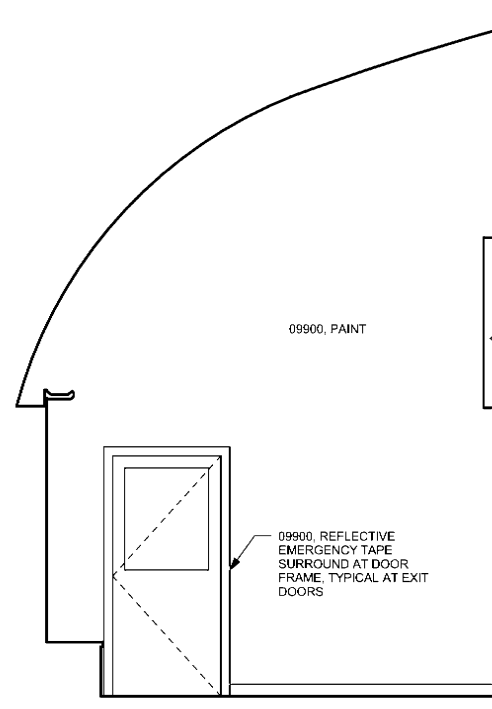
5 6 Foyer B - North  
A8.2 SCALE: 3/8" = 1'-0"



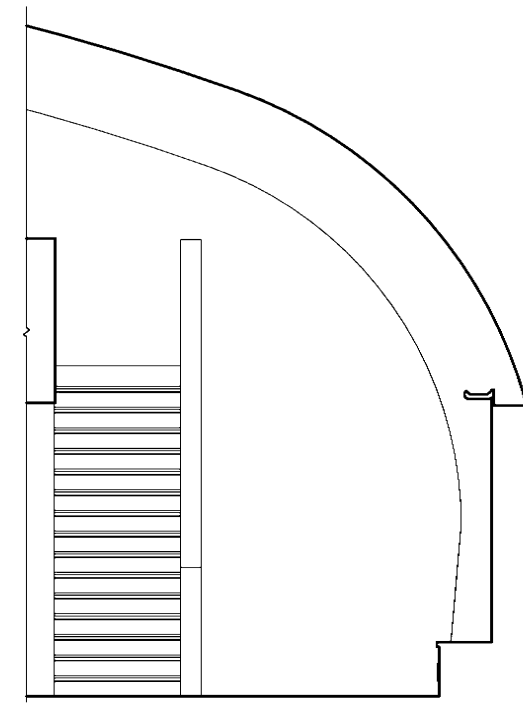
4 6 Foyer B - South  
A8.2 SCALE: 3/8" = 1'-0"



3 3 Foyer A - West  
A8.2 SCALE: 3/8" = 1'-0"



2 3 Foyer A - South  
A8.2 SCALE: 3/8" = 1'-0"



1 3 Foyer A - North  
A8.2 SCALE: 3/8" = 1'-0"

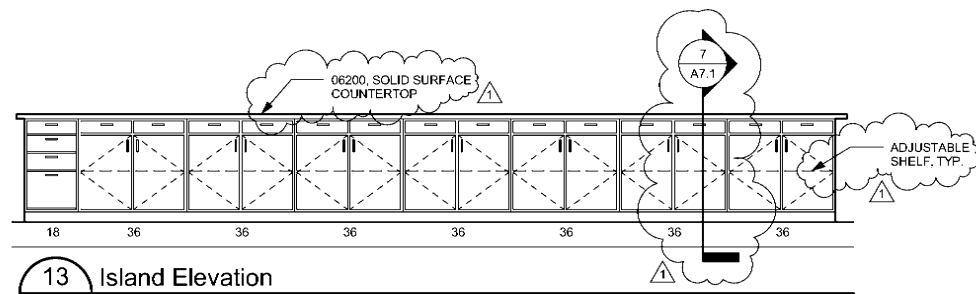
REVISIONS		
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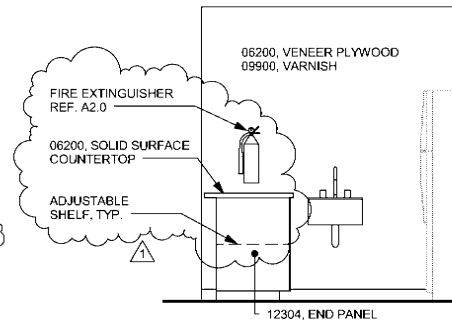
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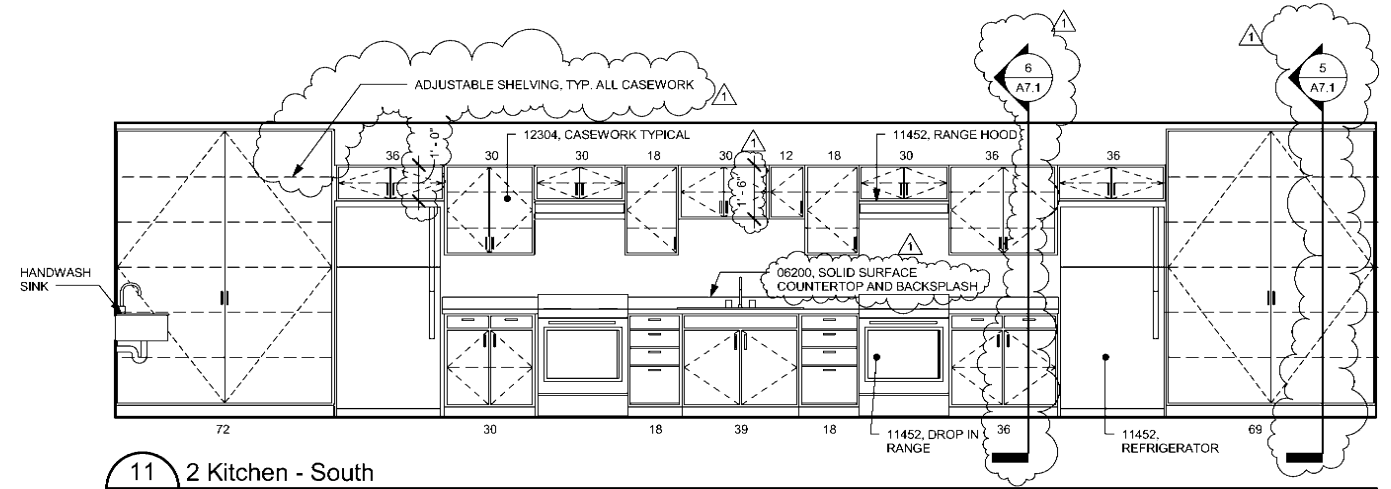
Interior  
Elevations  
**A8.2**



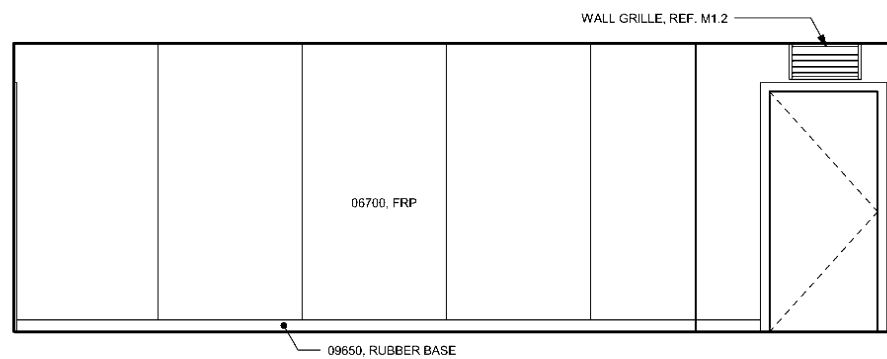
**13** Island Elevation  
A8.3 SCALE: 3/8" = 1'-0"



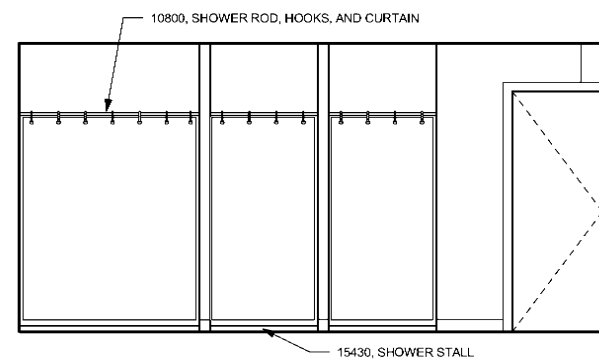
**12** 2 Kitchen - East  
A8.3 SCALE: 3/8" = 1'-0"



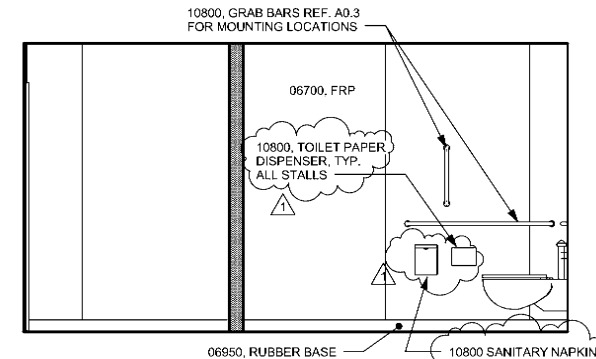
**11** 2 Kitchen - South  
A8.3 SCALE: 3/8" = 1'-0"



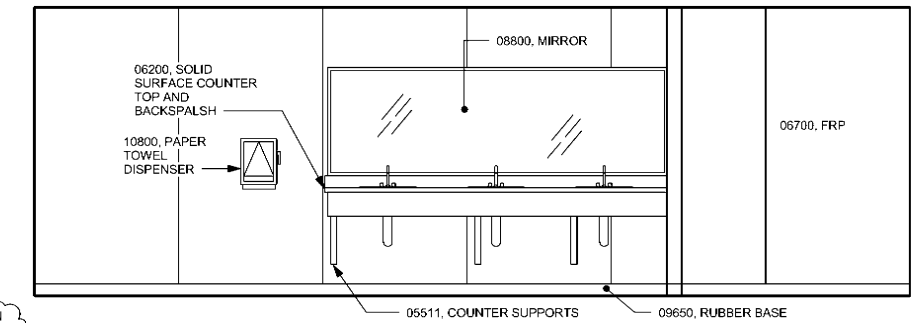
**10** 4 Women - East  
A8.3 SCALE: 3/8" = 1'-0"



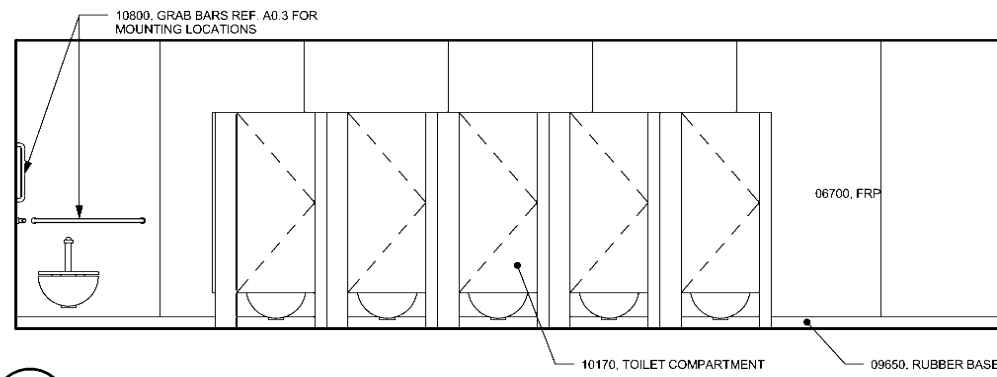
**9** 4 Women - North  
A8.3 SCALE: 3/8" = 1'-0"



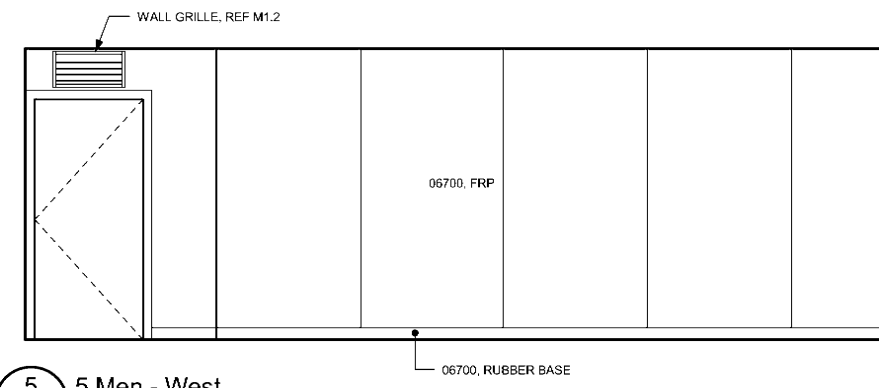
**8** 4 Women - South  
A8.3 SCALE: 3/8" = 1'-0"



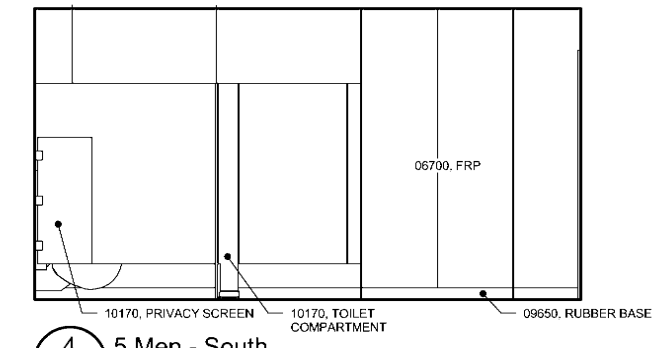
**7** 4 Women - West - Counter  
A8.3 SCALE: 3/8" = 1'-0"



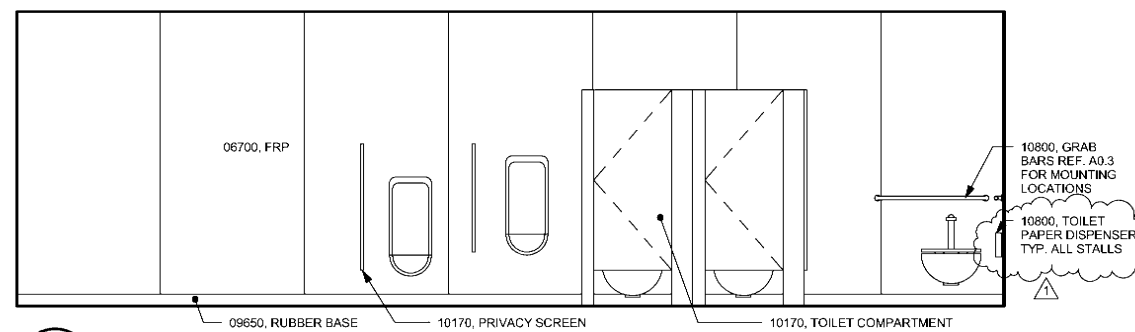
**6** 4 Women - West - Toilet Fixtures  
A8.3 SCALE: 3/8" = 1'-0"



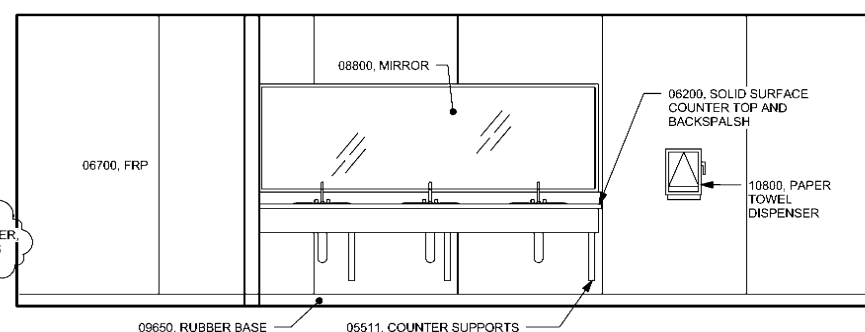
**5** 5 Men - West  
A8.3 SCALE: 3/8" = 1'-0"



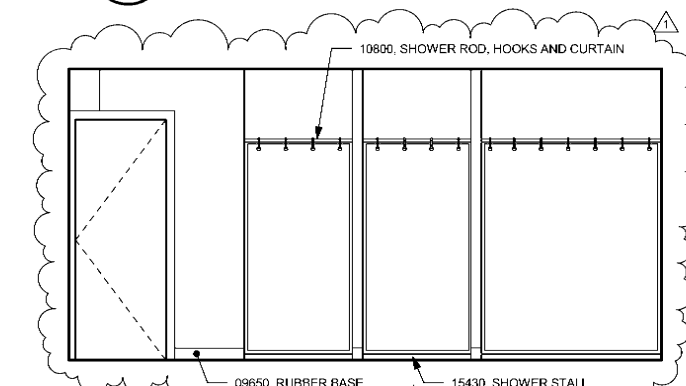
**4** 5 Men - South  
A8.3 SCALE: 3/8" = 1'-0"



**3** 5 Men - East - Toilet Fixtures  
A8.3 SCALE: 3/8" = 1'-0"



**2** 5 Men - East - Counter  
A8.3 SCALE: 3/8" = 1'-0"



**1** 5 Men - North  
A8.3 SCALE: 3/8" = 1'-0"

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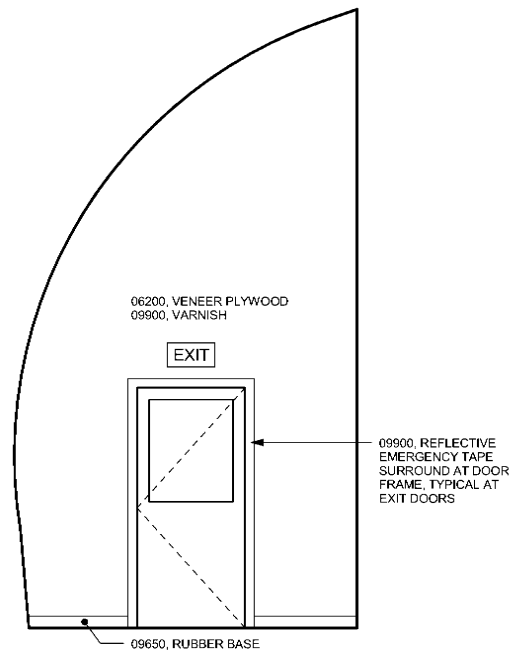


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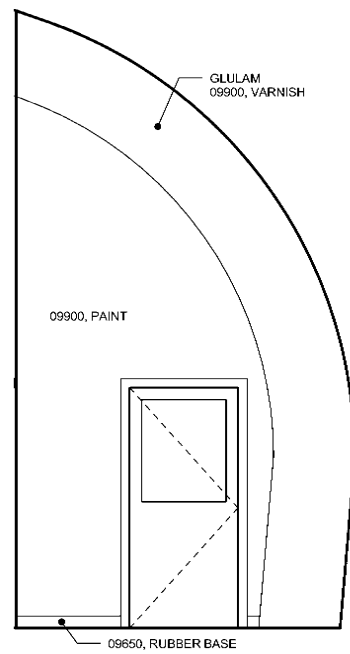
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**Interior Elevations**  
**A8.3**

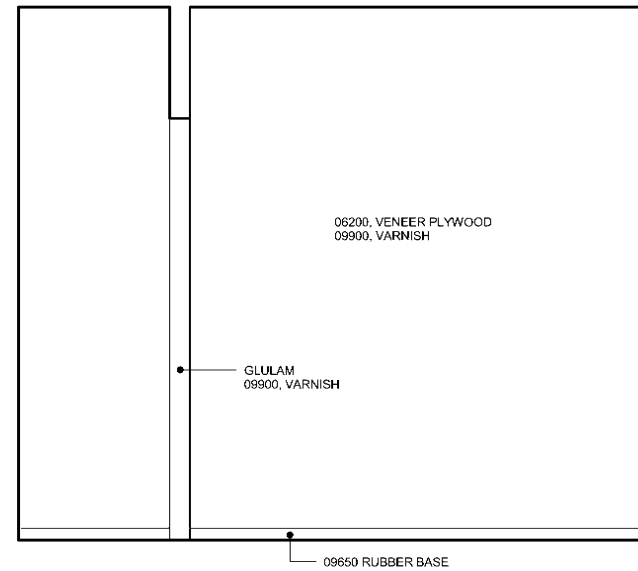




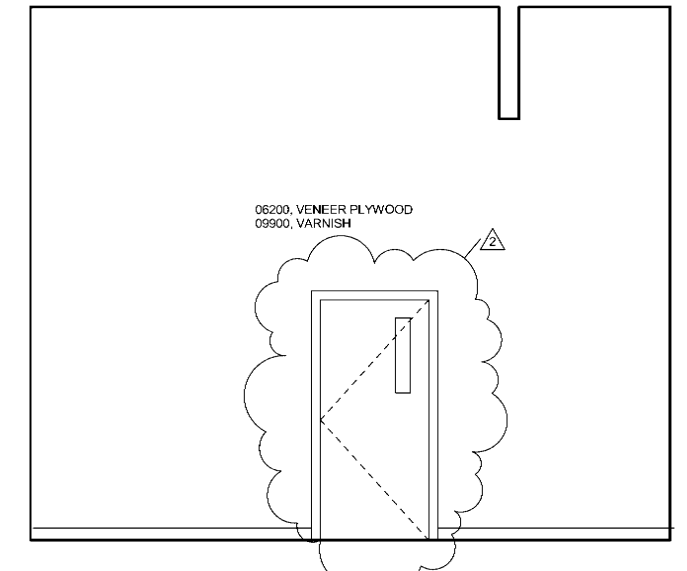
8 7 Vestibule A - South  
A8.4 SCALE: 3/8" = 1'-0"



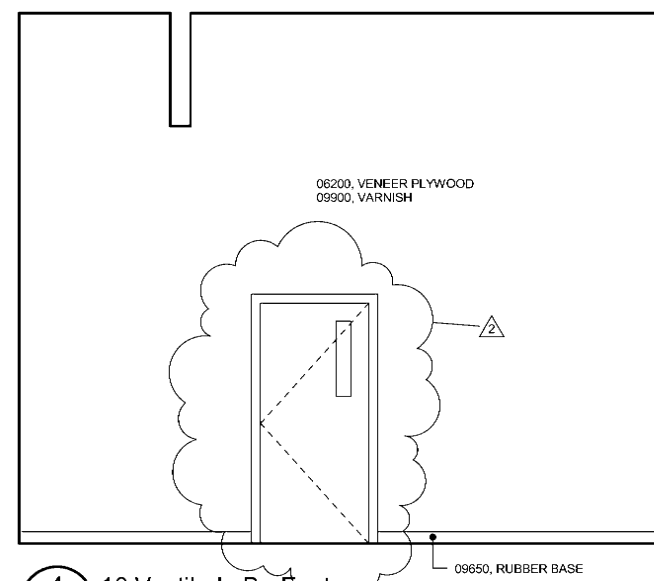
7 7 Vestibule A - North  
A8.4 SCALE: 3/8" = 1'-0"



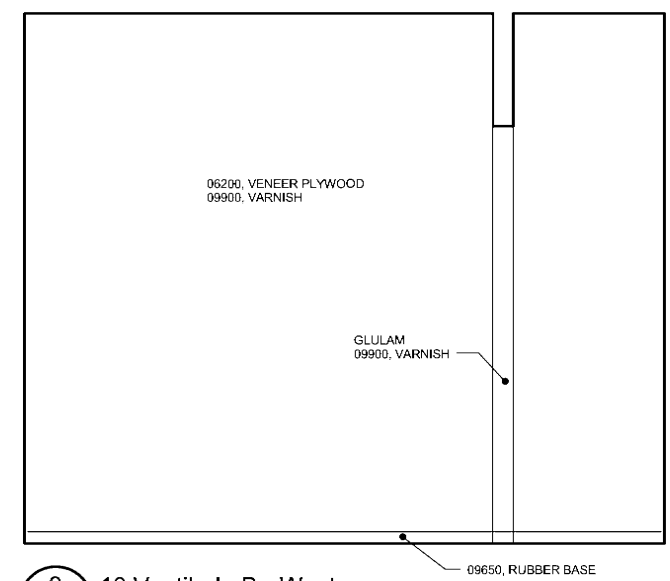
6 7 Vestibule A - East  
A8.4 SCALE: 3/8" = 1'-0"



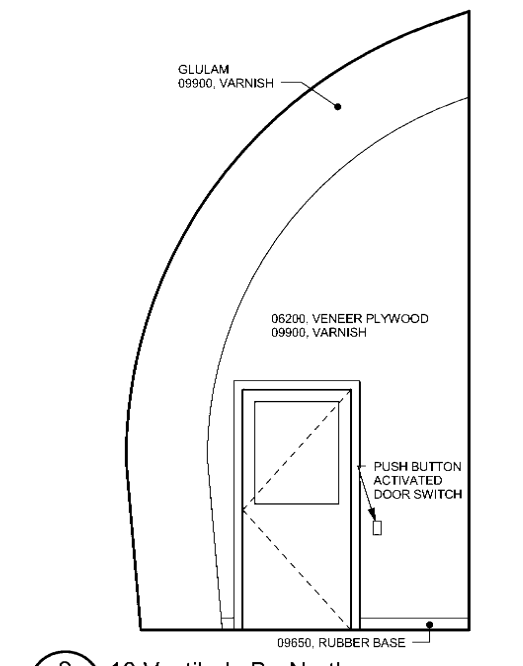
5 7 Vestibule A - West  
A8.4 SCALE: 3/8" = 1'-0"



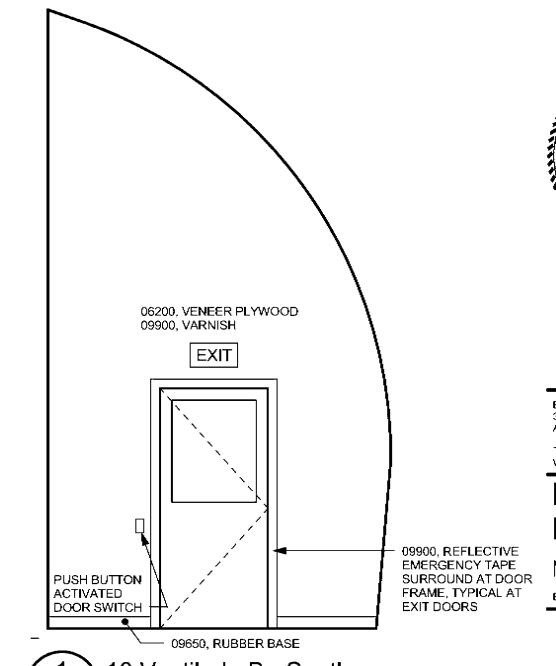
4 10 Vestibule B - East  
A8.4 SCALE: 3/8" = 1'-0"



3 10 Vestibule B - West  
A8.4 SCALE: 3/8" = 1'-0"



2 10 Vestibule B - North  
A8.4 SCALE: 3/8" = 1'-0"



1 10 Vestibule B - South  
A8.4 SCALE: 3/8" = 1'-0"

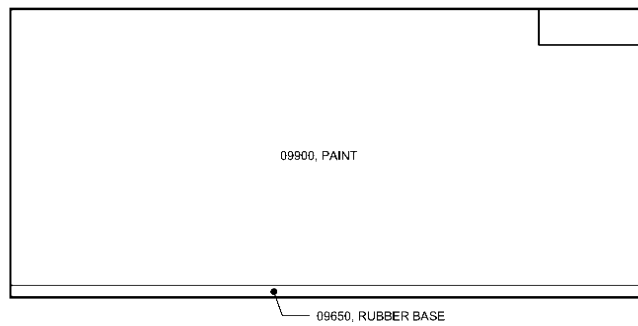
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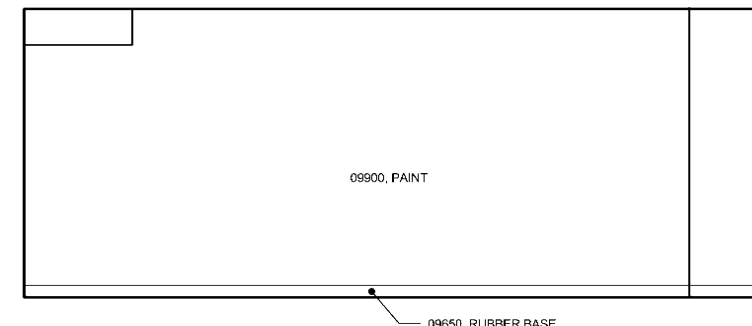
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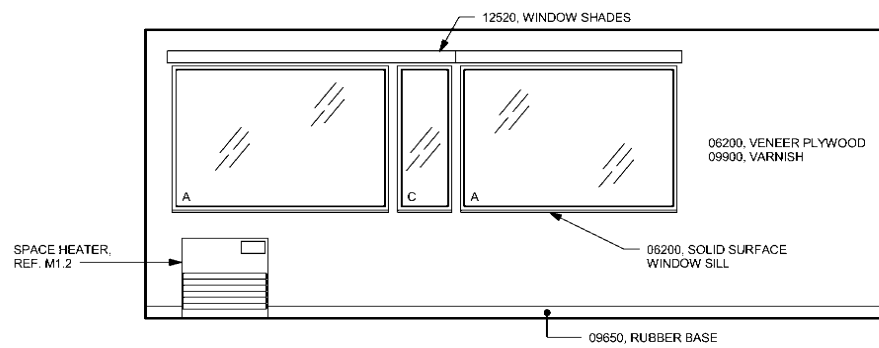
**Interior  
Elevations  
A8.4**



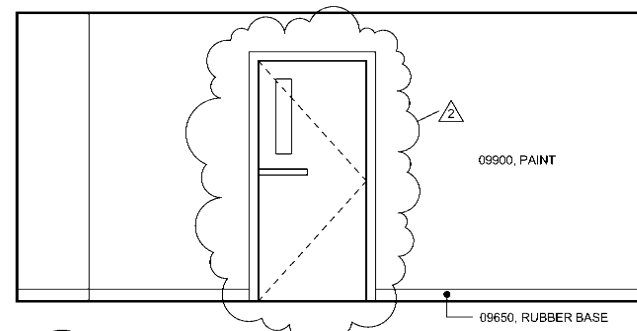
8 8 Clinic - West  
A8.5 SCALE: 3/8" = 1'-0"



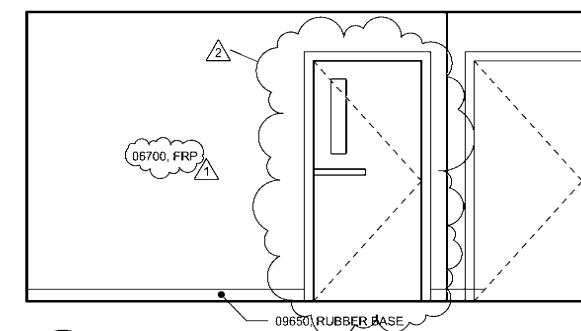
7 8 Clinic - North  
A8.5 SCALE: 3/8" = 1'-0"



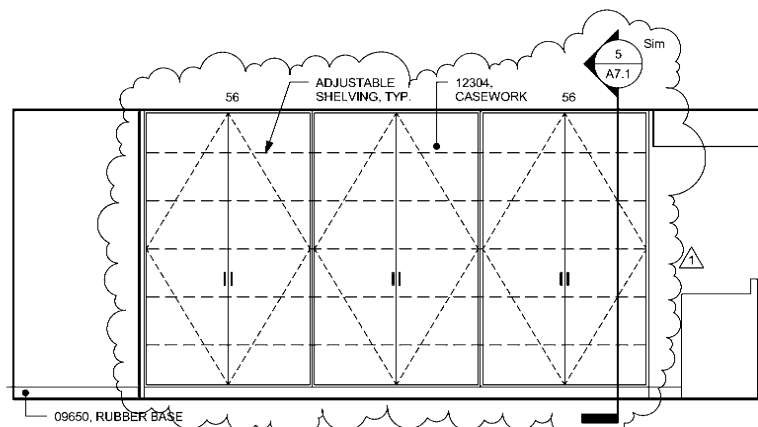
6 8 Clinic - South  
A8.5 SCALE: 3/8" = 1'-0"



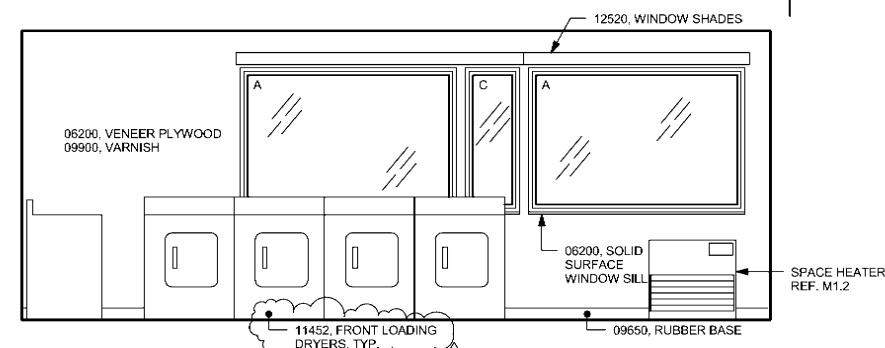
5 8 Clinic - East  
A8.5 SCALE: 3/8" = 1'-0"



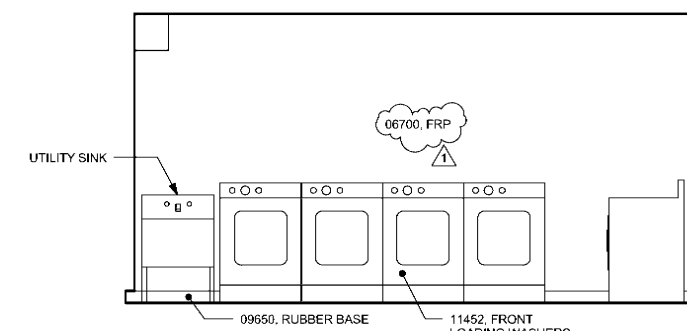
4 9 Washeteria - West  
A8.5 SCALE: 3/8" = 1'-0"



3 9 Washeteria - North  
A8.5 SCALE: 3/8" = 1'-0"



2 9 Washeteria - South  
A8.5 SCALE: 3/8" = 1'-0"



1 9 Washeteria - East  
A8.5 SCALE: 3/8" = 1'-0"

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**Mertarvik**  
Evacuation Center  
Nelson Island, Alaska  
BDS Project No.: 609013  
Construction Documents  
February 4, 2011

Interior  
Elevations  
**A8.5**

**GENERAL NOTES**

ALL DESIGN ELEMENTS NOT SPECIFICALLY SHOWN IN THE CONTRACT DOCUMENTS SHALL BE IN ACCORDANCE WITH THE IBC 2006 AND IBC 2006 REFERENCED STANDARDS.

PRIOR TO FABRICATION AND CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXISTING ELEVATIONS AND DIMENSIONS ASSOCIATED WITH THE WORK. ALL OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE CONTRACT DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTING OFFICER PRIOR TO PROCEEDING WITH THE RELATED WORK.

THE STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATED THE METHOD OF CONSTRUCTION. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LIVE LOADS.

TYPICAL DETAILS AS SHOWN ON THE DRAWINGS APPLY TO SIMILAR SITUATIONS OCCURRING ON THE PROJECT WHETHER OR NOT THEY ARE IDENTIFIED IN EACH LOCATION. COORDINATE WITH THE CONTRACTING OFFICER OF APPLICABILITY OF TYPICAL DETAIL.

**STRUCTURAL DESIGN DATA**

LIVE LOADS:

BUILDING OCCUPANCY CATEGORY . . . . .	IV
ASSEMBLY AREAS . . . . .	100 PSF
STAIRS, CORRIDORS, RESTROOMS . . . . .	100 PSF
MECHANICAL/ELECTRICAL ROOMS . . . . .	125 PSF UNLESS INDIVIDUAL MECHANICAL EQUIPMENT GOVERNS

SNOW LOADS: IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2006 IBC

- P<sub>g</sub> = 40 PSF
- P<sub>f</sub> = 30 PSF
- C<sub>e</sub> = .7
- C<sub>t</sub> = 1.2
- I = 1.2
- P<sub>s</sub> = 30 lb/ft<sup>2</sup>

WIND LOADS: IN ACCORDANCE WITH 2006 IBC BASIC.

- BASIC WIND SPEED . . . . . V = 130 MPH
- WIND IMPORTANCE . . . . . I = 1.15
- ENCLOSURE CATEGORY . . . . . ENCLOSED
- WIND EXPOSURE CATEGORY . . . . . EXPOSURE D
- INTERNAL PRESSURE COEFFICIENT, . . . . . GC<sub>pi</sub> = .18

COMPONENT AND CLADDING WIND PRESSURES (PSF)						
ZONE	10 sq FT.		20 sq FT.		50 sq FT.	
	NA	-28.2	NA	-28.2	NA	-28.2
1 MAIN ROOF	NA	-28.2	NA	-28.2	NA	-28.2
2 EDGE ROOF	22.6	-76.1	21.2	-66.3	19.3	-53.1
3 CORNER ROOF	22.6	-123.1	21.2	-99.2	19.3	-67.2
4 MAIN WALL	50.8	-38.1	48.4	-35.7	45.6	-32.9
5 EDGE WALL	50.8	-50.8	48.4	-46.1	45.6	-40.4

NOTE: (-) INDICATES SUCTION PERPENDICULAR TO THE SURFACE ELEMENT.

SEISMIC LOADS: IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2006 IBC LATERAL FORCES ARE TRANSFERRED TO THE SHEAR WALLS BY A FLEXIBLE DIAPHRAGM. RESULTING WALL FORCES ARE CALCULATED BY THE TRIBUTARY AREA METHOD.

- SEISMIC IMPORTANCE FACTOR . . . . . I = 1.5
- S<sub>s</sub> = 0.150
- S<sub>1</sub> = 0.070
- SITE CLASS . . . . . E
- S<sub>DS</sub> = 0.0250
- S<sub>D1</sub> = 0.163
- SEISMIC DESIGN CATEGORY . . . . . D
- BASIC LATERAL-FORCE RESISTING SYSTEM
- TRANSVERSE . . . . . TIMBER ARCH FRAMES
- LONGITUDINAL . . . . . DIAPHRAGM/SHEARWALL
- DESIGN BASE SHEAR . . . . . V = 30.0kip
- SEISMIC RESPONSE COEFFICIENT . . . . . C<sub>s</sub> = 0.10
- RESPONSE MODIFICATION FACTOR . . . . . R = 2.5
- ANALYSIS PROCEDURE USED . . . . . EQUIVALENT LATERAL FORCE PROCEDURE

**ARCHITECTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS**

- ALL COMPONENTS SHALL BE ANCHORED TO THE BUILDING STRUCTURE. ANCHORAGE SHALL BE DESIGNED FOR ALL DESIGN CASES, INCLUDING SEISMIC, BY THE CONTRACTOR'S ENGINEER AND SUBMITTED TO THE DEPARTMENT FOR APPROVAL. DRAWINGS AND CALCULATIONS SHALL BE SEALED BY A REGISTERED ENGINEER IN THE STATE OF ALASKA.

**FOUNDATION NOTES**

- ALL FOUNDATION ELEMENTS AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE H PILE SPECIFICATION AND THE GEOTECHNICAL REPORT NO 1691.01, DATED 11 NOVEMBER, 2010 BY R&M CONSULTANTS INC.

**STRUCTURAL STEEL NOTES**

- ALL STRUCTURAL STEEL (PILES EXCLUDED) SHALL BE ASTM A36 OR A992. ALL WIDE FLANGE SHAPES SHALL HAVE A MIN YIELD STRENGTH OF 50 KSI. ALL CHANNEL,

ANGLES AND R's SHALL BE A36, STEEL TUBES SHALL BE ASTM A500, GRADE B. STEEL PIPE SHALL BE ASTM A53, GRADE B. PILES SHALL BE OF MATERIAL REQUIRED BY SPECIFICATION SECTION 02458, H PILES.

- ALL BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 OR A490. ALL BOLTS SHALL BE 3/4 INCH DIAMETER UNLESS OTHERWISE NOTED.
- ALL WELDING ELECTRODES SHALL BE E70XX.
- ALL DETAILING, FABRICATION AND ERECTION SHALL CONFORM TO AISC SPECIFICATIONS AND CODES, LATEST EDITION.
- ALL WELDING SHALL BE DONE BY QUALIFIED WELDERS AND SHALL CONFORM TO THE AWS "D1.1 STRUCTURAL WELDING CODE-STEEL", LATEST EDITION. SEE SPECIFICATION FOR COMPLETE WELDING AND WELD INSPECTION REQUIREMENTS.
- THE FABRICATOR/ERECTOR SHALL SUBMIT TO THE DEPARTMENT, FOR REVIEW, ENGINEERED AND CHECKED DRAWINGS SHOWING SHOP FABRICATION DETAILS, FIELD ASSEMBLY DETAILS AND ERECTION DIAGRAMS FOR ALL STRUCTURAL STEEL. MATERIAL FINISH SHALL BE INDICATED.
- ALL CONNECTIONS SHALL BE SIMPLE SHEAR CONNECTIONS USING HIGH-STRENGTH BOLTS IN BEARING TYPE CONNECTIONS WITH THREADS EXCLUDED FROM THE SHEAR PLANE IN SINGLE SHEAR, UNLESS OTHERWISE NOTES.
- ALL BEAMS, JOISTS AND TRUSSES SHALL BE FABRICATED WITH THE NATURAL CAMBER UP.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND SEQUENCES WITH RELATION TO TEMPERATURE DIFFERENTIALS.
- THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR APPROVAL OF THE DEPARTMENT.

11. EXTERIOR 3"ø PIPE FOR FENCING SHALL BE HOT DIPPED GALVANIZED. ALL OTHER EXTERIOR STEEL, INCLUDING H-PILES SHALL BE PRIMED AND PAINTED. SEE ARCHITECTURAL FOR PAINTING REQUIREMENTS.

- THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF ALL STEEL MEMBERS, PLATES AND CONNECTION HARDWARE INCLUDING COATING. SHOP DRAWINGS SHALL BE SUBMITTED TO THE DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

**STRUCTURAL TIMBER NOTES**

- ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "TIMBER CONSTRUCTION STANDARDS" OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION THE, "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" OF THE NATIONAL FOREST PRODUCTS ASSOCIATION, AND CHAPTER 23 OF THE IBC 2006.

**MATERIALS:**

a. DIMENSIONAL LUMBER:

SPECIES: . . . . . DOUGLAS FIR  
GRADE: . . . . . NO. 2  
MODULUS OF ELASTICITY: . . . . . 1,700,000 PSI

MINIMUM WORKING STRESSES (SPECIFY USE CONDITION):

EXTREME FIBER IN BENDING . . . . . F<sub>b</sub> = 900 PSI  
TENSION PARALLEL TO GRAIN . . . . . F<sub>t</sub> = 575 PSI  
COMPRESSION PARALLEL TO GRAIN . . . . . F<sub>c</sub> = 1,350 PSI  
COMPRESSION PERPENDICULAR TO GRAIN . . . . . F<sub>c</sub> = 625 PSI  
HORIZONTAL SHEAR . . . . . F<sub>v</sub> = 180 PSI

b. GLU-LAM TIMBER:

SPECIES: . . . . . DF/HF 24  
GRADE: . . . . . F-V4  
MODULUS OF ELASTICITY: . . . . . 1,800,000 PSI  
MAXIMUM THICKNESS OF LAMINATION  
STRAIGHT. . . . . 1 1/2"  
CURVED. . . . . 3/4"

MINIMUM WORKING STRESSES (SPECIFY USE CONDITION):

EXTREME FIBER IN BENDING . . . . . F<sub>b</sub> = 2,400 PSI  
TENSION PARALLEL TO GRAIN . . . . . F<sub>t</sub> = 1,150 PSI  
COMPRESSION PARALLEL TO GRAIN . . . . . F<sub>c</sub> = 1,450 PSI  
COMPRESSION PERPENDICULAR TO GRAIN . . . . . F<sub>c</sub> = 625 PSI  
HORIZONTAL SHEAR . . . . . F<sub>v</sub> = 165 PSI

c. LAMINATED VENEER LUMBER (LVL)

SPECIES: . . . . . DF-L  
GRADE: . . . . . 2.0-2800  
MODULUS OF ELASTICITY . . . . . 2,000,000 PSI

MINIMUM WORKING STRESSES

EXTREME FIBER IN BENDING . . . . . F<sub>b</sub> = 2800 PSI  
TENSION PARALLEL TO GRAIN . . . . . F<sub>t</sub> = 1950 PSI  
COMPRESSION PARALLEL TO GRAIN . . . . . F<sub>c</sub> = 3000 PSI  
COMPRESSION PERPENDICULAR TO GRAIN . . . . . F<sub>c</sub> = 750 PSI  
HORIZONTAL SHEAR . . . . . F<sub>v</sub> = 285 PSI

d. ENGINEERED I-JOIST

SPECIES . . . . . DF-L  
GRADE . . . . . 60 - 2.0  
MODULUS OF ELASTICITY . . . . . 2,000,000 PSI

MINIMUM WORKING STRESSES

EXTREME FIBER IN BENDING . . . . . F<sub>b</sub> = PSI  
TENSION PARALLEL TO GRAIN . . . . . F<sub>t</sub> = PSI  
COMPRESSION PARALLEL TO GRAIN . . . . . F<sub>c</sub> = PSI  
COMPRESSION PERPENDICULAR TO GRAIN . . . . . F<sub>c</sub> = PSI  
HORIZONTAL SHEAR . . . . . F<sub>v</sub> = PSI

e. PLYWOOD:

FLOOR PLYWOOD SHALL BE APA RATED STURD-I-FLOOR, EXPOSURE 1, SPAN RATED 24 OC, FOR PLYWOOD THICKNESS, SEE PLANS.

WALL PLYWOOD SHALL BE SPAN RATED 16/32 FOR PLYWOOD THICKNESS, SEE ARCHITECTURAL AND STRUCTURAL PLANS.

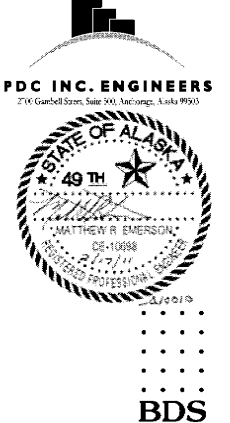
- INSTALL ALL PLYWOOD WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS, UNLESS NOTED OTHERWISE, WITH THE PANEL OVER TWO OR MORE SPANS. ALLOW 1/8 INCH SPACING AT PANEL ENDS AND 1/4 INCH AT PANEL EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER. PLYWOOD SHALL BE USED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN PLYWOOD ASSOCIATION.
- WHERE GLB'S SIT BETWEEN STEEL PLATES ON PILES, CHAMFER CORNERS 1/2" TO ACCEPT FILLET WELD.
- ALL PLYWOOD FLOOR PANELS SHALL BE GLUE-NAILED TO FLOOR FRAMING, NAIL SPACING PER PLANS. USE ONLY ADHESIVES CONFORMING TO APA SPECIFICATION AFG-01, APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. IF NON VENEER PANELS WITH SEALED SURFACES AND EDGES ARE TO BE USED, USE ONLY SOLVENT-BASED GLUES; CHECK WITH PANEL MANUFACTURER.
- THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL TIMBER MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT THE PRIOR REVIEW OF THE DEPARTMENT.
- NO WOOD TREATMENTS OR PRESERVATIVES SHALL BE USED WITHOUT PRIOR REVIEW OF THE DEPARTMENT.
- ALL WOOD AND NAILERS IN CONTACT WITH EARTH, OR WITHIN 6" OF EARTH SHALL BE TREATED IN ACCORDANCE WITH AWPB-FDN. NAILS AND METAL FASTENERS SHALL BE GALVANIZED OR STAINLESS STEEL AS RECOMMENDED BY THE TREATED WOOD MANUFACTURER.
- ALL NAILS SHALL BE COMMON WIRE NAILS. NAILING SHALL CONFORM TO TABLE 2304.9.1 OF THE 2006 IBC.
- STANDARD WASHERS SHALL BE USED UNDER ALL BOLT HEADS AND NUTS CONTACTING WOOD.
- ALL EXTERIOR TIMBER CONNECTORS SHALL BE HOT-DIPPED GALVANIZED OR PRIMED AND PAINTED BLACK.
- ALL INTERIOR STEEL CONNECTORS AND BOLTHEADS SHALL BE PAINTED BLACK.
- IF PNEUMATIC NAILERS ARE TO BE USED THE CONTRACTOR MUST SUBMIT A SCHEDULE OF FASTENERS AS DESIRED AS A SUBSTITUTION TO THE DEPARTMENT FOR APPROVAL.

**STRUCTURAL STEEL DECK NOTES**

- METAL DECK SECTION PROPERTIES SHALL BE COMPUTED IN ACCORDANCE WITH AISI "SPECIFICATION FOR THE DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS."
- ALL METAL DECKING SHALL BE FABRICATED FROM STEEL TYPE ASTM A653, HAVING A MINIMUM YIELD STRENGTH OF 33,000 PSI. ALL DECKING SHALL BE HOT-DIPPED, GALVANIZED. ALL ROOF METAL DECK SHALL BE FORMED WITH TELESKOPEDED ENDS TO LAP ENDS OF SHEETS A MINIMUM OF 2 INCHES.
- THE FABRICATOR/ERECTOR SHALL PROVIDE PUBLISHED MANUFACTURER'S DATA VERIFYING THE SPECIFIED DECK REQUIREMENTS TO THE DEPARTMENT FOR REVIEW. PROVIDE CHECKED SHOP DRAWINGS INDICATING LOCATION, GAGE AND SIZE OF EACH PIECE OF DECKING. THE DRAWINGS SHALL CLEARLY SHOW ATTACHMENT DETAILS TO STRUCTURAL FRAMING AND SIDE LAP CONNECTION DETAILS.
- THE METAL DECK SHALL BE DESIGNED TO BE CONTINUOUS OVER TWO (2) SPANS IN THE DIRECTION INDICATED. SINGLE AND DOUBLE SPANS, IF REQUIRED, SHALL SATISFY LOAD AND DEFLECTION REQUIREMENTS FOR WELDING SHEET METAL IN STRUCTURES.
- PROVIDE, AS REQUIRED, ALL RIDGE AND VALLEY PLATES, COLUMN CLOSURES, CANT STRIPS, SUMP PLATES AT PIPING PENETRATIONS AND RECESSED SUMP PANS AT ALL ROOF DRAINS. PROVIDE SUPPLEMENTAL FRAMING AT OPENINGS AS REQUIRED FOR SUPPORT OF THE METAL DECK. ALL OPENINGS SHALL BE COORDINATED WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
- SEE SPECIFICATION SECTION 05310, "STEEL DECK" FOR ADDITIONAL REQUIREMENTS.

REVISIONS		
No	Description	Date
1	Addendum 1	2/18/11

Changed Note



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February 04, 2011

GENERAL NOTES  
**S1.1**

**STRUCTURAL ABBREVIATIONS**

<p>                 % . . . . . PERCENT                  &amp; . . . . . AND                  Z . . . . . ANGLE                  @ . . . . . AT                  AFF . . . . . ABOVE FINISH FLOOR                  AISC . . . . . AMERICAN INSTITUTE OF STEEL CONST.                  APPROX . . . . . APPROXIMATELY                  ARCH . . . . . ARCHITECTURAL                  BLKG . . . . . BLOCKING                  BOT . . . . . BOTTOM                  BS . . . . . BOTH SIDES                  C . . . . . CHANNEL                  CO . . . . . CONTRACTING OFFICER                  CONT . . . . . CONTINUOUS                  CONTR'S . . . . . CONTRACTORS                  DIA/DIAM/φ . . . . . DIAMETER                  DIM . . . . . DIMENSION                  DL . . . . . DEAD LOAD                  (E) . . . . . EXISTING                  EA . . . . . EACH                  ELEC . . . . . ELECTRICAL                  ELEV . . . . . ELEVATION                  EMBED . . . . . EMBEDDED                  EQ . . . . . EQUAL             </p>	<p>                 EXT . . . . . EXTERIOR                  FF . . . . . FINISH FLOOR                  FRMG . . . . . FRAMING                  FT . . . . . FOOT/FEET                  GA . . . . . GAGE                  GEOTECH . . . . . GEOTECHNICAL                  GLB . . . . . GLU-LAM BEAM                  IBC . . . . . INTERNATIONAL BUILDING CODE                  IN . . . . . INCH(ES)                  INSUL . . . . . INSULATION                  INT . . . . . INTERIOR                  JT . . . . . JOINT                  K . . . . . KIP (1000 LB)                  KSI . . . . . KIPS PER SQUARE INCH                  LL . . . . . LIVE LOAD                  LLV . . . . . LONG LEG VERTICAL                  LOC . . . . . LOCATION                  MANUF . . . . . MANUFACTURER                  MATL . . . . . MATERIAL                  MAX . . . . . MAXIMUM                  MECH . . . . . MECHANICAL                  MEZZ . . . . . MEZZANINE                  MIN . . . . . MINIMUM                  MPH . . . . . MILES PER HOUR             </p>	<p>                 MTL . . . . . METAL                  (N) . . . . . NEW                  NA . . . . . NOT APPLICABLE                  No/# . . . . . NUMBER                  NTS . . . . . NOT TO SCALE                  OC . . . . . ON CENTER                  PEN . . . . . PENETRATION                  PL . . . . . PLATE                  PLF . . . . . POUNDS PER LINEAL FOOT                  PSF . . . . . POUNDS PER SQUARE FOOT                  PSI . . . . . POUNDS PER SQUARE INCH                  REF . . . . . REFERENCE                  REINF . . . . . REINFORCEMENT                  REQ'D . . . . . REQUIRED                  RO . . . . . ROUGH OPENING                  SCHED . . . . . SCHEDULE                  SCR . . . . . SCREWS                  SHT'G . . . . . SHEETING                  SIM . . . . . SIMILAR                  STD . . . . . STANDARD                  STL . . . . . STEEL                  T&amp;B . . . . . TOP &amp; BOTTOM                  TO . . . . . TOP OF                  TOS . . . . . TOP OF STEEL                  TYP . . . . . TYPICAL             </p>	<p>                 UNO . . . . . UNLESS NOTED OTHERWISE                  V/VERT . . . . . VERTICAL                  W/ . . . . . WITH                  WF . . . . . WIDE FLANGE             </p>
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**SPECIAL INSPECTION PROGRAM:**

1. CONTRACTOR OR DEPARTMENT SHALL EMPLOY AN INSPECTOR FOR SPECIAL INSPECTION.
2. COMPLETED INSPECTIONS MUST BE SUBMITTED TO THE DEPARTMENT ON SITE FOR REVIEW.
3. SPECIAL INSPECTION REQUIREMENTS.

SPECIAL INSPECTIONS PLAN				
ITEM	INSPECTION RATE		REFERENCED STANDARD	2006 IBC STANDARD
	CONTINUOUS	PERIODIC		
<b>STEEL:</b>				
1. MATERIAL VERIFICATION OF STRUCTURAL STEEL:				1708.4
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	-	-	ASTM A 6 OR ASTM A 568	
B. MANUFACTURERS' CERTIFIED MILL TEST REPORTS REQUIRED.	-	-	ASTM A 6 OR ASTM A 568	
2. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:				1704.3
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	-	-	AISC 360 SECTION A3.5	
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-	-	-	
3. INSPECTION OF WELDING:				
A. STRUCTURAL STEEL				
1) SINGLE-PASS FILLET WELDS < 5/16"	-	X	AWS D1.1	1704.3.1
4. INSPECTION OF HIGH-STRENGTH BOLTING:				1704.3.3
A. BEARING-TYPE CONNECTIONS.	-	X	AISC LRFD SECTION M2.5	
B. SLIP-CRITICAL CONNECTIONS.	X	X		
<b>WOOD:</b>				
1. GLB DRAG STRUTS CONNECTIONS		X		1707.3
<b>PILE FOUNDATIONS:</b>				1704.8
1. VERIFY PILE MATERIALS, SIZES AND LENGTHS COMPLY WITH THE REQUIREMENTS.	X	-		1704.8
2. DETERMINE CAPACITIES OF TEST PILES AND CONDUCT ADDITIONAL LOAD TESTS, AS REQUIRED.	X	-		1704.8
3. OBSERVE DRIVING OPERATIONS AND MAINTAIN COMPLETE AND ACCURATE RECORDS FOR EACH PILE.	X	-		1704.8
4. VERIFY PLACEMENT LOCATIONS AND PLUMBNESS, CONFIRM TYPE AND SIZE OF HAMMER, RECORD NUMBER OF BLOWS PER FOOT OF PENETRATIONS TO ACHIEVE DESIGN CAPACITY, RECORD TIP AND BUTT ELEVATIONS AND DOCUMENT ANY PILE DAMAGE.	X	-		1704.8
5. FOR STEEL PILES, PERFORM ADDITIONAL INSPECTIONS IN ACCORDANCE WITH SECTION 1704.3	-	-		1704.8

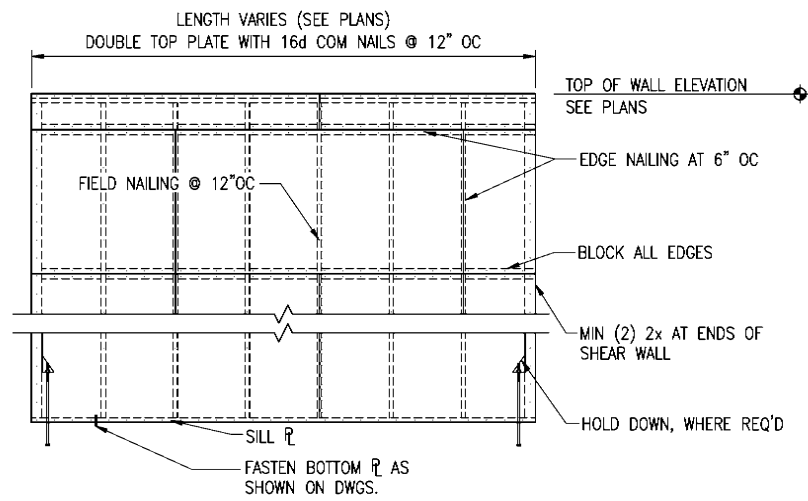


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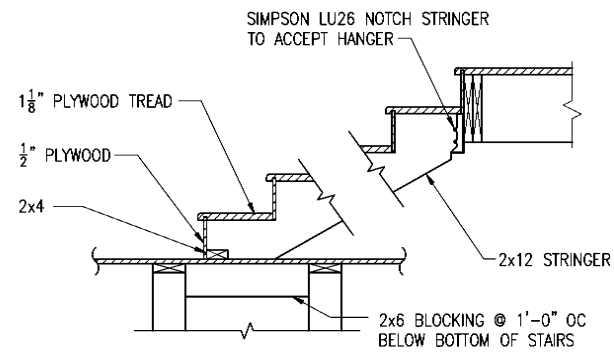
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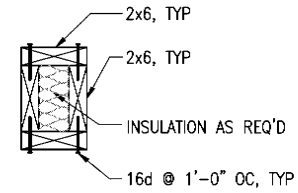
**SPECIAL**  
**INSPECTIONS**  
**S1.2**



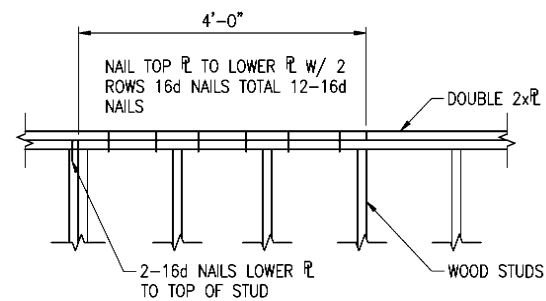
**1 TYPICAL PLYWOOD SHEARWALL**  
S1.3 SCALE: 3/8" = 1'-0"



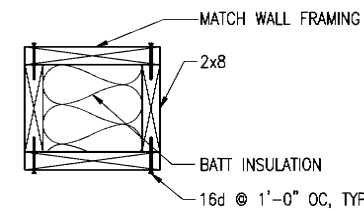
**2 TYPICAL INTERIOR STAIR DETAIL**  
S1.3 SCALE: 3/4" = 1'-0"



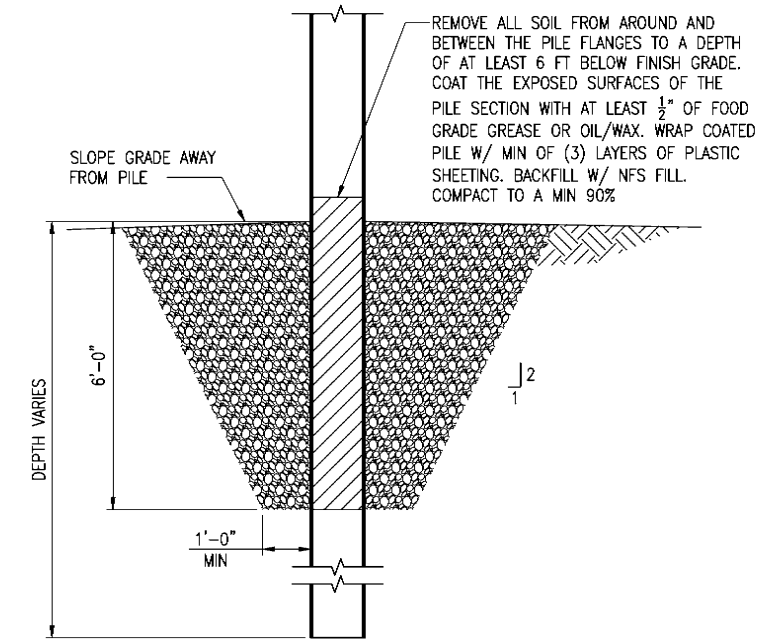
**3 TYPICAL INTERIOR HEADER DETAIL**  
S1.3 SCALE: 1 1/2" = 1'-0"



**4 TYPICAL TOP PLATE SPLICE**  
S1.3 SCALE: 3/4" = 1'-0"

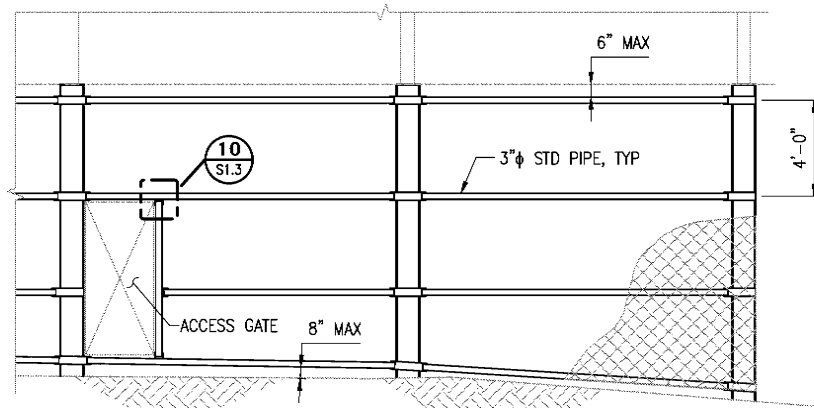


**5 TYPICAL EXT END WALL HEADER DETAIL**  
S1.3 SCALE: 1 1/2" = 1'-0"

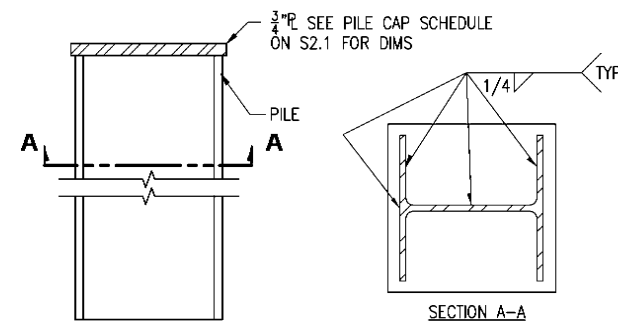


**6 TYPICAL PILE DETAIL**  
S1.3 SCALE: 1/2" = 1'-0"

NOTES:  
1. SEE R&M CONSULTANTS INC GEOTECHNICAL REPORT (11 NOVEMBER, 2010) No 1691.01 FOR PREPARATION, INSTALLATION, AND MAT'L REQUIREMENTS. INCLUDING CUTTING SHOE RECOMMENDATIONS.  
2. SEE DETAIL 8/S1.3 FOR PILE CAP.

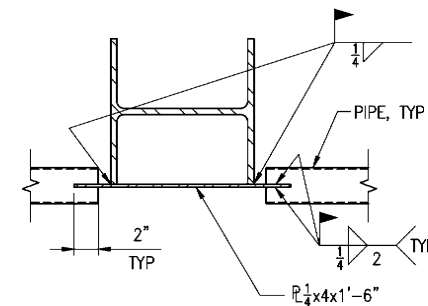


**7 TYPICAL FENCING FRAMING**  
S1.3 SCALE: 1/4" = 1'-0"

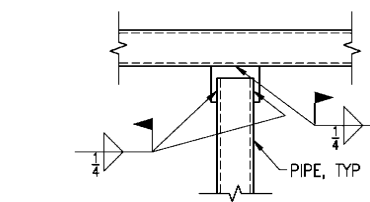


**8 TYPICAL PILE CAPS**  
S1.3 SCALE: 1 1/2" = 1'-0"

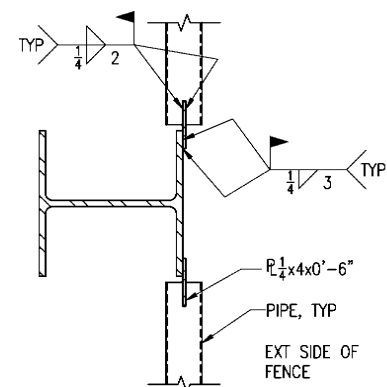
NOTE: SEE GEOTECHNICAL REPORT FOR DRIVING SHOE REQUIREMENTS



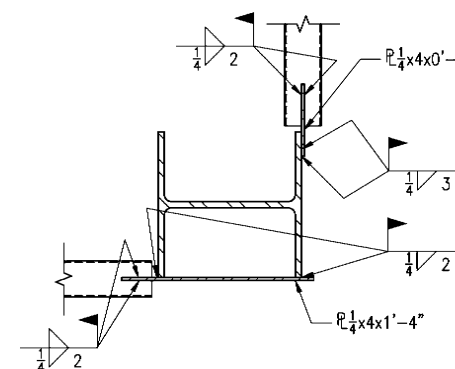
**9 FENCING DETAIL**  
S1.3 SCALE: 1 1/2" = 1'-0"



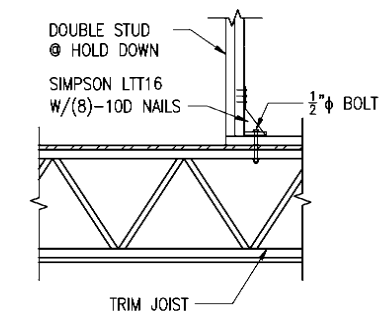
**10 DETAIL**  
S1.3 SCALE: 1 1/2" = 1'-0"



**11 FENCING DETAIL**  
S1.3 SCALE: 1 1/2" = 1'-0"

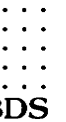


**12 FENCING DETAIL**  
S1.3 SCALE: 1 1/2" = 1'-0"



**13 TYPICAL HOLDOWN DETAIL**  
S1.3 SCALE: 3/4" = 1'-0"

- NOTES:
- X-BRACING NOT SHOWN FOR CLARITY.
  - CHAIN LINK NOT SHOW FOR CLARITY.
  - SEE ARCH FOR CHAIN LINK AND CONNECTION TO STRUCTURAL STEEL.
  - ALL PIPES TO SUPPORT CHAIN LINK SHALL BE HOT-DIPPED GALVANIZED.
  - SEE DETAILS 11,9,12/S1.3 FOR TYPICAL CONN DETAILS.
  - SEE ARCH FOR ACCESS GATE CONSTRUCTION AND LOCATIONS.



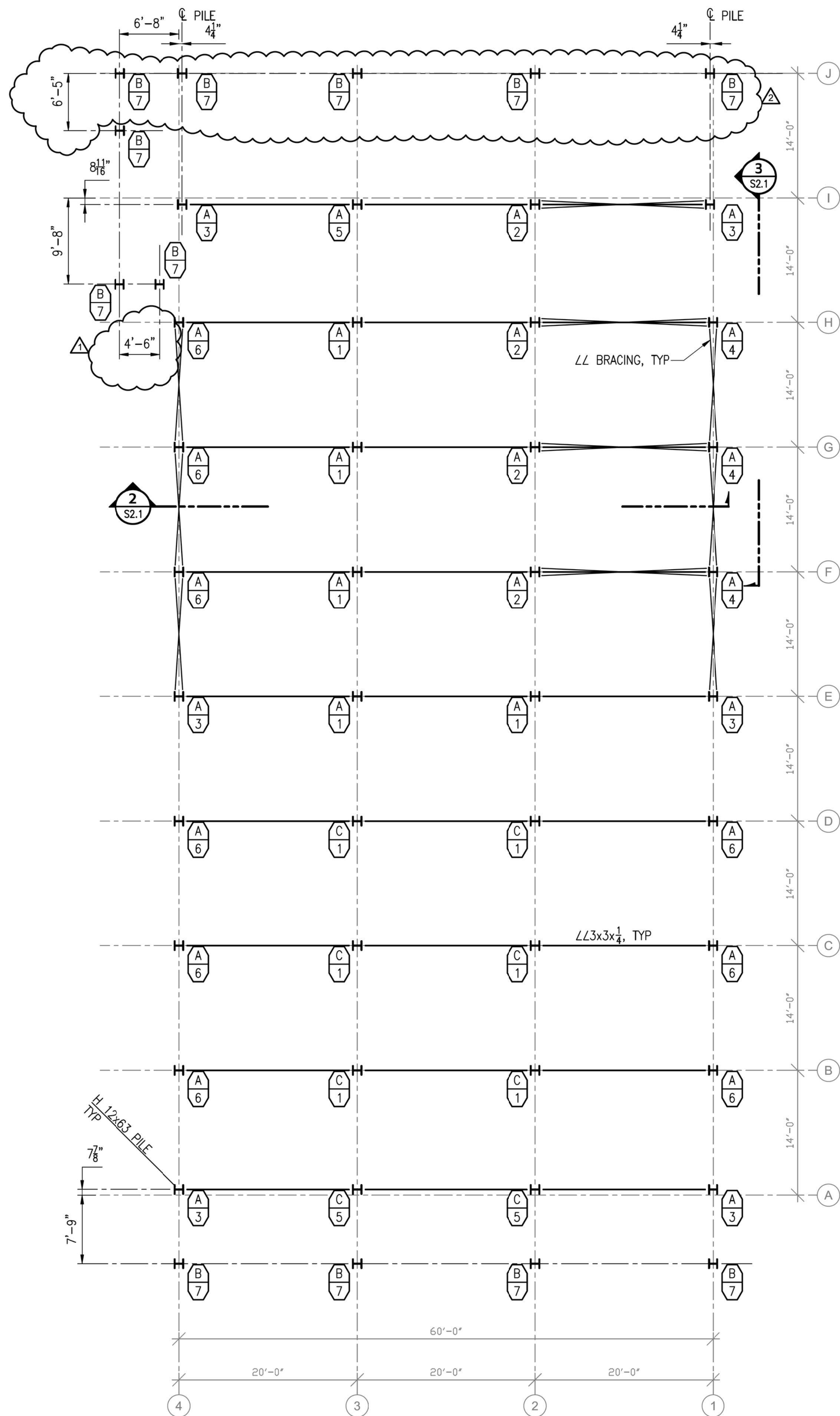
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TYPICAL  
DETAILS  
**S1.3**





**1 PILING PLAN**  
S2.1 SCALE: 1/8" = 1'-0"

**REQUIRED PILE AXIAL CAPACITY (ASD)**

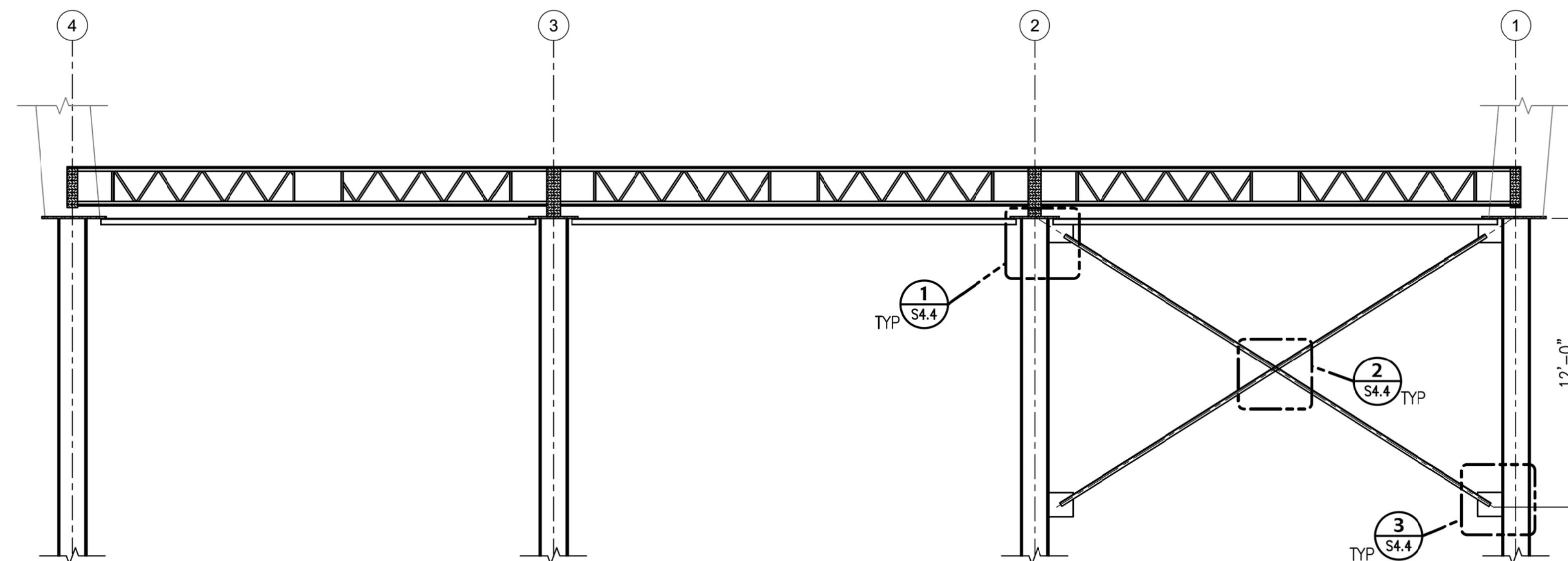
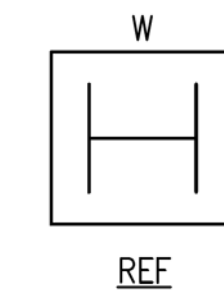
TYPE	LOAD(kip)
A	35
B	15
C	75

NOTES: PILE TYPE  
 PILE CAP  
1. SEE GEOTECH REPORT FOR RECOMMENDATIONS OF TESTING PROCEDURES AND LOAD CAPACITY CALCULATION CRITERIA OF THE DRIVEN PILES.

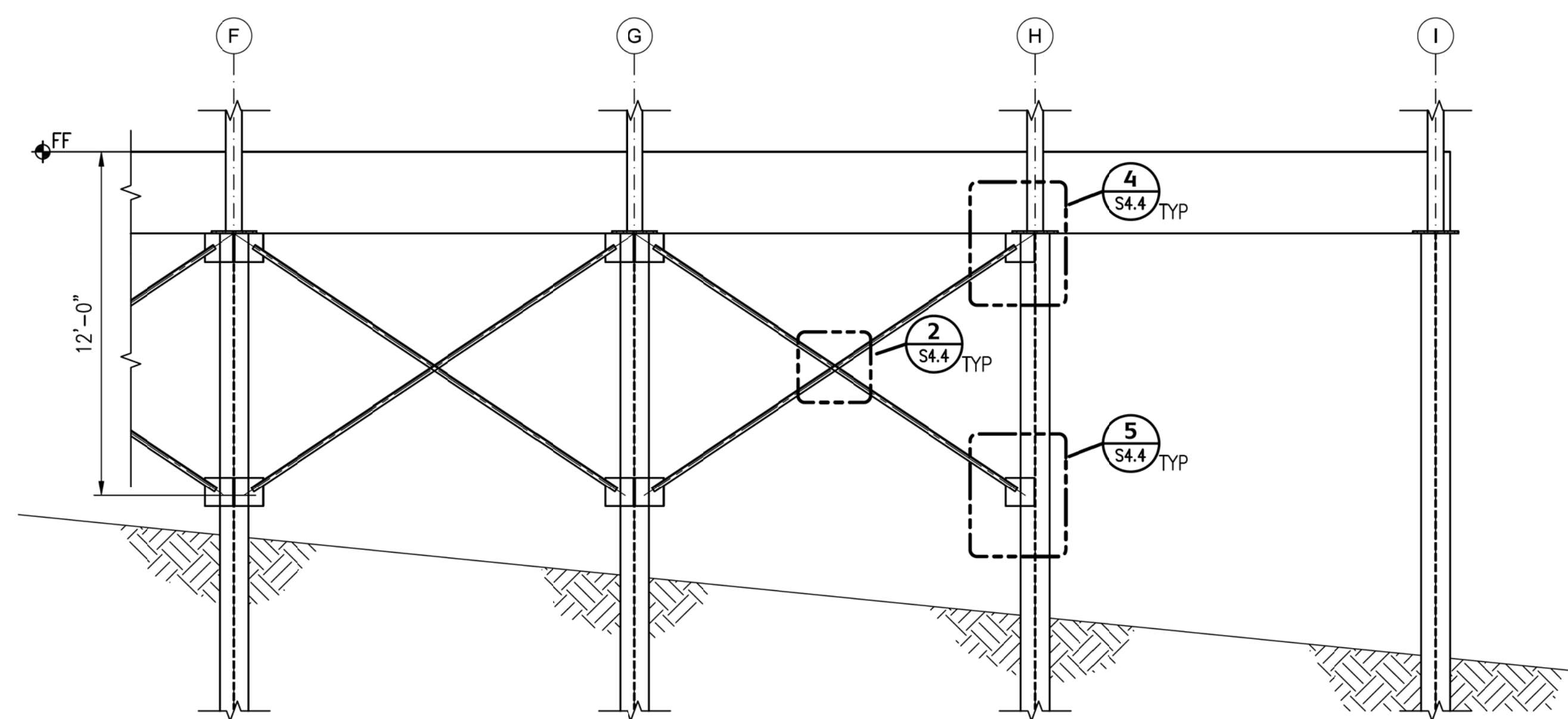
**PILE CAP SCHEDULE**

PILE CAP	W	L	REF DETAILS
1	1'-8"	1'-1"	7,8/S4.2
2	2'-4"	1'-1"	1/S4.3 6/S4.4
3	1'-7"	1'-9"	11,12,13/S4.2 7,8,9/S4.3 6/S4.4
4	2'-3"	1'-5"	1,2,3/S4.3 1,4,6/S4.4
5	1'-8"	1'-6"	4,5,6/S4.3 6/S4.4
6	1'-4"	1'-5"	1,2,3/S4.3 6/S4.4
7	1'-1"	1'-1"	7/S4.4 2,6,9,10/S4.5

NOTE: P's ARE NOT CENTERED ON PILES. SEE REFERENCE DETAILS FOR PLACEMENT.



**2 SECTION**  
S2.1 SCALE: 1/4" = 1'-0"



**3 SECTION**  
S2.1 SCALE: 1/4" = 1'-0"

**REVISIONS**

No	Description	Date
1	Addendum 1	2/18/11
	Added Dimension	
2	Addendum 1	2/18/11
	Changes to piles	
3	Addendum 2	2/22/11
	Changes Schedule	

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**PILING PLAN**

**S2.1**





FOR STAIRS RAILING AND DECKING, SEE ARCHITECTURAL

3" φ STD PIPE FOR MOUNTING LIGHT FIXTURE SEE 11/S4.5

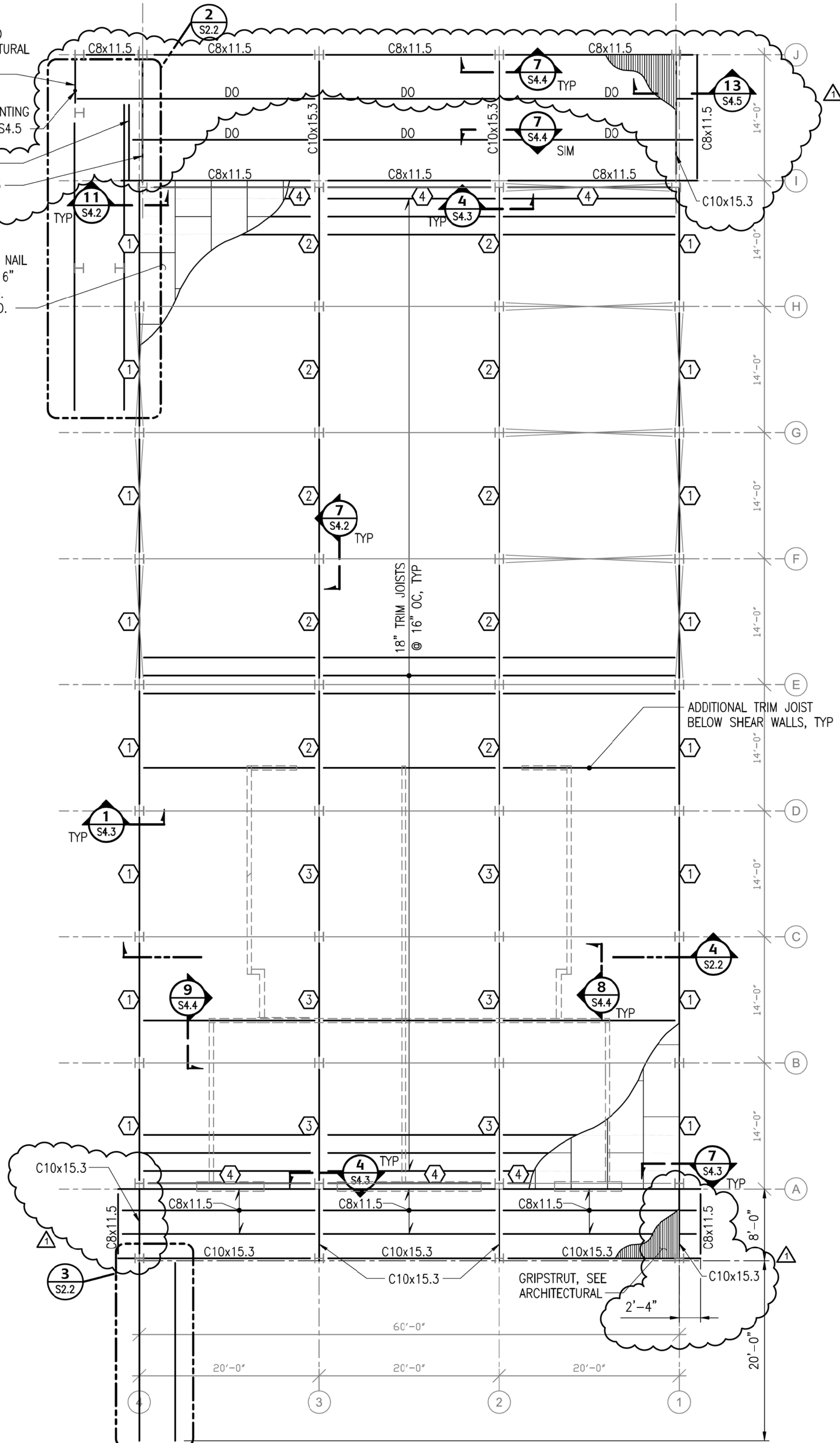
3/4" PLY W/ 8d, MIN 1 3/8" NAIL PEN, COMMON NAILS @ 6" OC EDGE, 12" OC FIELD. BLOCKING NOT REQUIRED.

**GLU-LAM SCHEDULE**

REF	SIZE
①	5 1/8 x 19 1/2
②	5 1/8 x 24
③	6 3/4 x 24
④	6 3/4 x 19 1/2

**SHEET NOTES**

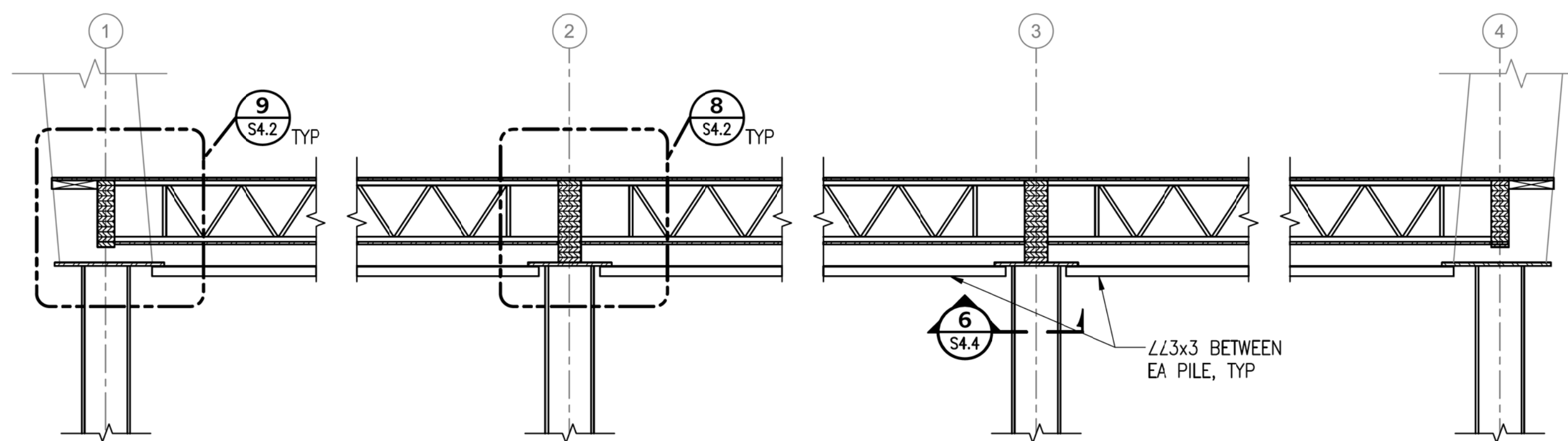
- PLYWOOD DIAPHRAGM EDGE CONDITION SHALL BE APPLIED AT GRIDS 1,4, AND A THROUGH I.
- SEE ARCHITECTURAL FOR STAIR AND RAMP DIMENSIONS.
- ELEVATION OF PILE CAPS VARY.



**1 FLOOR FRAMING**  
S2.2 SCALE: 1/8" = 1'-0"

**2 STAIR FRAMING PLAN**  
S2.2 SCALE: 1/4" = 1'-0"

**3 RAMP PLAN**  
S2.2 SCALE: 1/4" = 1'-0"



**4 FLOOR SECTION**  
S2.2 SCALE: 3/8" = 1'-0"

**REVISIONS**

No	Description	Date
1	Addendum 1 Change to framing plan	2/18/11
2	Addendum 1 Add Note	2/18/11

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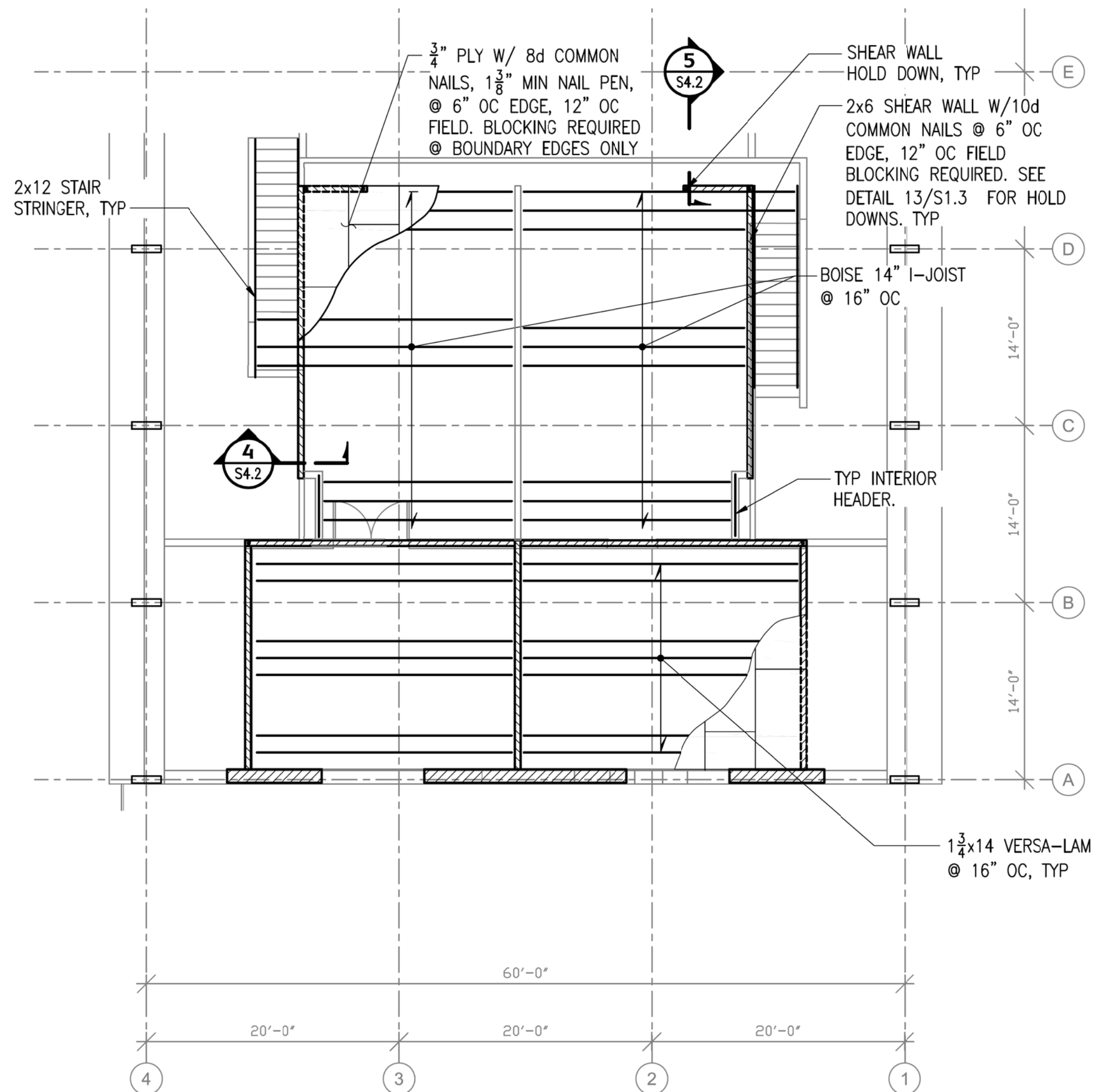
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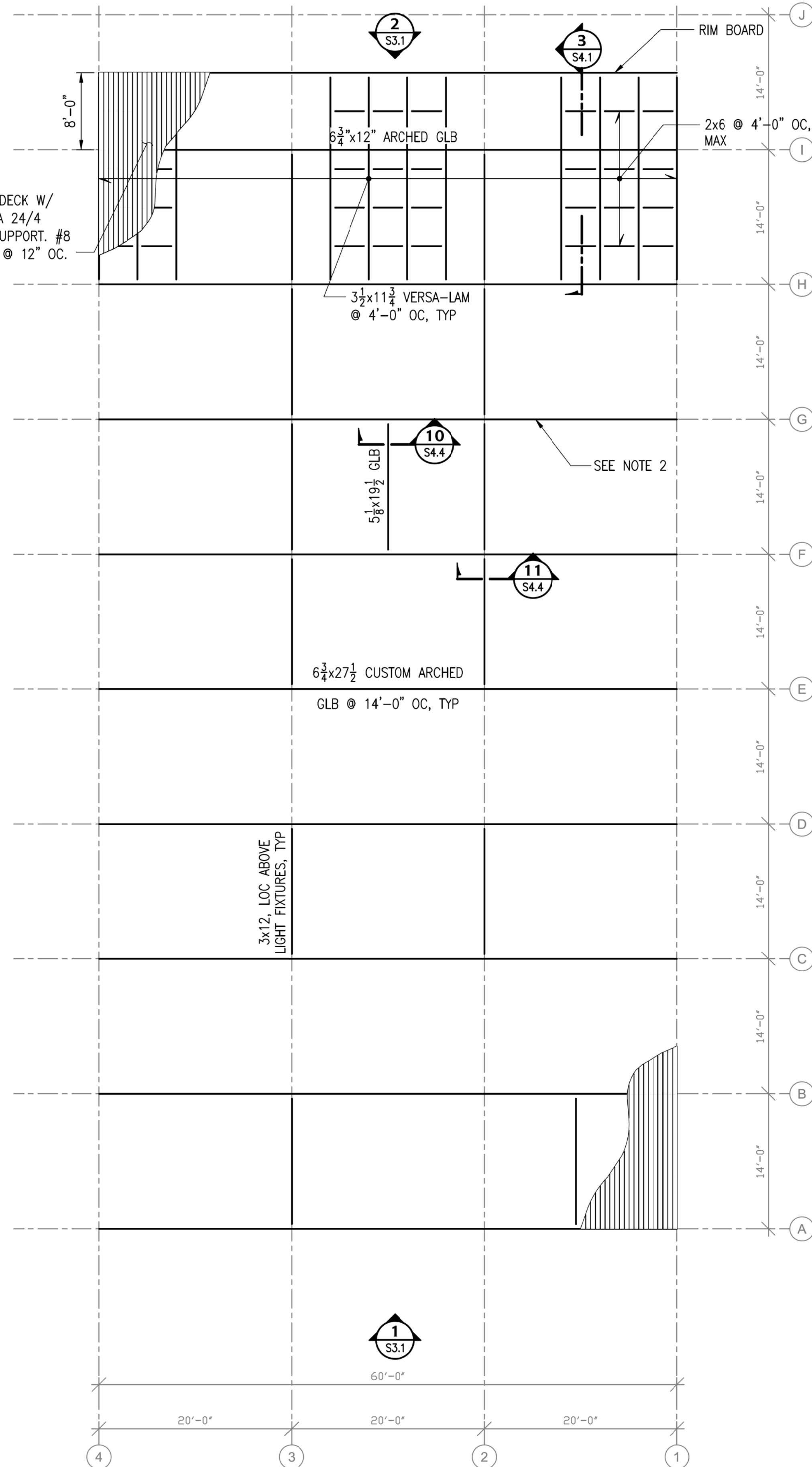
**FIRST FLOOR FRAMING PLAN**  
**S2.2**







**1 MEZZANINE FRAMING**  
S2.3 SCALE: 1/8" = 1'-0"



**2 ROOF FRAMING PLAN**  
S2.3 SCALE: 1/8" = 1'-0"

**SHEET NOTES**

1. SEE ARCHITECTURAL FOR GLU-LAM ARCH RADIUS OF CURVATURE REQUIREMENTS.
2. SEE DETAIL 3/S4.2 FOR TYPICAL GLUE-LAM ARCH SPLICE. DO NOT USE MORE THAN (6) GLU-LAM SECTIONS TO PRODUCE ARCH.

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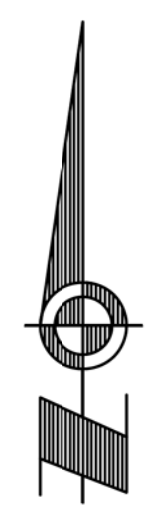
STATE OF ALASKA  
49 TH  
MATTHEW R. EMERSON  
CE-10698  
REGISTERED PROFESSIONAL ENGINEER

**BDS**

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3330 C Street, Suite 200  
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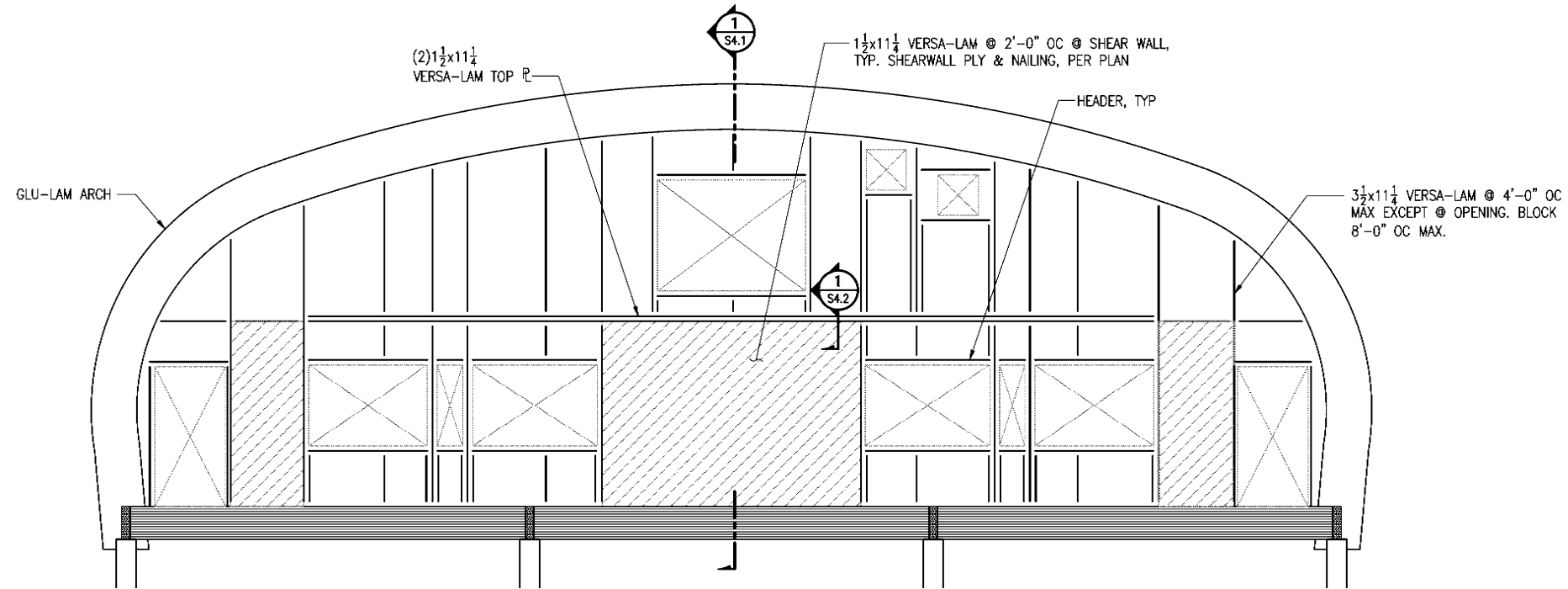
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**MEZZ & ROOF FRAMING PLAN**  
**S2.3**

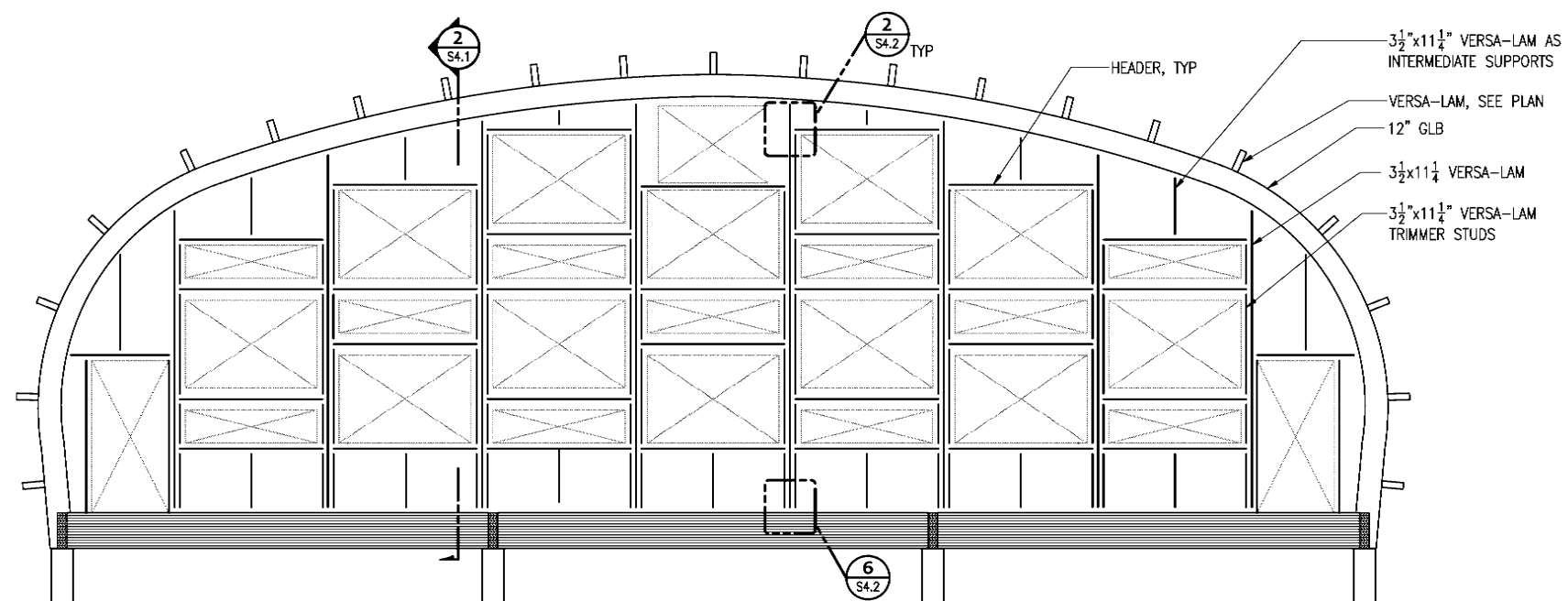


**SHEET NOTES**

1. SEE ARCH & MECHANICAL FOR OPENING SIZES AND LOCATIONS.
2. SEE 5/S1.3 FOR TYPICAL HEADER.



**1 FRAMING @ GRID A**  
S3.1 SCALE: 1/4" = 1'-0"



**2 FRAMING @ GRID I**  
S3.1 SCALE: 1/4" = 1'-0"

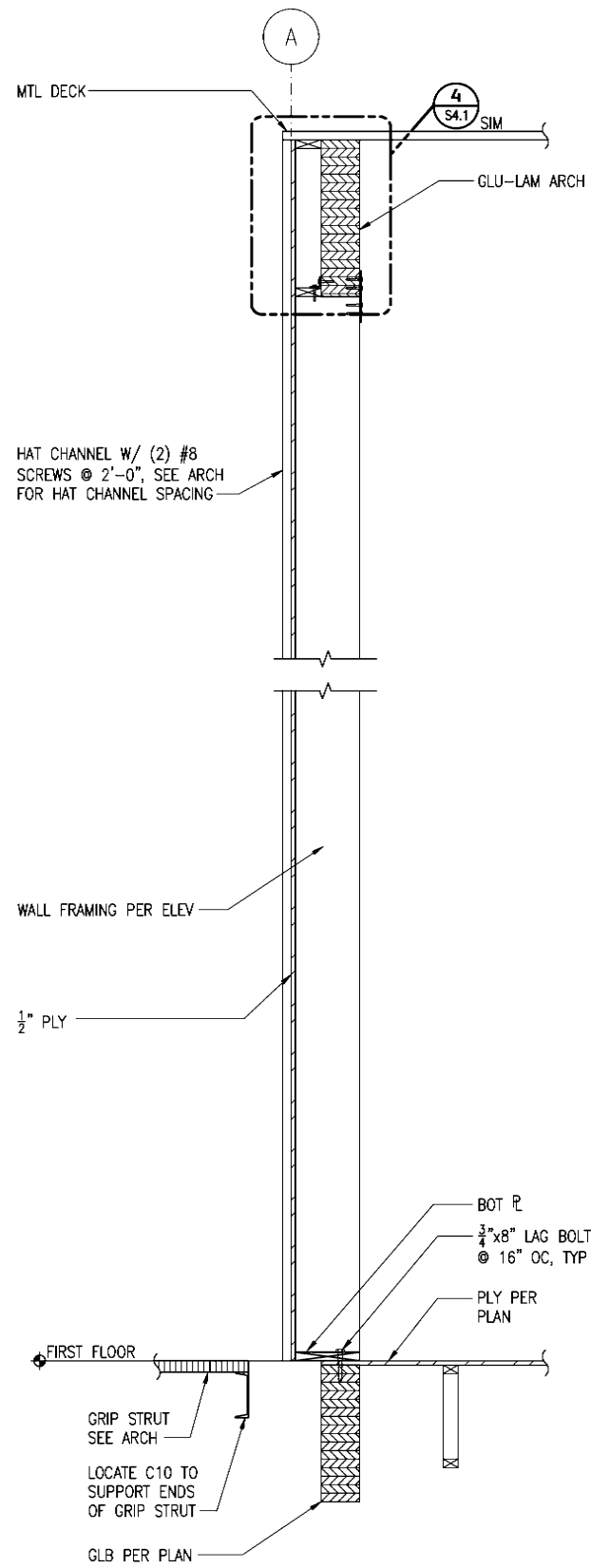


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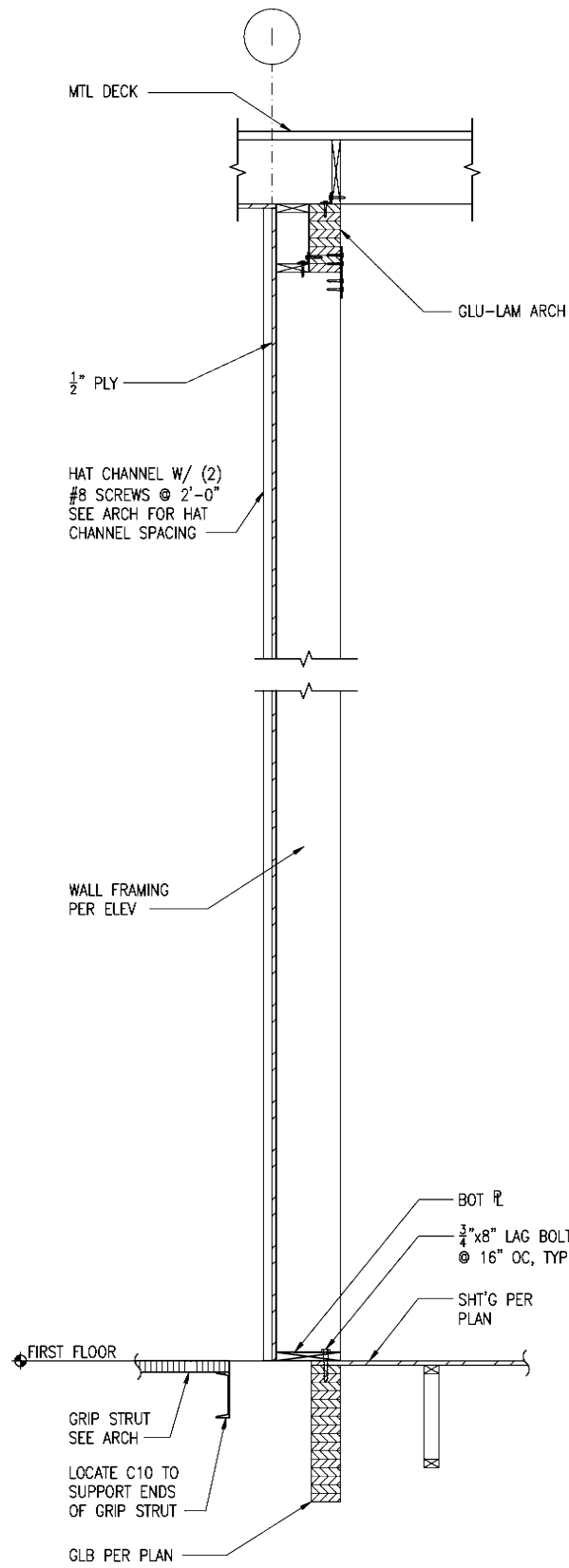
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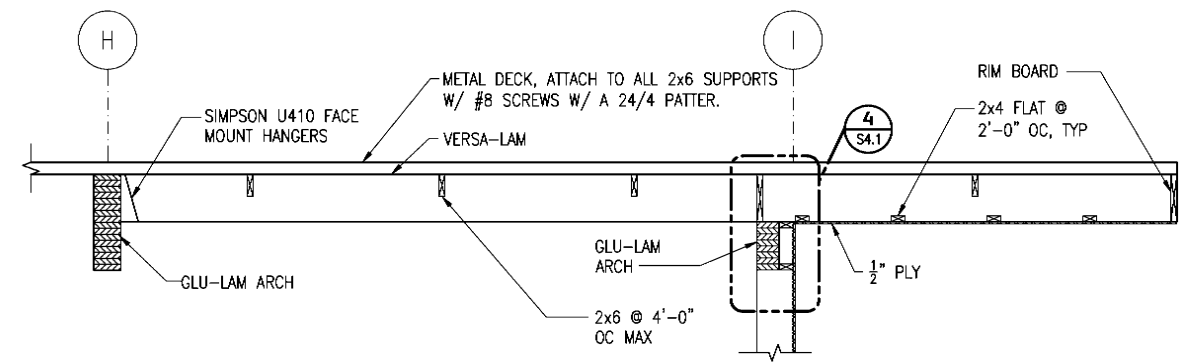
**END WALL**  
**FRAMING**  
**S3.1**



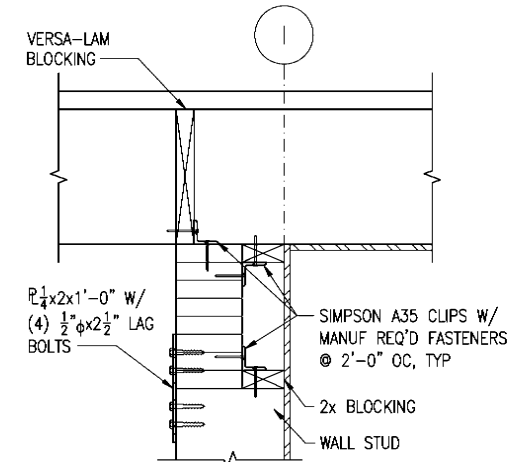
**1 WALL SECTION @ GRID A**  
S4.1 SCALE: 3/4" = 1'-0"



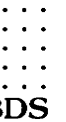
**2 WALL SECTION @ GRID I**  
S4.1 SCALE: 3/4" = 1'-0"



**3 SECTION**  
S4.1 SCALE: 1/2" = 1'-0"



**4 DETAIL**  
S4.1 SCALE: 1 1/2" = 1'-0"



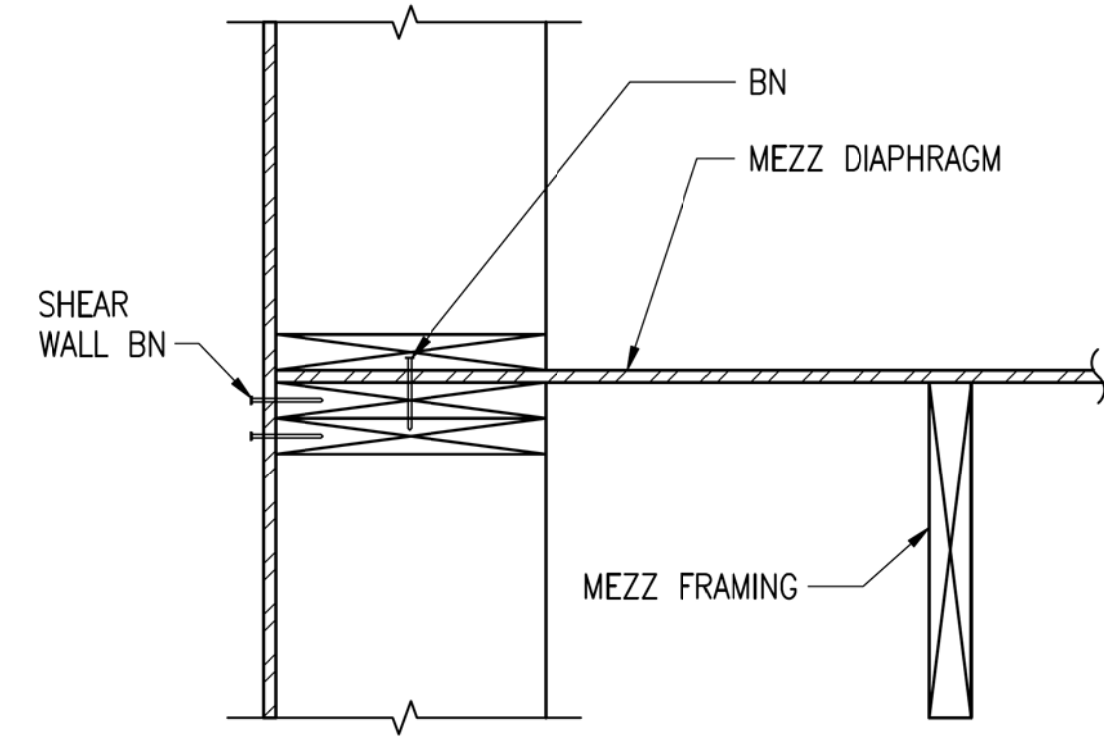
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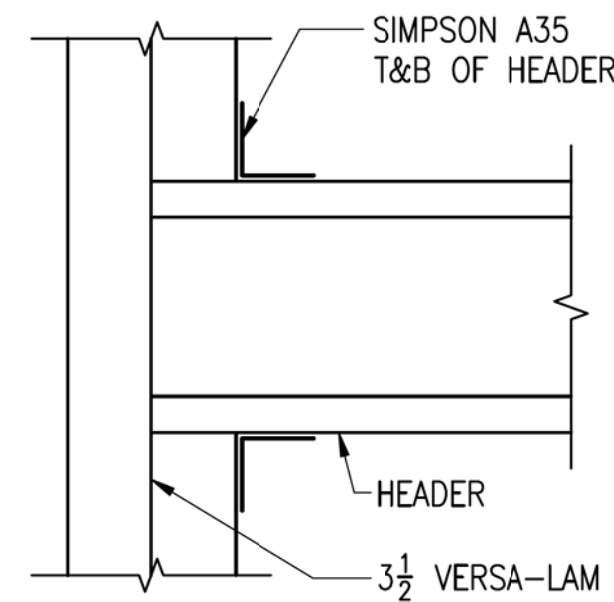
**SECTIONS AND DETAILS**  
**S4.1**





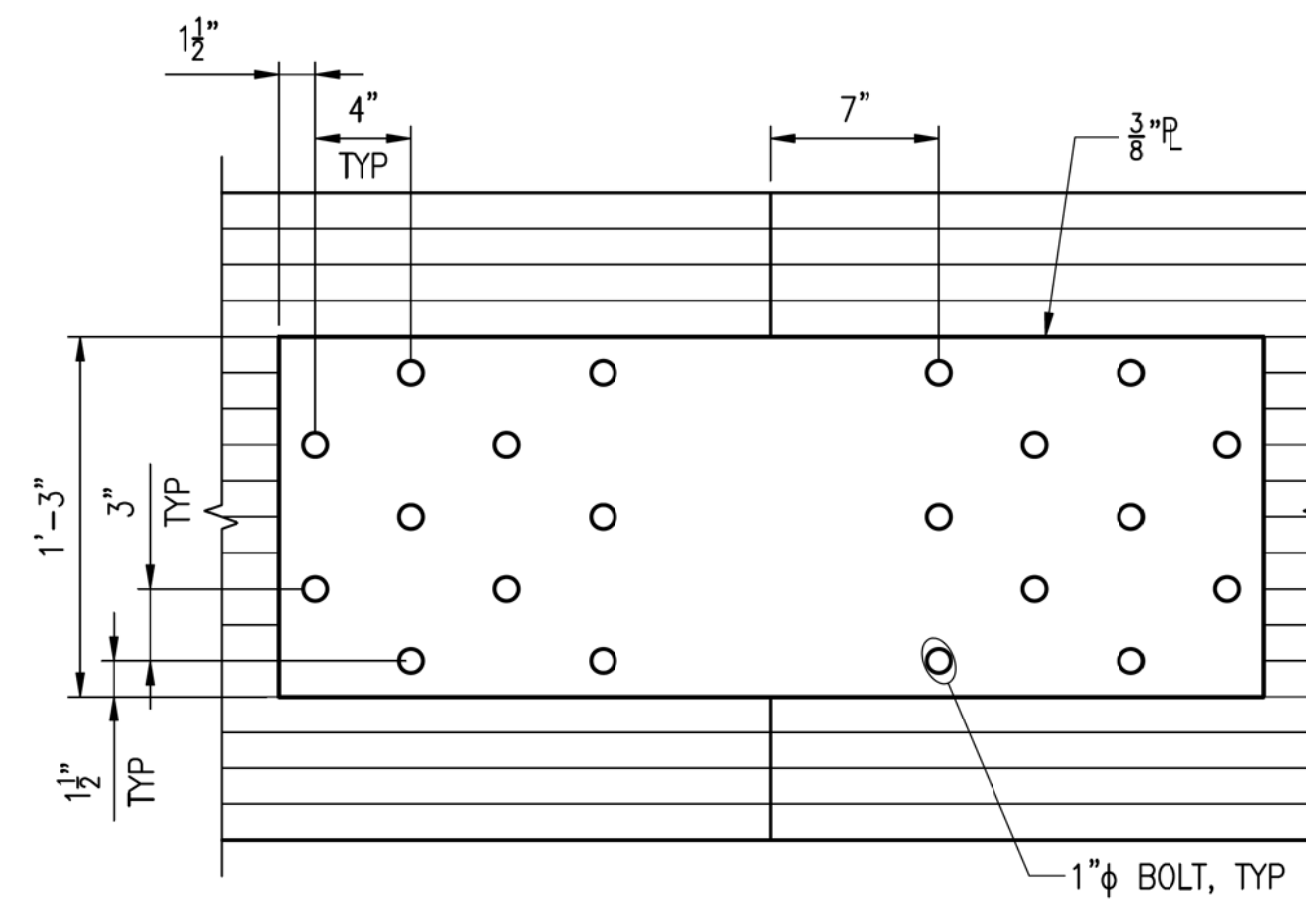
**1 SECTION**

S4.2 SCALE: 1 1/2" = 1'-0"



**2 DETAIL**

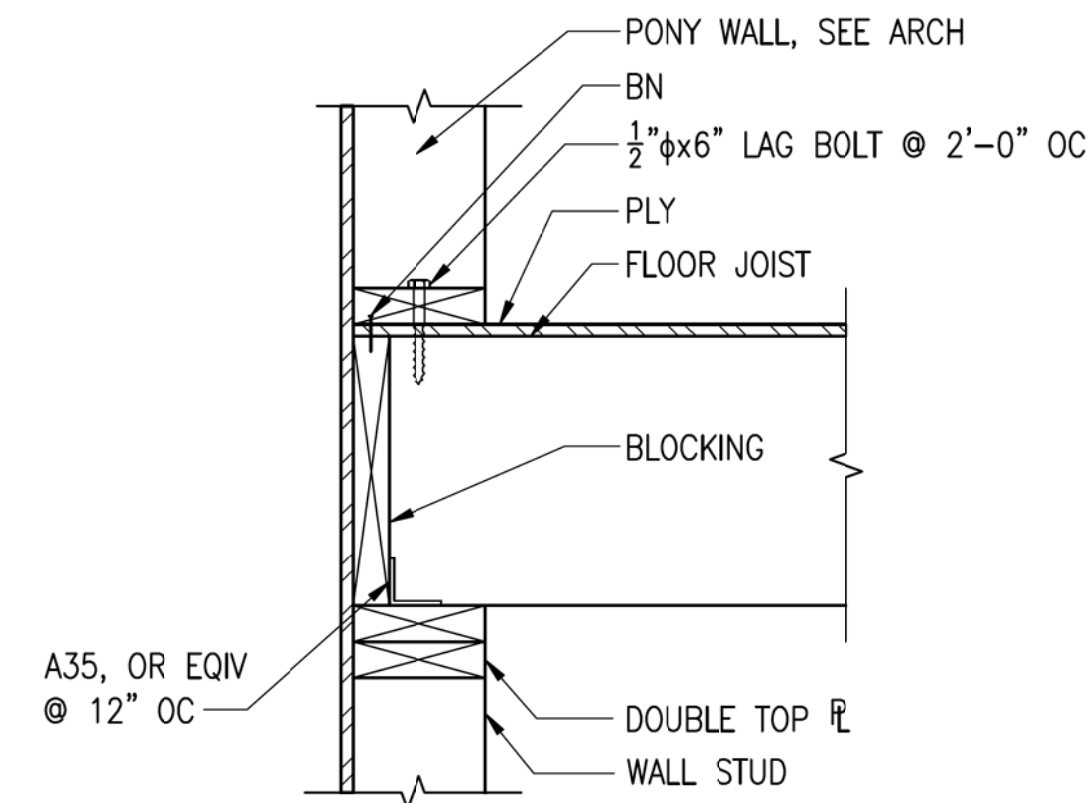
S4.2 SCALE: 1 1/2" = 1'-0"



**NOTE:** SPLICE PLATES SHALL MATCH THE CURVATURE OF THE GLU-LAM ARCH. ALL DIMS SHOULD BE MEASURED FROM THE C OF THE ARCH.

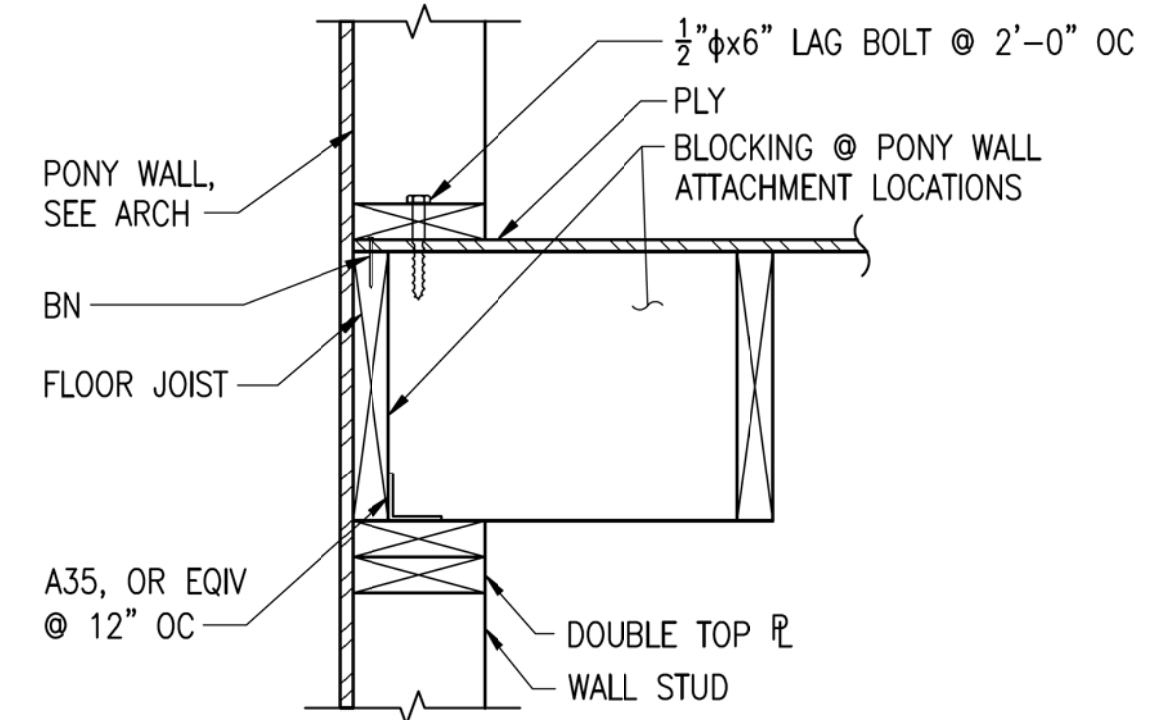
**3 TYPICAL GLU-LAM ARCH SPLICE**

S4.2 SCALE: 1 1/2" = 1'-0"



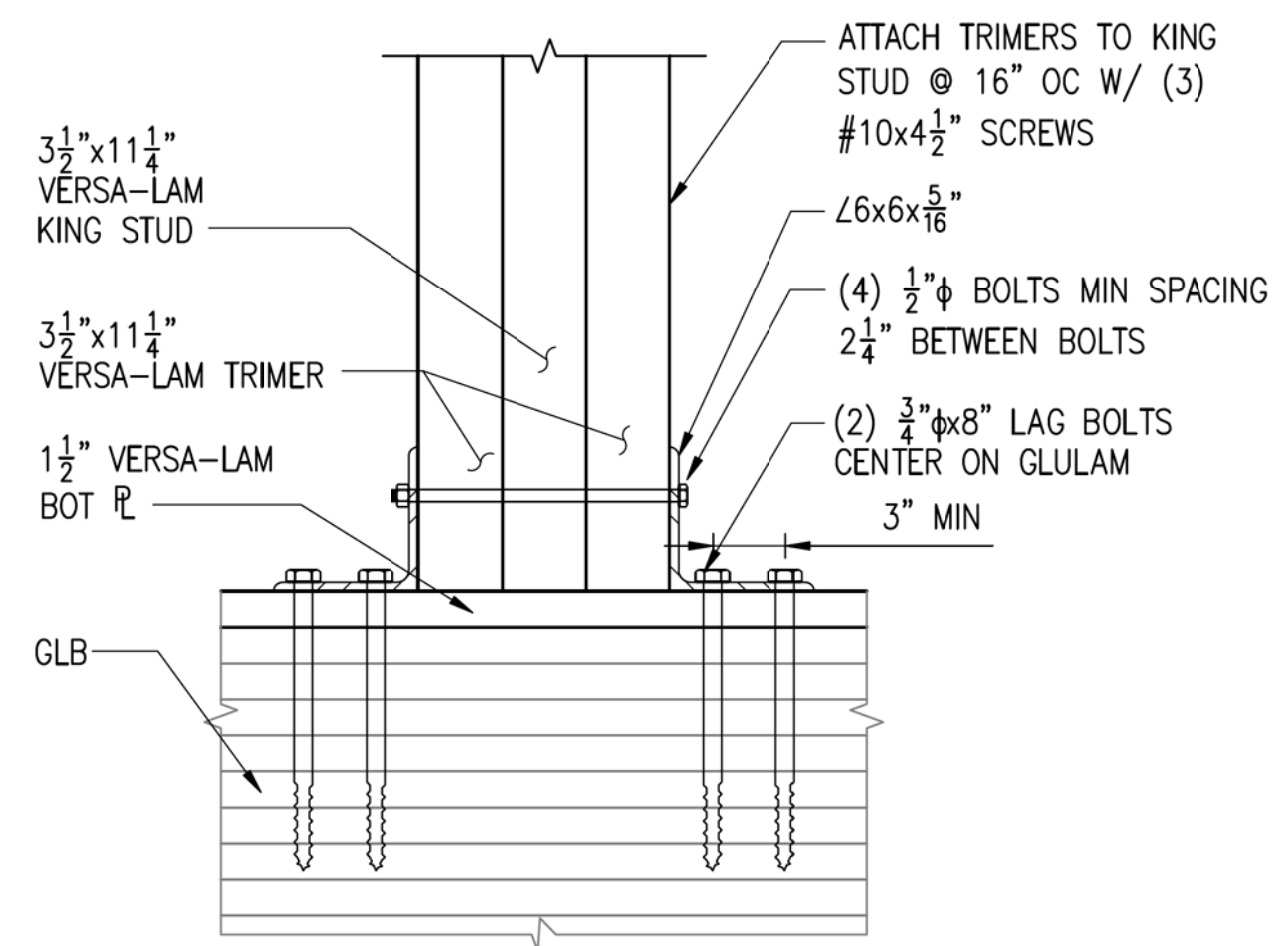
**4 DETAIL**

S4.2 SCALE: 1 1/2" = 1'-0"



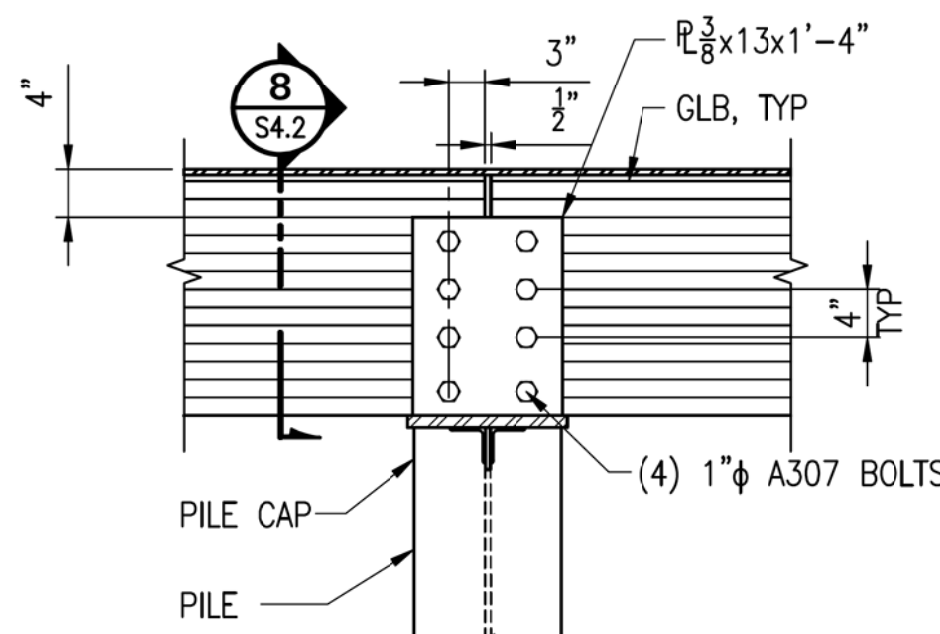
**5 DETAIL**

S4.2 SCALE: 1 1/2" = 1'-0"



**6 DETAIL**

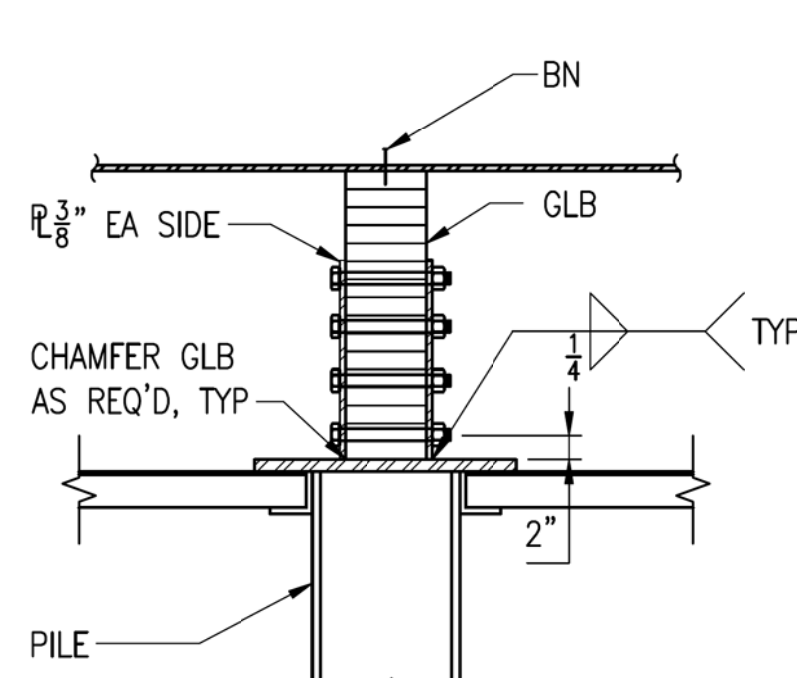
S4.2 SCALE: 1 1/2" = 1'-0"



**NOTE:** TRIM JOISTS NOT SHOWN FOR CLARITY.

**7 SPLICE DETAIL**

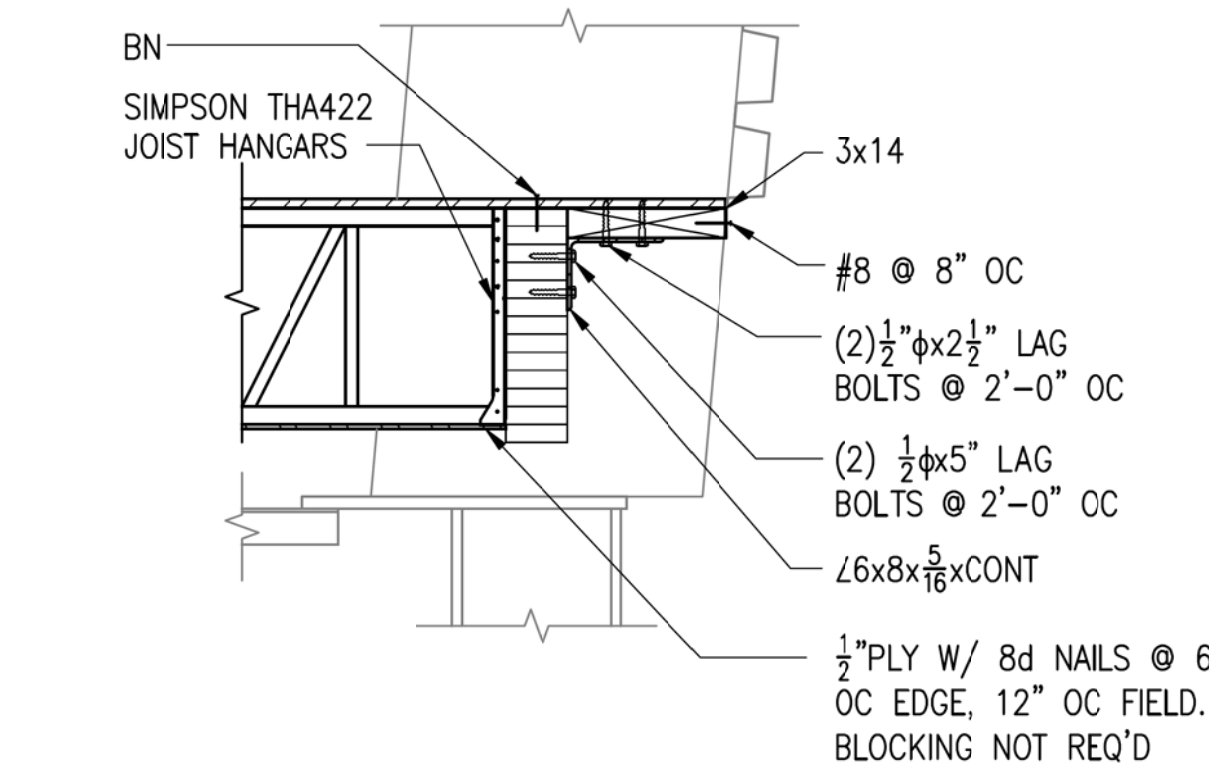
S4.2 SCALE: 3/4" = 1'-0"



**NOTE:** TRIM JOISTS NOT SHOWN FOR CLARITY.

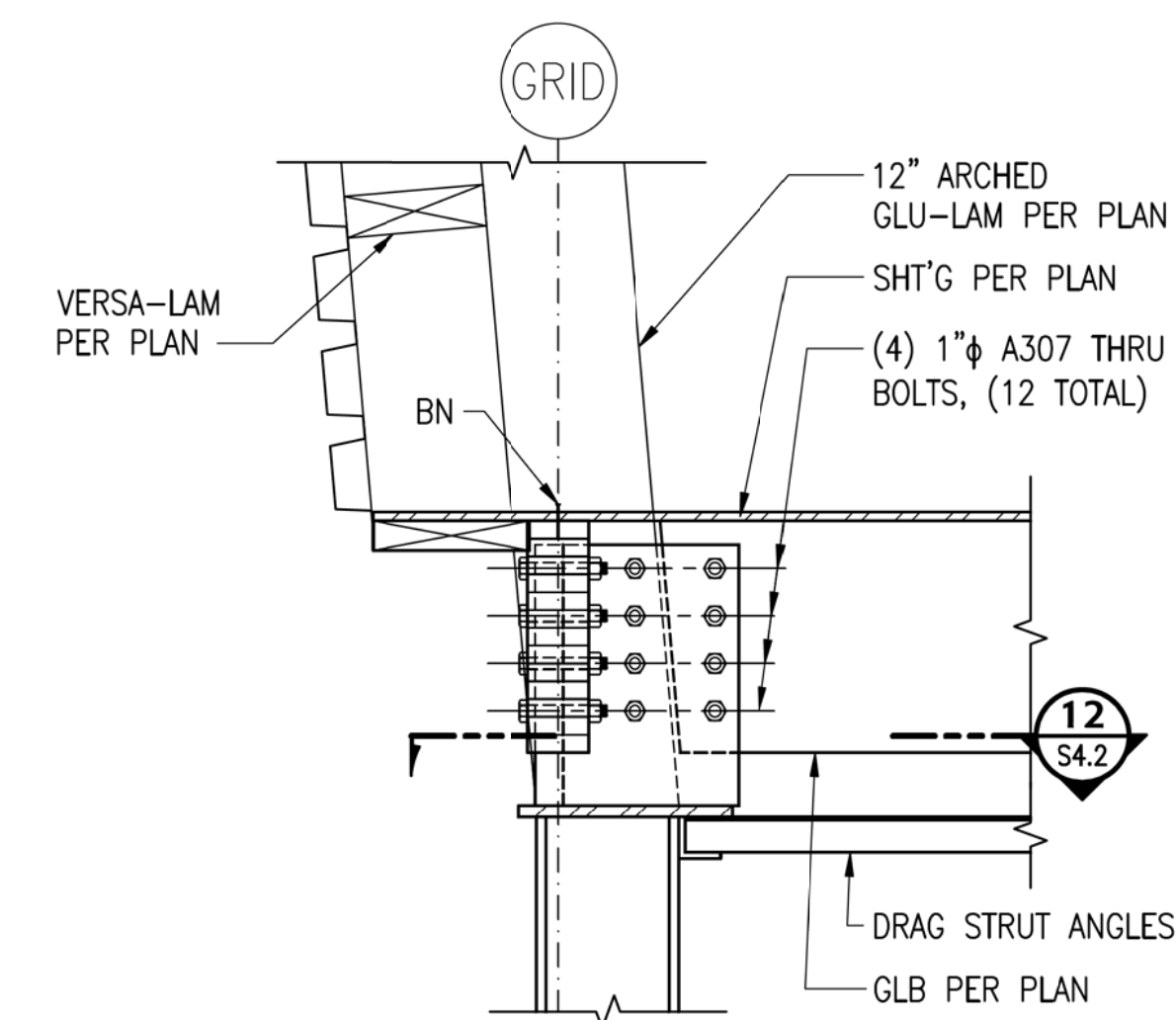
**8 SECTION**

S4.2 SCALE: 3/4" = 1'-0"



**9 DETAIL**

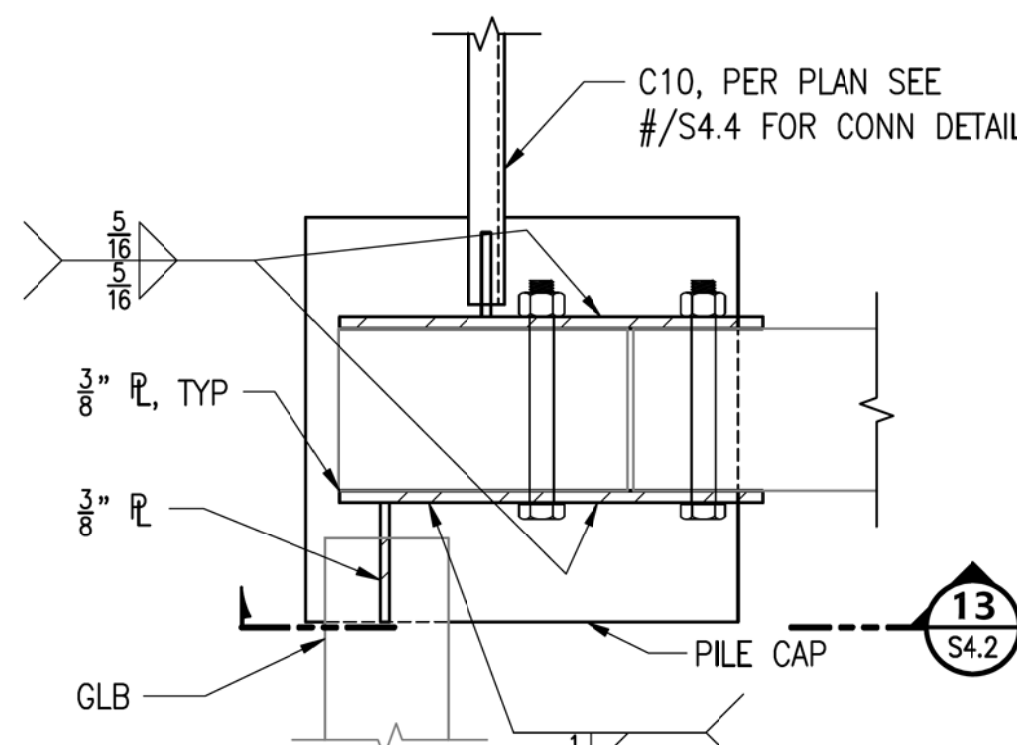
S4.2 SCALE: 3/4" = 1'-0"



**NOTE:** SEE 13/S4.2 FOR PLATE DIMS.

**11 SECTION**

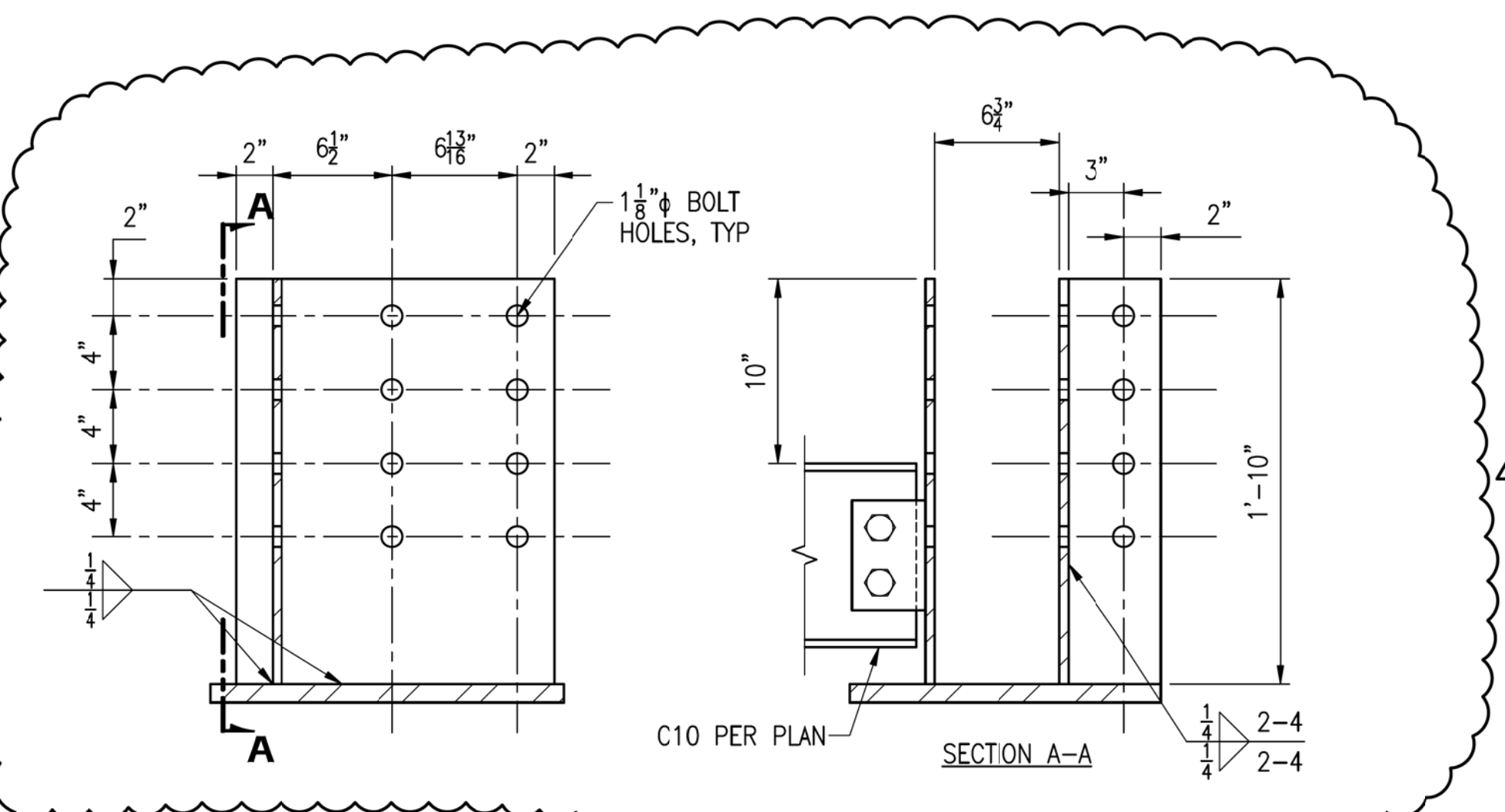
S4.2 SCALE: 3/4" = 1'-0"



**NOTE:** DRAG STRUT ANGLES NOT SHOWN FOR CLARITY.

**12 PLATE SECTION**

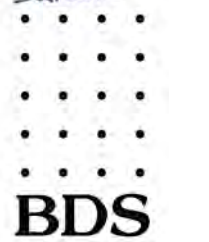
S4.2 SCALE: 1 1/2" = 1'-0"



**13 PLATE SECTION**

S4.2 SCALE: 1 1/2" = 1'-0"

REVISIONS		
No	Description	Date
1	Addendum 1	2/18/11
	Revised Detail	

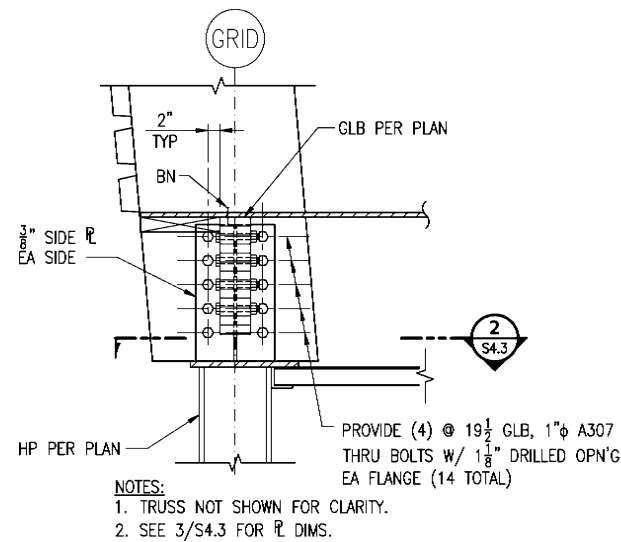


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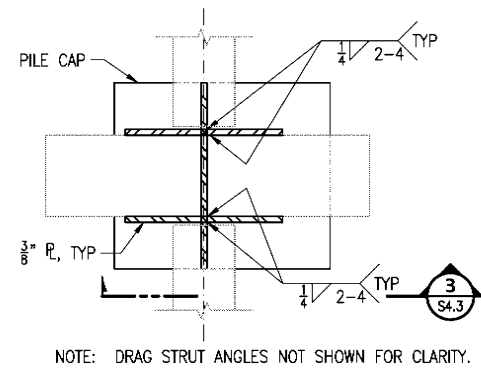
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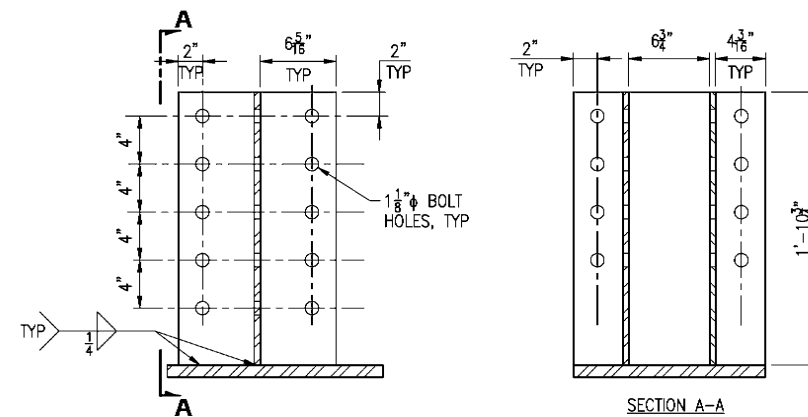
**SECTIONS  
AND DETAILS  
S4.2**



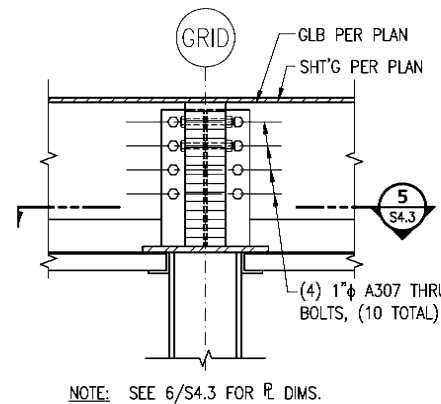
**1 GLB CONNECTION DETAIL**  
S4.3 SCALE: 3/4" = 1'-0"



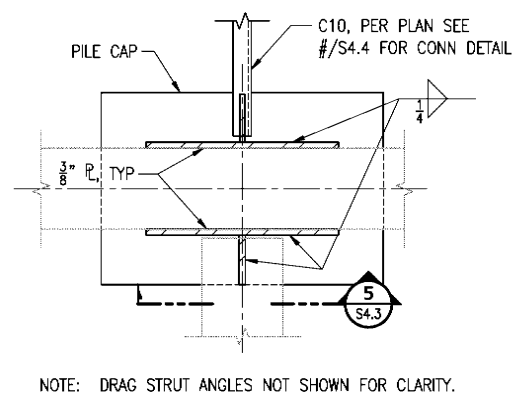
**2 PLATE SECTION**  
S4.3 SCALE: 1 1/2" = 1'-0"



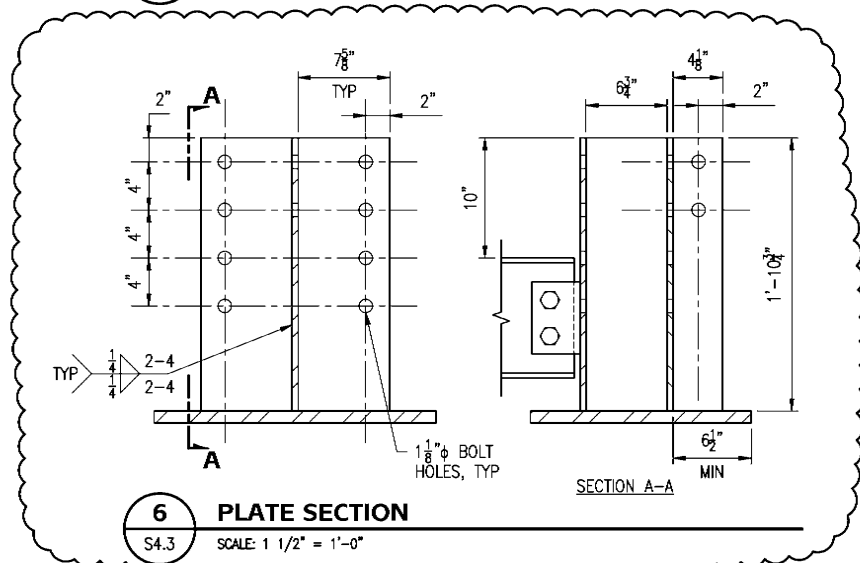
**3 PLATE SECTION**  
S4.3 SCALE: 1 1/2" = 1'-0"



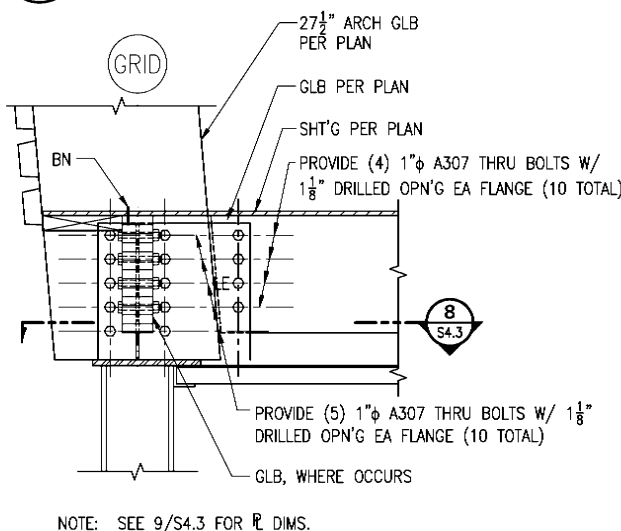
**4 GLB CONNECTION DETAIL**  
S4.3 SCALE: 3/4" = 1'-0"



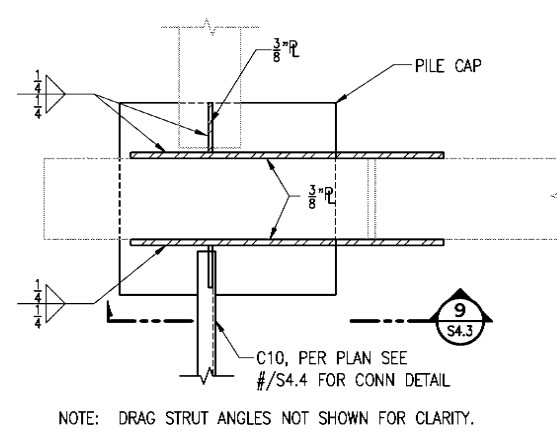
**5 PLATE SECTION**  
S4.3 SCALE: 1 1/2" = 1'-0"



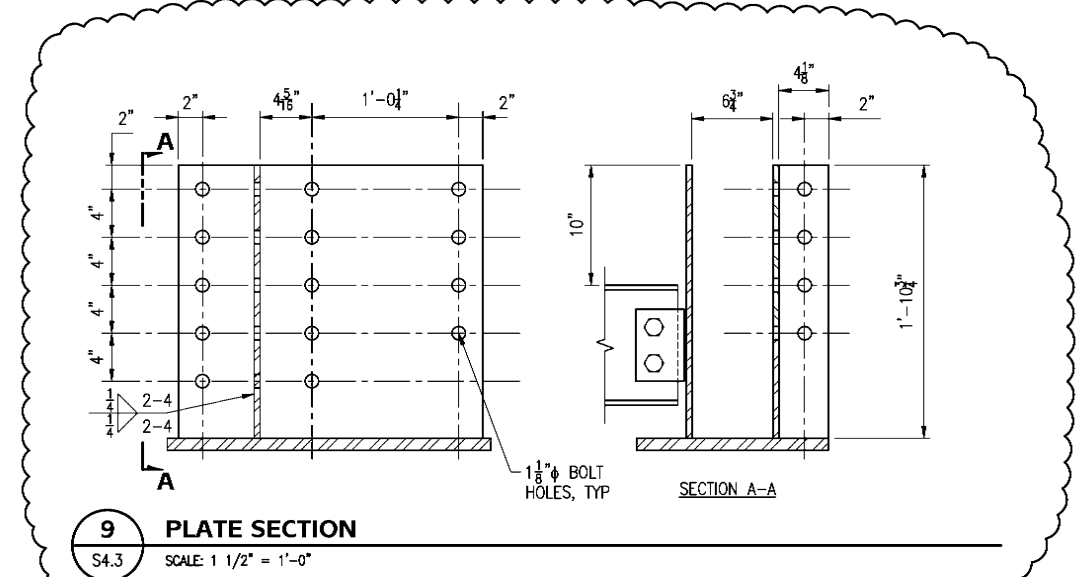
**6 PLATE SECTION**  
S4.3 SCALE: 1 1/2" = 1'-0"



**7 GLB CONNECTION DETAIL**  
S4.3 SCALE: 3/4" = 1'-0"



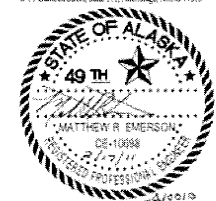
**8 PLATE SECTION**  
S4.3 SCALE: 1 1/2" = 1'-0"



**9 PLATE SECTION**  
S4.3 SCALE: 1 1/2" = 1'-0"

REVISIONS		
No	Description	Date
1	Addendum 1	2/18/11
	Revised Details	

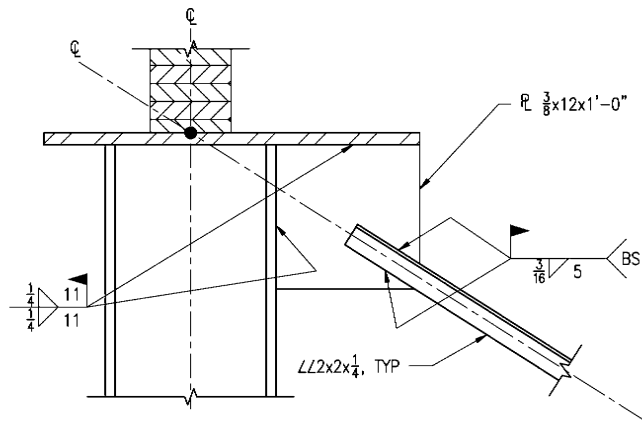
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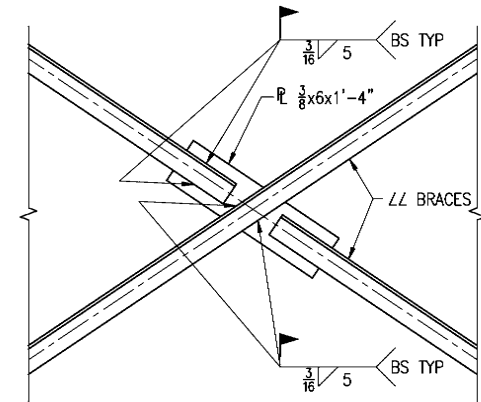
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**SECTIONS AND DETAILS**  
**S4.3**

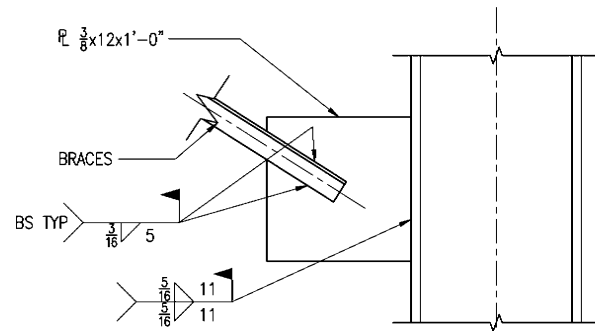


NOTE: DRAG STRUT NOT SHOWN FOR CLARITY.

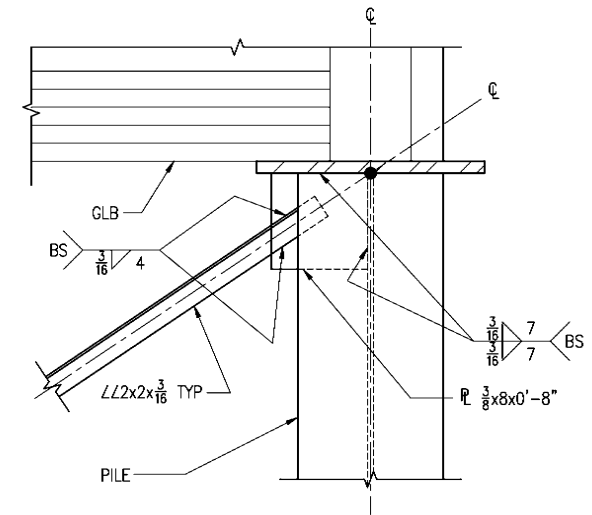
**1 DETAIL**  
S4.4 SCALE: 1 1/2" = 1'-0"



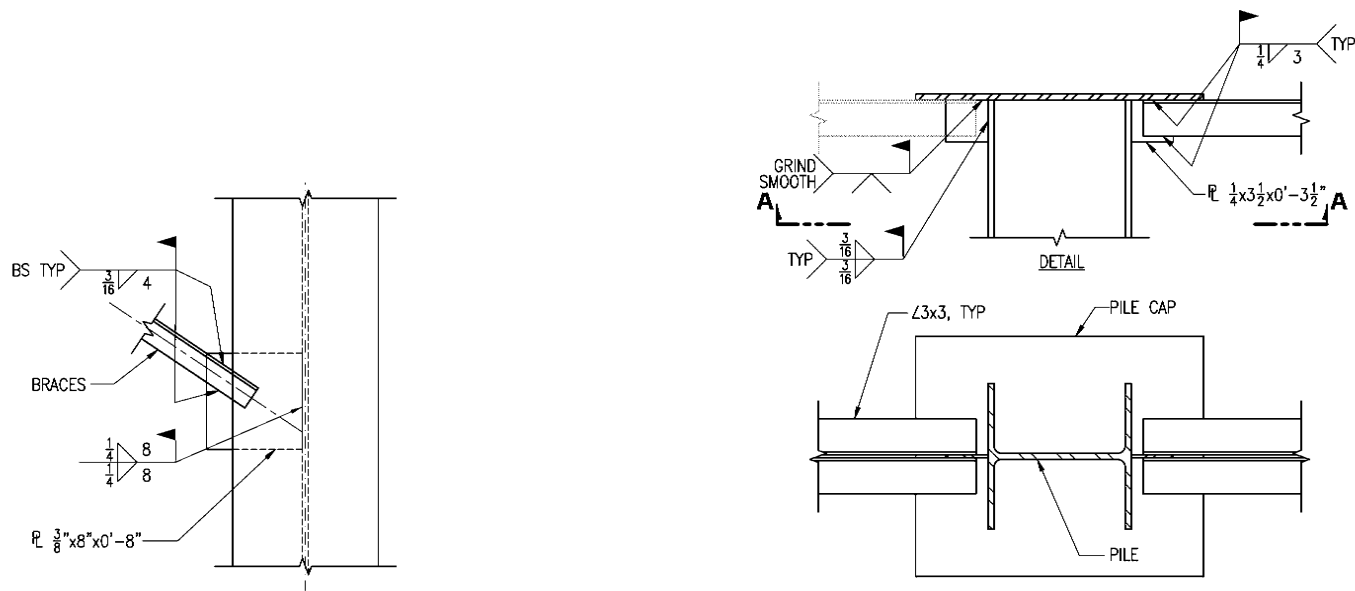
**2 DETAIL**  
S4.4 SCALE: 1 1/2" = 1'-0"



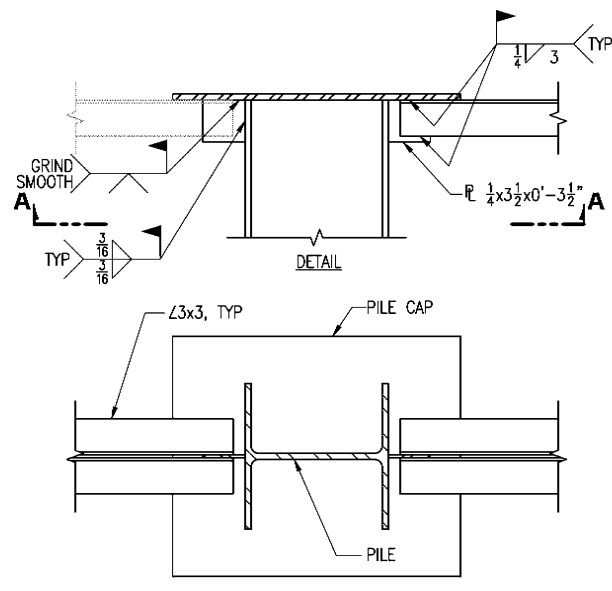
**3 DETAIL**  
S4.4 SCALE: 1 1/2" = 1'-0"



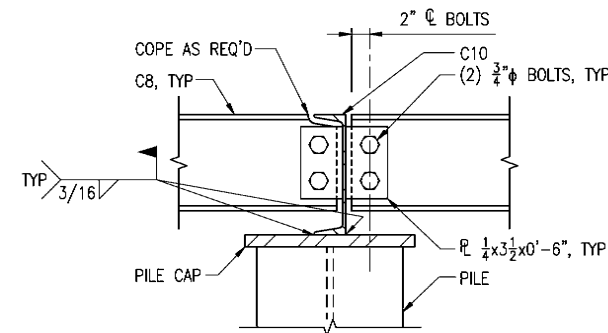
**4 DETAIL**  
S4.4 SCALE: 1 1/2" = 1'-0"



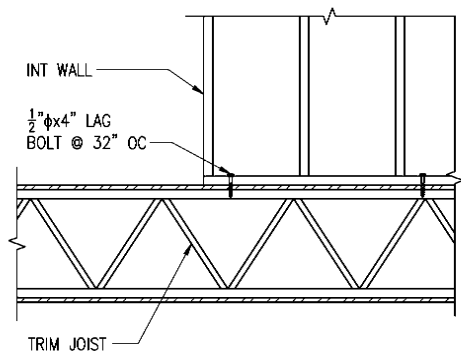
**5 DETIAL**  
S4.4 SCALE: 1 1/2" = 1'-0"



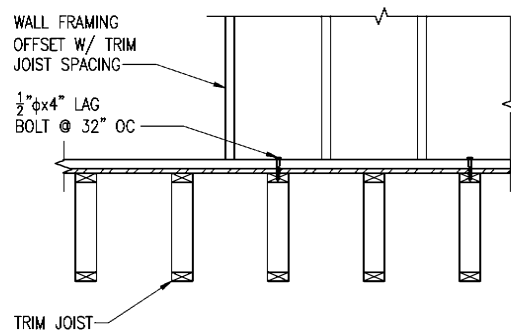
**6 DETAIL**  
S4.4 SCALE: 1 1/2" = 1'-0"



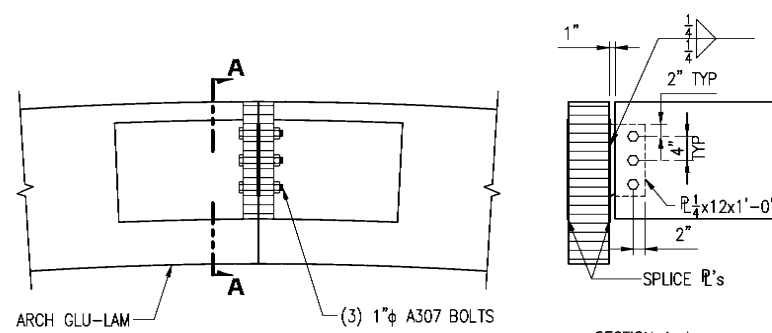
**7 DETAIL**  
S4.4 SCALE: 1 1/2" = 1'-0"



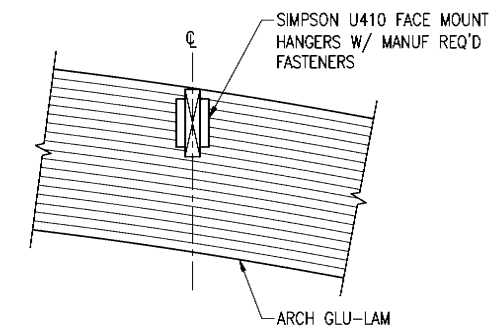
**8 SECTION**  
S4.4 SCALE: 3/4" = 1'-0"



**9 SECTION**  
S4.4 SCALE: 3/4" = 1'-0"



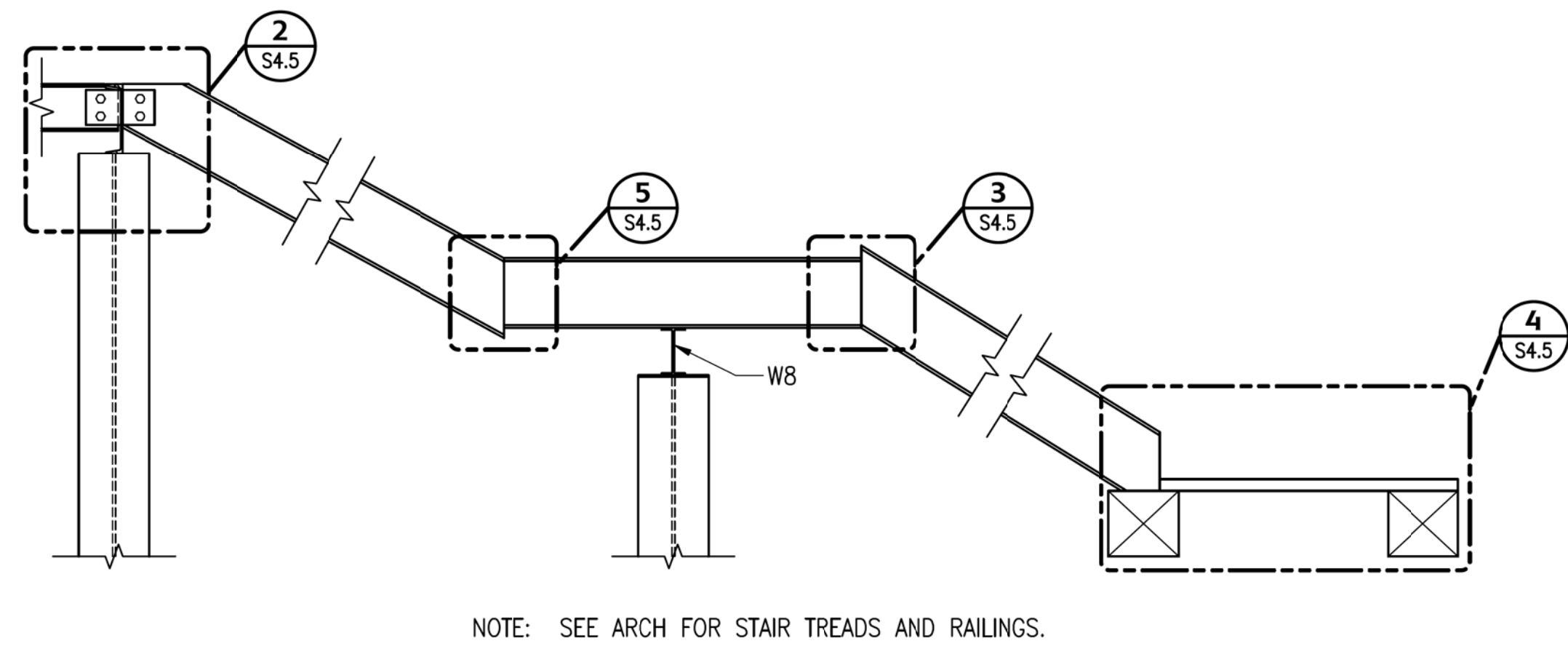
**10 DETAIL**  
S4.4 SCALE: 3/4" = 1'-0"



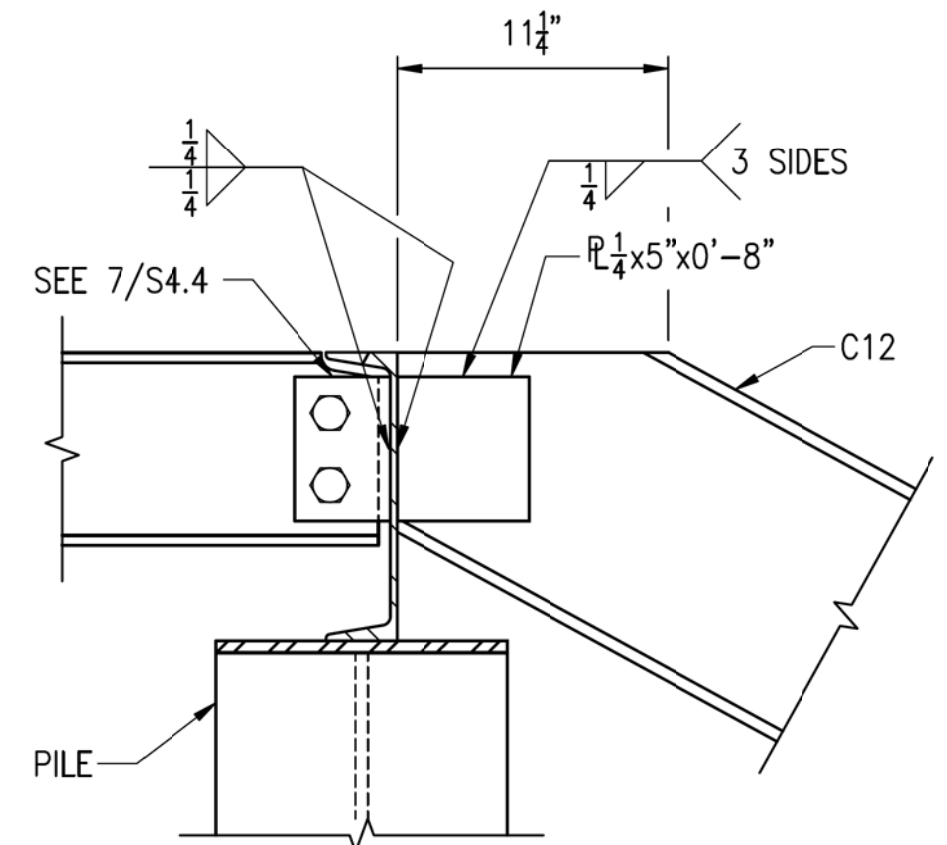
NOTES: 1. PLACE 3x LIGHT SUPPORT AS CLOSE TO THE CEILING AS POSSIBLE.  
2. INSTALL VERTICAL. DO NOT ALIGN W/ CURVATURE OF GLU-LAM.

**11 DETAIL**  
S4.4 SCALE: 3/4" = 1'-0"

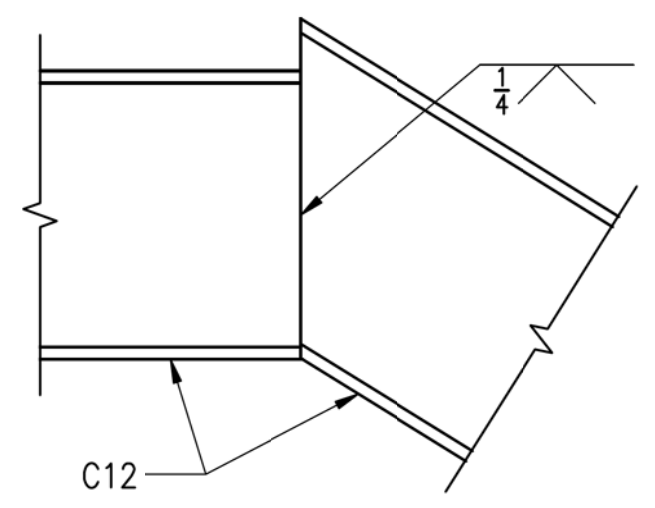




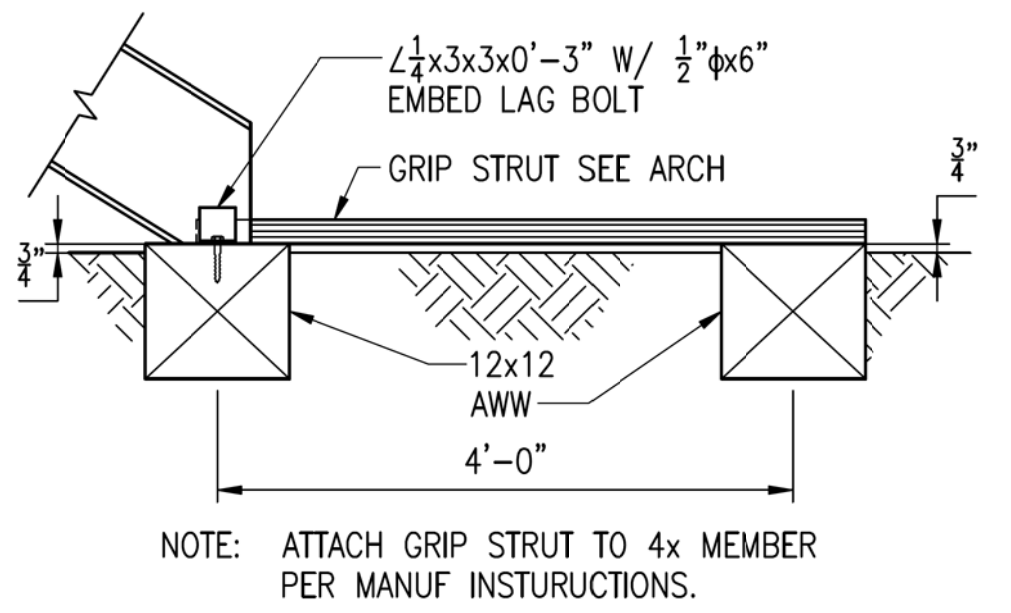
**1 STAIR ELEVATION**  
S4.5 SCALE: 1/2" = 1'-0"



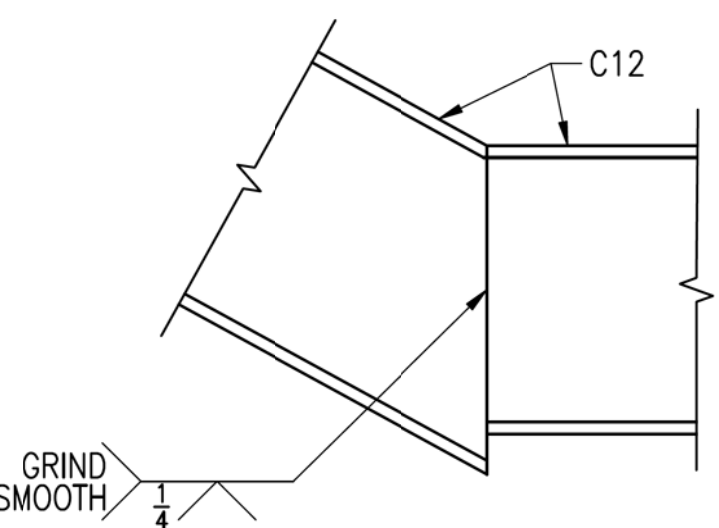
**2 DETAIL**  
S4.5 SCALE: 1 1/2" = 1'-0"



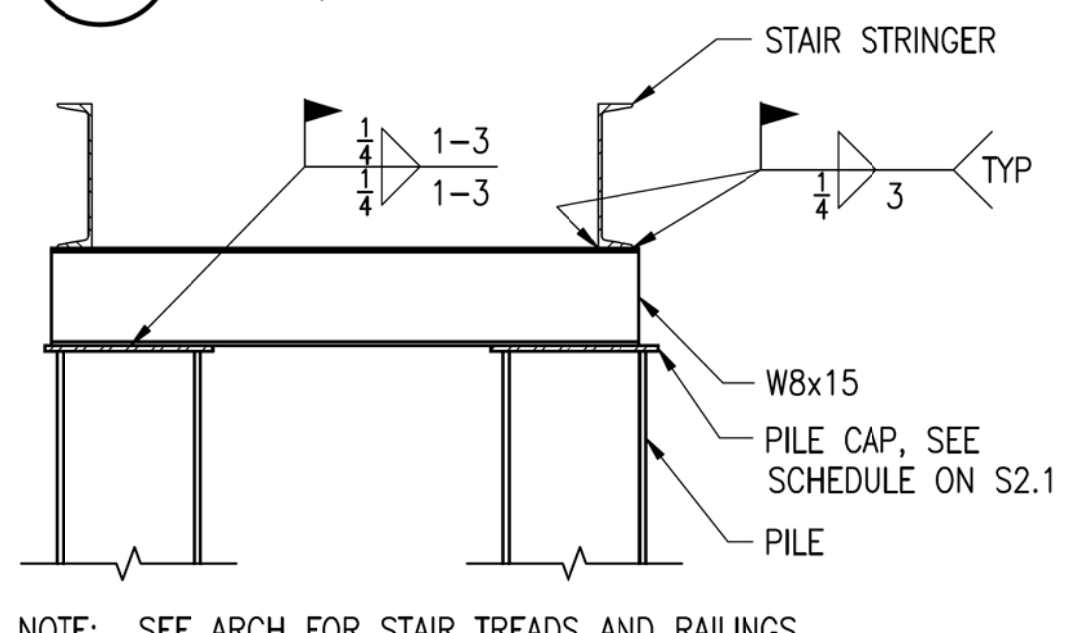
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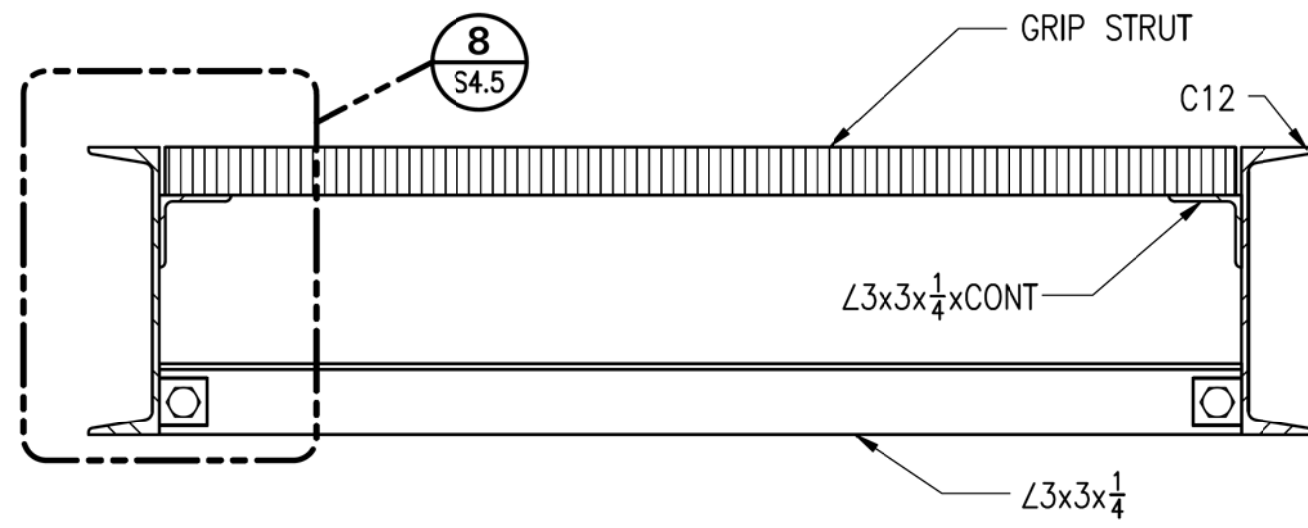
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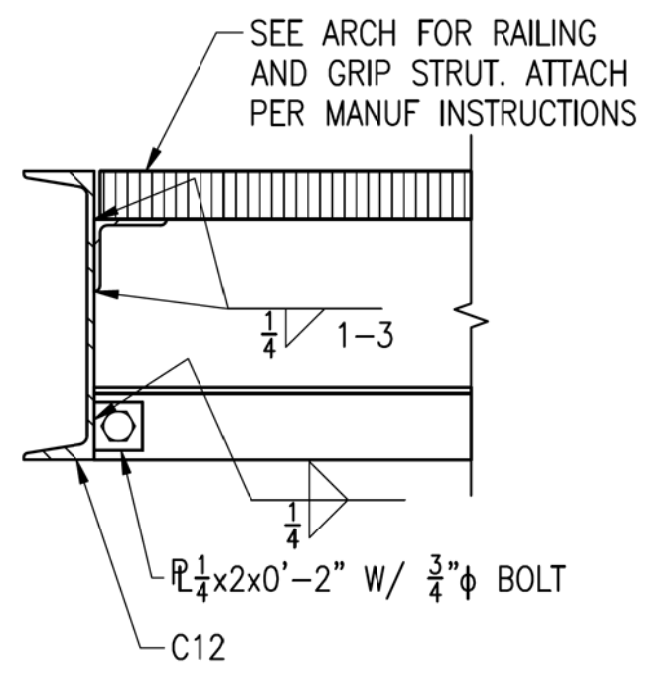
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S4.5 SCALE: 1 1/2" = 1'-0"



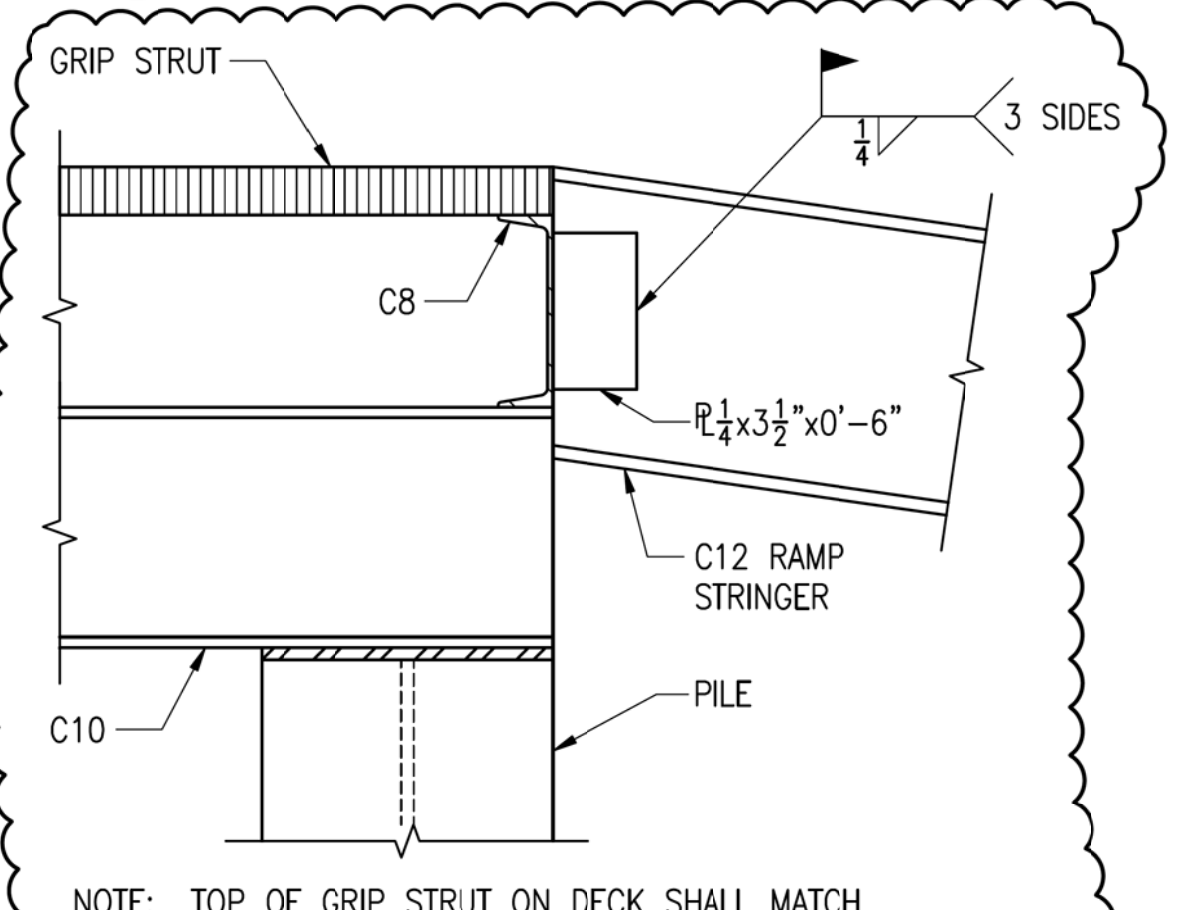
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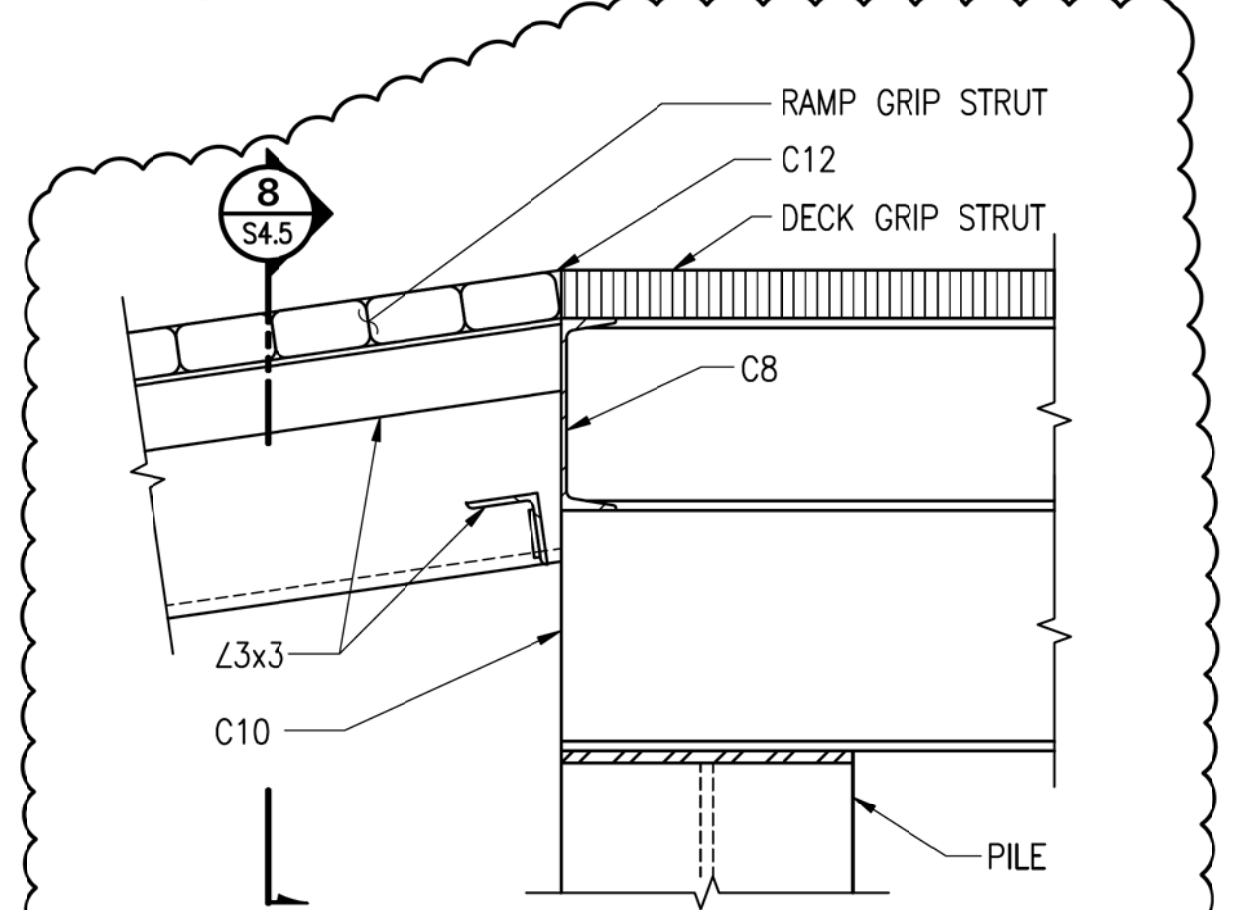
**7 RAMP SECTION**  
S4.5 SCALE: 1 1/2" = 1'-0"



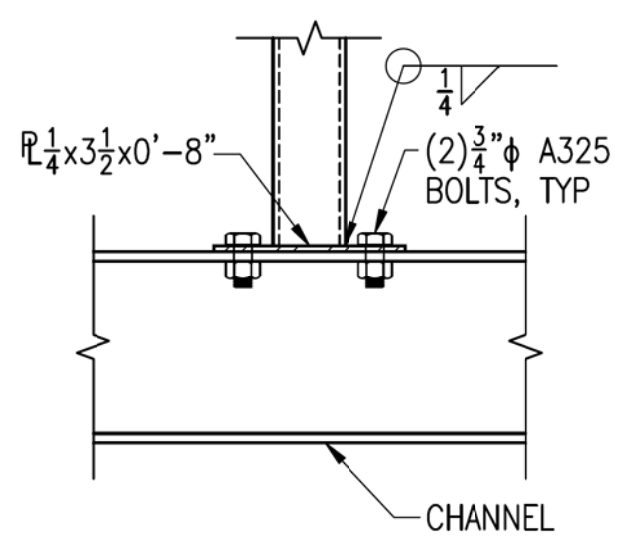
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S4.5 SCALE: 1 1/2" = 1'-0"



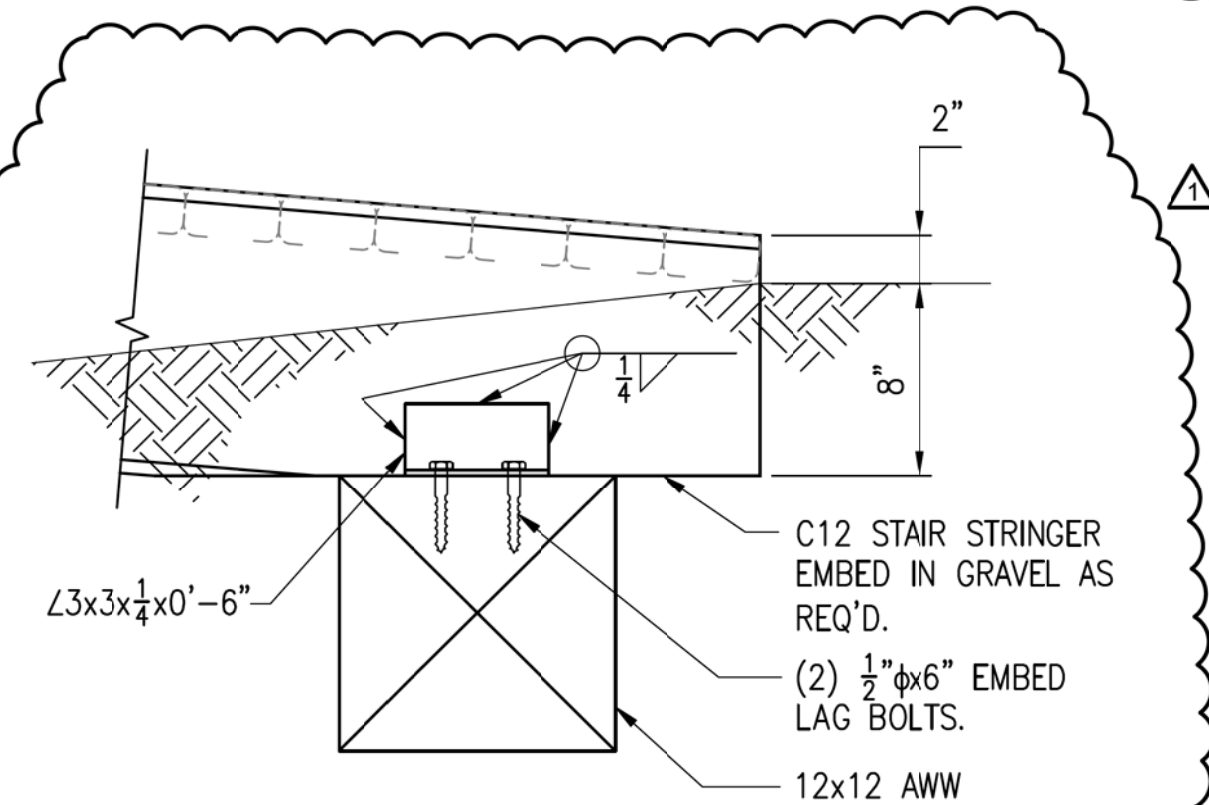
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S4.5 SCALE: 1 1/2" = 1'-0"



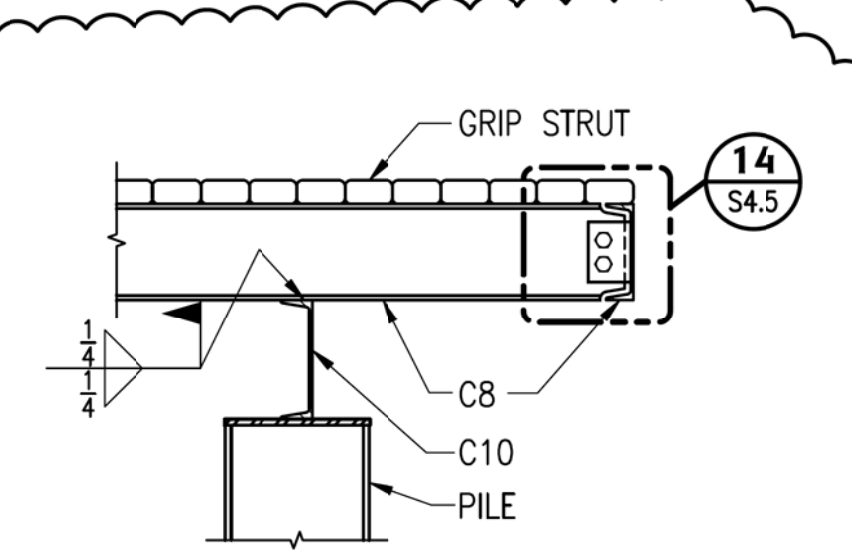
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S4.5 SCALE: 1 1/2" = 1'-0"



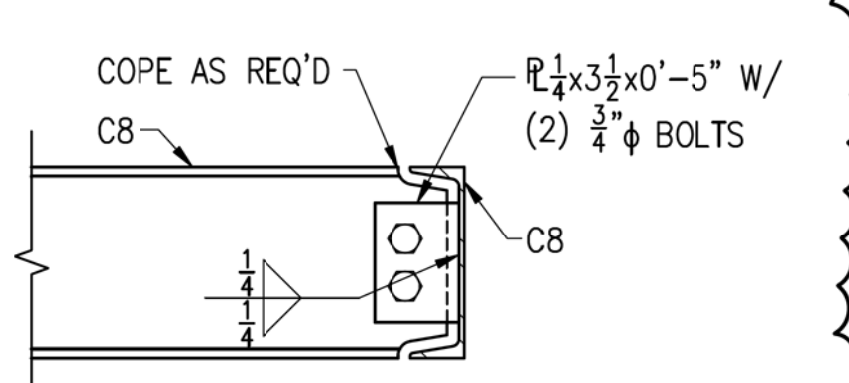
**11 DETAIL**  
S4.5 SCALE: 1 1/2" = 1'-0"



**12 DETAIL**  
S4.5 SCALE: 1 1/2" = 1'-0"



**13 SECTION**  
S4.5 SCALE: 3/4" = 1'-0"



**14 DETAIL**  
S4.5 SCALE: 1 1/2" = 1'-0"

REVISIONS		
No	Description	Date
1	Addendum 1	2/18/11

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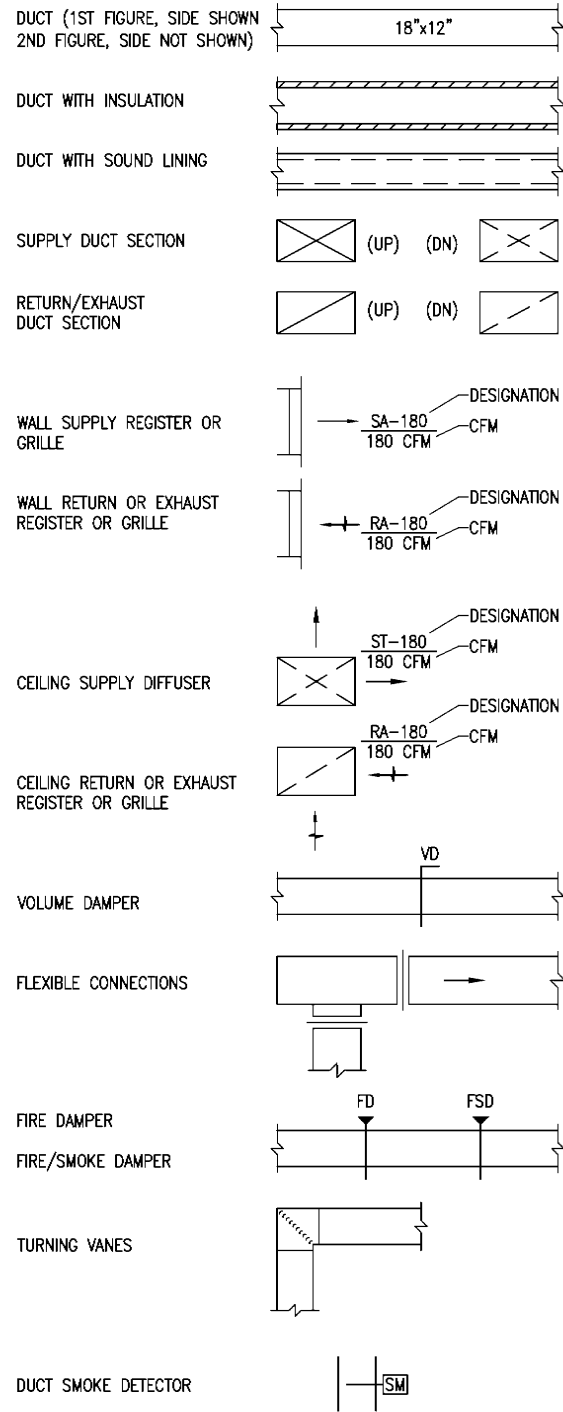
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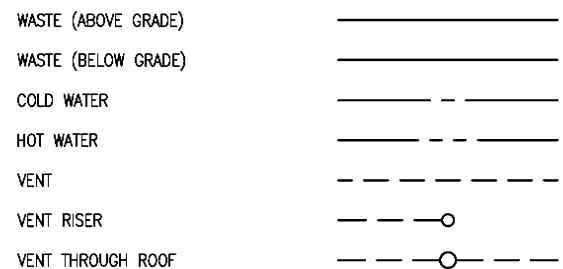
**SECTIONS AND DETAILS**  
**S4.5**



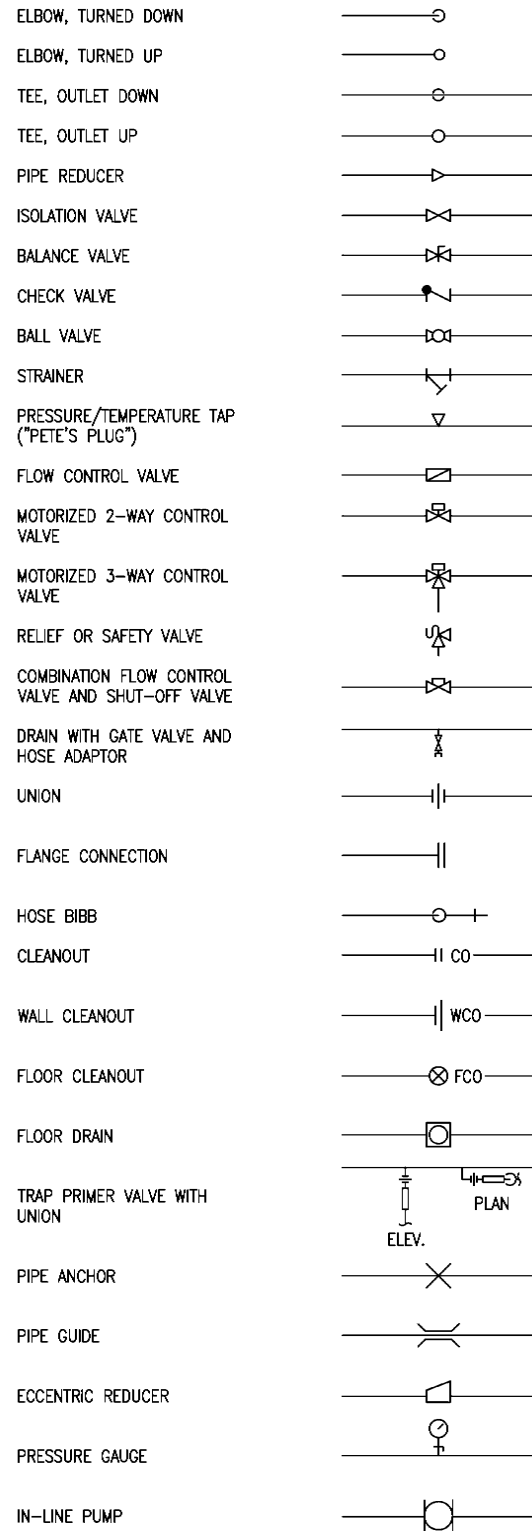
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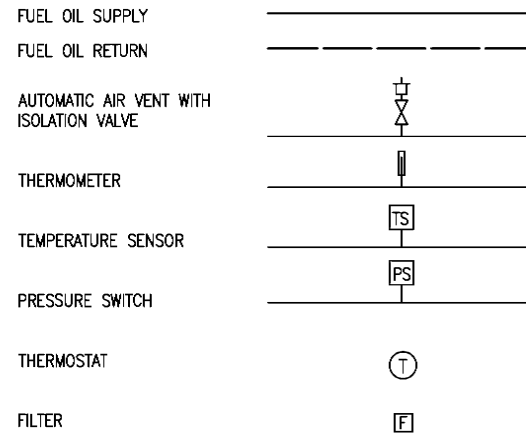
## PLUMBING



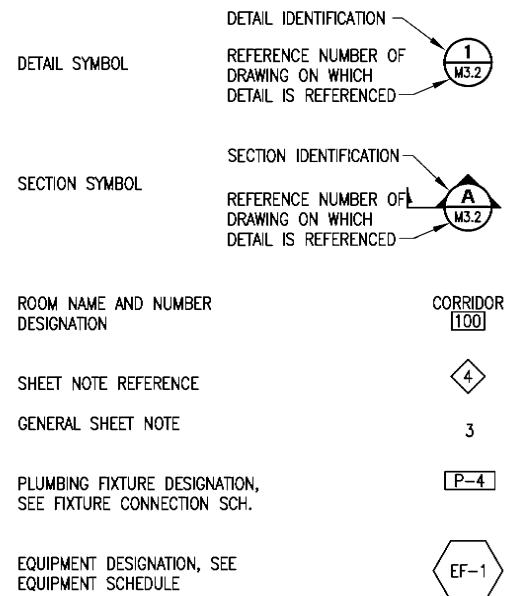
## PIPE FITTINGS AND VALVES



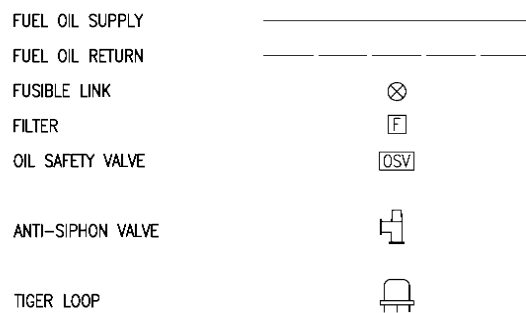
## HEATING & COOLING



## GENERAL



## FUEL OIL



## ABBREVIATIONS

ACFM	ACTUAL CUBIC FEET PER MINUTE (AT ALTITUDE)	LW	LAB WASTE
AFF	ABOVE FINISHED FLOOR	LWT	LEAVING WATER TEMPERATURE
AGT	AVERAGE GLYCOL TEMPERATURE	MAX	MAXIMUM
AHAP	AS HIGH AS POSSIBLE	MBH	THOUSAND BTU'S PER HOUR
APPROX	APPROXIMATE	MIN	MINIMUM
AV	ACID VENT	MISC	MISCELLANEOUS
AVTR	ACID VENT THROUGH ROOF	NC	NORMALLY CLOSED
AW	ACID WASTE	NO	NORMALLY OPENED
BTU	BRITISH THERMAL UNIT	NO.	NUMBER
CA	COMPRESSED AIR	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
CFM	CUBIC FEET PER MINUTE	OC	ON CENTER
CIRC	CIRCULATION	ORD	OVERFLOW ROOF DRAIN
CLNG	CEILING	OA	OUTSIDE AIR
CO	CLEANOUT	OSA	OUTSIDE AIR
CONT	CONTINUATION, CONTINUED	PD	PRESSURE DROP
CR	CONDENSATE RETURN	PDI	PLUMBING AND DRAINAGE INSTITUTE
CU	COPPER		
CW	COLD WATER	PG	PROPYLENE GLYCOL
CWR	CHILLED WATER RETURN	PH	PHASE
CWS	CHILLED WATER SUPPLY	PHC	PRE HEAT COIL
DDC	DIRECT DIGITAL CONTROLS	PHC	PRE HEAT COIL
DIA	DIAMETER	POC	POINT OF CONNECTION
DHWC	DOMESTIC HOT WATER CIRC	PSIG	POUNDS PER SQUARE INCH GAUGE
DN	DOWN	PSI	POUNDS PER SQUARE INCH
E/A	EXHAUST AIR	PW	PUMPED WASTE
EGT	ENTERING GLYCOL TEMPERATURE	RA	RETURN AIR
ENT	ENTERING	RD	ROOF DRAIN
EWT	ENTERING WATER TEMPERATURE	RECIRC	RECIRCULATION
FCO	FLOOR CLEANOUT	RPBP	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
FD	FIRE DAMPER	RWL	RAIN WATER LEADER
FSD	FIRE SMOKE DAMPER	RZ	RADIANT ZONE
FM	FORCED MAIN	SA	SUPPLY AIR
FT	FEET	SCFM	STANDARD CUBIC FEET PER MINUTE (AT SEA LEVEL)
FTS	FOUNDATION FREEZE SUPPLY	SCH	SCHEDULE
FFR	FOUNDATION FREEZE RETURN	SD	SMOKE DAMPER
FOR	FUEL OIL RETURN	SD	STORM DRAIN
FOS	FUEL OIL SUPPLY	SF	SQUARE FEET
GAL	GALLONS	SS	STAINLESS STEEL
GALV	GALVANIZED	TA	TRANSFER AIR
GCR	GLYCOL COOLING RETURN	TEMP	TEMPERATURE
GCS	GLYCOL COOLING SUPPLY	TOH	TOTAL DEVELOPED HEAD
GHR	GLYCOL HEATING RETURN	TP	TRAP PRIMER
GHS	GLYCOL HEATING SUPPLY	TYP.	TYPICAL
GPM	GALLONS PER MINUTE	UL	UNDERWRITER'S LABORATORY
HB	HOSE BIB	UNO	UNLESS OTHERWISE NOTED
HC	HEATING COIL	V	VENT
HP	HORSE POWER	VAV	VARIABLE AIR VOLUME
HW	HOT WATER	VTR	VENT THROUGH ROOF
HWC	HOT WATER CIRCULATION	VR	VENT RISER
HWR	HEATING WATER RETURN	W	WASTE
HWS	HEATING WATER SUPPLY	W/	WITH
HX	HEAT EXCHANGER	W.C.	WATER COLUMN
HZ	HERTZ	WCO	WALL CLEANOUT
IN	INCHES	WHA	WATER HAMMER ARRESTOR
LAV	LAVATORY	WPD	WATER PRESSURE DROP
LF	LINEAL FEET	WRT	WITH RESPECT TO
LGT	LEAVING GLYCOL TEMP		
LVG	LEAVING		



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## LEGEND AND ABBREVIATIONS M1.1

**MECHANICAL EQUIPMENT LIST**

<p><b>CF-1</b> CEILING FAN</p> <p>ELECTRICAL: 6.4 AMP, 120V/60HZ/1PH</p> <p>BASIS OF DESIGN: BIG ASS FAN - ELEMENT 16FT</p>	<p><b>AHU-1</b> AIR HANDLING UNIT</p> <p>CAPACITY: 4,200 CFM AT 0.5" ESP</p> <p>BURNER: OIL FIRED, 3.6 GPH INPUT, 400 MBH OUTPUT</p> <p>CONFIGURATION: MIXING BOX, FILTER, FAN, BURNER, TOP DISCHARGE PLENUM</p> <p>ELECTRICAL: SINGLE POINT OF CONNECTION 3 HP, 240V/60HZ/1PH</p> <p>BASIS OF DESIGN: JACKSON &amp; CHURCH - SDF-40</p>	<p><b>TEF-1</b> TOILET EXHAUST FAN</p> <p>CAPACITY: 525 CFM AT 0.375 IN WC</p> <p>ELECTRICAL: 301 W, 120V/60HZ/1PH</p> <p><b>△</b> BASIS OF DESIGN: COOK GC-720</p> <p>PROVIDE: CEILING RADIATION DAMPER.</p>
<p><b>PP-1</b> PRESSURE PUMP</p> <p>CAPACITY: 24 GPM AT 40 PSI DISCHARGE AND 5 FT LIFT</p> <p>ELECTRICAL: 1 HP, 115V/60HZ/1PH</p> <p>BASIS OF DESIGN: GOULDS J10</p> <p>PROVIDE ALL PIPE, FITTINGS, ADAPTERS, ELECTRICAL AND CONTROL COMPONENTS RECOMMENDED BY PUMP MANUFACTURER.</p>	<p><b>CP-1</b> HOT WATER RECIRCULATION PUMP</p> <p>CAPACITY: 1 GPM AT 9 FT HEAD</p> <p>POWER: 1/25 HP, 120V/60HZ/1PH</p> <p>BASIS OF DESIGN: GRUNDFOS 15-42SF</p>	<p><b>WH-1</b> WATER HEATER</p> <p>FUEL OIL FIRED</p> <p>CAPACITY: 91 GALLONS, 415 MBH INPUT</p> <p>RECOVERY: 443 GPH AT 90 DEG RISE.</p> <p>ELECTRICAL: 120V/60HZ/1PH</p> <p>BASIS OF DESIGN: BOCK - 361E</p> <p>PROVIDE NON-COMBUSTIBLE BASE CONSISTING OF 24 GA. GALVANIZED SHEET METAL ON FIBERFRAX 500 CLOTH OR EQUAL INSULATING MATERIAL ON A BASE OF 4-INCH THICK CONCRETE BLOCKS WITH A 4 X 2 STEEL CHANNEL FRAME. REFER TO NFPA 31 FOR ANY ADDITIONAL REQUIREMENTS.</p>
<p><b>ET-1</b> DOMESTIC WATER THERMAL EXPANSION TANK</p> <p>TOTAL GALLONS: 4.4</p> <p>BASIS OF DESIGN: AMTROL THERM-X-TROL ST-12</p>	<p><b>PT-1</b> WELL PRESSURE TANK</p> <p>TANK VOLUME: 211 GALLON ACCEPTANCE VOLUME: 137 GALLON</p> <p>BASIS OF DESIGN: AMTROL - WX-452-C</p>	<p><b>WT-1</b> DOMESTIC WATER HOLDING TANK</p> <p>CAPACITY: 500 GALLON</p> <p>DIMENSIONS: 62" DIA X 46" HIGH.</p> <p>MATERIAL: POLYETHYLENE</p> <p>BASIS OF DESIGN: GREER PE500</p> <p>NOTES: PROVIDE MANHOLE FOR MAINTENANCE AND CLEANING ACCESS</p>
<p><b>FT-1</b> FUEL TANK</p> <p>CAPACITY: DOUBLE WALL, 5,000 GALLON</p> <p>BASIS OF DESIGN: ANCHORAGE TANK - AT5MULAG</p> <p>SEE DRAWINGS AND SPECIFICATIONS FOR TRIM REQUIREMENTS.</p>	<p><b>FTP-1</b> FUEL TRANSFER PUMP SET</p> <p>CONFIGURATION: DUPLEX INLINE PUMPING PACKAGE, PANEL MOUNTED, SPS SERIES</p> <p>CONTROLS: MANUAL DUPLEX PUMP SWITCH, OPTION 347.</p> <p>PUMPS: VIKING SERIES 502 CAST IRON PUMP FOR CONTINUOUS OPERATION</p> <p>CAPACITY: 2 GPM</p> <p>ELECTRICAL: 1/3 HP, 120V/60HZ/1PH</p> <p>BASIS OF DESIGN: SIMPLEX SPS-25</p>	<p><b>SH-1</b> SPACE HEATER</p> <p>FUEL OIL FIRED</p> <p>CAPACITY: 40,000 BTUH OUTPUT, 0.3 GPH</p> <p>ELECTRICAL: 280W, 120V/60HZ/1PH</p> <p>BASIS OF DESIGN: TOYOTOMI LASER 73</p> <p>ACCESSORIES: CONCENTRIC COMBUSTION/EXHAUST KIT FUEL LIFT PUMP: TOYOTOMI OPT-91UL</p> <p><b>△</b></p>
<p><b>FT-2</b> FUEL TANK</p> <p>CAPACITY: DOUBLE WALL, 3,000 GALLON</p> <p>BASIS OF DESIGN: ANCHORAGE TANK - AT3MULAG</p> <p>SEE DRAWINGS AND SPECIFICATIONS FOR TRIM REQUIREMENTS.</p>	<p><b>SF-1</b> SUPPLY FAN</p> <p>CAPACITY: 120 CFM AT 0.125 IN WC</p> <p>ELECTRICAL: 98 W, 120V/60HZ/1PH</p> <p>PROVIDE: CEILING RADIATION DAMPER</p> <p>BASIS OF DESIGN: COOK GC-144</p>	

**DIFFUSER/REGISTER/GRILLE SCHEDULE**

ITEM	TYPE	DELTA P-MAX (IN W.C.)	NC RATING (MAX Db)	MATERIAL	DIMENSIONS	BASIS OF DESIGN	NOTE
SA	SUPPLY GRILLE	0.1	30	ALUMINUM	18"X6"	TITUS 1700	
SB	FLOOR GRILLE	0.1	30	ALUMINUM	24"X6"	TITUS CT-PP-3	
SC	SUPPLY GRILLE	0.1	30	ALUMINUM	6"X6"	TITUS 301FL	
SD	SUPPLY GRILLE	0.1	30	ALUMINUM	12"X4"	TITUS 1700	
RA	WALL GRILLE	0.1	30	STEEL	48"X48"	TITUS 33RL	
TA	WALL GRILLE	0.1	30	STEEL	24"X12"	TITUS 33RL	

NOTES:

**LOUVER SCHEDULE**

ITEM	LOCATION	SIZE (W X H)	FA (FT2)	CFM	PRESSURE DROP (IN W.G.)	BASIS OF DESIGN	NOTE
L-1	MEZZ OUTSIDE AIR	60" X 48"	11.15	4200	0.05	RUSKIN ELF6375DX	
L-2	COMBUSTION AIR	30" X 30"	3.13	--	--	RUSKIN ELF6375DX	

NOTES:

**PLUMBING FIXTURE CONNECTION SCHEDULE**

ITEM	FIXTURE DESCRIPTION	HW	CW	TRAP	WASTE	VENT	NOTE
P-1	WATER CLOSET	-	1"	-	4"	2"	[1]
P-1A	ADA WATER CLOSET	-	1"	-	4"	2"	[1]
P-2	URNAL	-	3/4"	-	2"	1-1/2"	
P-2A	ADA URNAL	-	3/4"	-	2"	1-1/2"	
P-3	LAVATORY	1/2"	1/2"	1-1/4"	1-1/2"	1-1/2"	
P-4	SHOWER	1/2"	1/2"	2"	2"	1-1/2"	
P-4A	ADA SHOWER	1/2"	1/2"	2"	2"	1-1/2"	
P-5	HAND SINK	1/2"	1/2"	1-1/4"	1-1/2"	1-1/2"	<b>△</b> [4]
P-6	KITCHEN SINK	1/2"	1/2"	1-1/2"	2"	1-1/2"	
P-7	DRINKING FOUNTAIN	-	1/2"	1-1/4"	1-1/2"	1-1/2"	
P-8	WASHER BOX	3/4"	3/4"	2"	2"	1-1/2"	
P-9	SERVICE SINK	1/2"	1/2"	2"	2"	2"	
L-1	LINT INTERCEPTOR	-	-	-	3"	-	[2]
HB-1	DUAL TEMP HOSE BIB	1/2"	1/2"	-	-	-	
HB-2	HOSE BIB	-	1/2"	-	-	-	
FD-1	FLOOR DRAIN	-	-	1-1/2"	1-1/2"	1-1/2"	[3]
FS-1	FLOOR SINK	-	-	2"	2"	1-1/2"	[3]

NOTES:  
 [1] PROVIDE TRAP PRIMER ON FLUSH VALVE DRAIN TUBE WHERE INDICATED ON DRWGS.  
 [2] CAPACITY: 50 GPM  
 [3] PROVIDE TRAP PRIMER CONNECTION  
 [4] PROVIDE THERMOSTATIC MIXING VALVE ON HOT WATER SUPPLY

**REVISIONS**

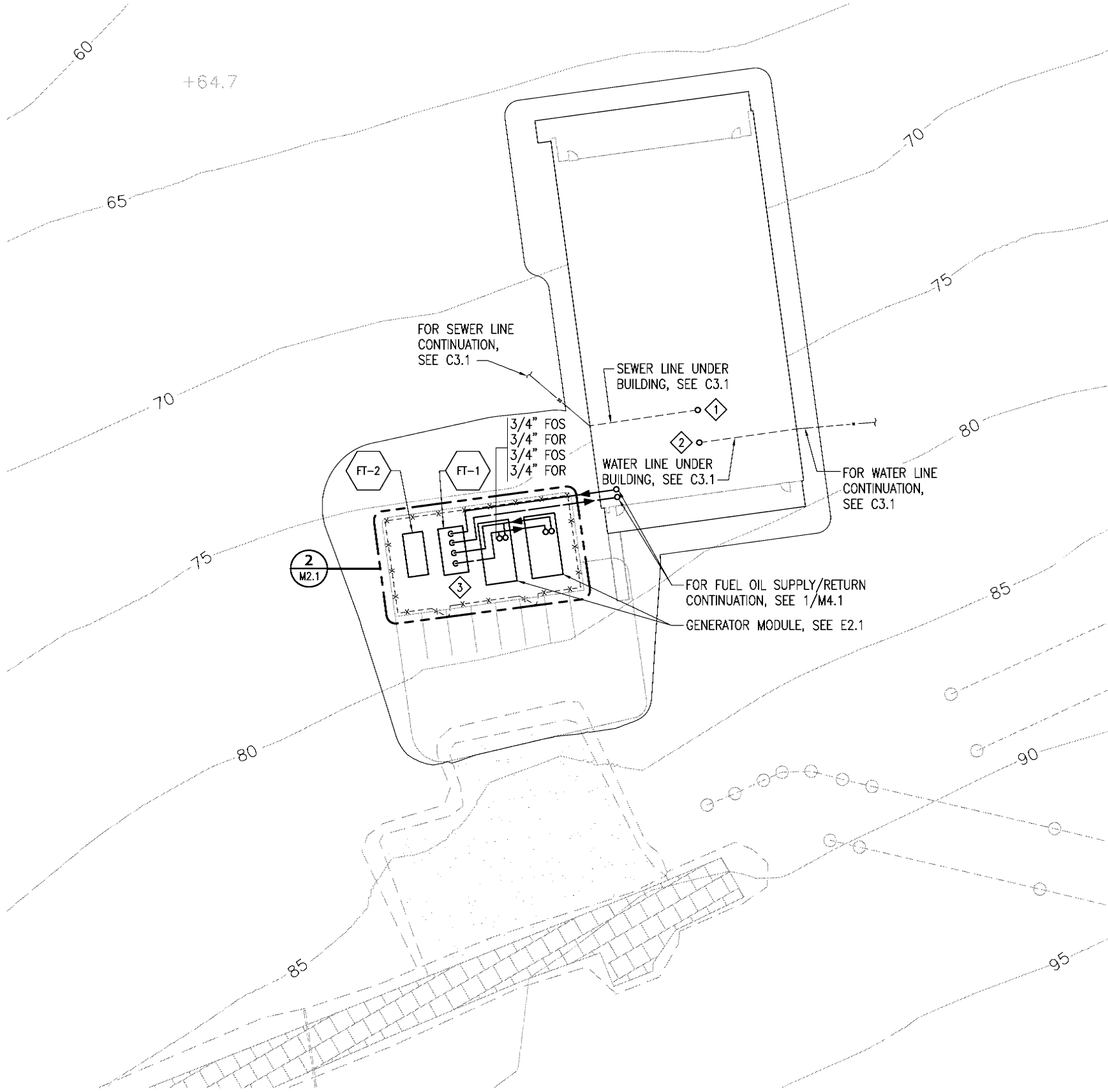
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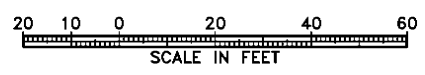
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**MECHANICAL SCHEDULES**  
**M1.2**

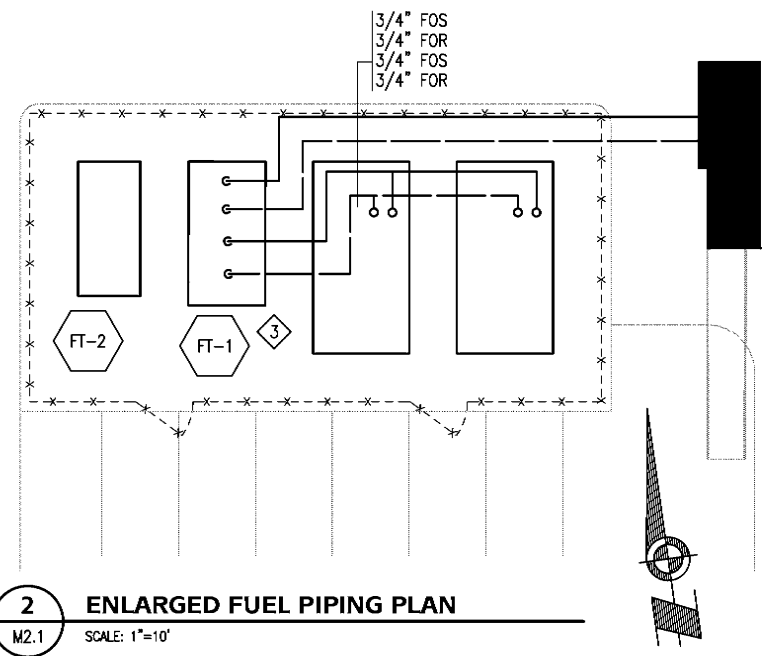


**1 MECHANICAL SITE PLAN**  
 M2.1 SCALE: 1"=20'



**SHEET NOTES**

- 1 4" W UP INTO BUILDING. FOR PENETRATION DETAIL, SEE 9/M9.1. FOR CONTINUATION SEE 1/M3.1.
- 2 2" CW UP INTO BUILDING. FOR PENETRATION DETAIL, SEE 9/M9.1. FOR CONTINUATION SEE 1/M3.1.
- 3 LOCATE LADDER ON THIS SIDE. SEE 2/M8.1.



**2 ENLARGED FUEL PIPING PLAN**  
 M2.1 SCALE: 1"=10'

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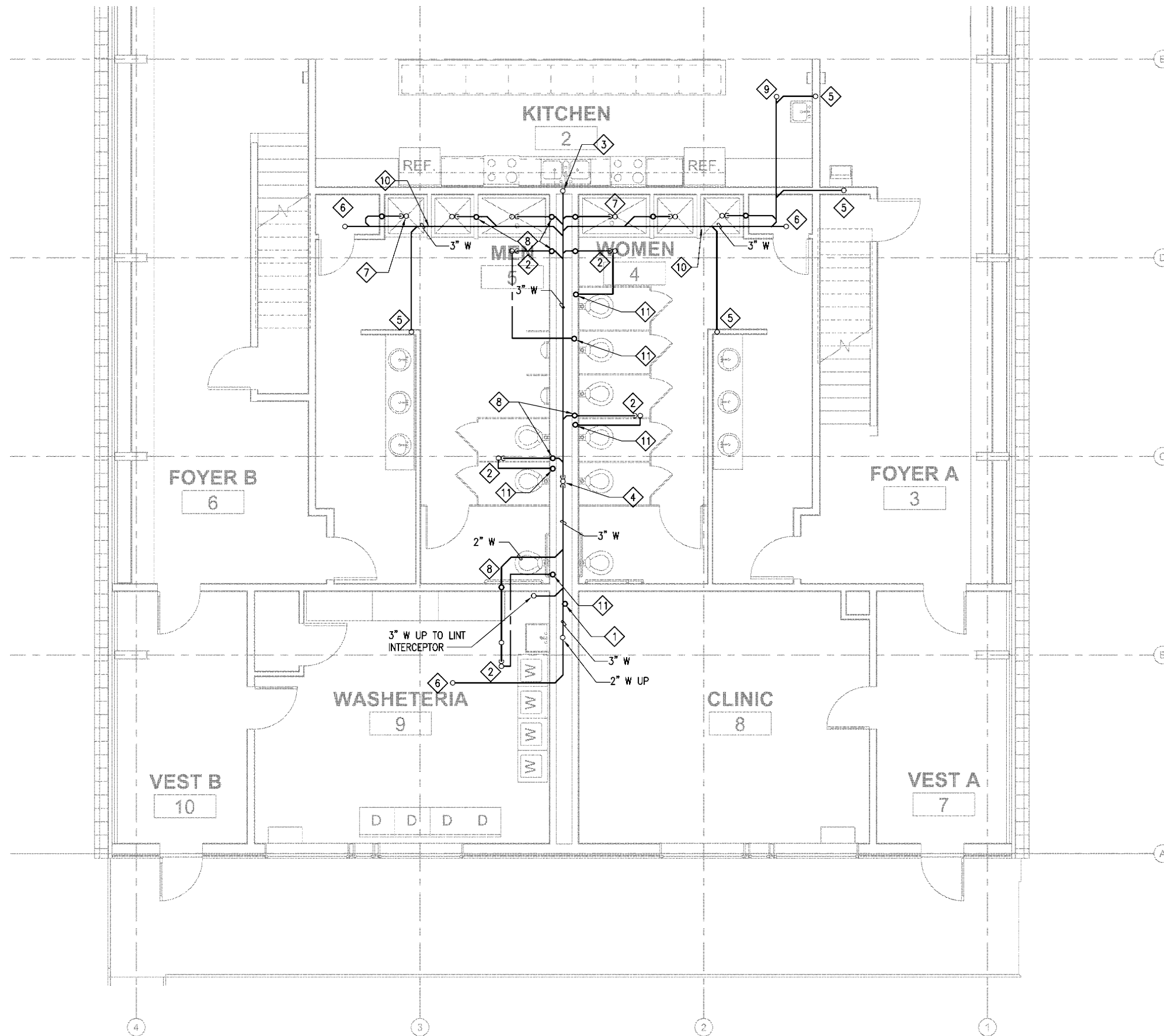
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**MECHANICAL**  
**SITE PLAN**  
**M2.1**



**SHEET NOTES**

- 1 2" CW FROM BELOW BUILDING UP TO CEILING SPACE.
- 2 2" W UP TO FLOOR DRAIN. PROVIDE TRAP PRIMER.
- 3 2" W UP INTO WALL ABOVE.
- 4 4" W DOWN TO BELOW GRADE AND 4" W UP INTO WALL ABOVE.
- 5 1-1/2" W UP INTO WALL ABOVE.
- 6 3" W UP TO FLOOR CLEANOUT.
- 7 2" W UP TO SHOWER DRAIN, TYP. OF 6.
- 8 1-1/2" V UP INTO WALL ABOVE, TYP OF SHOWER DRAINS AND FLOOR DRAINS.
- 9 2" W UP TO FLOOR CLEANOUT.
- 10 GLU-LAM PENETRATIONS.
- 11 1/2" TP FROM FLUSH VALVE ABOVE.

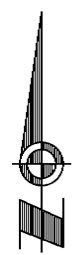
**1 PLUMBING PLAN- UNDERFLOOR**  
 M3.1 SCALE: 1/4" = 1'-0"

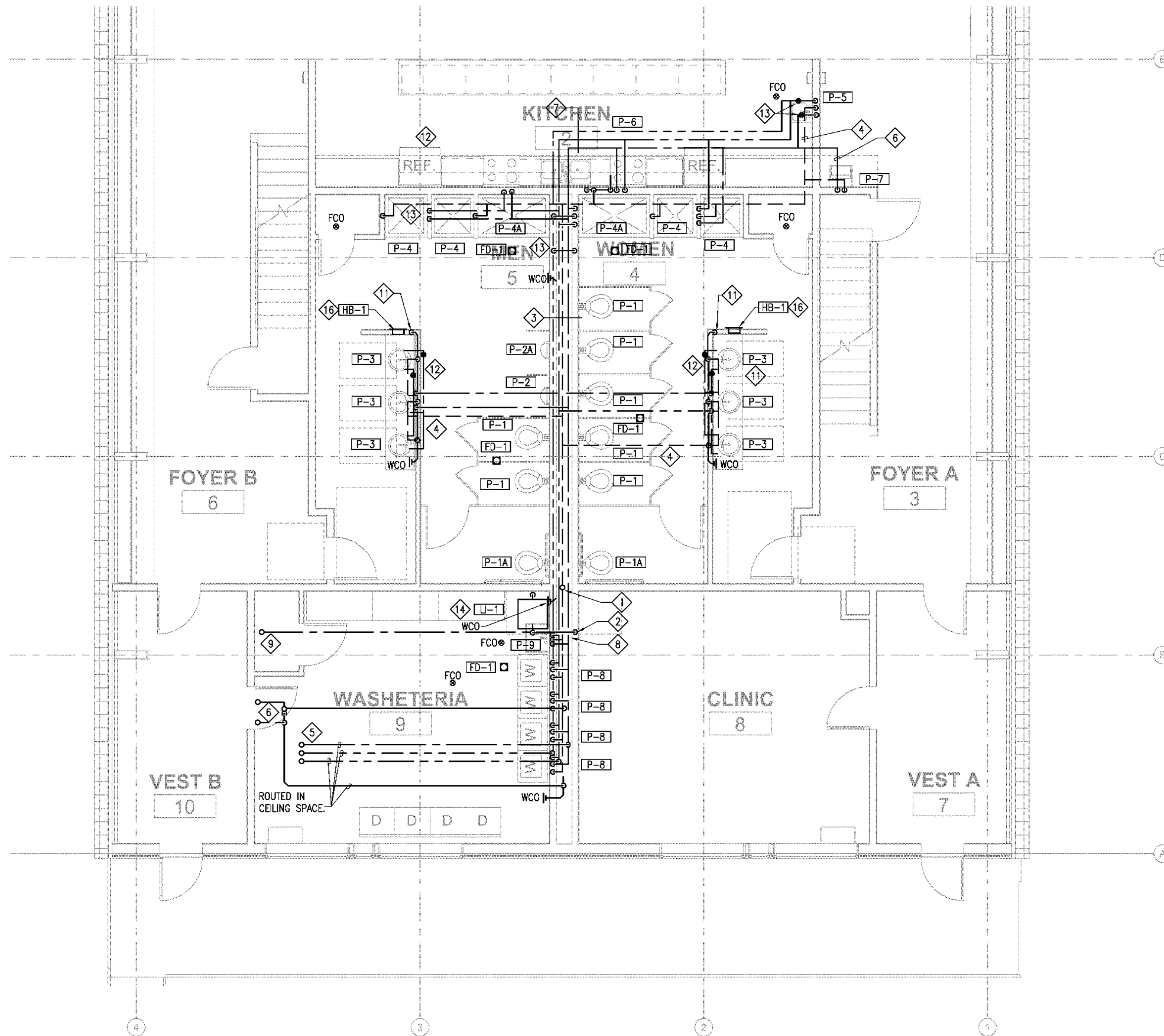


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**PLUMBING**  
**PLAN-**  
**UNDERFLOOR**  
**M3.1**





**SHEET NOTES**

- 1 4" VENT UP. FOR CONTINUATION SEE 1/M7.1.
- 2 2" CW UP FROM WELL SUPPLY LINE BELOW FLOOR, ROUTE IN CEILING SPACE TO MECHANICAL ROOM, 2" CW, 1-1/2" HW, 3/4" HWC DOWN FROM MECHANICAL ROOM. COORDINATE PIPING WITH BATHROOM EXHAUST DUCT.
- 3 ROUTE 4" W, 1-1/2" CW, 1" HW, 3/4" HWC, AND 2" V IN PLUMBING WALL.
- 4 1-1/2" VENT PIPING AT CEILING.
- 5 2" CW, 1-1/2" HW, 3/4" HWC UP, FOR CONTINUATION SEE 1/M7.1.
- 6 2" UP TO FS-1, 1-1/2" V AND 1/2" TRAP PRIMER UP TO MECHANICAL ROOM ABOVE.
- 7 3/4" CW, 3/4" HW, 3/4" HWC, 2" V IN WALL, OFFSET SHOWN FOR CLARITY.
- 8 2" CW, 1-1/2" HW, 2" V, 3" W. ROUTE PIPING IN WALL, COORDINATE WITH DUCT ROUTING. OFFSET SHOWN FOR CLARITY.
- 9 2" CW UP, FOR CONTINUATION SEE 1/M7.1.
- 10 WATER CLOSETS TO HAVE WALL MOUNTED CLOSET CARRIERS. COMBINE WASTE OF URINALS AND WATER CLOSETS IN CHASE ABOVE FLOOR AND DROP IN SINGLE 4" W DN TO BELOW FLOOR. PROVIDE WCO AT UPPER END, TYP.
- 11 1-1/2" W IN WALL, DN TO BELOW FLOOR.
- 12 PROVIDE WATER HAMMER ARRESTERS, PDI #A ON BOTH HOT AND COLD WATER.
- 13 PROVIDE WATER HAMMER ARRESTERS, PDI #D ON CW AND PDI # B ON HW.
- 14 ROUTE 3" WASTE IN WALL WITH 2" W BRANCHES UP TO CLOTHES WASHER WALL BOXES, NOT SHOWN FOR CLARITY. ROUTE 3" W INTO LAUNDRY ROOM SPACE AT LINT TRAP AND CONNECT TO LINT TRAP INLET.
- 15 ROUTE ALL WATER SUPPLY PIPING MAINS SLOPED TO DRAIN TO LOW POINT. PROVIDE LOW POINT BALL VALVES WITH HOSE END CONNECTIONS AND ACCESS PANELS AT LOW POINTS. PROVIDE HIGH POINT MANUAL VENTS WITH BALL VALVES AND CAPPED INLETS TO RELIEVE VACUUM IN PIPING DURING SYSTEM DRAIN-DOWN FOR WINTERIZATION, TYP.
- 16 ROUTE 1/2" CW AND 1/2" HW IN WALL TO RECESSED HOSE BIB WALL BOX, TYP.

**1 ABOVE FLOOR PLUMBING PLAN**  
 M3.2 SCALE: 1/4" = 1'-0"



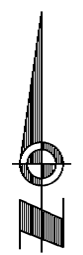
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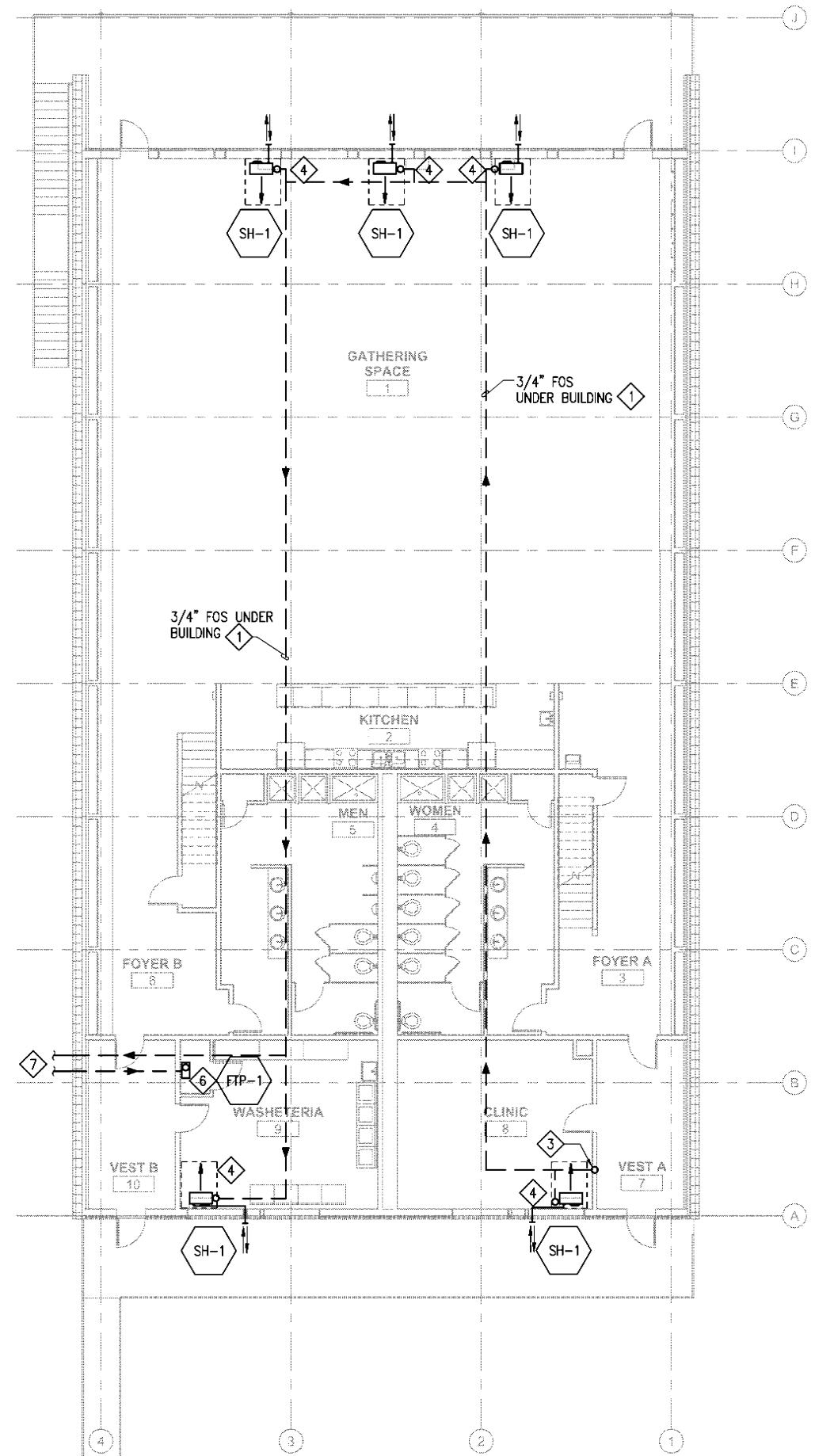
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**PLUMBING**  
 PLAN - ABOVE  
 FLOOR  
**M3.2**





**SHEET NOTES**

- 1. PROVIDE CONTINUOUS ANGLE IRON SPANNING BETWEEN PILES TO SUPPORT FOS/FOR PIPING. MOUNT AS HIGH AS POSSIBLE ON PILES AND PROVIDE STAINLESS STEEL STRAPS OR SIMILAR EVERY 10 FEET TO PREVENT PIPING FROM SLIDING OUT OF ANGLE.
- 2. FOR FUEL OIL PIPING DIAGRAMS, SEE 3/M8.1. FOR FUEL OIL PIPING DETAILS, SEE M9.1.
- 3. 3/4" FOS UP TO MECHANICAL ROOM. FOR CONTINUATION, SEE M7.2.
- 4. 1/2" FOS UP TO SH-1 UNITS.
- 5. SPACE HEATER EXHAUST/INTAKE PORTS TO BE MIN 10 FT FROM OA, COMBUSTION AIR INTAKES, ALL OPENINGS INTO BUILDING AND OTHER SPACE HEATER EXHAUST/INTAKES.
- 6. 3/4" FOS FROM BELOW BUILDING TO TRANSFER PUMP ASSEMBLY AND THEN UP TO MECHANICAL ROOM. FOR CONTINUATION, SEE 1/M7.1.
- 7. 3/4" FOS, 3/4" FOR TO FUEL TANK. FOR CONTINUATION, SEE 1/M2.1 AND 2/M8.1.
- 8. FOR SPACE HEATER DETAIL SEE 4/M9.1 AND 5/M9.1.

**1 HEATING PLAN**  
M4.1 SCALE: 1/8" = 1'-0"

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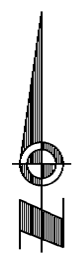
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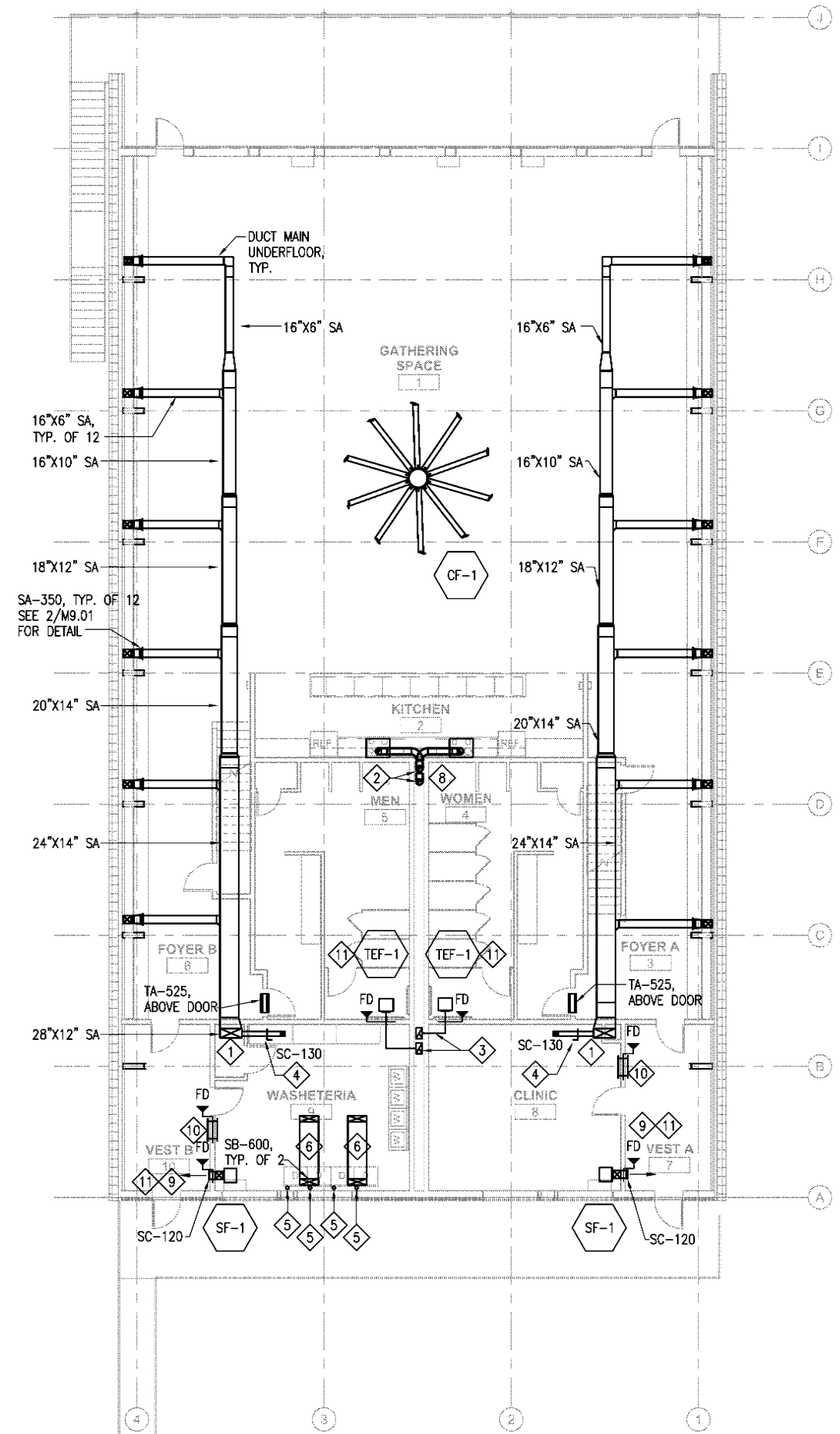
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**HEATING PLAN**

**M4.1**





**SHEET NOTES**

- 1 12"X28" DN TO BELOW FLOOR. PROVIDE FIRE DAMPER AT FLOOR WITH ACCESS DOORS. TRANSITION TO 24"X14" AND ROUTE DUCT UNDER FLOOR THROUGH TRUSSES. FOR DUCT CONTINUATION, SEE 1/M7.2.
- 2 7"Ø RANGE EA DN BELOW BUILDING. FOR DETAIL, SEE 8/M9.1
- 3 12"X10" EA DN TO BELOW BLDG. COORINATE ROUTING WITH PLUMBING PIPING. FOR TERMINATION DETAIL, SEE 8/M9.1.
- 4 DUCT ROUTED EXPOSED BELOW CEILING SPACE. PROVIDE MANUAL VOLUME DAMPER WITH REMOTE LINKAGE.
- 5 4"Ø DRYER EA DN BELOW BUILDING. FOR DETAIL, SEE 8/M9.1
- 6 24"X6" DRYER MAKE-UP AIR DUCT FROM BELOW BUILDING TO FLOOR GRILLE BEHIND DRYERS. PROVIDE CONTINUOUS 4" INSULATION. TERMINATE WITH BIRDSCREEN FLUSH WITH BOTTOM OF BUILDING, SEE 7/M9.1.
- 7 FOR MEZZANINE VENTILATION PLAN, SEE 1/M7.1.
- 8 ONE RANGE EXHAUST ROUTED THROUGH CABINET SOFFIT AND INTO PLUMBING CHASE. ONE RANGE EXHAUST GOES INTO CEILING TRUSS SPACE, PENETRATES MIDDLE OF TRUSSES, THEN DOWN INTO PLUMBING CHASE.
- 9 SF-1, FOR DETAIL SEE 3/M9.1.
- 10 TA-120 ON BOTH SIDES OF WALL. LOCATE TOP OF GRILLE AT 7'-6" AFF. PROVIDE FIRE DAMPER IN WALL.
- 11 PROVIDE FLEX DUCT CONNECTIONS AT FANS.

**1 VENTILATION PLAN**  
M5.1 SCALE: 1/8" = 1'-0"

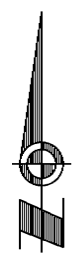


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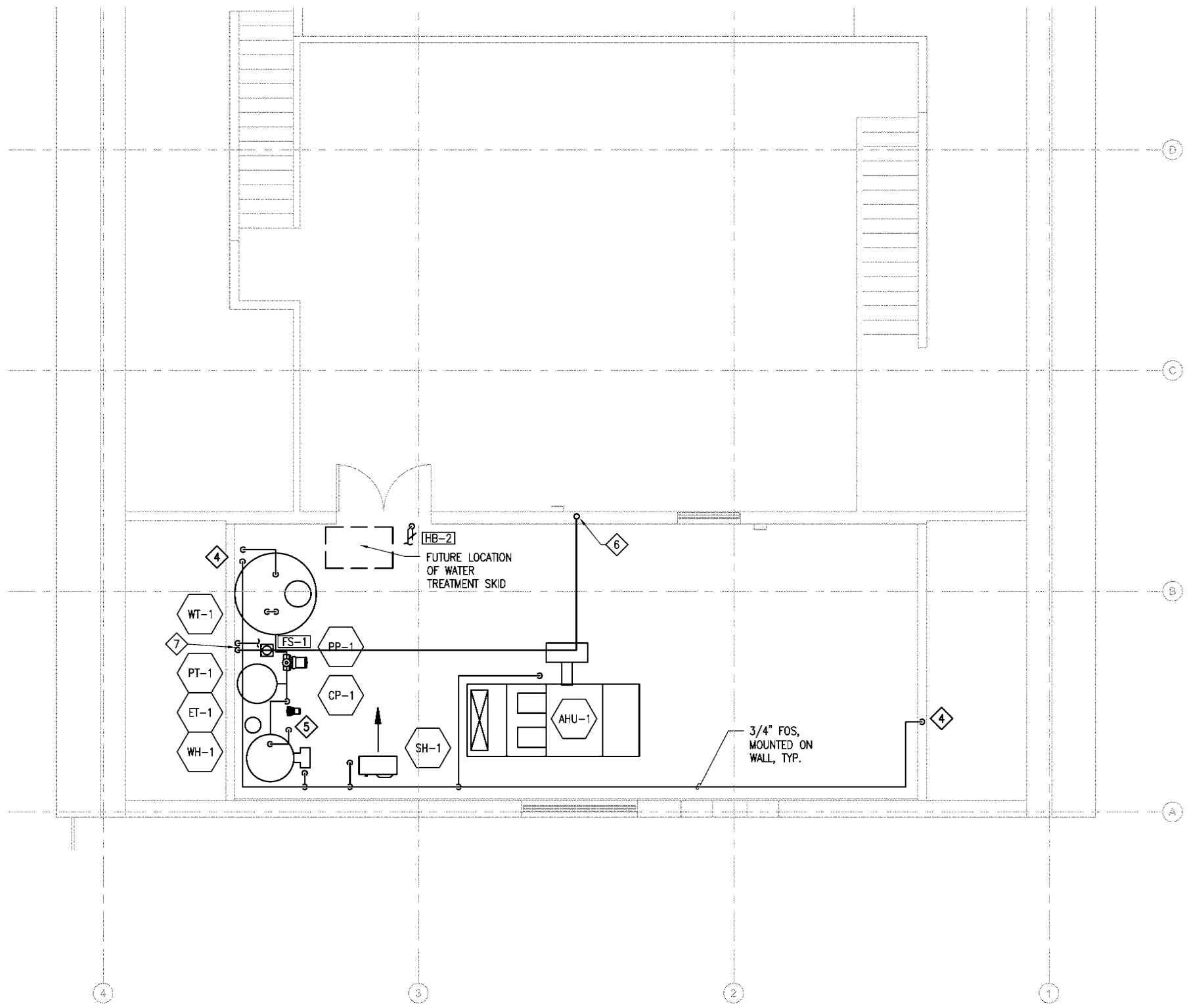
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**VENTILATION PLAN**  
**M5.1**







**SHEET NOTES**

1. FOS BRANCH PIPING TO FIXTURE IS 1/2". FOR FUEL OIL PIPING SCHEMATIC, SEE SHEET 3/MB.1.
2. FOR WATER PIPING SCHEMATIC, SEE 1/MB.1
3. FOR FUEL OIL PIPING CONNECTION DETAILS, SEE SHEET M9.1.
4. 3/4" FOS DOWN TO FIRST FLOOR, FOR CONTINUATION SEE 1/M4.1. 2" CW DN TO FIRST FLOOR, FOR CONTINUATION SEE 1/M3.1
5. 2" CW, 1-1/2" HW, 3/4" HWC DN, FOR CONTINUATION SEE 1/M3.1. MOUNT CIRC PUMP, AND PIPING ON UNISTRUT RACK.
6. 4" V UP TP 4" VTR. COORDINATE ROUTING WITH ELECTRICAL EQUIPMENT IN THIS LOCATION. FOR DETAIL, SEE 3/M9.2.
7. 2" V DN TO FS-1 WASTE LINE, 1/2" TRAP PRIMER DOWN TO FS-1 TRAP IN CEILING BELOW FROM TRAP PRIMER VALVE IN MECHANICAL ROOM. SEE DETAIL 2/M9.2.

**1** LARGE SCALE MEZZANINE PLAN - PLUMBING  
 M7.1 SCALE: 1/4" = 1'-0"



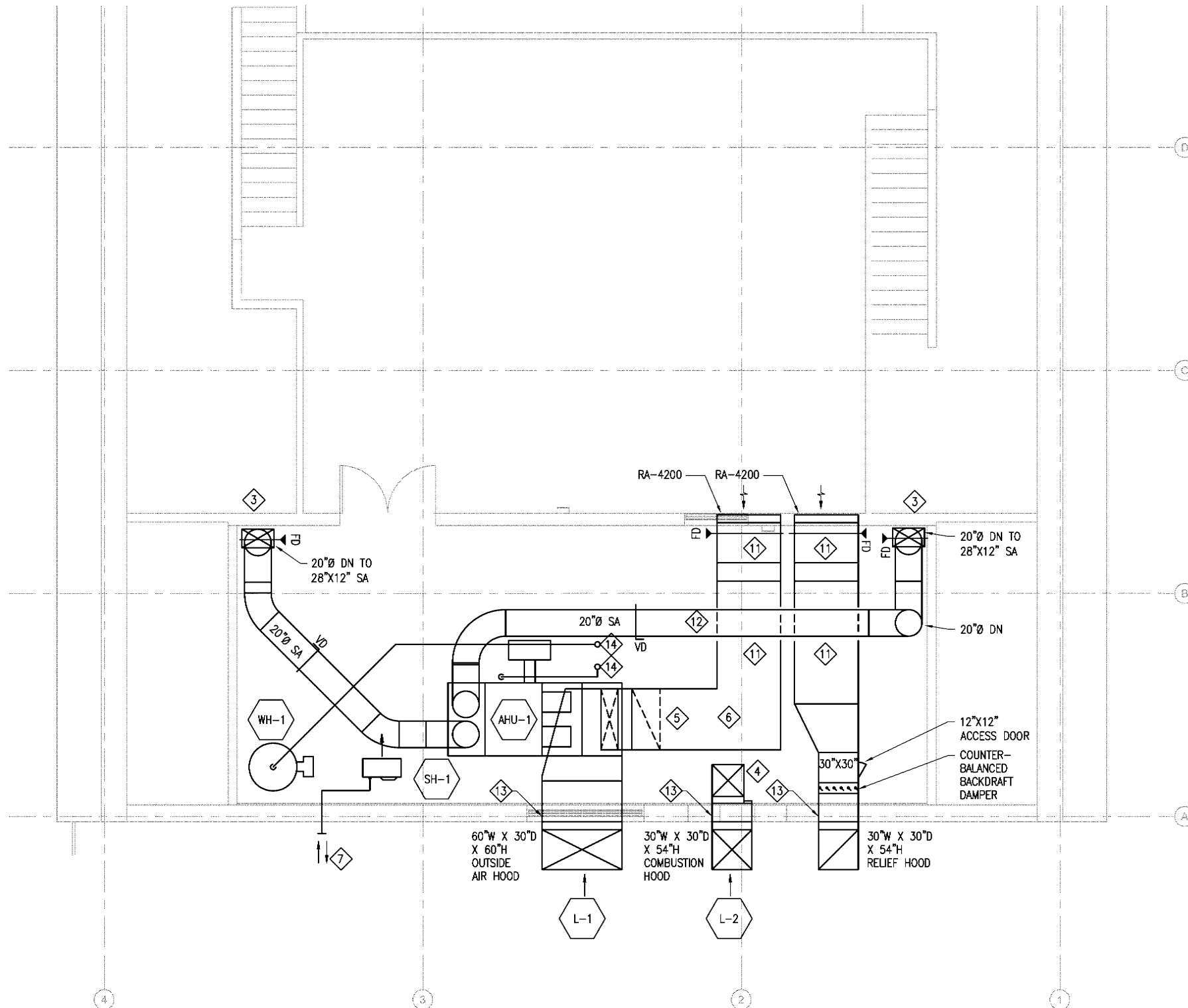
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**MEZZANINE PLUMBING**  
**M7.1**





**SHEET NOTES**

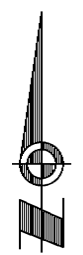
1. PROVIDE 1" SOUND LINING ON ALL RETURN AIR DUCTWORK.
2. FOR AIR HANDLER DIAGRAM, SEE SHEET 4/MB.1.
3. DUCT TO BELOW FLOOR. PROVIDE FIRE DAMPER AT FLOOR LEVEL. FOR DUCT CONTINUATION, SEE 1/MS.1.
4. 24"X24" COMBUSTION AIR UP, SEE 6/M9.1. COVER AND INSULATE UNUSED PORTION OF LOUVER.
5. 48"X30" W/ 1" S.L. DOWN TO FLOOR, TRANSITION TO AHU RA INTAKE.
6. NO TURNING VANES IN RETURN ELBOW.
7. FLUE TERMINATION PER MANUFACTURER'S RECOMMENDATIONS. MAINTAIN 10 FT FROM AIR INTAKES.
8. PROVIDE DUCT ACCESS DOORS AT ALL FIRE DAMPERS.
9. COMBUSTION AIR OPENING MUST BE MIN 3 FT FROM RELIEF AIR OPENING. OA OPENING MUST BE MIN 10 FT FROM RELIEF AIR OPENING.
10. FOR HOOD CONSTRUCTION DETAIL, SEE 6/M9.1.
11. 48"X48" DUCT AT GRILLE, MOUNTED AHAP. TRANSITION TO 48"X30", TIGHT TO BOTTOM OF TRUSS.
12. 20"Ø SA ROUTED IN GLU-LAM BEAM POCKET. ROUTE DN ALONG CEILING LINE.
13. OPENING IS 30" HIGH
14. EXHAUST FLUE PENETRATION THROUGH ROOF WITH THIMBLE. SEE 1/M9.2.

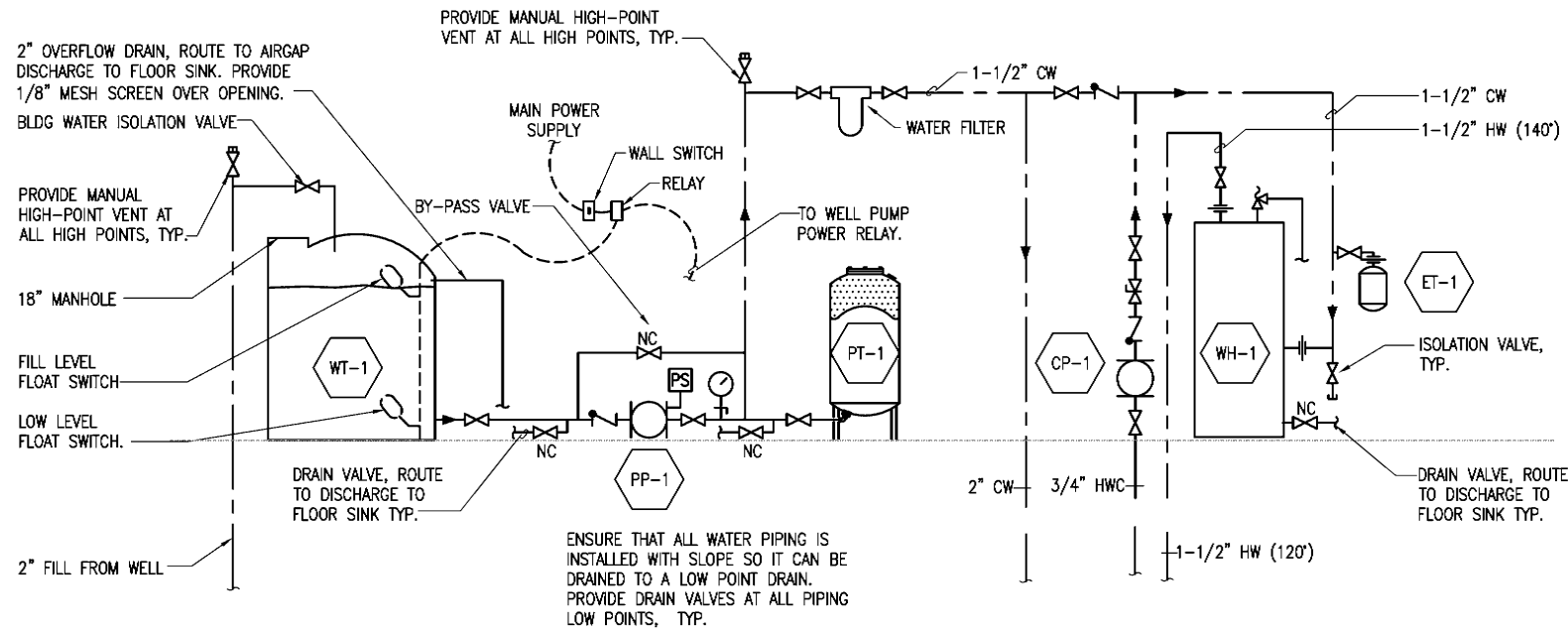
**1** LARGE SCALE MEZZANINE PLAN - HVAC  
 M7.2 SCALE: 1/4" = 1'-0"



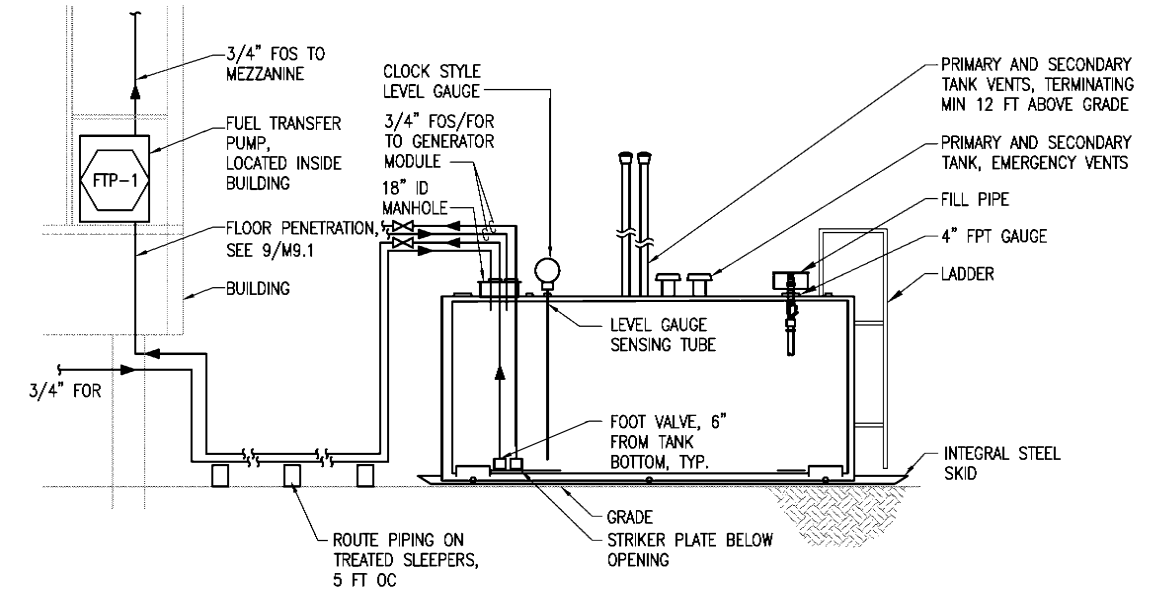
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**MEZZANINE**  
**HVAC**  
**M7.2**

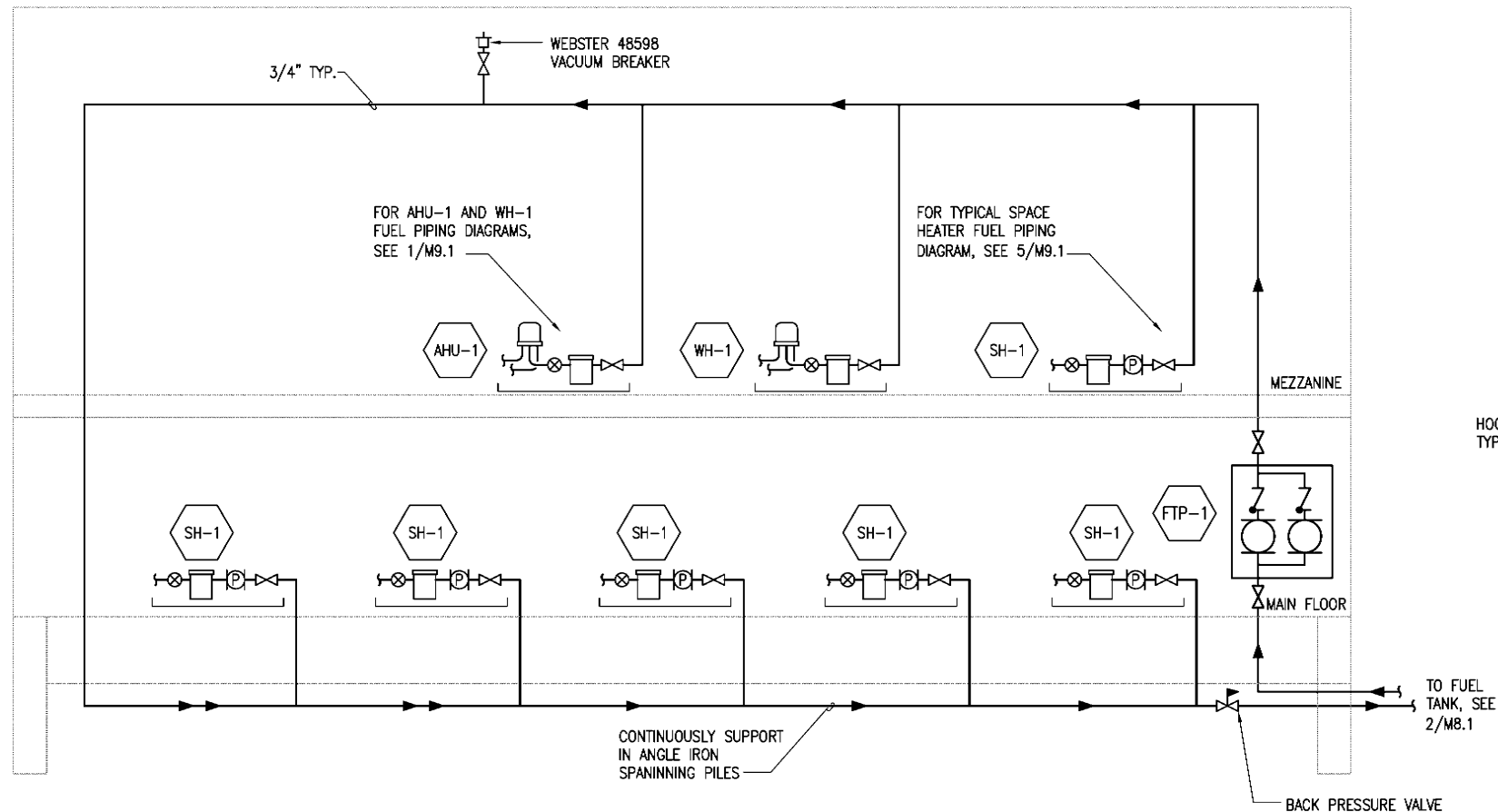




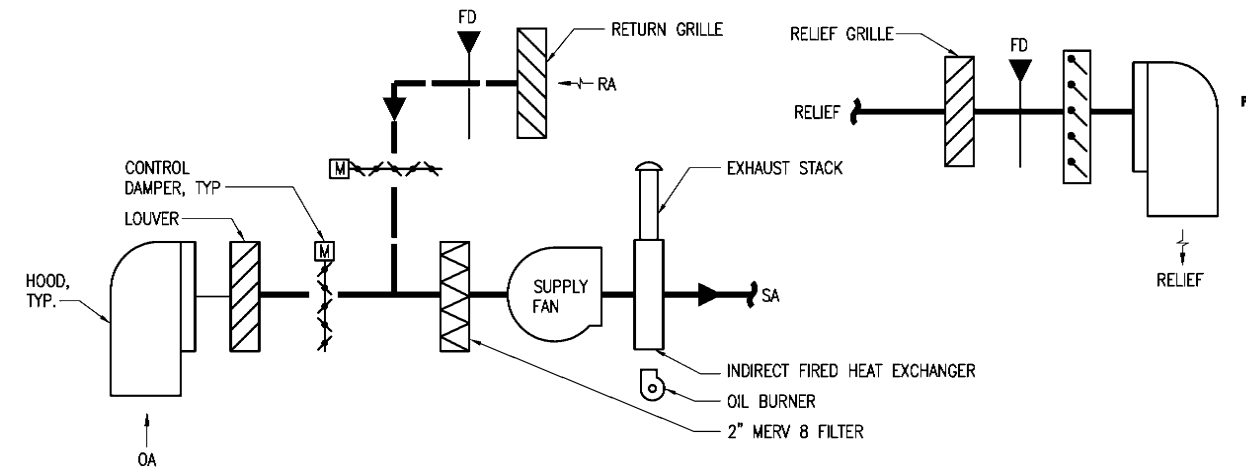
**1 WATER PIPING SYSTEM DIAGRAM**  
 MB.1 SCALE: NO SCALE



**2 FUEL TANK DIAGRAM**  
 MB.1 SCALE: NO SCALE



**3 FUEL OIL PIPING SCHEMATIC**  
 MB.1 SCALE: NO SCALE



**4 AIR HANDLER SCHEMATIC**  
 MB.1 SCALE: NO SCALE

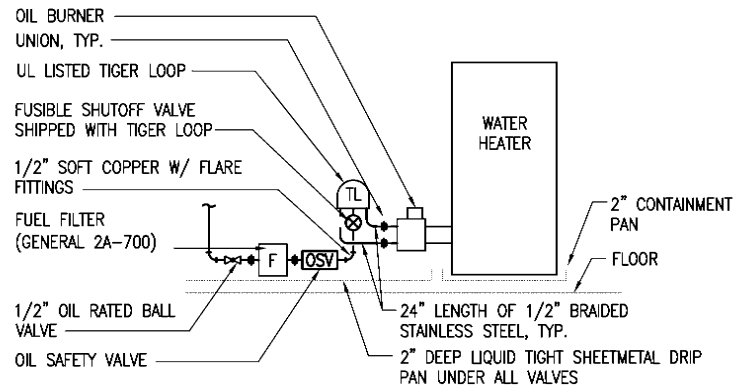
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 49<sup>TH</sup>  
 CRAIG D. FREDEEN  
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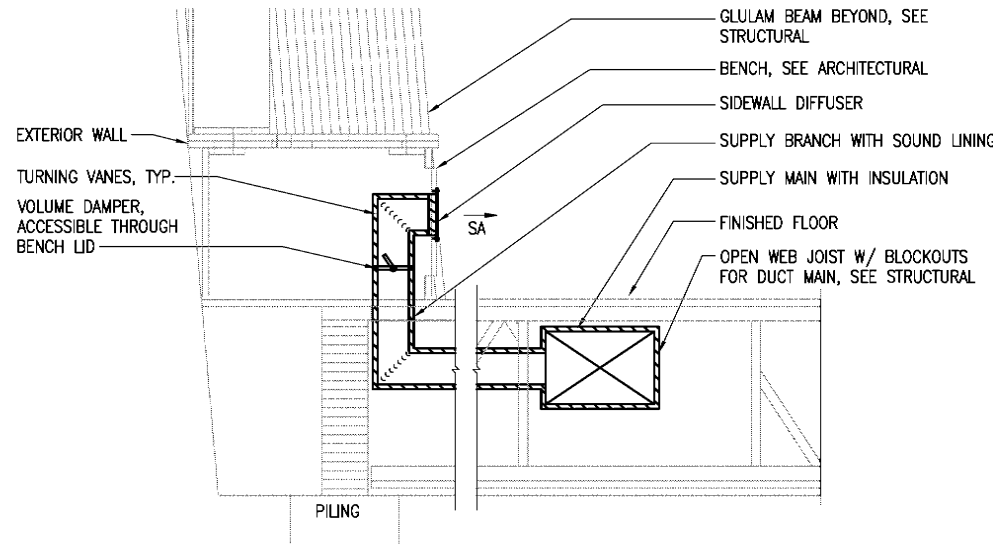
**MECHANICAL**  
**DIAGRAMS**  
**M8.1**



- NOTES:**
1. TIGER LOOP TO BE SUPPORTED OFF THE EQUIPMENT OR FROM CONTAINMENT PAN AND NOT OFF PIPING.
  2. AIR HANDLER BURNER SIMILAR BUT WITHOUT CONTAINMENT PAN UNDER AIR HANDLER.

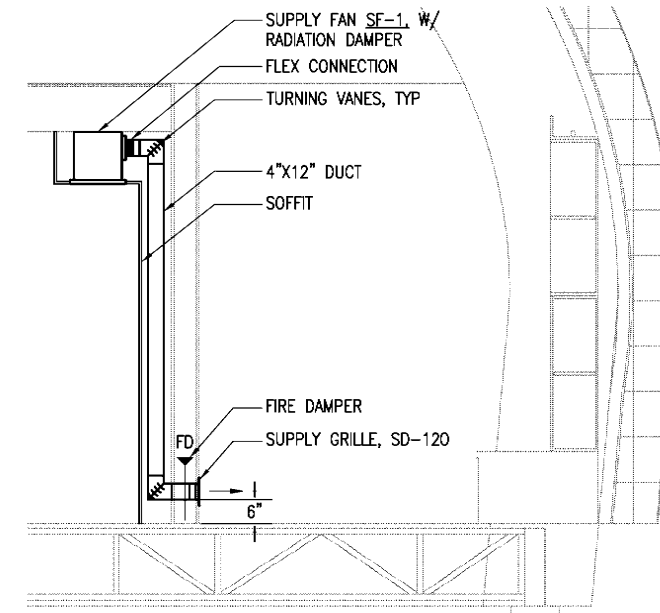
**1 WATER HEATER AND AHU OIL BURNER DETAIL**

M9.1 SCALE: NO SCALE



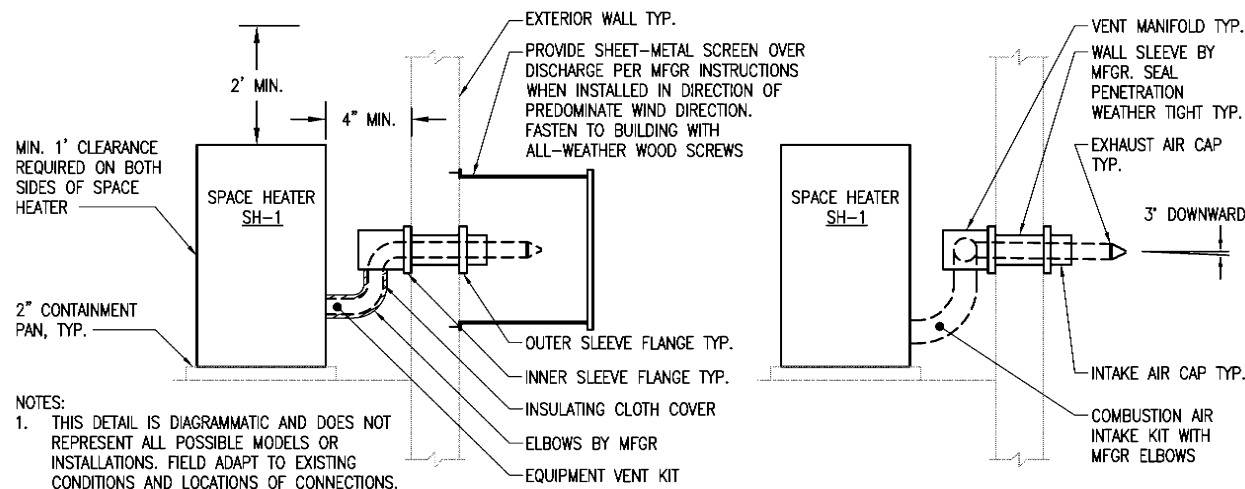
**2 UNDERFLOOR VENTILATION DIFFUSER DETAIL**

M9.1 SCALE: NO SCALE



**3 SF-1 DETAIL**

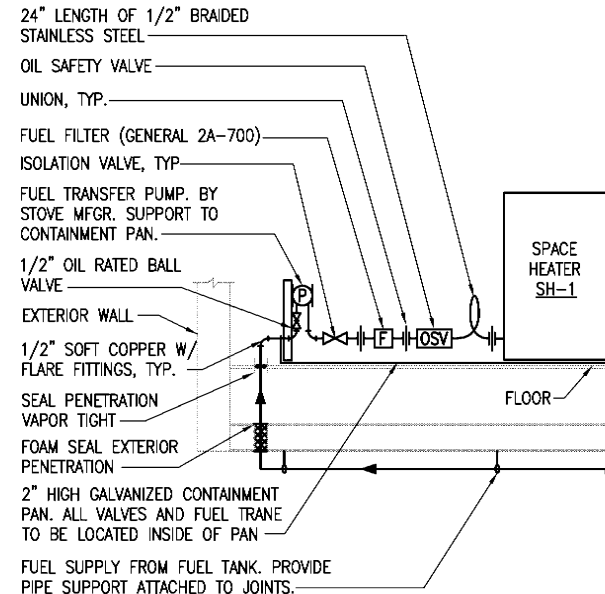
M9.1 SCALE: 1/2" = 1'-0"



- NOTES:**
1. THIS DETAIL IS DIAGRAMMATIC AND DOES NOT REPRESENT ALL POSSIBLE MODELS OR INSTALLATIONS. FIELD ADAPT TO EXISTING CONDITIONS AND LOCATIONS OF CONNECTIONS.
  2. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
  3. FOR FUEL OIL PIPING, SEE 2/M9.1

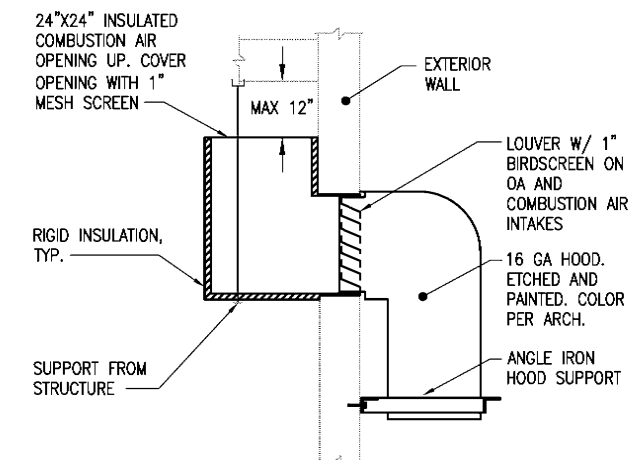
**4 SPACE HEATER STACK DETAIL**

M9.1 SCALE: NO SCALE



**5 SPACE HEATER FUEL OIL PIPING DETAIL**

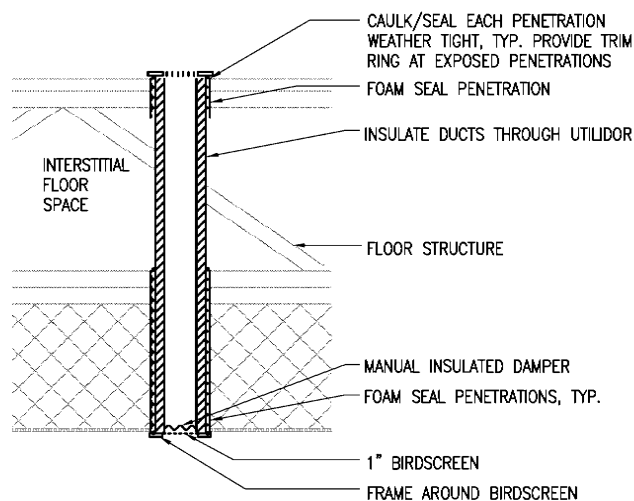
M9.1 SCALE: NO SCALE



**NOTE:** HEIGHT DIMENSION NOTED ON DRAWINGS AND IS MEASURED FROM TOP OF LOUVER TO BOTTOM OF HOOD. COORDINATE FINAL HEIGHT W/ CLEARANCE TO SH-1.

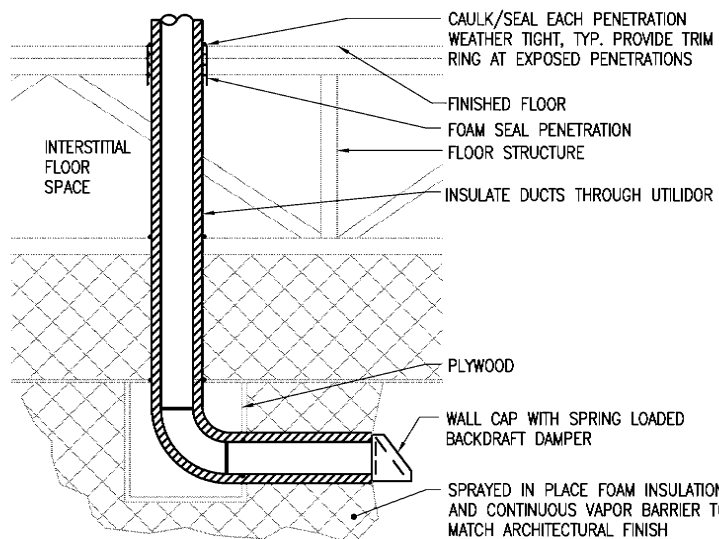
**6 COMBUSTION AIR DETAIL**

M9.1 SCALE: NO SCALE



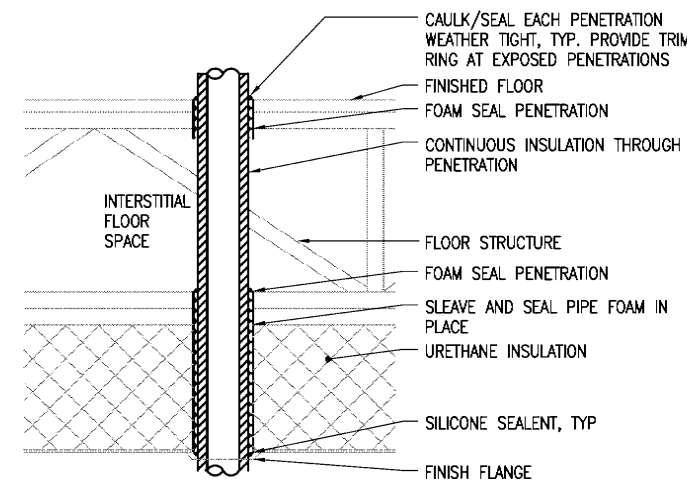
**7 DRYER MAKE-UP DETAIL**

M9.1 SCALE: NO SCALE



**8 BELOW BUILDING EXHAUST TERMINATION**

M9.1 SCALE: NO SCALE



**9 PIPING VERTICAL PENETRATION DETAIL**

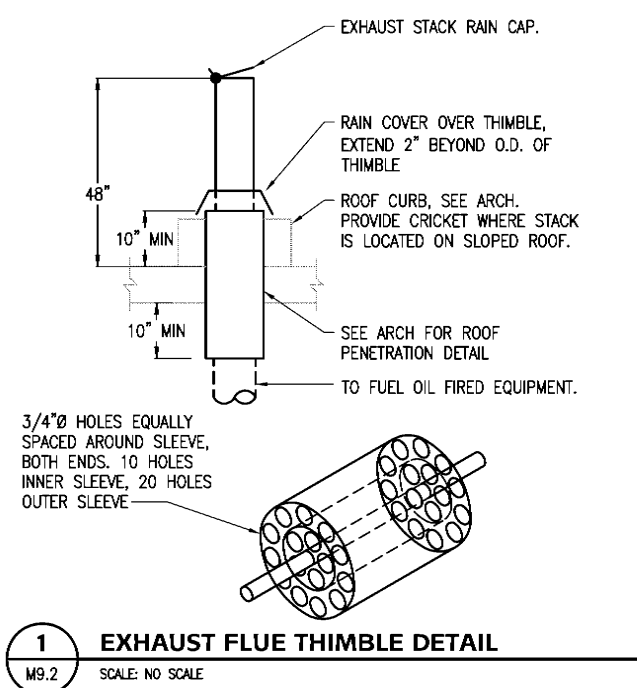
M9.1 SCALE: NO SCALE



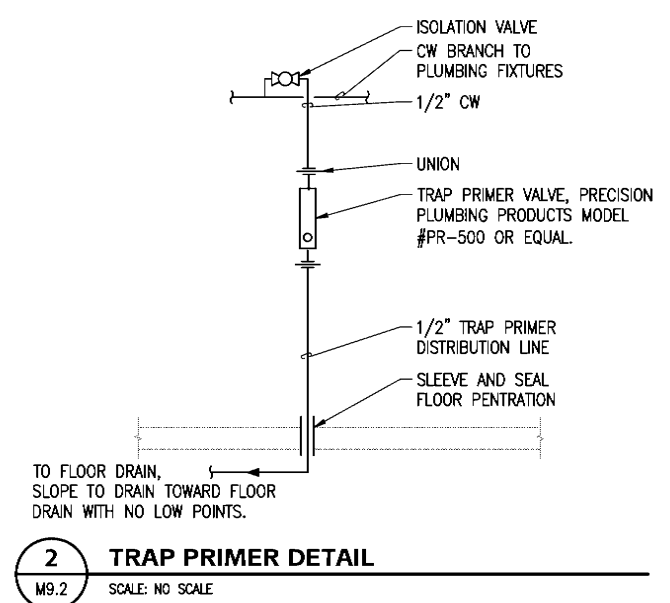
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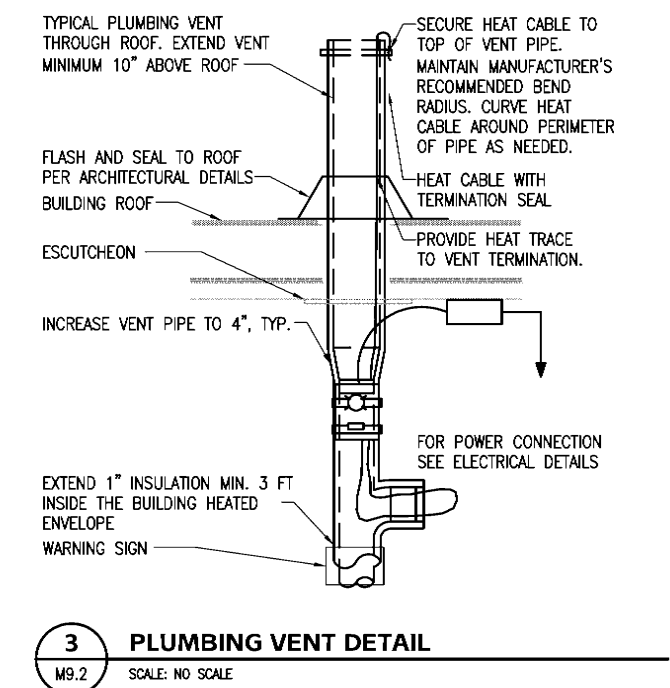
**MECHANICAL DETAILS**  
**M9.1**



**1 EXHAUST FLUE THIMBLE DETAIL**  
M9.2 SCALE: NO SCALE



**2 TRAP PRIMER DETAIL**  
M9.2 SCALE: NO SCALE



**3 PLUMBING VENT DETAIL**  
M9.2 SCALE: NO SCALE



LIGHTING FIXTURE SCHEDULE							
KEY	NORMAL SYMBOL	EPS SYMBOL	LAMPS		DESCRIPTION	MOUNTING	MANUFACTURER'S NUMBER, (SEE NOTES 1-7)
			NO	TYPE			
A			2	F54W/T5/835/ECO	10'x4' FLUORESCENT FIXTURE, WRAPAROUND ACRYLIC PRISMATIC DIFFUSER.	CEILING SURFACE OR PENDANT, 8'-0" AFF	LITHONIA LB-2-54T5HO-120-GEB10PS
B			2	F54W/T5/835/ECO	7'x4' SEALED FLUORESCENT FIXTURE, DEEP HIGH IMPACT ACRYLIC LENS, POURED-IN SILICONE GASKET, WET LOCATION LISTED.	CEILING SURFACE	LITHONIA DMW-2-54T5HO-120-GEB10PS
C		NOT USED	1	F25T8/SP35/ECO	7'x3' FLUORESCENT WALLMOUNT DOWNLIGHT FIXTURE, DIE-FORMED STEEL CONSTRUCTION WITH BAKED WHITE POLYESTER PAINT, HIGH-IMPACT ACRYLIC DIFFUSER.	WALL, 8'-0" AFF UON	LITHONIA WP-1-25-DO-120-GEB10IS
D			2	F54W/T5/835/ECO	9'x4' FLUORESCENT LINEAR FIXTURE, EXTRUDED ALUMINUM HOUSING, WITH POWDER COAT WHITE ENAMEL FINISH.	CEILING PENDANT, 14'-0" AFF TO BOTTOM	ALERA ALS-4-2T5HO-20/80-CM-96-LD-EP-120-MW
F			1	F54W/T5/835/ECO	SIMILAR TO FIXTURE "D" EXCEPT FOR NUMBER OF LAMPS AND MOUNTING.	WALL, 8'-0" AFF UON	ALERA ALS-4-1T5HO-85/15-WM-LD-EP-120-MW
G			1	50W HPS	CAST ALUMINUM OUTDOOR WALL LIGHT, GASKETED TO PREVENT ENTRY OF WATER, DARK BRONZE FINISH, ONE-PIECE POLYCARBONATE REFRACTOR.	WALL, 8'-0" AFF UON	LITHONIA TWS-50S-120
H	NOT USED		1	70W HPS	LOW BAY HID FIXTURE, DIE-CAST ALUMINUM HOUSING WITH POLYESTER POWER FINISH, INJECTION-MOLDED ACRYLIC CLOSED-BOTTOM REFRACTOR.	CEILING PENDANT, 7'-6" AFF TO BOTTOM	LITHONIA TGR-70S-A121-120-PM-LPI
EX1	NOT USED		-	-	PHOTOLUMINESCENT ONE SIDED EXIT SIGN WITH CLEAR ANODIZED ALUMINUM FRAME, UNIVERSAL MOUNTING AND RED LETTERS. UL924 COMPLIANT.	WALL, 8'-0" AFF UON	ECOGLO EX424246-75R

### LIGHTING FIXTURE NOTES

- VERIFY CEILING TYPES THROUGHOUT. PROVIDE ALL ACCESSORIES, TRIM, FLANGES, OUTLET BOXES, ETC. FOR COMPLETE AND FINISHED INSTALLATION.
- PROVIDE ENERGY CONSERVING ELECTRONIC FLUORESCENT BALLASTS IN COMBINATION WITH ENERGY CONSERVING LAMPS THROUGHOUT, UON. SEE SPECIFICATIONS FOR BALLAST REQUIREMENTS.
- PROVIDE FIXTURES WITH LABEL SUITABLE FOR APPLICATION PER NATIONAL ELECTRICAL CODE.
- MANUFACTURERS LISTED ARE TO ESTABLISH A LEVEL OF QUALITY AND TYPE OF EQUIPMENT. SIMILAR EQUIPMENT MAY BE SUBMITTED FOR APPROVAL IF EQUAL.
- LIGHTING FIXTURES SHALL BE SUITED FOR CONNECTION TO 120 VOLT CIRCUITS, UON.
- WHERE ONLY ONE FIXTURE TYPE DESIGNATION IS SHOWN IN AN AREA WITH MORE THAN ONE FIXTURE SYMBOL OF THE SAME SIZE AND SHAPE, THE INTENT IS TO INDICATE THAT ALL FIXTURES ARE THE SAME TYPE, UON.
- ALL FLUORESCENT LAMPS SHALL BE LOW MERCURY TYPE, RE835 PHOSPHOR (3500K, 82+CRI), UON.

EQUIPMENT CONNECTION SCHEDULE									
ITEM	DESCRIPTION	ELECTRICAL					CONNECTION TYPE	REMARKS	
		KVA	AMPS	HP	VOLT	PHASE			
	AIR HANDLING UNIT	-	-	3	240	1	HARDWIRED	-	
	BATTERY CHARGER - GENERATOR 1	.36	-	-	120	1	CORD & PLUG	PROVIDE NEMA 5-20 RECEPTACLE FOR CONNECTION OF BATTERY CHARGER. EQUIPMENT IN GENERATOR 1 MODULE.	
	BATTERY CHARGER - GENERATOR 2	.36	-	-	120	1	CORD & PLUG	PROVIDE NEMA 5-20 RECEPTACLE FOR CONNECTION OF BATTERY CHARGER. EQUIPMENT IN GENERATOR 2 MODULE.	
	BATTERY HEATER - GENERATOR 1	.08	-	-	120	1	CORD & PLUG	PROVIDE NEMA 5-20 RECEPTACLE FOR CONNECTION OF BATTERY HEATER. EQUIPMENT IN GENERATOR 1 MODULE.	
	BATTERY HEATER - GENERATOR 2	.08	-	-	120	1	CORD & PLUG	PROVIDE NEMA 5-20 RECEPTACLE FOR CONNECTION OF BATTERY HEATER. EQUIPMENT IN GENERATOR 2 MODULE.	
	CEILING FAN	-	6.4	-	120	1	CORD & PLUG	PROVIDE NEMA L5-20 MALE CORD END AND #12-3 SJO CORD.	
	CIRCULATING PUMP	-	-	FHP	120	1	CORD & PLUG	PROVIDE NEMA 5-20 MALE CORD END AND #12-3 SJO CORD.	
	FUEL OIL DAY TANK - GENERATOR 1	-	-	1/3	120	1	HARDWIRED	EQUIPMENT IN GENERATOR 1 MODULE.	
	FUEL OIL DAY TANK - GENERATOR 2	-	-	1/3	120	1	HARDWIRED	EQUIPMENT IN GENERATOR 2 MODULE.	
	FUEL TRANSFER PUMP	-	-	1/3	120	1	HARDWIRED	PUMP FURNISHED WITH INTEGRAL DISCONNECT SWITCH.	
	JACKET WATER HEATING - GENERATOR 1	3	-	-	240	1	HARDWIRED	EQUIPMENT FURNISHED WITH GENERATOR.	
	JACKET WATER HEATING - GENERATOR 2	3	-	-	240	1	HARDWIRED	EQUIPMENT FURNISHED WITH GENERATOR.	
	PRESSURE PUMP	-	-	1	120	1	HARDWIRED	-	
	RADIATOR FAN - GENERATOR 1	1.66	-	3/4	240	1	HARDWIRED	ESTIMATED LOAD COORDINATE WITH GENERATOR SUPPLIER. EQUIPMENT FURNISHED WITH GENERATOR.	
	RADIATOR FAN - GENERATOR 2	1.66	-	3/4	240	1	HARDWIRED	ESTIMATED LOAD COORDINATE WITH GENERATOR SUPPLIER. EQUIPMENT FURNISHED WITH GENERATOR.	
	SPACE HEATER	.34	-	-	120	1	CORD & PLUG	PROVIDE NEMA 5-20 MALE CORD END AND #12-3 SJO CORD.	
	TOILET EXHAUST FAN	-	3.2	-	120	1	HARDWIRED	-	
	SIDEWALL PROPELLER FAN GENERATOR 1	-	-	1.5	240	1	HARDWIRED	EQUIPMENT IN GENERATOR 1 MODULE.	
	SIDEWALL PROPELLER FAN GENERATOR 2	-	-	1.5	240	1	HARDWIRED	EQUIPMENT IN GENERATOR 2 MODULE.	
	WATER HEATER	0.5	-	-	120	1	CORD & PLUG	PROVIDE NEMA 5-20 MALE CORD END AND #12-3 SJO CORD.	

### EQUIPMENT CONNECTION SCHEDULE NOTES

- HARDWIRED CONNECTIONS SHALL BE MADE WITH LIQUID TIGHT OR FLEXIBLE METAL CONDUIT IN ACCORDANCE WITH SPECIFICATIONS.
- PROVIDE POWER CONNECTIONS FROM DISCONNECTS, AND OR CONTROLLERS PROVIDED WITH EQUIPMENT TO MOTOR OR OTHER ASSOCIATED LOADS.
- PROVIDE MANUAL MOTOR SWITCH, OR HP RATED TOGGLE SWITCH FOR LOADS UNDER 100W.
- COORDINATE MOTOR CONNECTIONS WITH OTHER DISCIPLINES.



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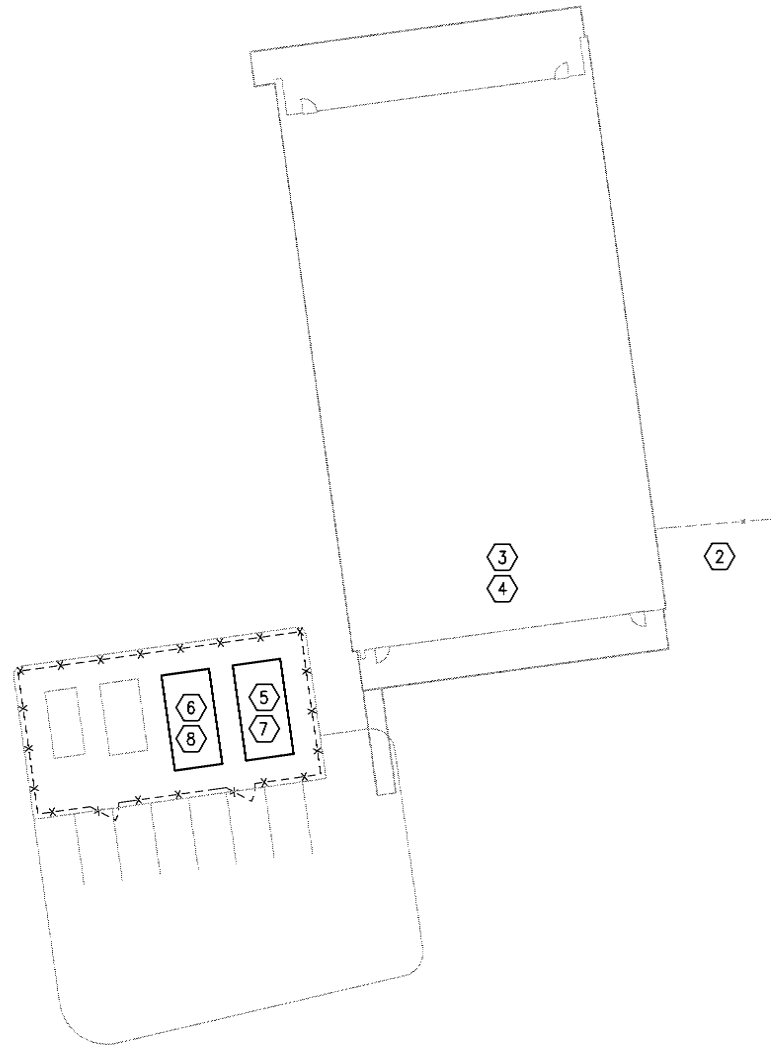
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SCHEDULES

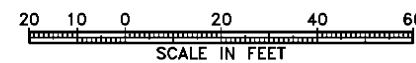
E1.2

**SHEET NOTES**

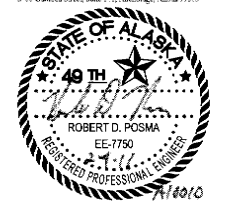
1. SEE VILLAGE SAFE WATER DRAWINGS FOR WATER WELL AND SEWER DESIGN, DETAILS, AND ELECTRICAL REQUIREMENTS.
2. SEE VILLAGE SAFE WATER DRAWINGS FOR WELL PUMP AND WATERLINE HEAT TRACE.
3. APPROXIMATE LOCATION OF WELL PUMP CONDUIT FROM UNDER BUILDING TO PUMP CONTROLLER IN MECHANICAL ROOM. WELL PUMP INSTALLER TO PROVIDE SUFFICIENT EXCESS PUMP CABLE TO REACH PUMP CONTROLLER IN MECHANICAL ROOM. COORDINATE WITH MECHANICAL AND VSW. FOR CONTINUATION SEE  $\frac{1}{E6.1}$  AND  $\frac{1}{E4.1}$ .
4. APPROXIMATE LOCATION OF JUNCTION BOX UNDER BUILDING FOR CONNECTION OF BRANCH CIRCUIT TO WATER LINE HEAT TRACE. COORDINATE WITH VSW.
5. ROUTE GENERATOR 1 FEEDER FROM GENERATOR CIRCUIT BREAKER TO MANUAL TRANSFER SWITCHES IN MECHANICAL ROOM. ROUTE CONDUIT ON SUPPORTS WITH FUEL PIPING, SEE MECHANICAL FOR SUPPORT DETAILS. COORDINATE WITH CIVIL AND MECHANICAL. FOR CONTINUATION SEE  $\frac{1}{E4.1}$ ,  $\frac{1}{E6.1}$ ,  $\frac{1}{E7.1}$ .
6. ROUTE GENERATOR 2 FEEDER FROM GENERATOR CIRCUIT BREAKER TO MANUAL TRANSFER SWITCHES IN MECHANICAL ROOM. ROUTE CONDUIT ON SUPPORTS WITH FUEL PIPING, SEE MECHANICAL FOR SUPPORT DETAILS. COORDINATE WITH CIVIL AND MECHANICAL. FOR CONTINUATION SEE  $\frac{1}{E4.1}$ ,  $\frac{1}{E6.1}$ ,  $\frac{1}{E7.1}$ .
7. ROUTE 60A FEEDER FROM PANEL EP-1 TO MTS-GP1 IN MODULE. ROUTE CONDUITS ON SUPPORTS WITH FUEL PIPING. SEE MECHANICAL FOR SUPPORT DETAILS. COORDINATE WITH CIVIL AND MECHANICAL. FOR CONTINUATION SEE  $\frac{1}{E4.1}$ ,  $\frac{1}{E6.1}$ ,  $\frac{1}{E7.1}$ .
8. ROUTE 60A FEEDER FROM PANEL NP-1 TO PANEL GP-2 IN MODULE. ROUTE CONDUITS ON SUPPORTS WITH FUEL PIPING. SEE MECHANICAL FOR SUPPORT DETAILS. COORDINATE WITH CIVIL AND MECHANICAL. FOR CONTINUATION SEE  $\frac{1}{E4.1}$ ,  $\frac{1}{E6.1}$ ,  $\frac{1}{E7.1}$ .



**1 ELECTRICAL SITE PLAN**  
E2.1 SCALE: 1" = 20'



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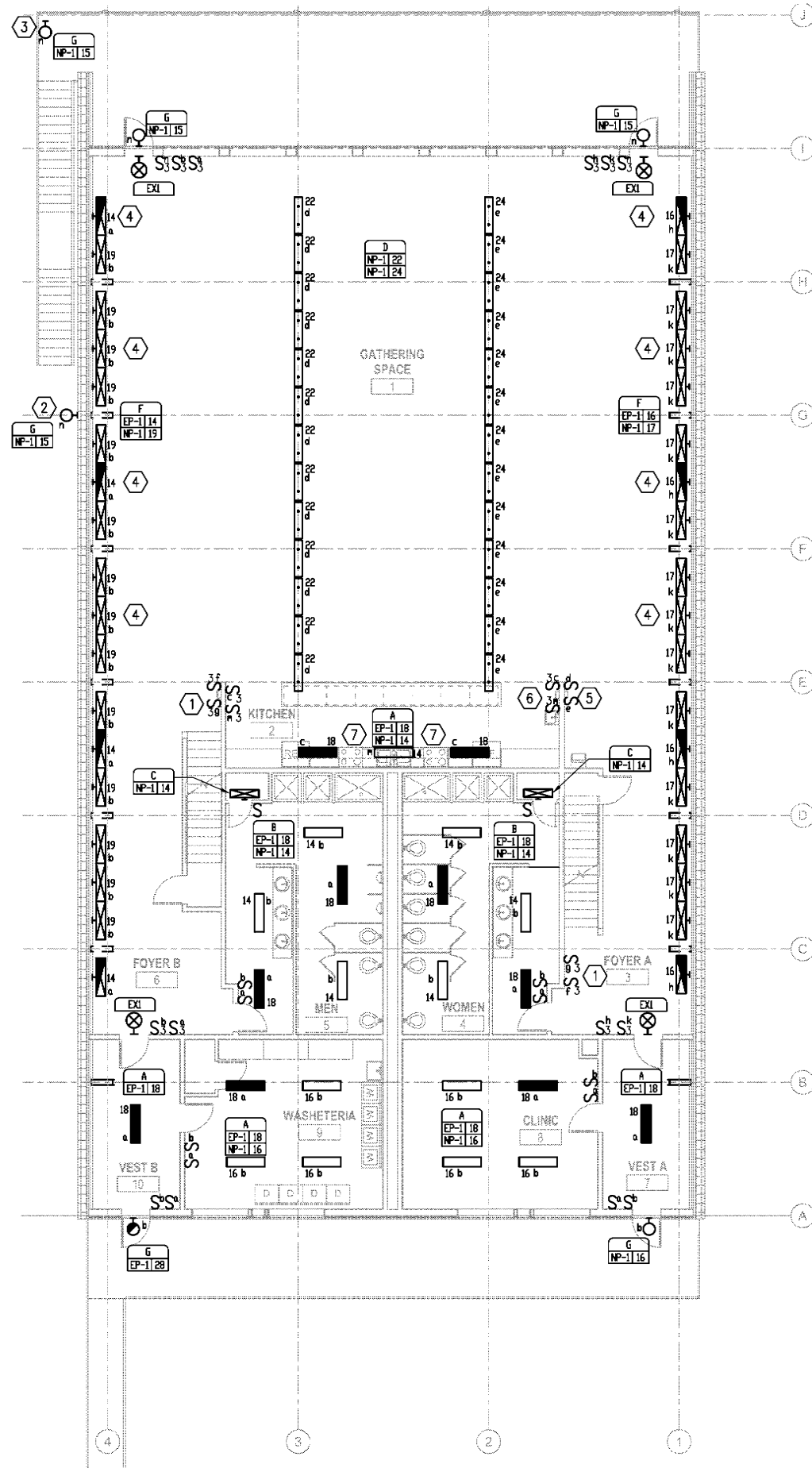
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**ELECTRICAL**  
**SITE PLAN**  
**E2.1**



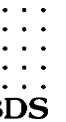
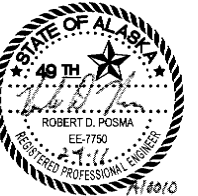




**SHEET NOTES**

- ① SWITCHES PROVIDE CONTROL OF MEZZANINE LIGHTING ON SWITCH LEGS "f" AND "g". SEE .
- ② MOUNT FIXTURE ON PILING AT 8'-0" AFG.
- ③ MOUNT FIXTURE ON STRUCTURAL SUPPORT AT 8'-0" ABOVE DECKING. SEE STRUCTURAL FOR SUPPORT DETAIL.
- ④ MOUNT FIXTURES ON FASCIA OF CABINERY, COORDINATE WITH ARCHITECTURAL.
- ⑤ COORDINATE SWITCH AND ARCHITECTURAL FIXTURE LOCATIONS.
- ⑥ COORDINATE SWITCH AND SINK LOCATIONS.
- ⑦ SURFACE MOUNT FIXTURES TO UNDERSIDE OF MEZZANINE OVERHANG.

**1 LIGHTING PLAN**  
E3.1 SCALE: 1/8" = 1'-0"



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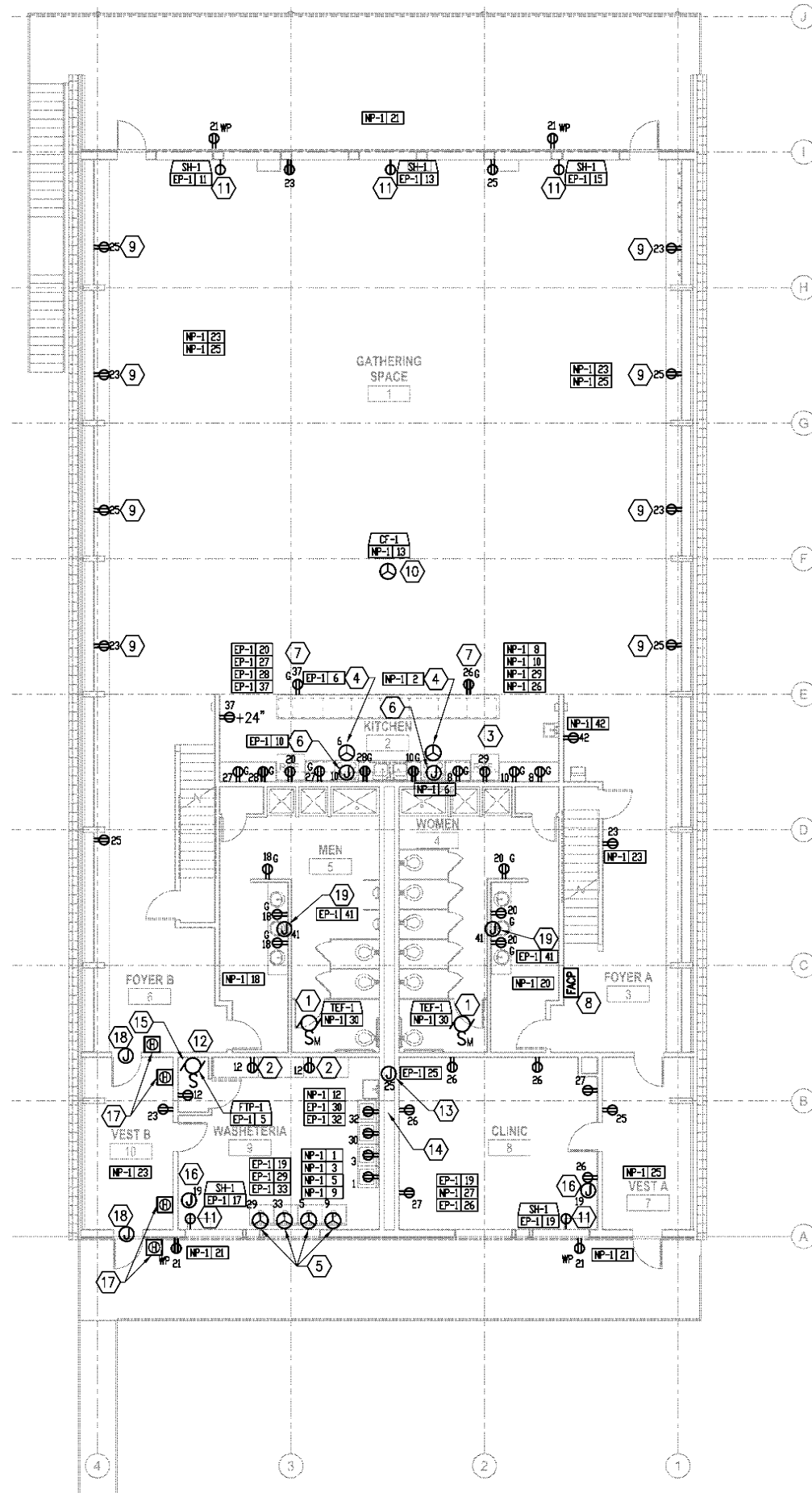
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**LIGHTING  
PLAN**

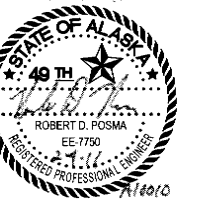
**E3.1**





**SHEET NOTES**

- 1 SWITCH TEF-1 WITH LIGHTING SWITCH "c".
- 2 MOUNT BOTTOM OF RECEPTACLE 4" ABOVE COUNTER BACKSPLASH, COORDINATE WITH ARCHITECTURAL.
- 3 MOUNT BOTTOM OF RECEPTACLES IN KITCHEN 4" ABOVE COUNTER BACKSPLASH, UON. COORDINATE WITH ARCHITECTURAL.
- 4 50A 240V NEMA 14-50 RECEPTACLE IN 4-11/16" X 2-1/8" BOX WITH SINGLE GANG PLASTER RING AND SS PLATE. MOUNT AT 12" AFF.
- 5 30A 240V NEMA 14-30 RECEPTACLE IN 4 11/16" X 2 1/8" BOX WITH SINGLE GANG PLASTER RING AND SS PLATE. MOUNT AT 12" AFF.
- 6 PROVIDE HARD WIRED CONNECTION TO RANGE HOOD, COORDINATE LOCATION WITH MECHANICAL AND ARCHITECTURAL.
- 7 MOUNT RECEPTACLE CENTER LINE MAXIMUM 12" BELOW COUNTER TOP.
- 8 POWER CONNECTION TO FACP.
- 9 COORDINATE LOCATION OF RECEPTACLES WITH ARCHITECTURAL FEATURES AND MECHANICAL DUCTWORK..
- 10 PROVIDE NEMA L5-20R RECEPTACLE FOR CONNECTION OF CF-1. LOCATE RECEPTACLE ADJACENT TO FAN MOUNTING STRUCTURE.
- 11 RECEPTACLE FOR SH-1 CONNECTION.
- 12 COORDINATE CONNECTION LOCATION OF FTP-1 WITH MECHANICAL.
- 13 PROVIDE JUNCTION BOX UNDER BUILDING FOR WATERLINE HEAT TRACE.
- 14 ROUTE CONDUIT FOR WELL PUMP FROM UNDER BUILDING TO MECHANICAL ROOM. FOR CONTINUATION SEE 1 AND 1.
- 15 CONDUITS IN CHASE SEE ARCHITECTURAL FOR CHASE DETAILS, COORDINATE WITH MECHANICAL.
- 16 JUNCTION BOX FOR CONNECTION TO SF-1. COORDINATE WITH MECHANICAL.
- 17 HANDICAP ACCESS DOOR PUSHBUTTON SEE ARCHITECTURAL.
- 18 JUNCTION BOX IN WALL LOCATED ABOVE DOOR FOR DOOR OPERATOR. COORDINATE WITH ARCHITECTURAL FOR WIRING REQUIREMENTS.
- 19 JUNCTION BOX FOR SINK FAUCET TRANSFORMER. COORDINATE SECONDARY WIRING TO FAUCETS WITH MECHANICAL.

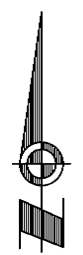


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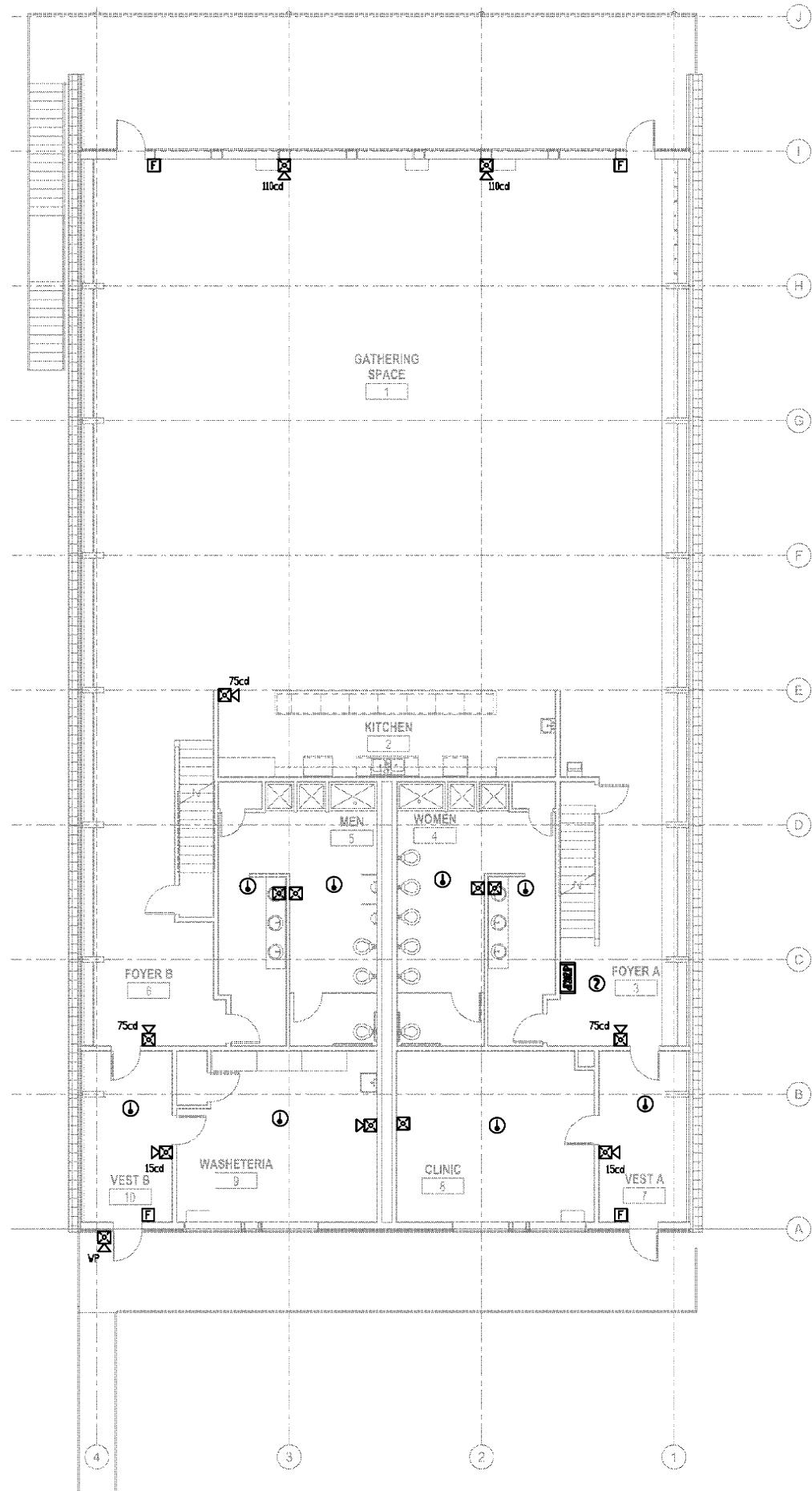
POWER PLAN

E4.1

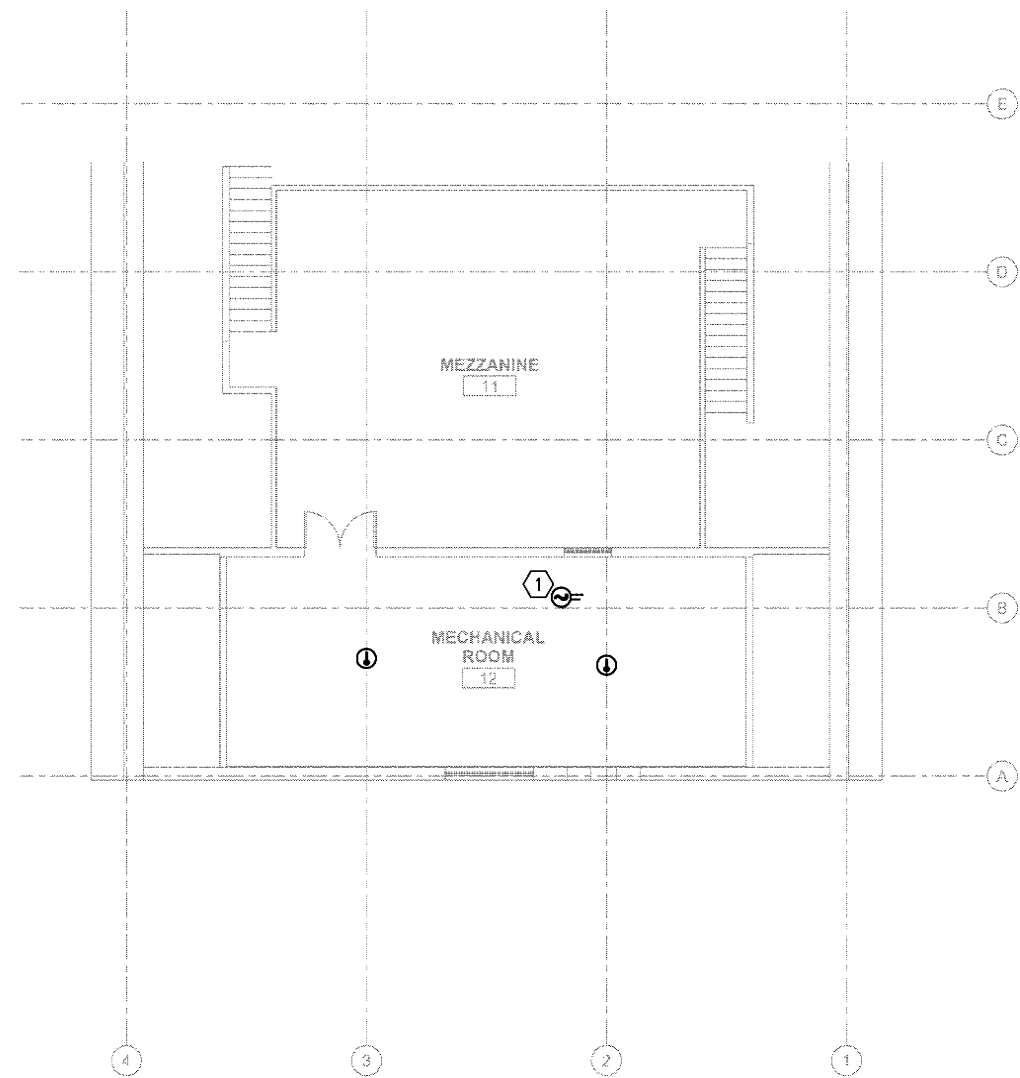


**SHEET NOTES**

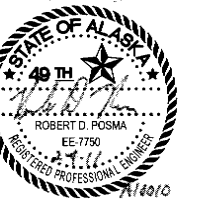
- ① LOCATE DUCT DETECTOR TO MONITOR RETURN AIR TO AHU-1, COORDINATE EXACT LOCATION WITH MECHANICAL.



**1 FIRE ALARM PLAN**  
 E5.1 SCALE: 1/8" = 1'-0"



**2 MEZZANINE FIRE ALARM PLAN**  
 E5.1 SCALE: 1/8" = 1'-0"



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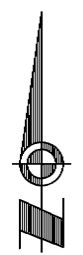
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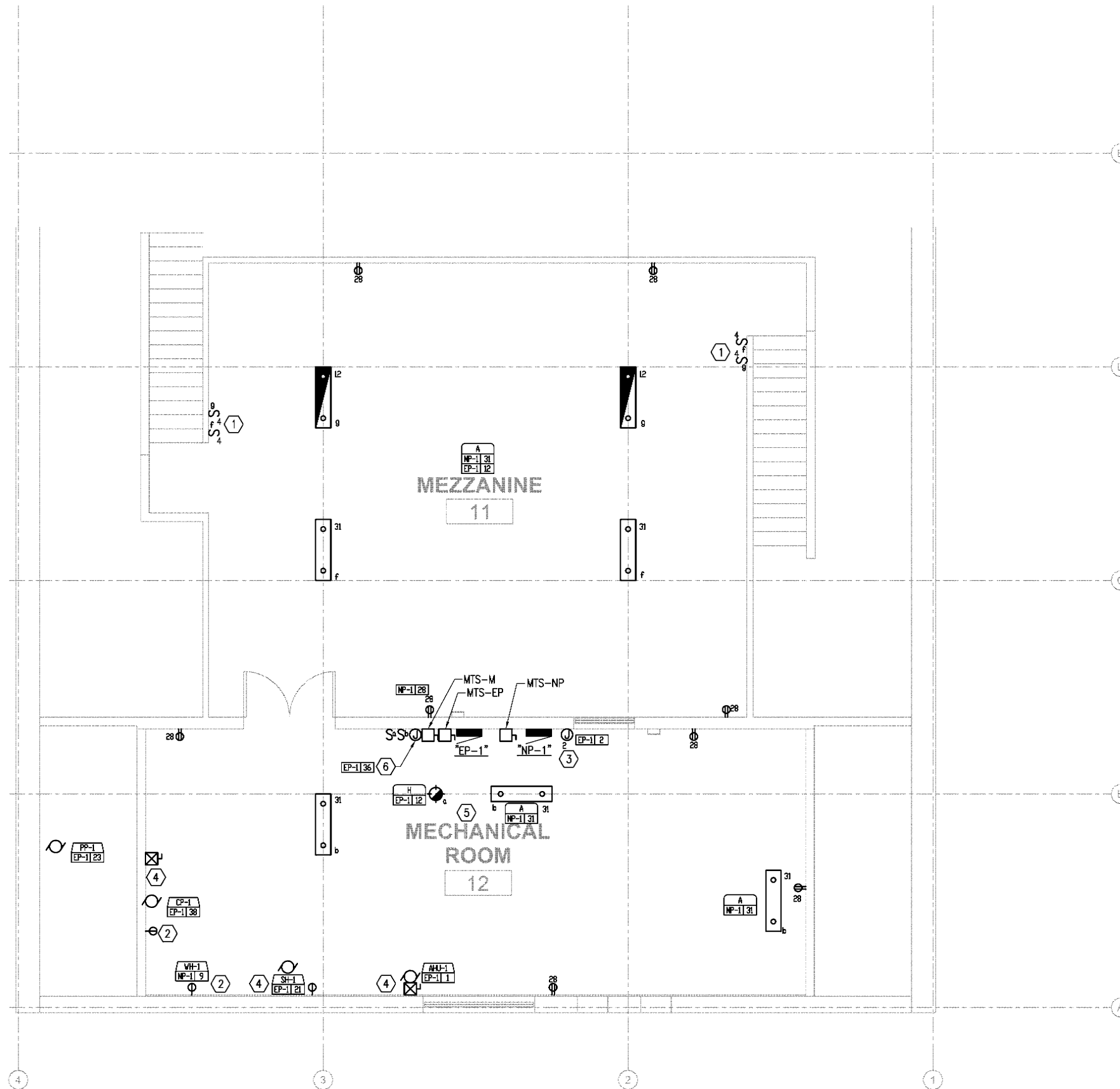
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**FIRE ALARM PLAN**

**E5.1**





**SHEET NOTES**

- ① ADDITIONAL SWITCHES FOR SWITCH LEGS "f" AND "g" LOCATED ON FIRST FLOOR AT BASE OF STAIRS. SEE **1** E3.1.
- ② RECEPTACLE FOR EQUIPMENT CONNECTION.
- ③ JUNCTION BOX FOR CONNECTION OF BRANCH CIRCUIT TO WELL PUMP CONTROLLER. CONTROLLER FURNISHED BY OTHERS FOR CONTRACTOR INSTALLATION. FOR CONTINUATIONS SEE **1** E4.1 AND **1** E2.1.
- ④ COORDINATE CONTROLLER OR MANUAL STARTER LOCATION WITH MECHANICAL.
- ⑤ COORDINATE LIGHTING FIXTURE MOUNTING LOCATION AND HEIGHT WITH MECHANICAL DUCTWORK.
- ⑥ JUNCTION BOX FOR CONNECTION TO VTR HEAT TRACE. PROVIDE SWITCH DISCONNECT ON WALL ADJACENT TO LIGHT SWITCHES, SEE **4** E7.1.

**1** LARGE SCALE MEZZANINE PLAN  
E6.1 SCALE: 1/4" = 1'-0"

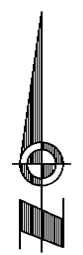


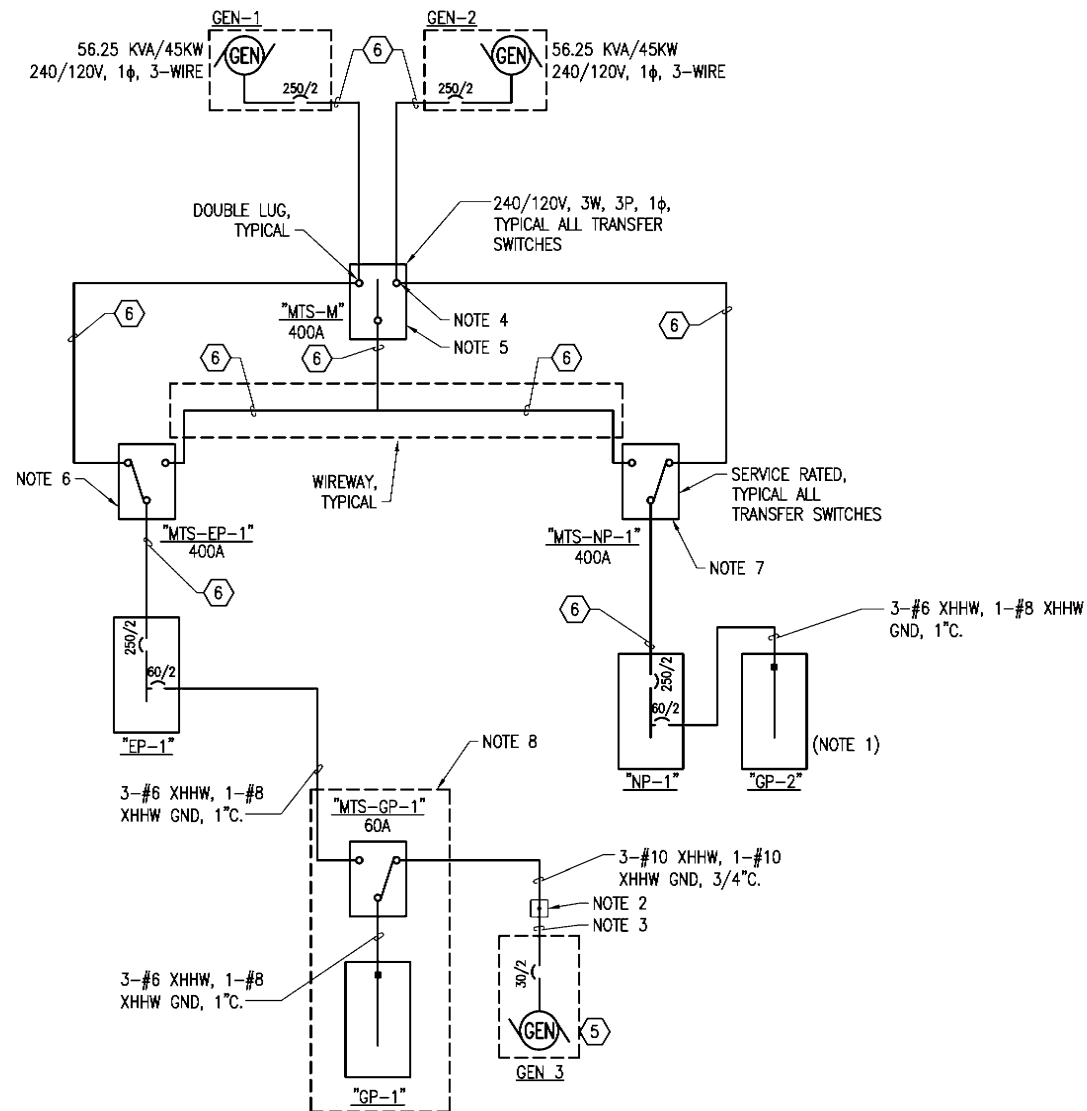
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LARGE SCALE  
MEZZANINE  
**E6.1**



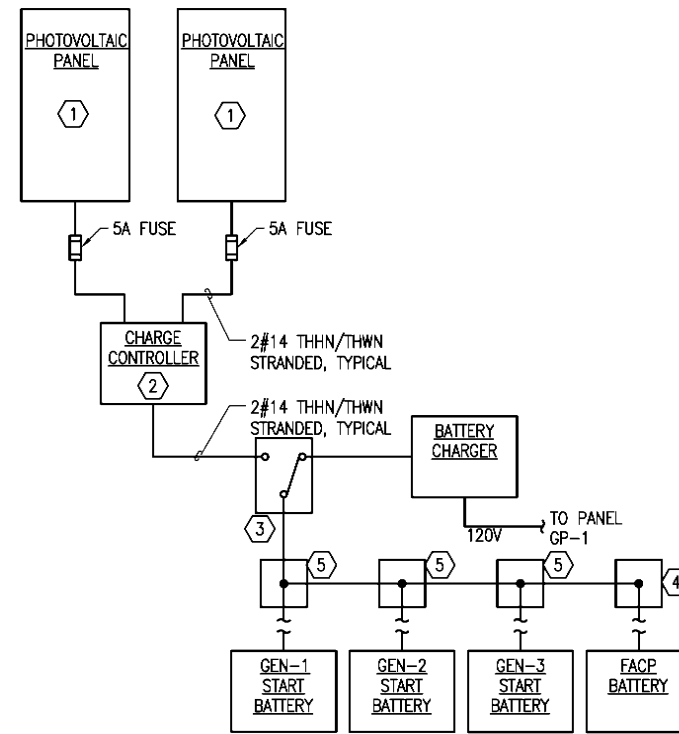


NOTES

1. GENERATOR 2 MODULE PANEL.
2. MALE CORD CONNECTION ON GENERATOR 1 MODULE.
3. PROVIDE #10-4 CONDUCTOR TYPE SO RUBBER CORD, (1-BLACK, 1-RED, 1-WHITE, 1-GREEN).
4. CONNECTION POINT FOR FUTURE WIND PLANT, NIC.
5. MTS-M TO REMAIN OPEN DURING NORMAL OPERATION.
6. MTS-EP-1 TO REMAIN CLOSED TO GEN-1 DURING NORMAL OPERATION.
7. MTS-NP-1 TO REMAIN CLOSED TO GEN-2 DURING NORMAL OPERATION.
8. EQUIPMENT LOCATED IN GEN-1 MODULE.

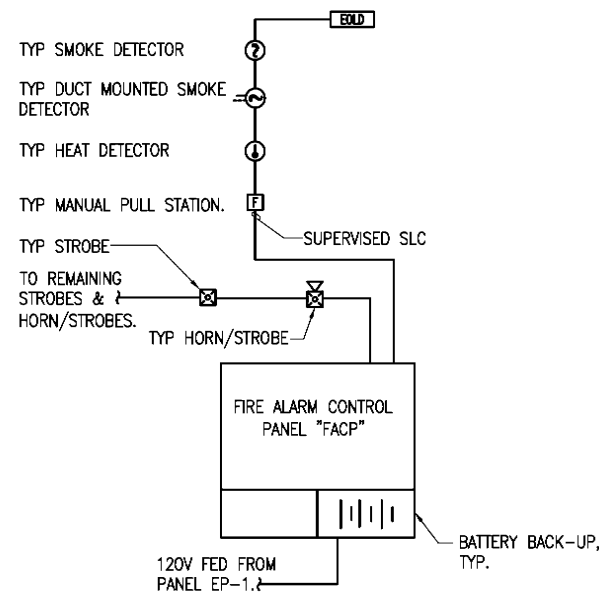
**1 POWER ONE-LINE DIAGRAM**

E7.1 SCALE: NOT TO SCALE



**2 PHOTOVOLTAIC BATTERY CHARGING SYSTEM ONE-LINE DIAGRAM**

E7.1 SCALE: NOT TO SCALE

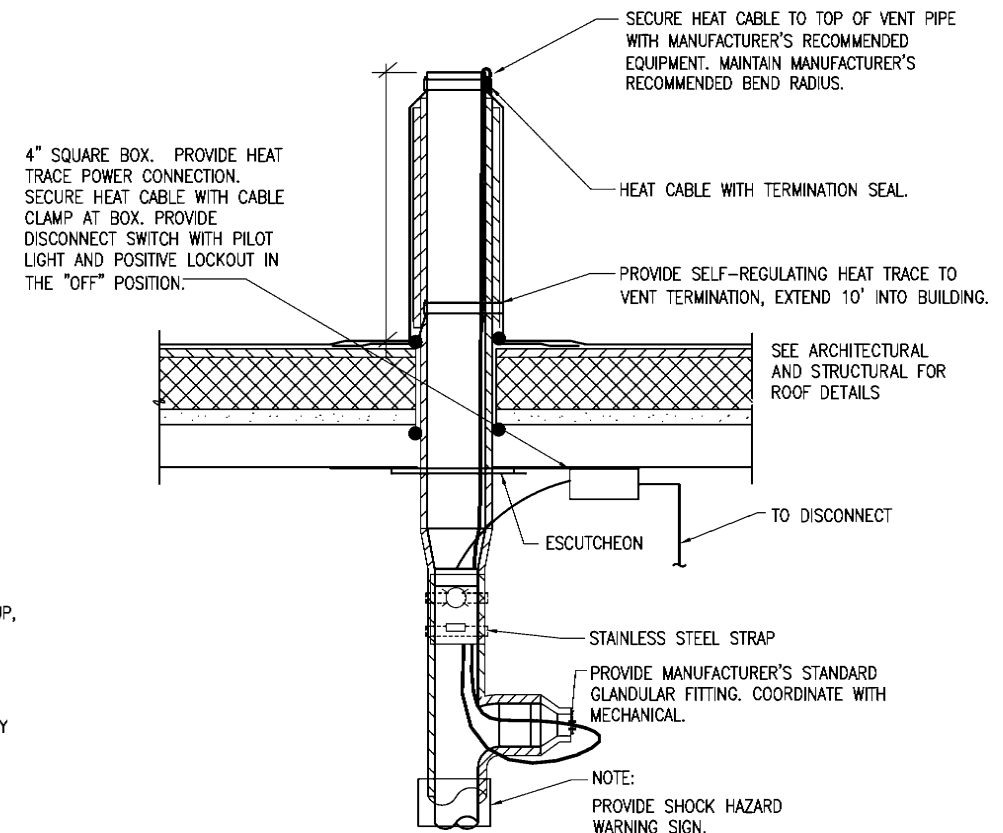


NOTES:

1. MIN. WIRE SIZE #14 AWG WIRING IN CONDUIT AS RECOMMENDED BY FACP SYSTEM MANUFACTURER.
2. DEVICES ARE DIAGRAMMATIC AND MAY NOT OCCUR ON EVERY SLC.
3. PLACE BATTERY ON PHOTOVOLTAIC CHARGING SYSTEM DURING NON-OCCUPIED PERIODS.

**3 FIRE ALARM RISER DIAGRAM**

E7.1 SCALE: NOT TO SCALE



**4 VENT THROUGH ROOF HEAT DETAIL**

E7.1 SCALE: NOT TO SCALE

**SHEET NOTES**

1. KYOCERA #KC65T, OR APPROVED EQUAL, MOUNTED ON SOUTH EXTERIOR WALL OF BUILDING.
2. KYOCERA # CHARGE CONTROLLER, SERIES IV MODEL FM16C, OR APPROVED EQUAL.
3. MANUAL DOUBLE THROW SAFETY SWITCH. SQUARE D #92251 OR APPROVED EQUAL.
4. JUNCTION BOX WITH LEADS FOR CONNECTION OF FACP BATTERY FOR CHARGING DURING NON-OCCUPIED PERIODS.
5. JUNCTION BOX WITH LEADS FOR CONNECTION OF GENERATOR START BATTERY FOR CHARGING DURING NON-OCCUPIED PERIOD.
6. 3-#250 KCMIL XHHW, 1-#2 CU XHHW GND, 2-1/2".
7. ROUTE ALL WIRING BETWEEN ALL MTS IN WIREWAY LOCATED ABOVE MTS.

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**RISER**  
DIAGRAMS  
**E7.1**