

**GENERAL NOTES:**

1. APPLICABLE CODES: 2015 MICHIGAN RESIDENTIAL CODE
2. USE GROUP: RESIDENTIAL, R-3
3. CONSTRUCTION TYPE: 5B, COMBUSTIBLE, UNPROTECTED
4. BRACING PANELS SHALL EXTEND FROM BOTTOM OF THE WALL SILL PLATE TO THE TOP OF THE TOP PLATE (TYP.).
5. 9' TALL INSULSPAN WALLS ON MAIN LEVEL (TYP.), 9' TALL CMU WALLS ON LOWER LEVEL UNLESS NOTED OTHERWISE (TYP.)
6. ALL WINDOW AND DOOR HEADERS IN STRUCTURAL STUD WALLS = 2 PLY 2x12 H.F. w/ 1 TRIMMER ON EITHER SIDE OF 4' AND SMALLER HEADER AND 2 TRIMMERS ON EITHER SIDE OF 4' AND LARGER HEADER UNLESS OTHERWISE SPECIFIED
7. ALL EXTERIOR WALLS SHALL BE 6 1/2" INSULSPAN UNLESS OTHERWISE NOTED (TYP.)
8. ALL INTERIOR WALLS SHALL BE FRAMED WITH 2x4 STUDS @ 16" o.c. UNLESS OTHERWISE SPECIFIED
9. WALLS SEPARATING BEDROOMS, BATHROOMS, AND LAUNDRY SPACES FROM ADJACENT ROOMS SHALL BE INSULATED WITH 3-1/2" FIBERGLASS BATTS.
10. THE GARAGE SHALL BE SEPARATED FROM THE RESIDENCE AND ITS ATTIC AREA BY NOT LESS THAN 1/2" GYPSUM BOARD APPLIED TO THE GARAGE SIDE
11. OPENINGS BETWEEN A GARAGE AND THE DWELLING SHALL BE EQUIPPED WITH A SOLID WOOD DOOR NOT LESS THAN 1 3/8" THICK, SOLID OR HONEY COMB CORE STEEL DOORS NOT LESS THAN 1 3/8" THICK OR 20-MINUTE FIRE-RATED DOOR.
12. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH APPLICABLE BUILDING CODES.
13. THE CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR PROVIDING QUALITY, WEATHER-TIGHT CONSTRUCTION
14. IT IS ASSUMED THAT SOIL CONDITIONS ARE NORMAL AND SUITABLE FOR CONSTRUCTION. ASSUMED BEARINGS CAPACITY IS 2,000 PSF. THE CONTRACTOR SHALL NOTIFY THE DESIGNER OF SOIL CONDITIONS UNSUITABLE FOR CONSTRUCTION.
15. THE CONTRACTOR SHALL VERIFY LOCATION OF SITE UTILITIES WITH RESPECTIVE UTILITY COMPANY.
16. CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE BUILDINGS" AND ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
  - A. CONCRETE STRENGTH FOR STRUCTURAL FOOTINGS, PIERS, BEAMS, ETC. SHALL BE MINIMUM 3,000 P.S.I. AFTER 28 DAYS.
  - B. CONCRETE STRENGTH FOR SLABS ON GRADE SHALL BE MINIMUM 3,500 P.S.I.
17. PROVIDE RESTEEL REINFORCEMENT AS SHOWN ON PLANS, OR AS REQUIRED IN SPECIFICATIONS.
18. REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60. PROVIDE AS SHOWN ON DRAWINGS
19. PROVIDE FRAMING HARDWARE AS REQUIRED.
20. PROVIDE SOLID BLOCKING TO BEAMS OR FOUNDATION WALL AT ALL CONCENTRATED LOADING POINTS FROM ABOVE.
21. PROVIDE MISCELLANEOUS BLOCKING, AS REQUIRED, FOR SUPPORT OF BATH ACCESSORIES, SHELVING, CABINETS, WAINSCOT, ETC. AND AS REQUIRED BY MECHANICAL AND ELECTRICAL CONTRACTORS. VERIFY LOCATION OF BLOCKING IN FIELD.
22. PROVIDE BLOCKING (APPROVED BY JOIST MANUFACTURER) BETWEEN JOISTS AT 24" O.C. UNDER ALL WALLS PARALLEL TO JOISTS BELOW.
23. DIMENSIONS ARE TO EDGES OF WOOD FRAMING AND CONCRETE
24. DO NOT INSTALL PLUMBING LINES IN EXTERIOR WALLS
25. THE MECHANICAL/ELECTRICAL CONTRACTOR SHALL COORDINATE DUCT OPENINGS, SLEEVE REQUIREMENTS, ETC. WITH OTHER TRADES AND FLOOR JOIST LIMITATIONS.
26. THE MECHANICAL CONTRACTOR ASSUMES COMPLETE RESPONSIBILITY FOR DESIGN AND PERFORMANCE OF MECHANICAL SYSTEM. ALL WORK TO BE IN ACCORDANCE TO APPLICABLE BUILDING CODE. ALL FIXTURES TO BE U.L. LISTED FOR INTENDED USE.

**HVAC NOTES:**

- A. ALL DUCTWORK SEAMS SHALL BE SEALED WITH LOW VOC DUCT SEALANT.
- B. DWELLING UNIT EXHAUST FANS SHALL BE INDIVIDUALLY DUCTED TO EXHAUST OUTLET AT EXTERIOR WALL. ROOF OUTLETS ARE NOT APPROVED.
- C. RETURN AIR SHALL BE DUCTED. PANNING OF WALL OR JOIST CAVITIES IS NOT APPROVED.
- D. MAINTAIN INTERIOR DIMENSION OF FLEXIBLE DUCT. DO NOT "PINCH" FLEXIBLE DUCT

27. THE ELECTRICAL CONTRACTOR ASSUMES COMPLETE RESPONSIBILITY FOR DESIGN AND PERFORMANCE OF ELECTRICAL SYSTEM. ALL WORK TO BE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE. ALL FIXTURES TO BE U.L. LISTED FOR INTENDED USE.

**GENERAL UNDERLAYMENT/FLASHING NOTES:**

PROVIDE ICE & WATER SHIELD, SELF ADHERED UNDERLAYMENT AS FOLLOWS:

1. ROOF/WALL INTERSECTIONS:
  - (1) 3" WIDE STRIP, 18" UP WALL, 18" UP ROOF. PROVIDE ALUM. STEP FLASHING AT WALL w/ 2" EXPOSURE AT WALL.
2. VALLEYS & ROOF SLOPE TRANSITIONS:
  - (1) 3" WIDE STRIP
3. EAVES (2' OVERHANGS OR LESS):
  - (2) 3" WIDE STRIP, LAPPED 6"
4. DOORS AND WINDOWS:
  - (1) 12" STRIP WRAPPING ROUGH OPENING w/ 6" ON OUTSIDE OF WALL & OVERLAPPED TO SHED WATER.
5. DECKS AND EXTERIOR BALCONIES:
  - (1) 12" STRIP FROM UPPER DECK FLASHING UP & (1) 12" STRIP UP FROM LOWER DECK FLASHING & BETWEEN DECK LEDGER BRD. AND WALL

**LOADING CRITERIA SHALL BE AS FOLLOWS:**

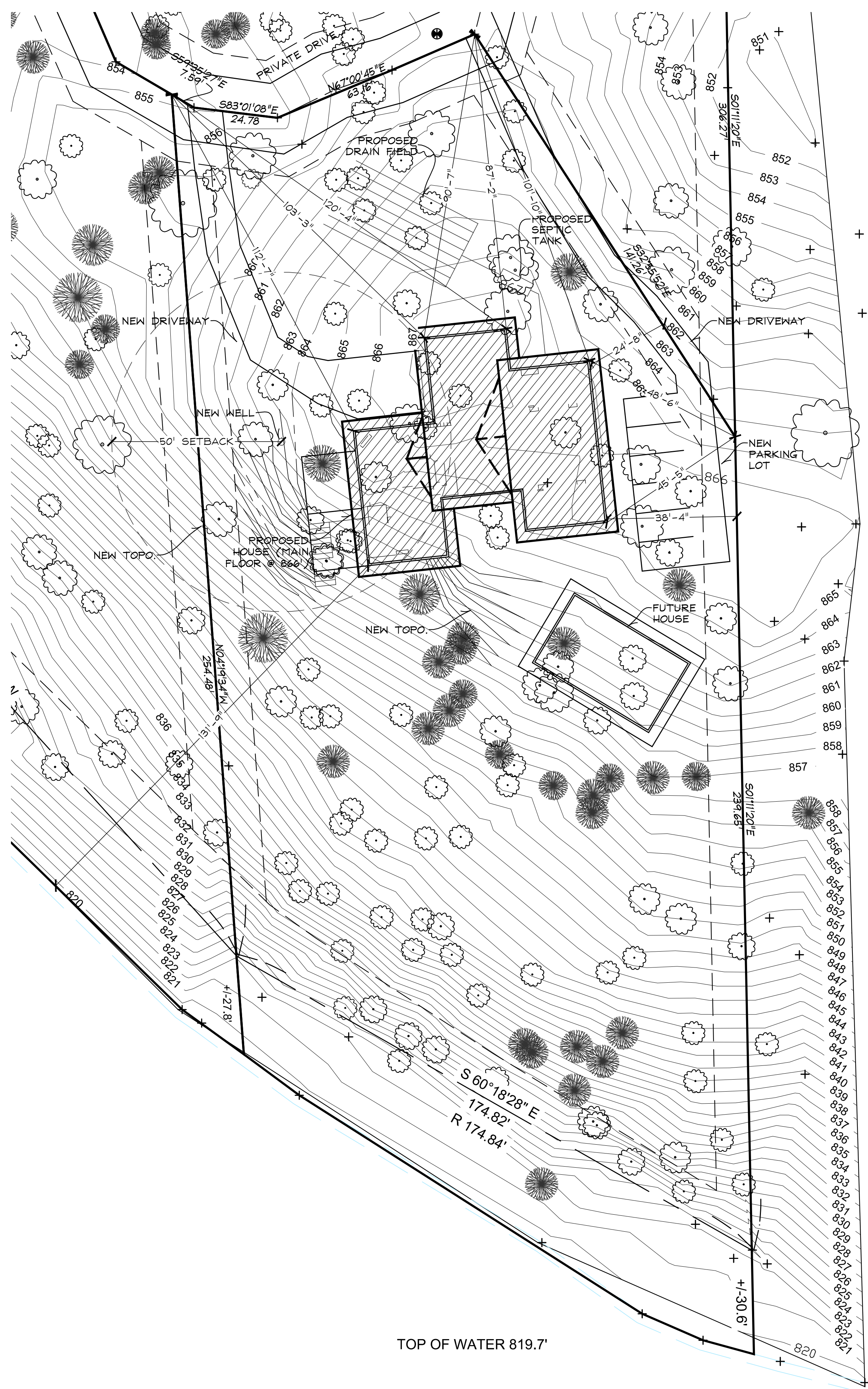
1. ROOF LOADING:
  - LIVE LOAD = 47 PSF + SNOW DRIFT LOADS AS REQ.
  - TOP CHORD DEAD LOAD = 10 PSF
  - BTM. CHORD DEAD LOAD = 7 PSF
  - DEFLECTION = L/360
2. FLOOR LOADING:
  - LIVE LOAD = 40 PSF
  - DEAD LOAD = 12 PSF
  - DEFLECTION = L/360
3. BLDG. CODE FACTORS: GROUND SNOW LOAD = 60PSF



**SITE PLAN**

DESCRIPTION:  
PARCEL "C"  
PART OF GOVERNMENT LOT 1,  
SEC. 15, R13W, T27N,

SCALE: 1"=20'-0"



TOP OF WATER 819.7'

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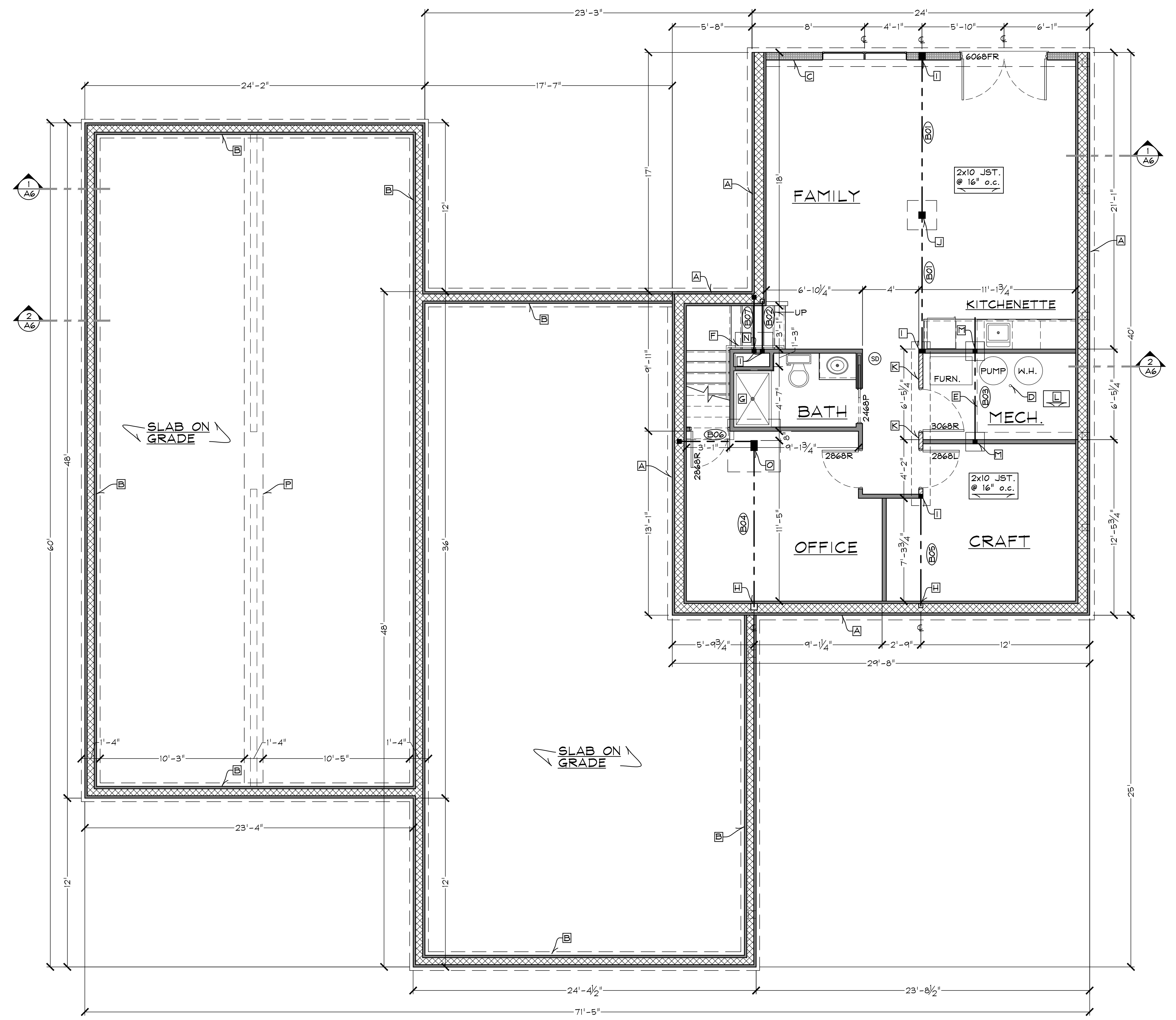


KERNS RESIDENCE  
7103 LAKE VIEW RIDGE  
LAKE ANN, MI 49650

Drawn By: CALEB NORRIS	
Project Number: 18117	
Previous Versions: NOV. 20, 2020	
Current Version #: CONST. #2	Date: DEC. 7, 2020
Scale: 1"=20'-0" Sheet	
<h1>S1</h1>	
Page Description: Site Plan	

KERNS PAGE INDEX	
S1 - Site Plan	
A1 - Lower Level Plan	
A2 - Main Level Plan	
A3 - Roof Plan	
A4 - Elevations	
A5 - Elevations	
A6 - Cross Section #1, 2, 3, & Details	

- FOUNDATION NOTES**
- A 10' TALL CMU FOUNDATION WALL w/ 1" TALL 6" THICK SEGMENT ON 9' TALL FULL THICKNESS WALL (MIN. R-18) ON 16"x8" CONC. FOOTER w/ (2) #3 RE-BAR
  - B 4'-0" TALL CMU FOUNDATION WALL (MIN R-18) ON 16"x8" CONC. FOOTER w/ (2) #3 RE-BAR
  - C TYPICAL INSULSPAN EXTERIOR WALL
  - D FLOOR AT MECHANICALS SLOPED TO FLOOR DRAIN.
  - E EDGE OF PORCH ABOVE.
  - F PROVIDE HAND RAIL 36" ABOVE TREAD NOSING AND CONTINUOUS FROM ABOVE LOWEST TREAD NOSING TO TOP MOST TREAD NOSING AND RETURNING TO WALL AS REQ. PER CODE.
  - G 4' FIBERGLASS SHOWER UNIT
  - H BEAM IN BEAM POCKET ON DOW FOAM SILL SEAL ON P.T. PLATE w/ MIN. 1/2" AIR SPACE FROM ADJACENT FOUNDATION WALL
  - I STUD SOLID MIN. THICKNESS OF BEARING POINT FROM ABOVE
  - J 6x6 POST ON 25"x25"x10" THICKENED CONC. SLAB
  - K BEARING WALL ON 16"x8" THICKENED CONC. SLAB
  - L RIPPED JOISTS @ 16"o.c. CUT OUT OF 2x10 SPF TO SLOPE 2" AWAY FROM HOUSE (MIN. 5.5" THICK)
  - M BEARING POINT ON 16"x16"x8" THICKENED CONC. SLAB
  - N BEARING POINT ON 32"x32"x14" THICKENED CONC. SLAB
  - O 5/4"x9/4" PSL POST ON 45"x45"x20" THICKENED CONC. SLAB
  - P 6" THICK THICKENED CONC. SLAB BELOW BEARING WALL.
- (B01) (4) PLY 2x12 H.F. DROP BEAM
  - (B02) (2) PLY 2x6 S.P.F. FLUSH BEAM NOTCHED INTO UNDERSIDE OF JOISTS
  - (B03) (2) PLY 2x10 S.P.F. FLUSH BEAM
  - (B04) (1) PLY 5/2"x10 1/2" GLULAM DROP BEAM
  - (B05) (3) PLY 2x10 S.P.F. DROP BEAM
  - (B06) (1) PLY 2x10 S.P.F. FLUSH BEAM
  - (B07) (1) PLY 5/2"x13 1/2" GLULAM FLUSH BEAM NESTED IN BASE OF WALL ABOVE
  - (SD) SMOKE DETECTOR



**LOWER LEVEL PLAN**

0" 8"

FOUNDATION WALL
2x STUD WALL
2x BEARING WALL
SIP WALL
BEARING POINT

**LOWER LEVEL WIND BRACING:**  
 MIN. 4' CS-WSP FOR EACH LOWER LEVEL FRAMED WALL LINE, PROVIDE 2' CORNER RETURNS WHERE NOTED, SEE WIND BRACING NOTES ON PAGE 'A7' FOR DETAILS

TOTAL LOWER LEVEL AREA = 1042 sq. ft.

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**WALL BRACING NOTES:**

**1. MINIMUM TOTAL LENGTH OF BRACING REQUIRED:**

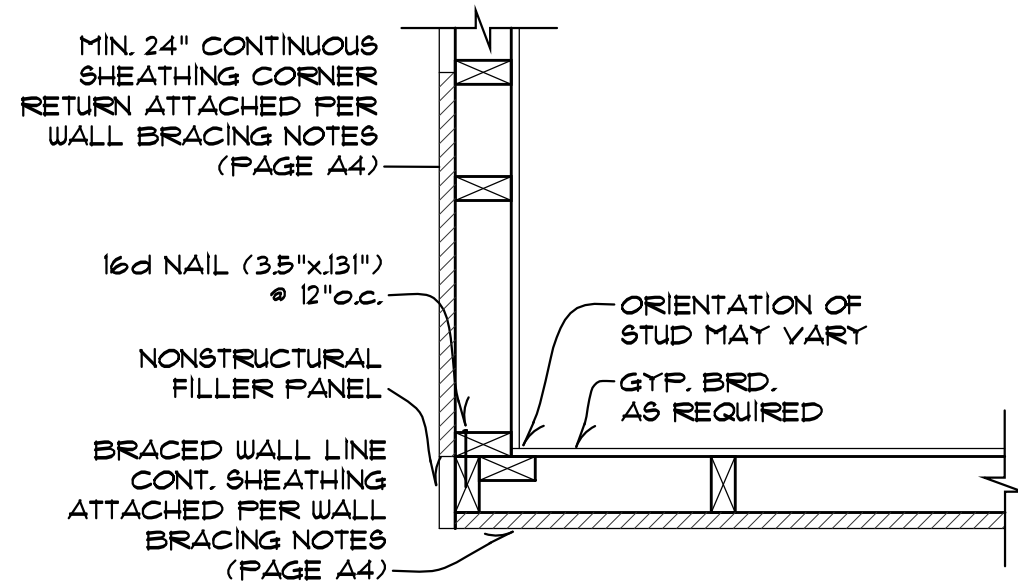
- LINE #1 = 5'-6" (METHOD 1-WSP)
- LINE #2 = 6'-3" (METHOD CS-WSP)
- LINE #3 = 4'-10" (METHOD 1-WSP)
- LINE #4 = 5'-6" (METHOD 1-WSP)
- LINE #5 = 6'-3" (METHOD CS-WSP + CS-G)
- LINE #6 = 4'-10" (METHOD 1-WSP)
- LINE #A = 4'-8" (METHOD 1-WSP)
- LINE #B = 5'-9" (METHOD CS-WSP)
- LINE #C = 5'-0" (METHOD CS-WSP)
- LINE #D = 6'-10" (METHOD 1-WSP)

**2. INCLUDE 1/2" GYP. BRD. ON INT. OF ALL BRACED WALL LINES**

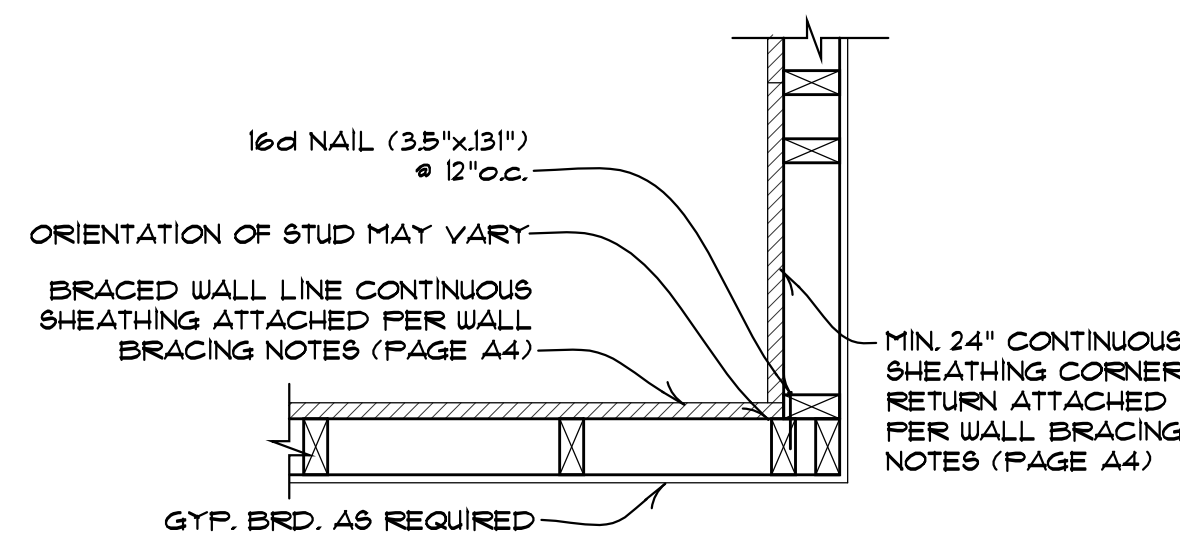
**3. WALL BRACING PANELS SHALL EXTEND FROM BOTTOM OF THE WALL SILL PLATE TO THE TOP OF THE TOP PLATE. WALL BRACING METHOD SHALL BE BY:**

- A. CONTINUOUS SHEATHING (CS) w/ 7/16" OSB ATTACHED w/ 8d COMMON NAILS @ 6" o.c. @ EDGES & 12" o.c. IN FIELD UNLESS OTHERWISE SPECIFIED
- B. 2" CORNER RETURN w/ 1/4" OSB AT ENDS OF CONTINUOUSLY SHEATHED (CS) BRACED WALL LINES w/ 8d COMMON NAILS @ 6" o.c. @ EDGES & 12" o.c. IN FIELD UNLESS OTHERWISE SPECIFIED.
- C. INTERMITTENT WOOD STRUCTURAL PANEL (I-WSP) w/ 7/16" OSB ATTACHED w/ 8d COMMON NAILS @ 6" o.c. @ EDGES & 12" o.c. IN FIELD UNLESS OTHERWISE SPECIFIED

**4. HOLD-DOWN DEVICES, MAY BE SIMPSON "MSTAM24" STRAP TIE NAILED TO STUDS & SCREWED TO CONC., SIMPSON "CS22" COILED STRAP NAILED TO STUDS, SIMPSON "HDU2-SDS2.5" HOLD DOWN BOLTED TO FOUNDATION, OR OTHER HOLD-DOWN DEVICE PROVIDING 800LBS OF TENSILE STRENGTH**



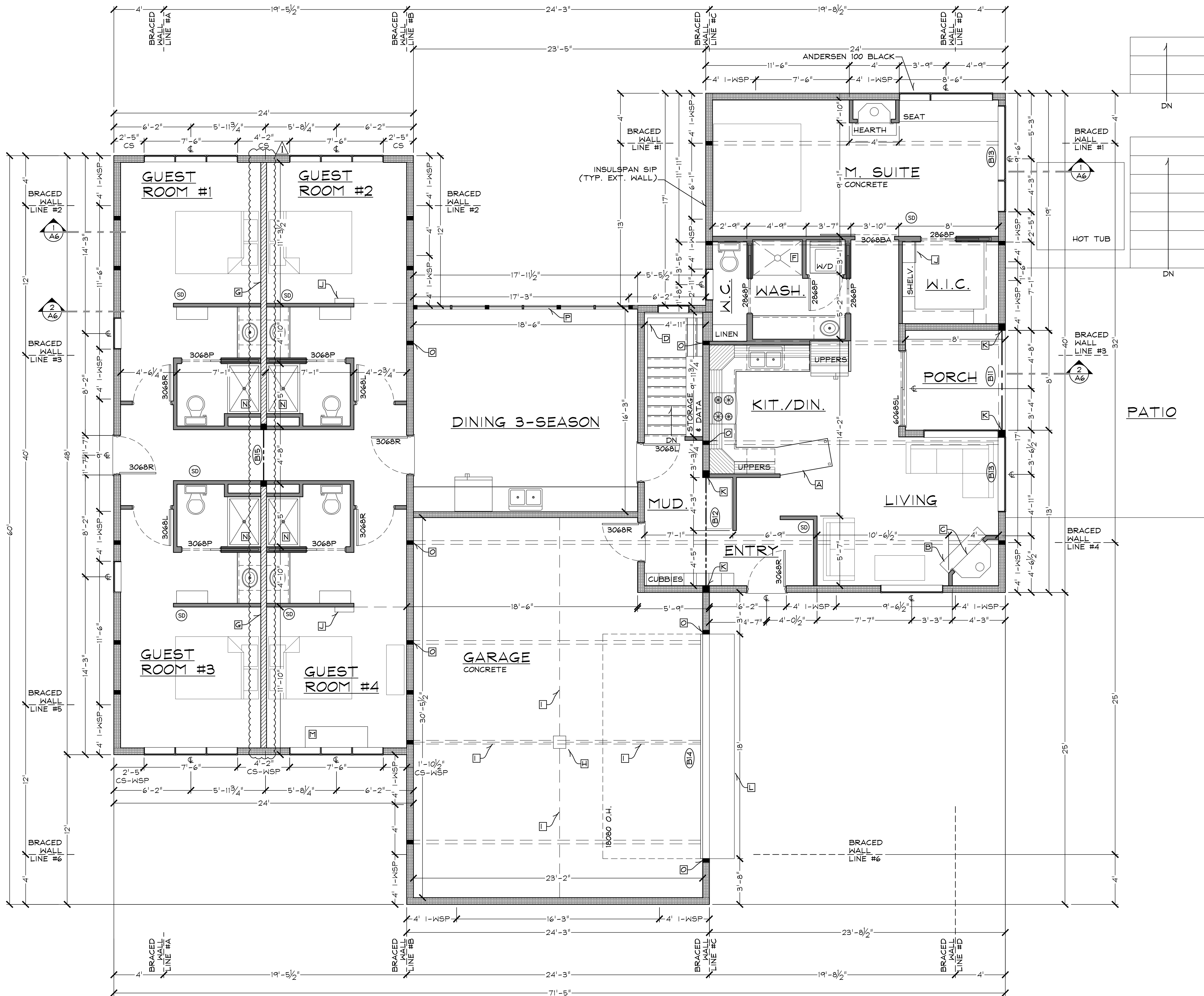
**CONTINUOUS SHEATHING OUTSIDE CORNER RETURN DETAIL**  
SCALE: 1"=1'-0"



**CONTINUOUS SHEATHING INSIDE CORNER RETURN DETAIL**  
SCALE: 1"=1'-0"

**MAIN LEVEL NOTES**

- A FREESTANDING COUNTERTOP ON POSTS AND CABINETS
- B HEARTH FLUSH w/ FLOOR
- C WOOD FIREPLACE
- D PROVIDE HAND RAIL 36" ABOVE TREAD NOSING AND CONTINUOUS FROM ABOVE LOWEST TREAD NOSING TO TOP MOST TREAD NOSING AND RETURNING TO WALL AS REQ. PER CODE.
- E TILE SHOWER
- F 2x6 LOAD BEARING STUD WALL w/ STUDS @ 16" o.c.
- G CONC. SLAB SLOPED 1" TO FLOOR DRAIN
- H CONTROL JOINTS CUT INTO CONC. SLAB
- I ACCESS TO STORAGE ABOVE
- J STUD SOLID AT BEARING POINT MIN. WIDTH OF BEAM ABOVE
- K 2" DEEP 4" THICK CONC. APRON
- L WINDOW SEAT
- M 4' FIBERGLASS SHOWER UNIT
- N 5/4"x5/4" PSL POST TO BEAR UP TO 18,000#
- P EZE-BREEZE SYSTEM
- SD SMOKE DETECTOR



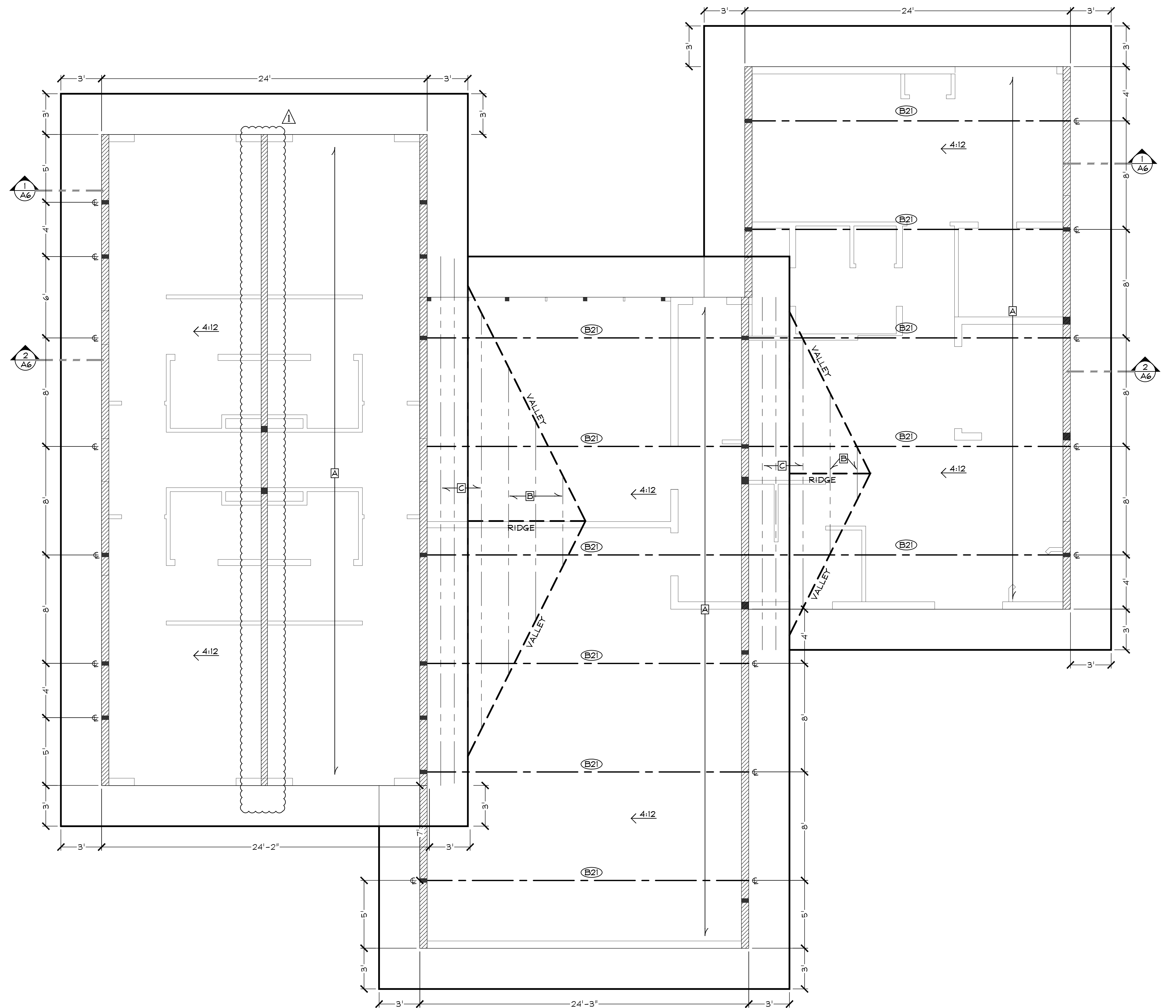
**MAIN LEVEL PLAN**

- KEY:
- 2x STUD WALL
  - 2x BEARING WALL
  - SIP WALL
  - BEAM
  - BEARING POINT
- (B1) (1) PLY 3 1/2"x22 1/2" GLULAM DROP BEAM
  - (B2) (1) PLY 5 1/2"x9" GLULAM FLUSH BEAM
  - (B3) (3) PLY 2x12 H.F. HEADER
  - (B4) (3) PLY 1 3/4"x16" 2.0E LVL HEADER w/ (3) TRIMMERS ON EITHER SIDE
  - (B5) (2) PLY 2x8 S.P.F. DROP BEAM

FINISHED AREA = 1038 sq. ft.  
GARAGE AREA = 704 sq. ft.  
PORCH AREA = 64 sq. ft.  
BMB AREA = 11520 sq. ft.  
DINING S.I.P. AREA = 418 sq. ft.

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## ROOF PLAN

### FRAMING KEY:

	2x BEARING WALL BELOW
	S.I.P.s
	TRUSS (ENG. BY OTHERS)
	EAVE/RAKE
	RIDGE/VALLEY
	BEAM (B21)
	BEARING POINT

### GENERAL ROOF NOTES

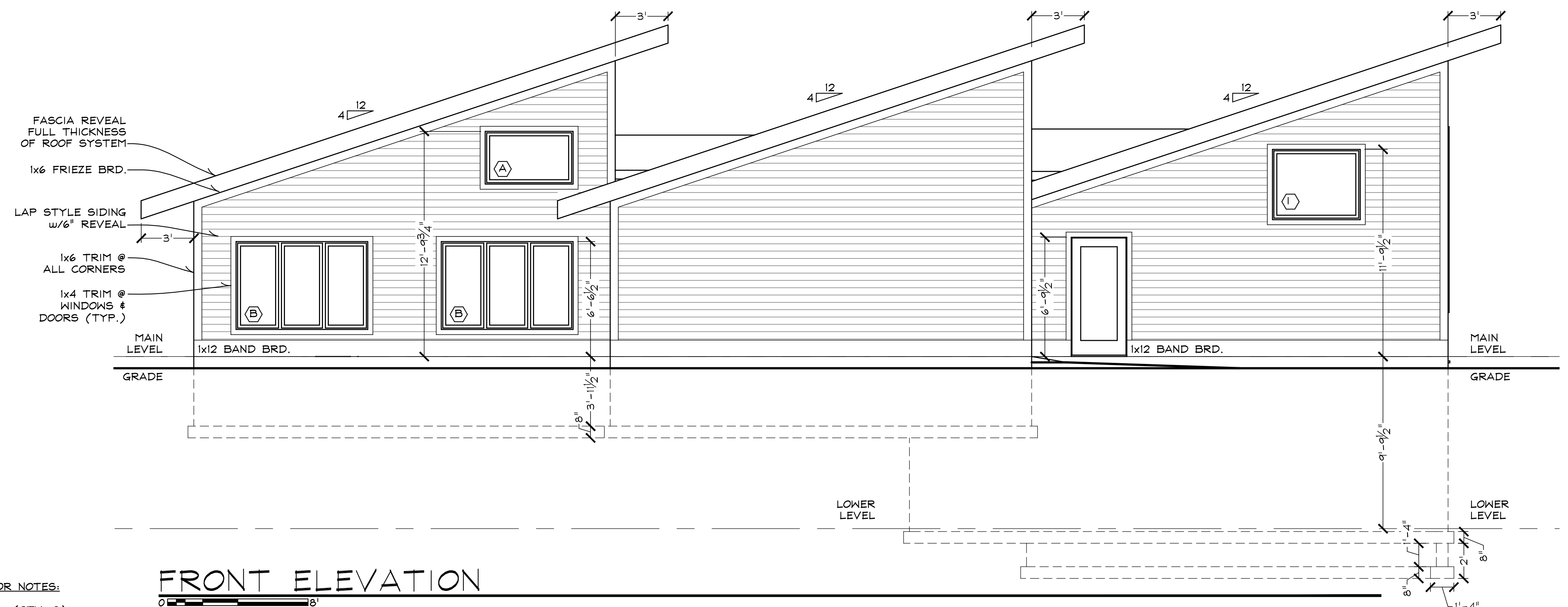
- 3'-0" OVERHANG @ EAVES & RAKES (TYP.)
- PROVIDE SIMPSON 'H2.5A' HURRICANE FASTENERS TO CONNECT ROOF ASSEMBLY TO BEARING WALLS AND BEAMS @ HEEL

(B21) BEAM SIZE AND LOCATION PER SIP MANU. SPEC.

### ROOF NOTES

- A INSULSPAN ROOF ASSEMBLY
- B 2x10 RAFTER OVERFRAMING @ 24" o.c.
- C 2x12 RAFTER OVERFRAMING @ 12" o.c.

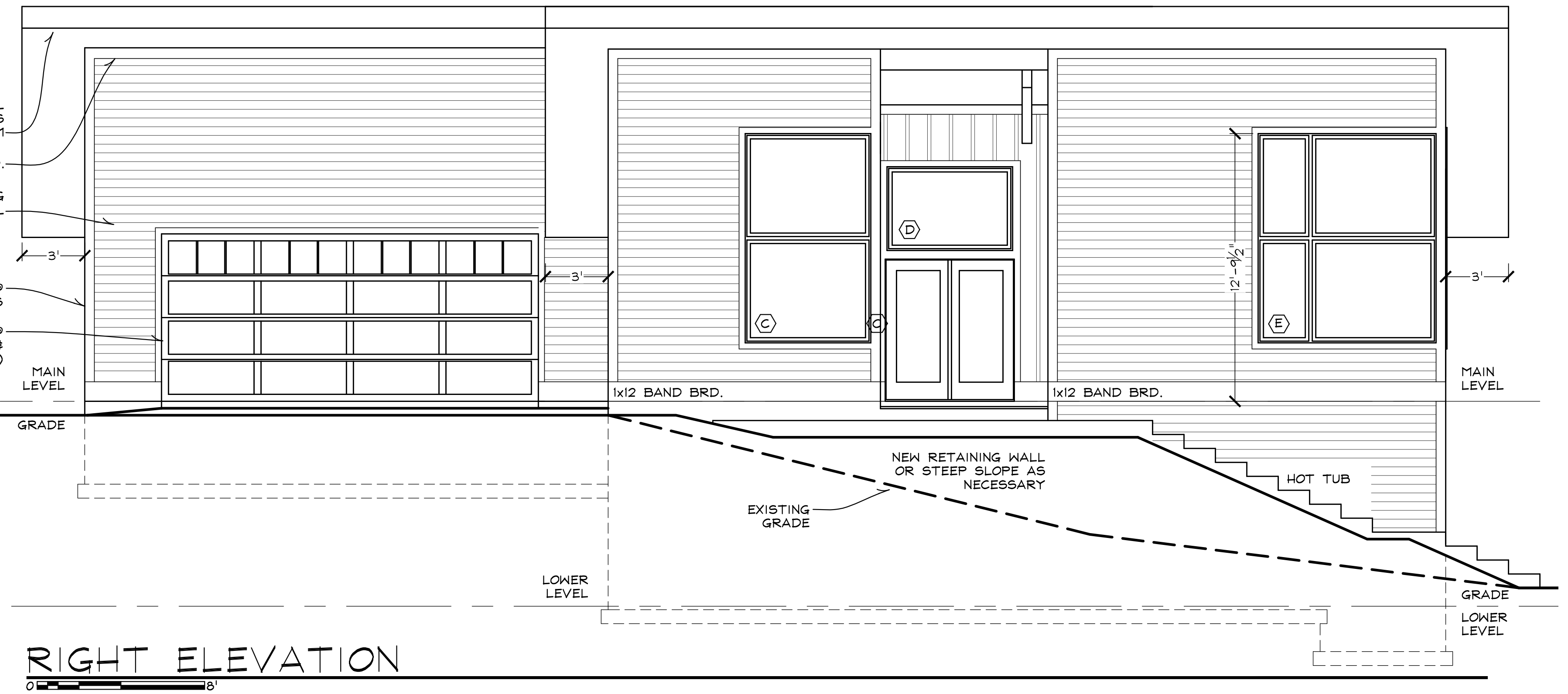
SCALE: 1/4" = 1'-0"



**FRONT ELEVATION**

- EXTERIOR WINDOW & DOOR NOTES:**
- (A) 5'0" x 3'0" FIXED WIND. (QTY. 2)
  - (B) 7'6" x 5'0" (3) 2'6" x 5'0" D.H. WIND. (QTY. 4)
  - (C) 6'0" x 10'0" (2) 6'0" x 5'0" STACKED FIXED WIND. (QTY. 2)
  - (D) 6'0" x 4'0" FIXED WIND. (QTY. 1)
  - (E) 8'6" x 10'0" (2) 8'6" x 5'0" STACKED 2'6" x 5' MULLED TO 6' x 5' FIXED WIND. (QTY. 1)
  - (F) 3'0" x 2'0" FIXED WIND. (QTY. 2)
  - (G) 2'6" x 3'6" CASE WIND. (QTY. 1)
  - (H) 5'0" x 4'0" (2) 2'6" x 4'0" CASE WIND. MULLED (QTY. 1)
  - (I) 5'0" x 4'0" FIXED WIND. (QTY. 1)
  - (L) 2'6" x 3'0" FIXED WIND. (QTY. 2)

- FASCIA REVEAL FULL THICKNESS OF ROOF SYSTEM
- 1x6 FRIEZE BRD.
- LAP STYLE SIDING w/6" REVEAL
- 1x6 TRIM @ ALL CORNERS
- 1x4 TRIM @ WINDOWS & DOORS (TYP.)



**RIGHT ELEVATION**

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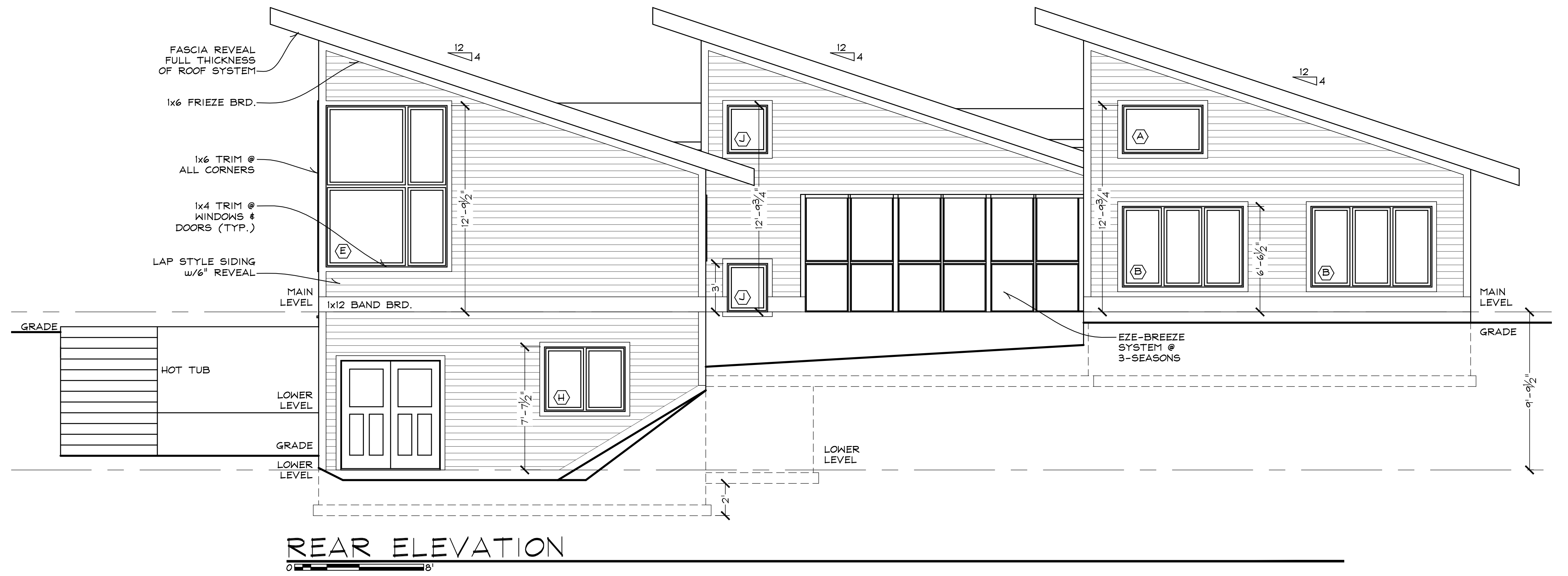
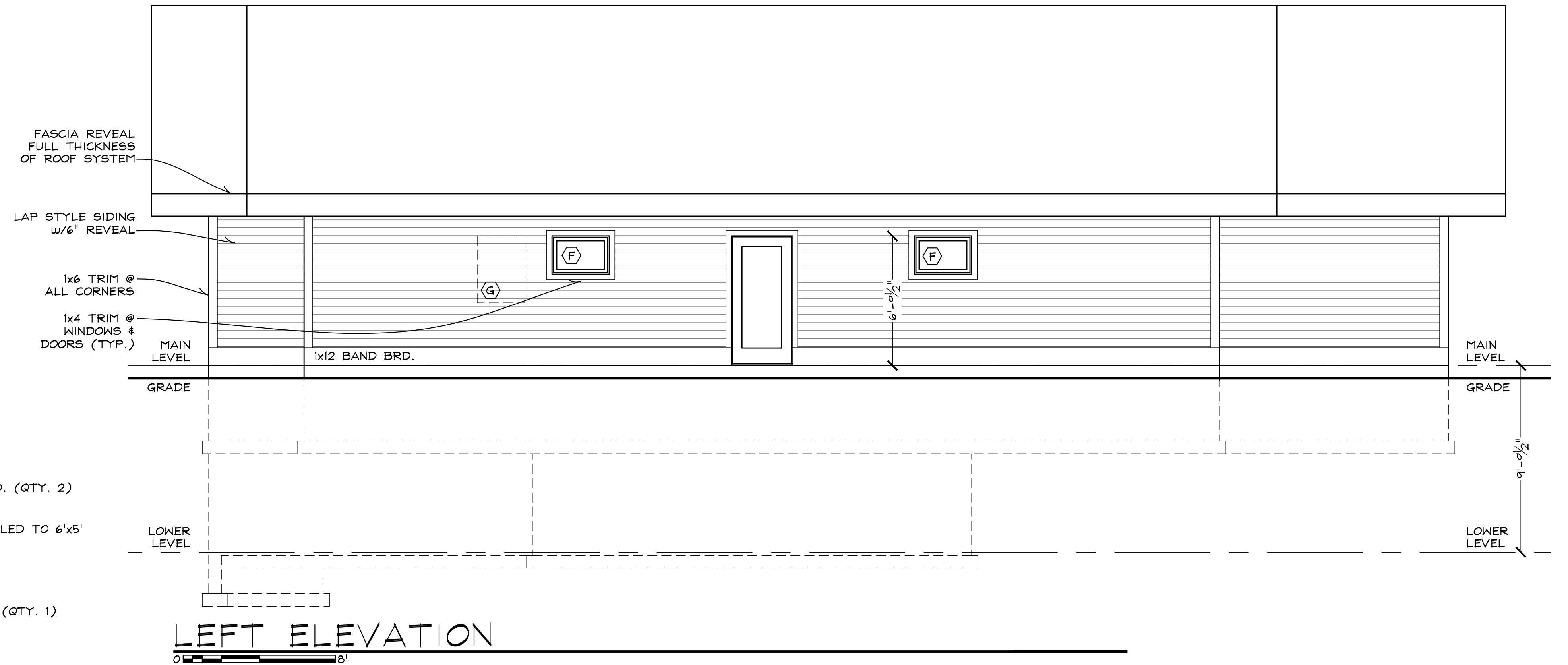
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Page Description:	Elevations

A4

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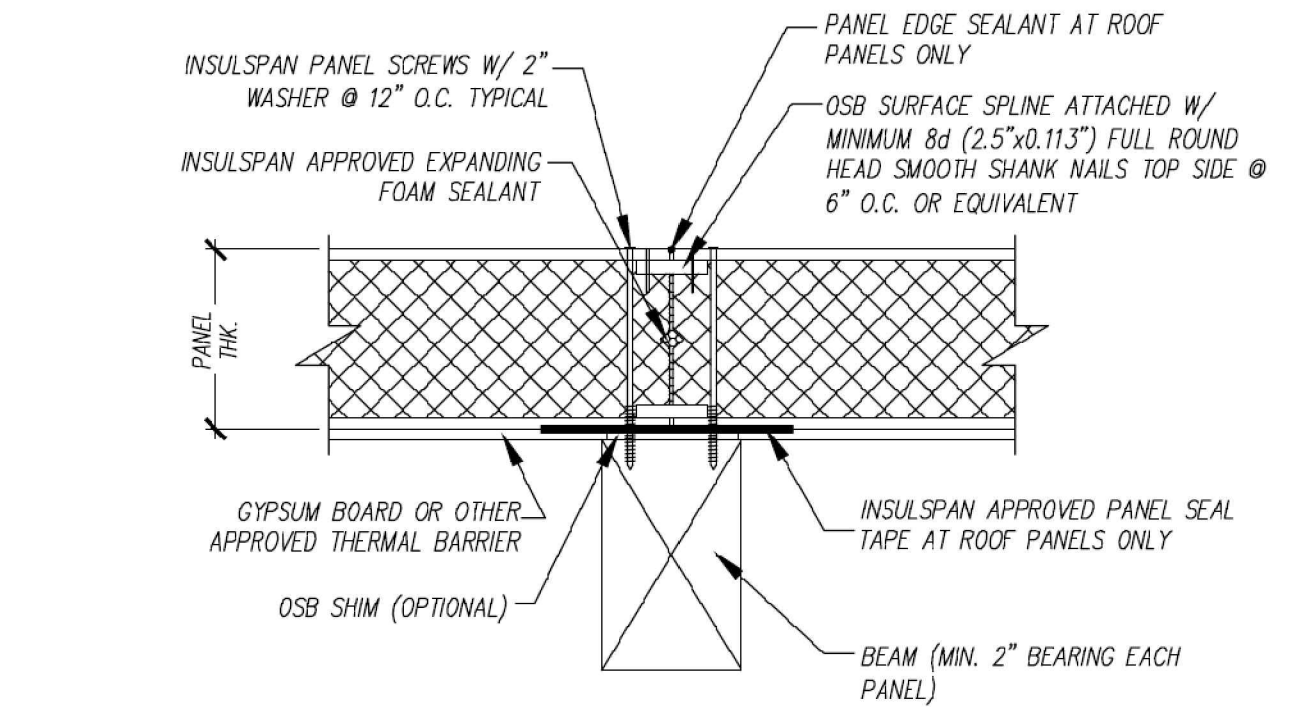
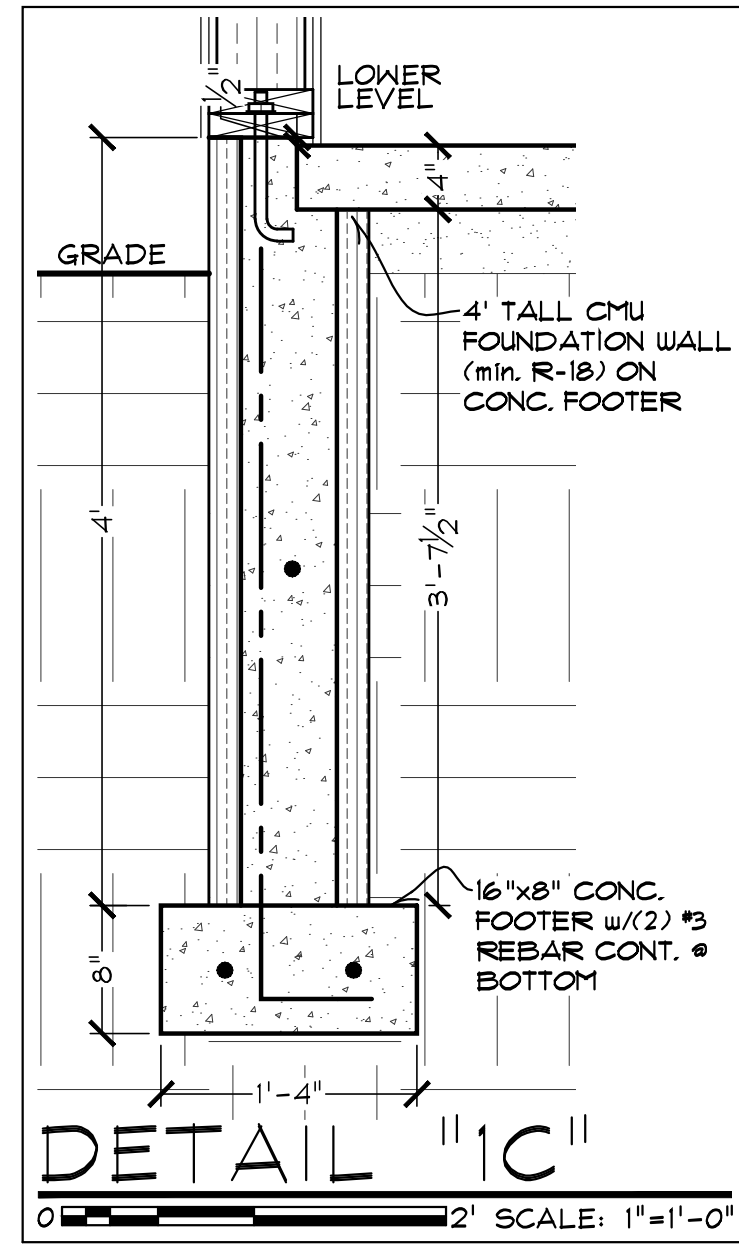


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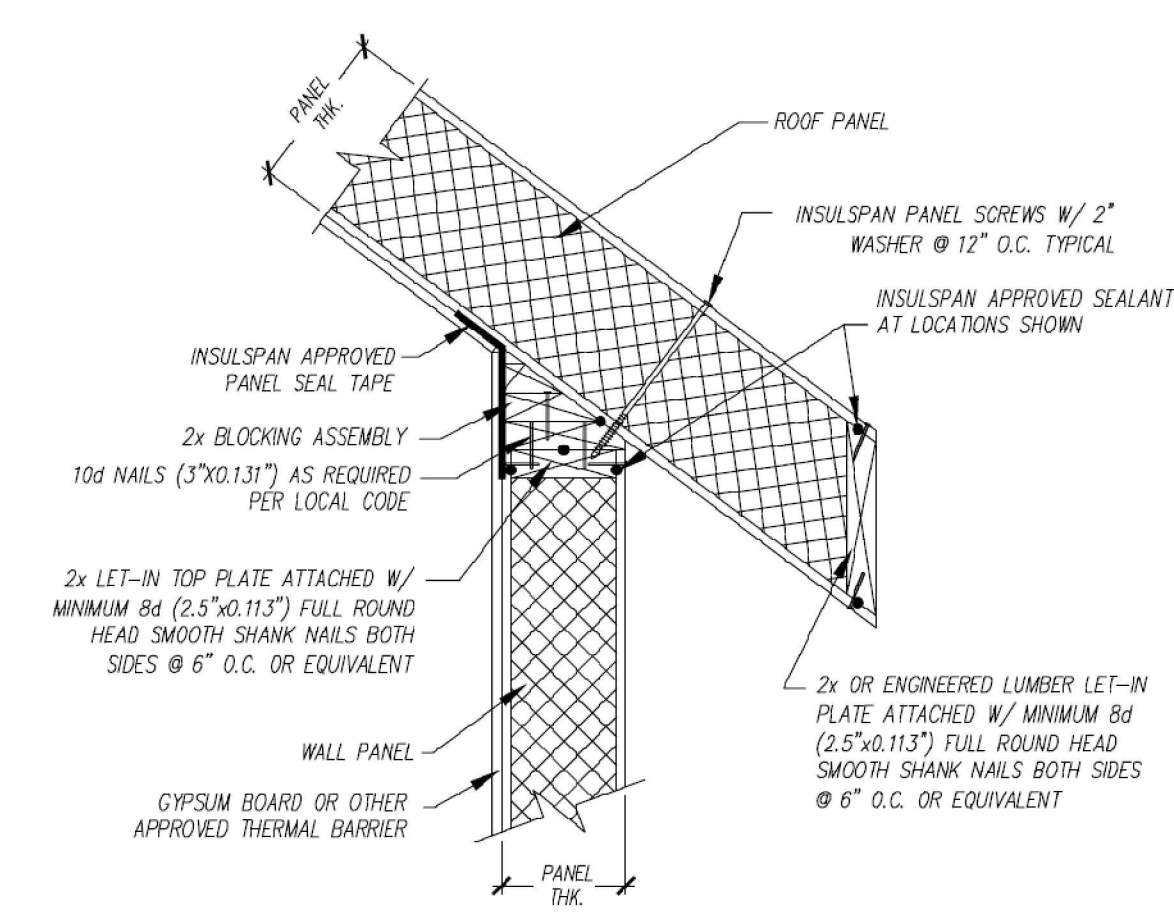
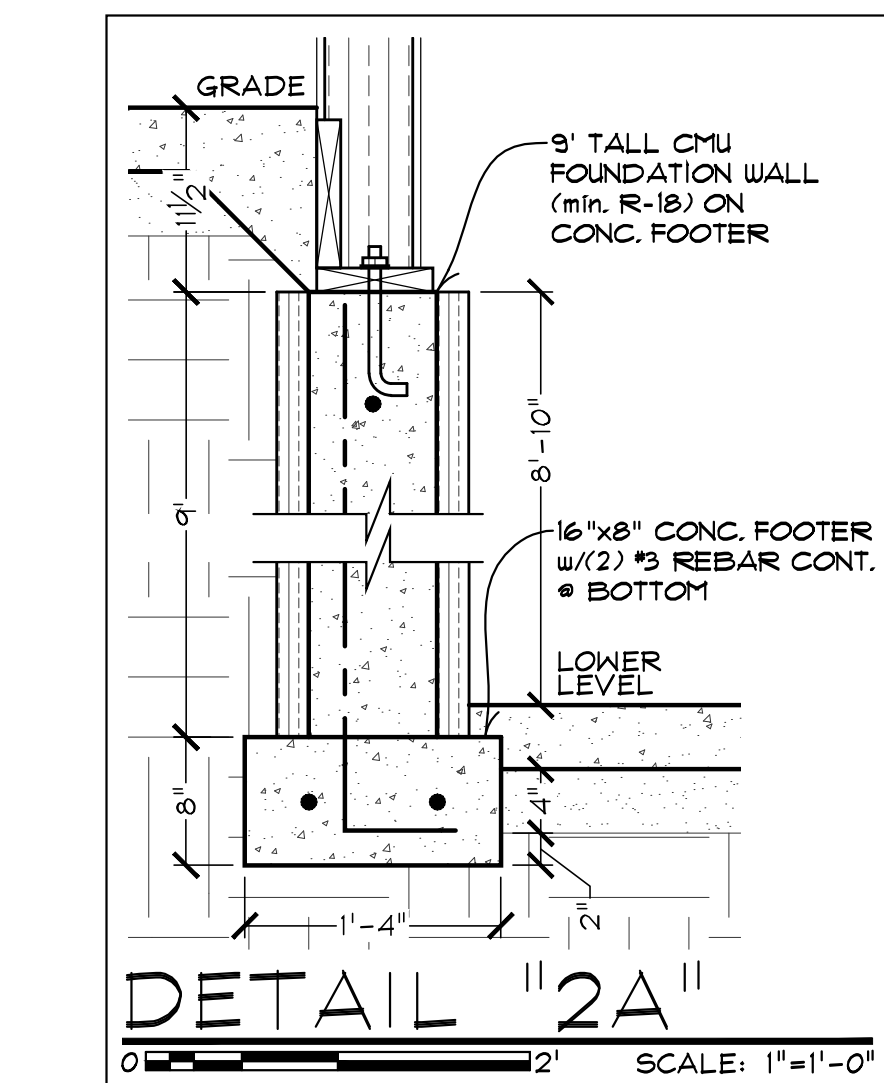
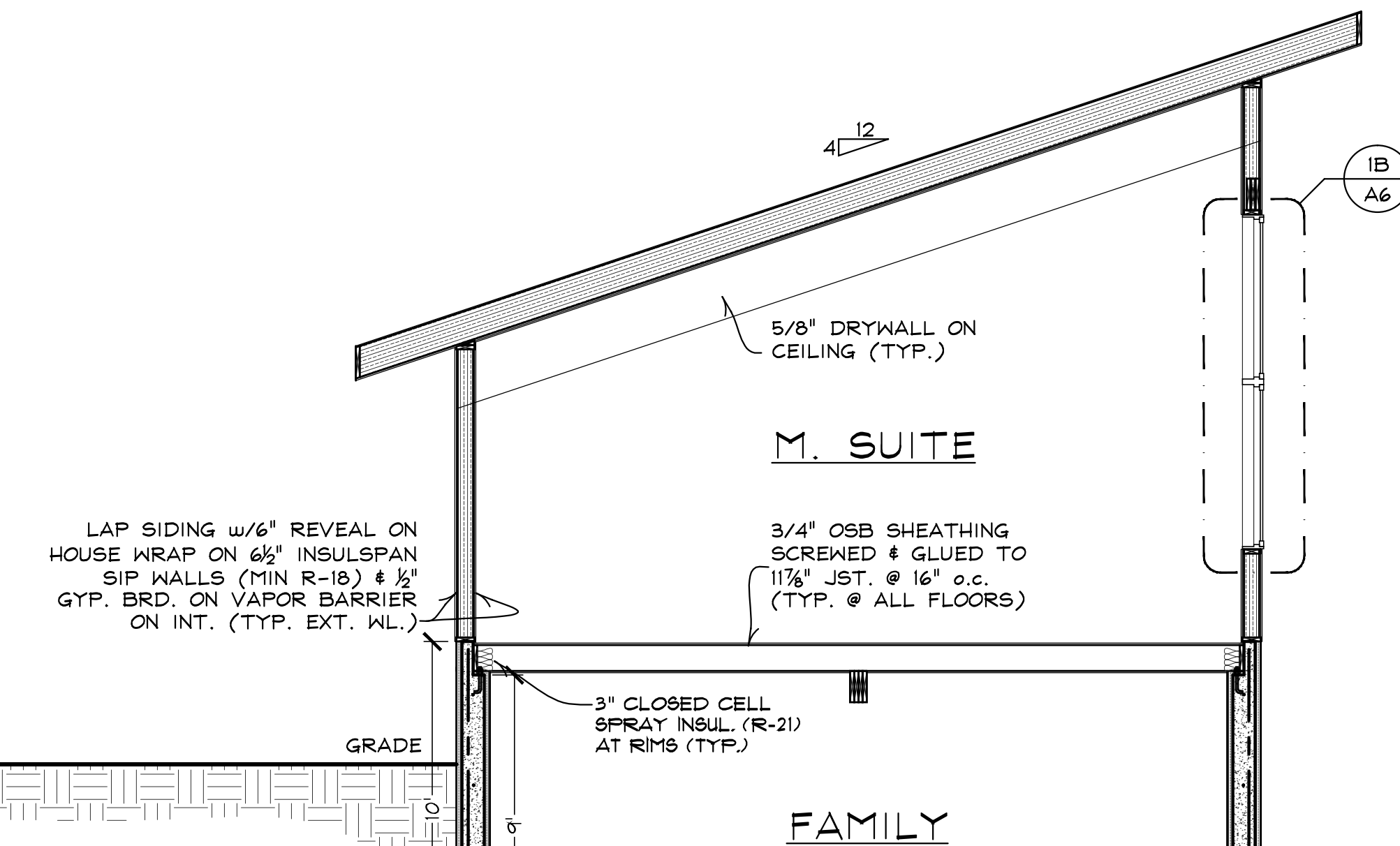
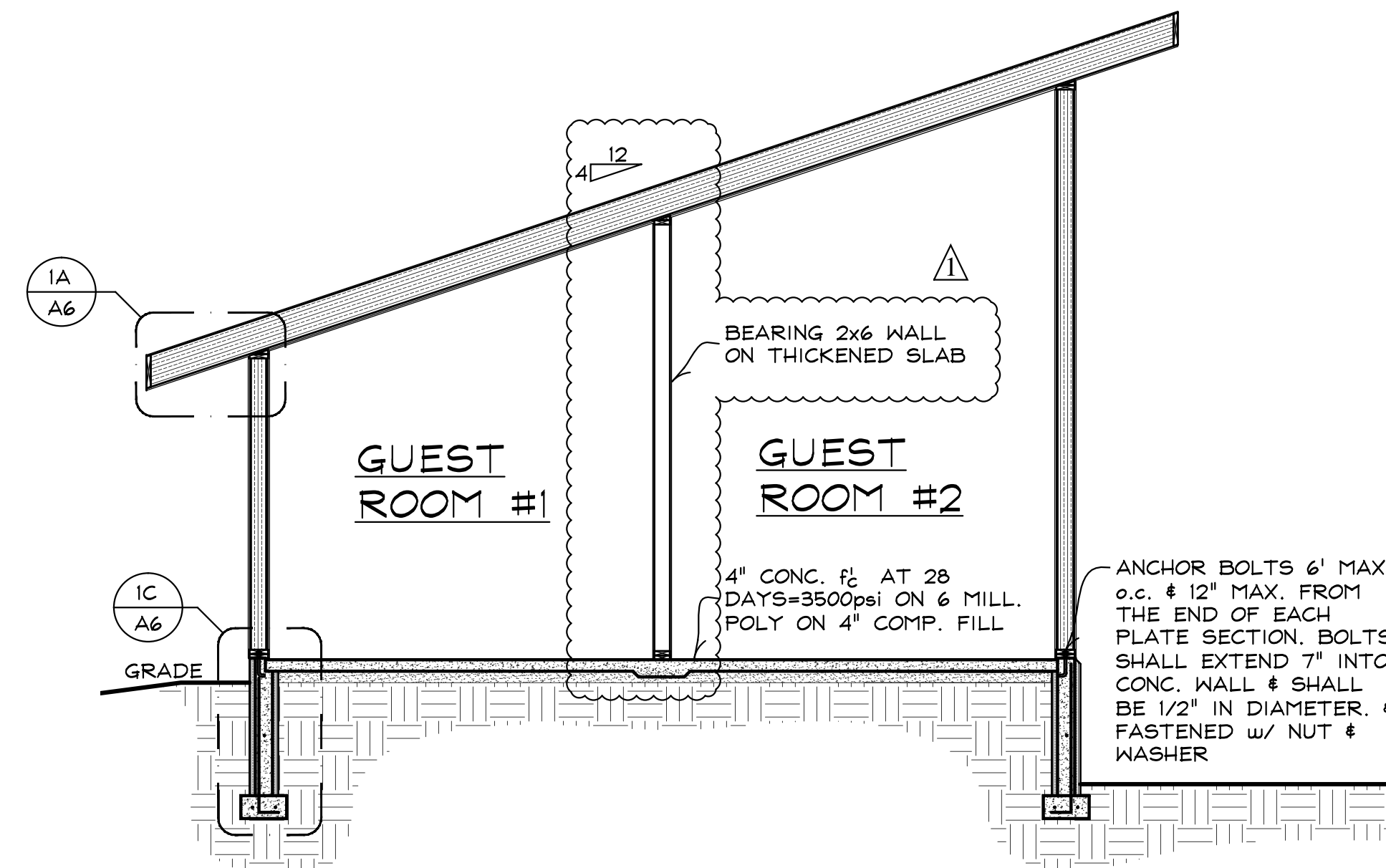
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Page Description: Elevations

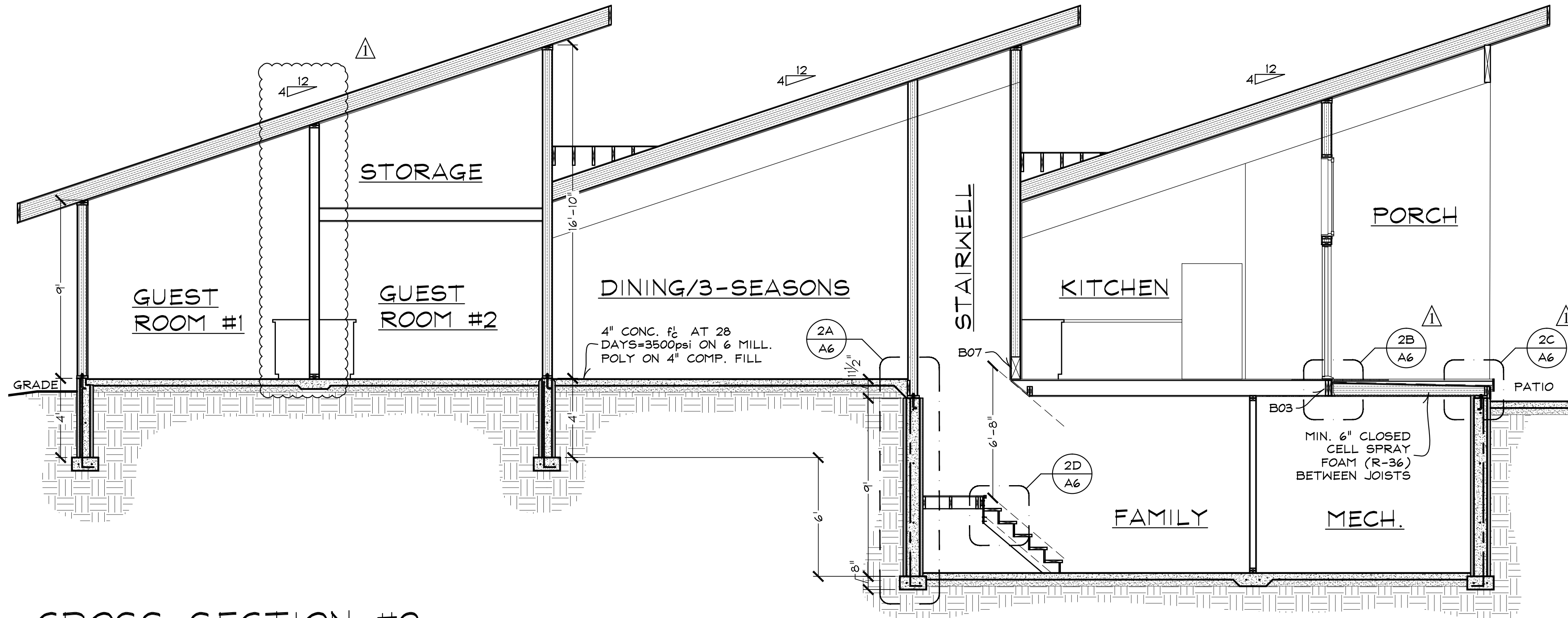


NOTES:  
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 2. ALL BUILDING COMPONENTS USED IN CONJUNCTION WITH THIS DETAIL SHALL BE IN COMPLIANCE WITH LOCAL CODE REQUIREMENTS.

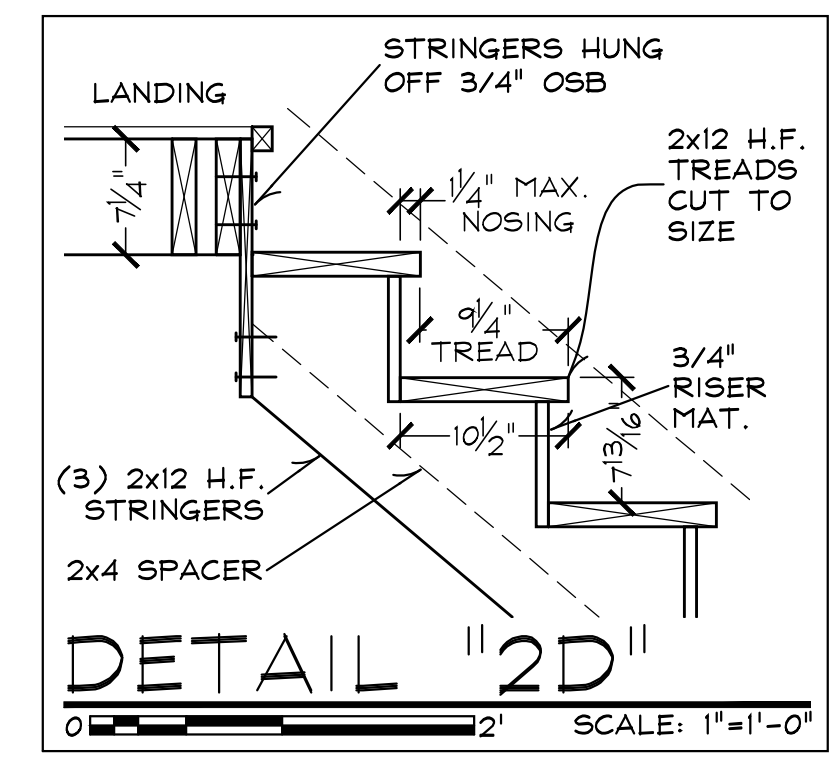
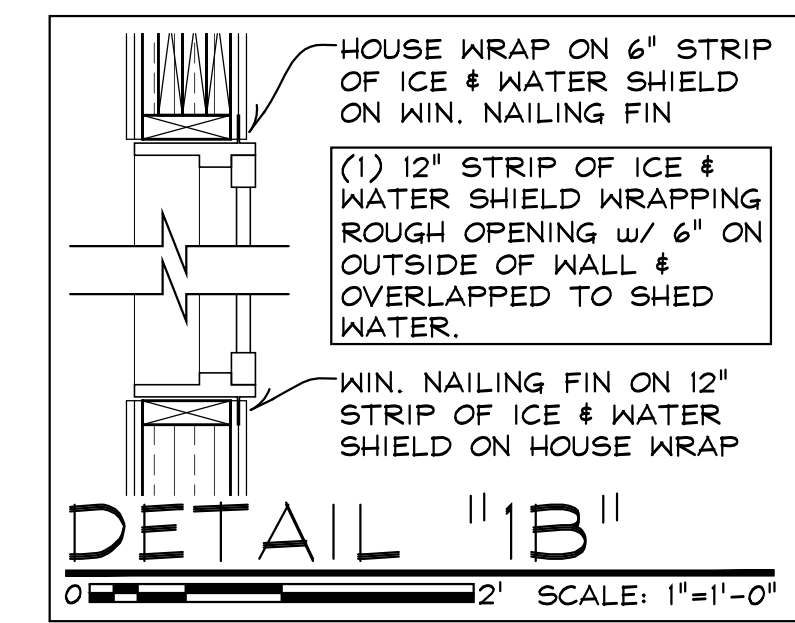
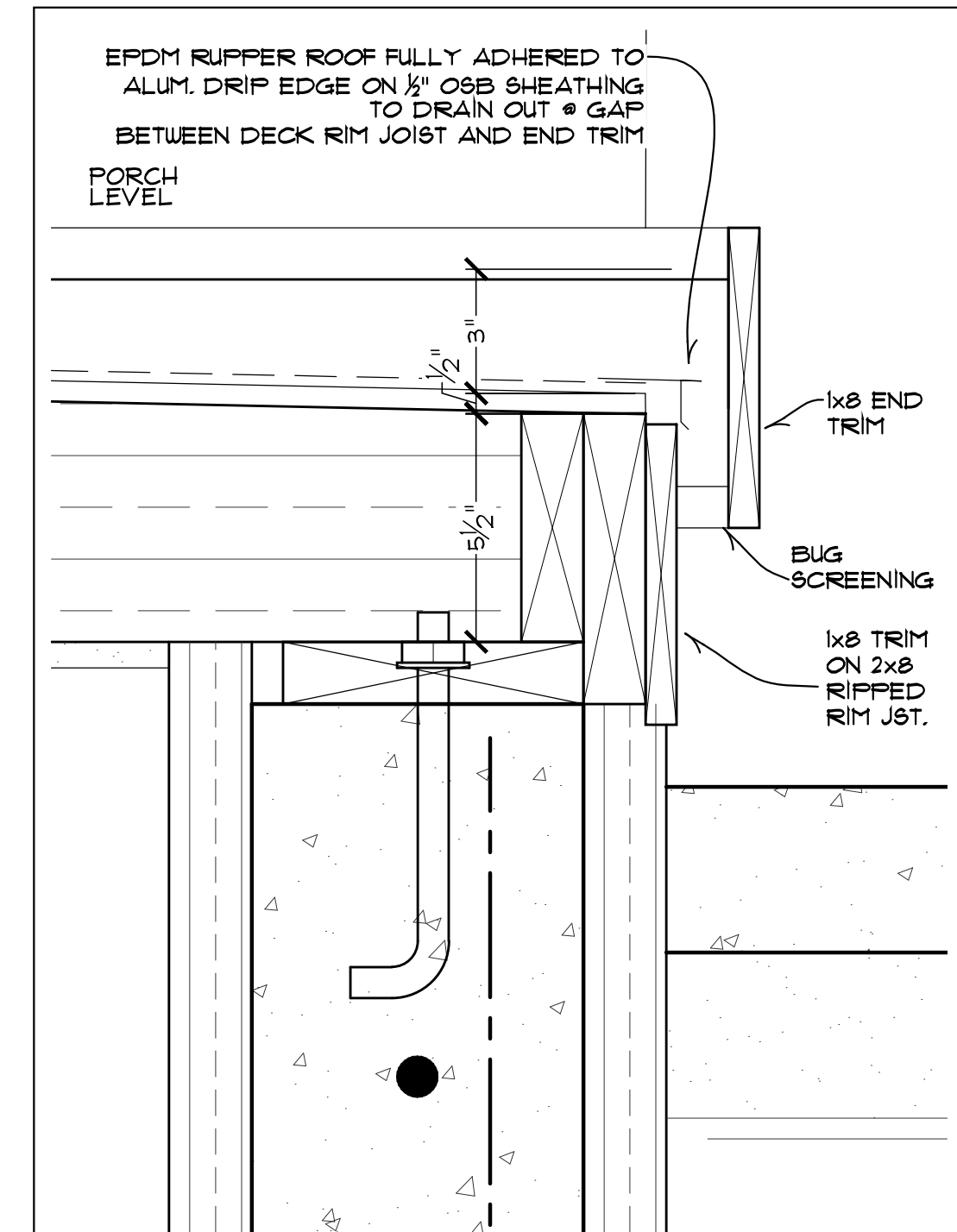
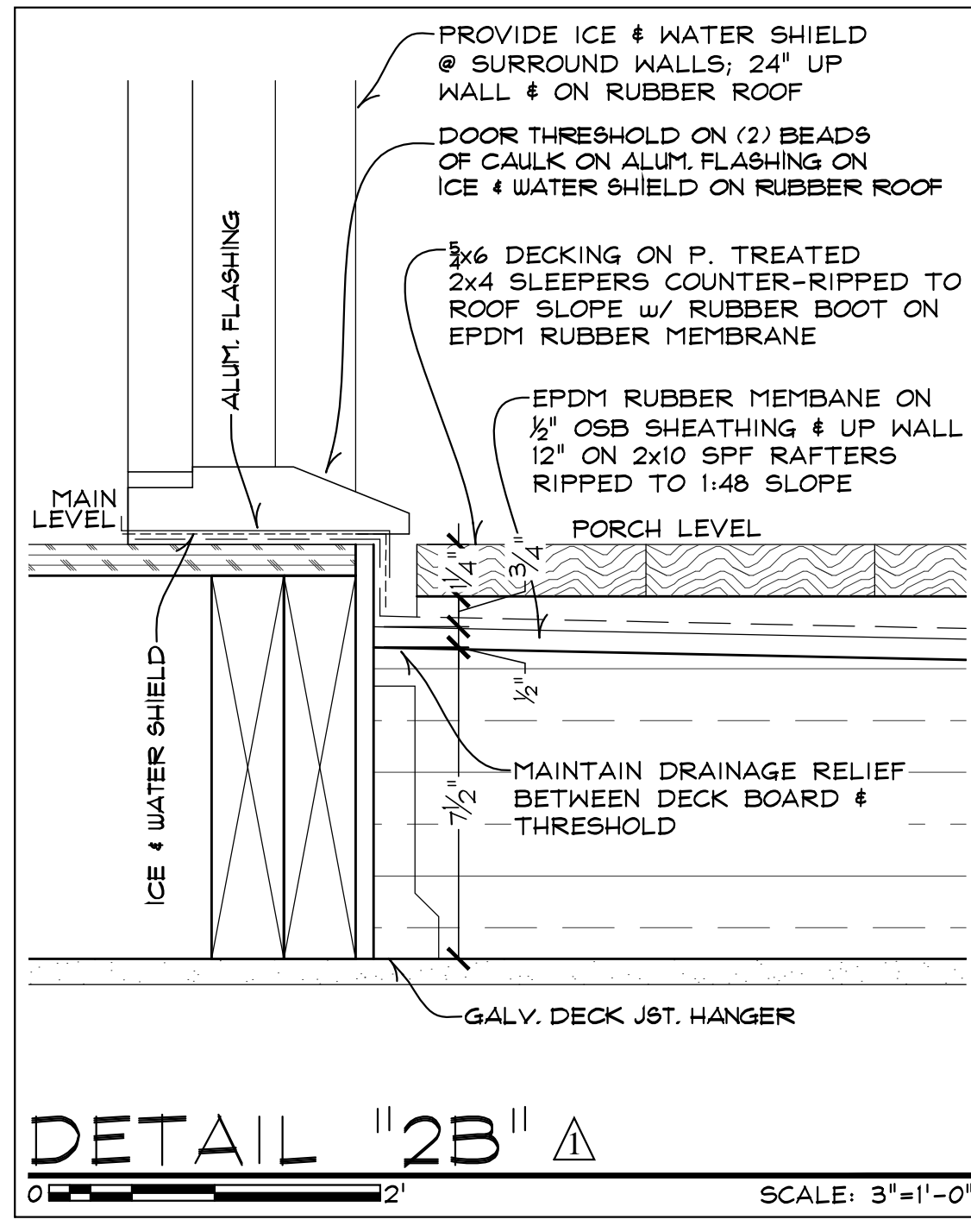


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CROSS SECTION #1



CROSS SECTION #2



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