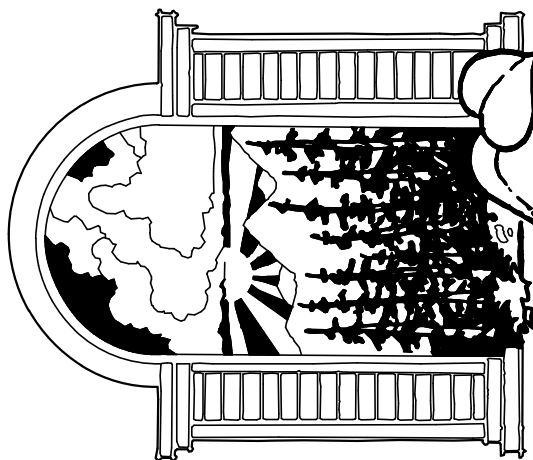


GENERAL STRUCTURAL NOTES

1. LIVE LOADS USED IN DESIGN:  
A. ROOF.....100 PSF.  
B. WIND.....I.R.C. 115 MPH - EXPOSURE B. (ASD DESIGN)  
C. FLOORS.....TO PSF
2. FOUNDATIONS:  
A. SOIL DATA WAS TAKEN FROM RECOMMENDATIONS SET FORTH IN THE REPORT FOR JOB NO. 20-11733 BY NACC DATED SEPTEMBER 24, 2020  
B. MAX. SOIL BEARING PRESSURE USED IN DESIGN.....3500 PSF.  
C. MIN. DEAD LOAD PRESSURE MAINTAINED IN DESIGN.....100 PSF.  
D. ACTIVE EARTH PRESSURE (NATIVE MATERIAL).....60 PCF.  
E. PASSIVE EARTH PRESSURE.....250 PCF.  
F. COEFFICIENT OF FRICTION.....0.40
3. CONCRETE:  
A. ALL CONCRETE FOR SLABS SHALL BE MADE WITH A MINIMUM OF 6000 PSI OF COMPRESSIVE STRENGTH IN 28 DAYS, UNLESS OTHERWISE NOTED. ALL CONCRETE FOR WALLS AND FOOTINGS SHALL DEVELOP 3000 PSI COMPRESSIVE STRENGTH IN 28 DAYS. EXPOSED CONCRETE SHALL HAVE ±5% ENTRAPPED AIR CONTENT AND SHALL BE PLACED WITH 4" MAXIMUM SLUMP. MAXIMUM WATER TO CEMENTITIOUS MATERIAL RATIO SHALL BE 0.45 FOR SLABS.  
B. CONCRETE SHALL NOT BE PLACED ON FROZEN, MUDDY, OR SATURATED SOIL AND SHALL BE PROTECTED FROM FREEZING FOR 7 DAYS.  
C. SLABS AND WALLS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE. ANY STOP IN CONCRETE WORK SHALL BE MADE WITH VERTICAL BULKHEADS. KEYS AND DOUELS, UNLESS OTHERWISE SHOWN. CONSTRUCTION JOINTS SHALL BE AS DETAILED OR AS APPROVED BY THE ENGINEER.  
D. ANCHOR BOLTS, EXPANSION ANCHORS FOR SILL PLATES AND LEDGERS SHALL EXTEND THE DISTANCE REQUIRED TO BOLT. WOOD MEMBERS SHOWN WITHOUT COUNTERSINKING. EXPANSION ANCHORS SHALL BE "WEJ-IT", HILTI "KWIK BOLT" OR APPROVED EQUAL.
4. REINFORCING STEEL:  
A. ALL REINFORCING BARS SHALL BE ASTM A615-GRADE 60, EXCEPT COLUMN TIES, AND BEAM STIRRUPS WHICH SHALL BE ASTM A615-GRADE 40. WELDED WIRE FABRIC (WWF) SHALL BE ASTM A185.  
B. CONCRETE PROTECTION FOR REINFORCEMENT: (UNLESS NOTED OTHERWISE)  
1. CONCRETE POURED AGAINST EARTH.....3"  
2. CONCRETE POURED IN FORMS & EXPOSED TO WEATHER OR EARTH.....1 1/2"  
C. LAP SPLICES SHALL BE A MINIMUM OF 36 BAR DIAMETERS. TOP BARS TO BE SPLICED AT MID-SPAN, BOTTOM BARS TO BE SPLICED OVER SUPPORTS. WIRE SECURELY TOGETHER AT SPLICES AND INTERSECTIONS. NO WELDING TO REINFORCING BARS WILL BE PERMITTED. WELDED WIRE FABRIC SHALL LAP ONE FULL MESH, BUT NOT LESS THAN 6" AND WIRED TOGETHER.  
D. PROVIDE CORNER BARS OF EQUAL SIZE AND SPACING AS HORIZONTAL BARS.  
E. PROVIDE ALL ADDITIONAL REINFORCING AND OTHER ACCESSORIES NECESSARY TO SUPPORT MAIN REINFORCING AT THE POSITIONS INDICATED.  
F. DETAIL AND FABRICATE BARS IN ACCORDANCE WITH THE LATEST EDITION OF THE ACI DETAILING MANUAL AND ACI BUILDING CODE REQUIREMENTS....  
G. PLACE 1-#4 BAR, EACH FACE, WITH 2'-0" PROJECTION AROUND ALL OPENINGS.
5. TIMBER:  
A. SAWN LUMBER FOR STRUCTURAL FRAMING SHALL BE VISUALLY STRESS-GRADED, DRIED, DOUGLAS FIR/LARCH, CONFORMING TO "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION..." BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.  
1. ALL 2X\_ AND 4X\_ MEMBERS SHALL BE STRESS GRADED "NO.2"  
2. ALL 6X\_ AND WIDER MEMBERS SHALL BE STRESS GRADED "NO.2"  
B. ALL LAMINATED MEMBERS SHALL BE FABRICATED USING WEST COAST DOUGLAS FIR, OR SOUTHERN PINE, USING WATERPROOF GLUE AND 2" NOMINAL LUMBER IN A "2X4" OR "2X6" STRESS COMBINATION. COLUMNS SHALL BE STRESS COMBINATION "5" OR BETTER.  
1. DETAIL AND FABRICATE MEMBERS ACCORDING TO AISC SPECS.  
2. LAMINATED MEMBER SIZES ARE THE FINISHED MEMBER SIZE. SEE THE ARCHITECTURAL SPECIFICATIONS FOR FINISH, APPEARANCE AND WRAPPING.  
C. ALL LAMINATED VENEER LUMBER MEMBERS ARE DENOTED "LVL" ON THE DRAWINGS AND SHALL BE STANDARD SIZES AS FABRICATED BY THE TRUS-JOIST CORP. OTHER LAMINATED VENEER LUMBER MEMBERS OF EQUAL SIZE AND STRENGTH MAY BE SUBSTITUTED FOR "LVL" MEMBERS.  
D. MANUFACTURED FLOOR JOIST:  
1. FABRICATED MEMBERS CALLED FOR ON THE DRAWINGS SHALL BE USED TO SET THE SIZE AND CAPACITY DESIRED. SIMILAR MEMBERS BY OTHER MANUFACTURERS MAY BE SUBSTITUTED, PROVIDED THAT THE PROPOSED SUBSTITUTION HAS EQUAL LOAD CAPACITY AND IGC APPROVAL.  
2. SHOP FABRICATED JOIST SHALL BE "I" TYPE MEMBERS FABRICATED FROM SOLID WOOD OR LAMINATED CHORDS AND PLYWOOD WEBS. BLOCKING AND BRIDGING SHALL BE IDENTICAL TO REQUIREMENTS FOR CONVENTIONAL FRAMING ACCORDING TO THE I.R.C.  
E. ROOF, FLOOR AND WALL SHEATHING SHALL BE DFPA GRADE-TRADEMARKED "C-D EXTERIOR" AND SHALL CONFORM TO A.P.A. STANDARDS.  
1. ROOF AND FLOOR PANELS SHALL BE PLACED WITH THE 8'-0" DIMENSION PERPENDICULAR TO FRAMING WITH END JOINTS STAGGERED. FLOOR PANELS SHALL BE TONGUE AND GROOVED, GLUED AND NAILED TO SUPPORTS.  
2. WALL PANELS MAY BE PLACED EITHER VERTICALLY OR WITH ALL HORIZONTAL JOINTS BLOCKED AND "EDGE" NAILED.  
3. EXPLANATION OF NAILING NOTE: (5/8" PLYWOOD WITH 8d @ 6" & 12") MEANS 5/8" SHEATHING SHALL BE NAILED WITH 8 PENNY NAILS SPACED AT 6" ALONG EDGES AND 12" ALONG INTERMEDIATE MEMBERS.  
4. SPACING CALLED OUT IS FOR COMMON OR GALVANIZED BOX NAIL SIZE.  
5. ROOFS: 5/8" PLYWOOD WITH 10d @ 6" & 12".  
FLOORS: 3/4" PLYWOOD WITH 10d RING SHANK @ 6" & 10".  
WALLS: 1/2" PLYWOOD. SEE SHEAR WALL SCHEDULE.  
F. FASTEN ALL FRAMING WITH COMMON NAILS ACCORDING TO THE I.R.C. NAILING SCHEDULE, UNLESS OTHERWISE NOTED OR DETAILED.  
G. TIMBER CONNECTORS CALLED FOR ON DRAWINGS ARE AS MANUFACTURED BY THE SIMPSON COMPANY. OTHER CONNECTORS MAY BE USED IF THE I.R.C. APPROVED LOAD CAPACITY IS EQUAL TO THE CONNECTOR SPECIFIED.  
H. PROVIDE SOLID BLOCKING BETWEEN JOIST AT SUPPORTS AND BLOCKING OR CROSS BRIDGING NOT OVER 8'-0" ON CENTER FOR ALL JOIST AND RAFTERS.  
1. ALL SOLID WOOD COLUMNS CALLED FOR ON THE DRAWING SHALL BE CONTINUOUS THROUGH FRAMING AND SHALL BEAR DIRECTLY ON ANOTHER COLUMN OR BEAM OR FOUNDATION BELOW. USE STEEL CONNECTORS CALLED FOR ON THE DRAWINGS.  
J. MULTIPLE STUDS CALLED FOR ON THE PLANS MAY BEAR ON THE WALL PLATE IF FULL WIDTH SOLID BLOCKING IS PROVIDED THROUGH FRAMING SYSTEM. HEADERS AND/OR BEAMS SHALL BEAR FULLY ON ALL STUDS CALLED FOR. CRIPPLE STUDS ARE ADDITIONAL. IF SILL PLATES ON CONCRETE ARE NOT DOUG-FIR, PROVIDE ANOTHER DOUG-FIR PLATE ON SILL PLATE.
6. METALS  
A. ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO ASTM A992. STEEL ANGLES AND PLATES SHALL CONFORM TO ASTM A36. ALL TUBE SHAPES SHALL CONFORM TO ASTM A500, GRADE B. ALL STANDARD BOLTS AND ANCHOR BOLTS SHALL CONFORM TO ASTM A307. ALL WELDING SHALL BE DONE USING E70C ELECTRODES.  
B. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED ACCORDING TO THE LATEST PROVISIONS OF THE AISC MANUAL OF STEEL CONSTRUCTION.  
C. SEE ARCHITECTURAL DRAWINGS FOR NAILER HOLES & OTHER REQUIREMENTS.  
D. PROVIDE ALL NECESSARY TEMPORARY BRACING TO HOLD STEEL FRAMING IN POSITION UNTIL PROPERLY CONNECTED TO ADJACENT FRAMING OR UNTIL THE FRAME IS OTHERWISE SELF SUPPORTING.  
E. NO SPECIAL FIELD INSPECTIONS FOR WELDING IS REQUIRED IF WELDING IS DONE BY CERTIFIED WELDERS.  
F. NON-SHRINK GROUT UNDER COLUMN AND BEAM BEARING PLATES SHALL DEVELOP 4500 PSI COMPRESSIVE STRENGTH IN 28 DAYS.  
7. ARCHITECT'S/ENGINEER'S APPROVAL MUST BE SECURED FOR ALL SUBSTITUTIONS.  
8. ALL STRUCTURAL DIMENSIONS SHALL BE CHECKED WITH ARCHITECT'S.  
9. THESE DRAWINGS DO NOT INCLUDE PROVISIONS FOR JOB SAFETY. JOB SITE SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR.

PREScriptive PATH METHOD TO BE USED FOR I.E.C.C. COMPLIANCE:

INTERNATIONAL ENERGY CONSERVATION CODE COMPLIANCE (2018)
I.E.C.C. CLIMATE ZONE: 7, DRY
FENESTRATION U FACTOR: .30 OR LESS. CEILING R VALUE: 49 MINIMUM. WOOD FRAME WALL R VALUE: 20+5 OR 13+10 OR 27+0 (*SEE NOTES) FLOOR R VALUE: 38 (*SEE NOTES) BASEMENT WALL R VALUE: 15 (CONTINUOUS) OR 19 (CAVITY) SLAB R VALUE: 10 (FROST DEPTH: 4 FEET) CRAWL SPACE R VALUE: 15 (CONTINUOUS) OR R19 (CAVITY)
*NOTES: -SUPPLY AND RETURN DUCTS SHALL BE INSULATED WITH R8 MINIMUM. MECHANICAL CONTRACTOR SHALL INSTALL DUCTS AND DEVICES PER I.E.C.C. SECTION 403. SEE ALSO, DIVISION 10 ABOVE. HVAC CONTRACTOR MUST SUBMIT HEAT LOAD CALCULATIONS PRIOR TO PERMIT. -WOOD FRAME WALL: NUMBER INDICATES CAVITY INSULATION + CONTINUOUS INSULATION R VALUE, THEREFOR 20+5 INDICATES R20 CAVITY +R5 CONTINUOUS. -FLOOR R VALUE: ALTERNATIVELY, INSULATION SUFFICIENT TO FILL THE FRAMING CAVITY AND PROVIDING NOT LESS THAN AN R-VALUE OF R-19.

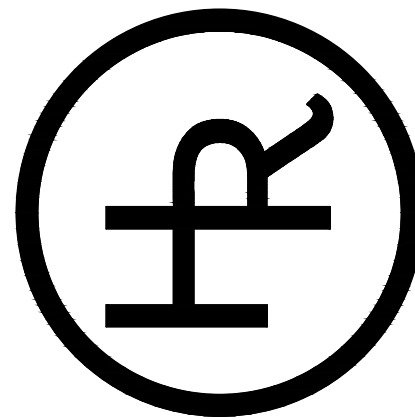


JOE PATRICK  
ROBBINS  
ARCHITECT  
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COLORADO 80477

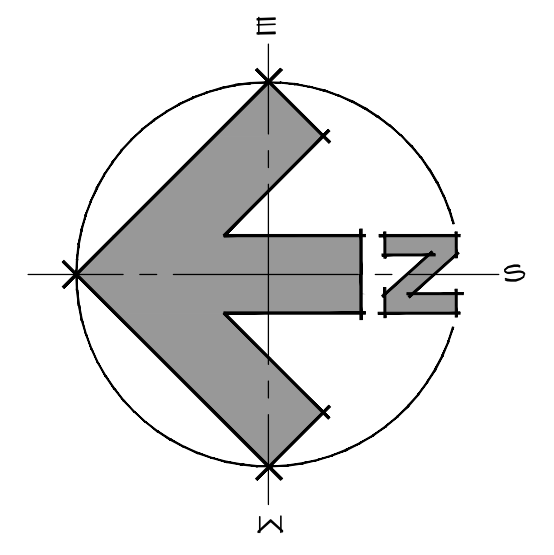
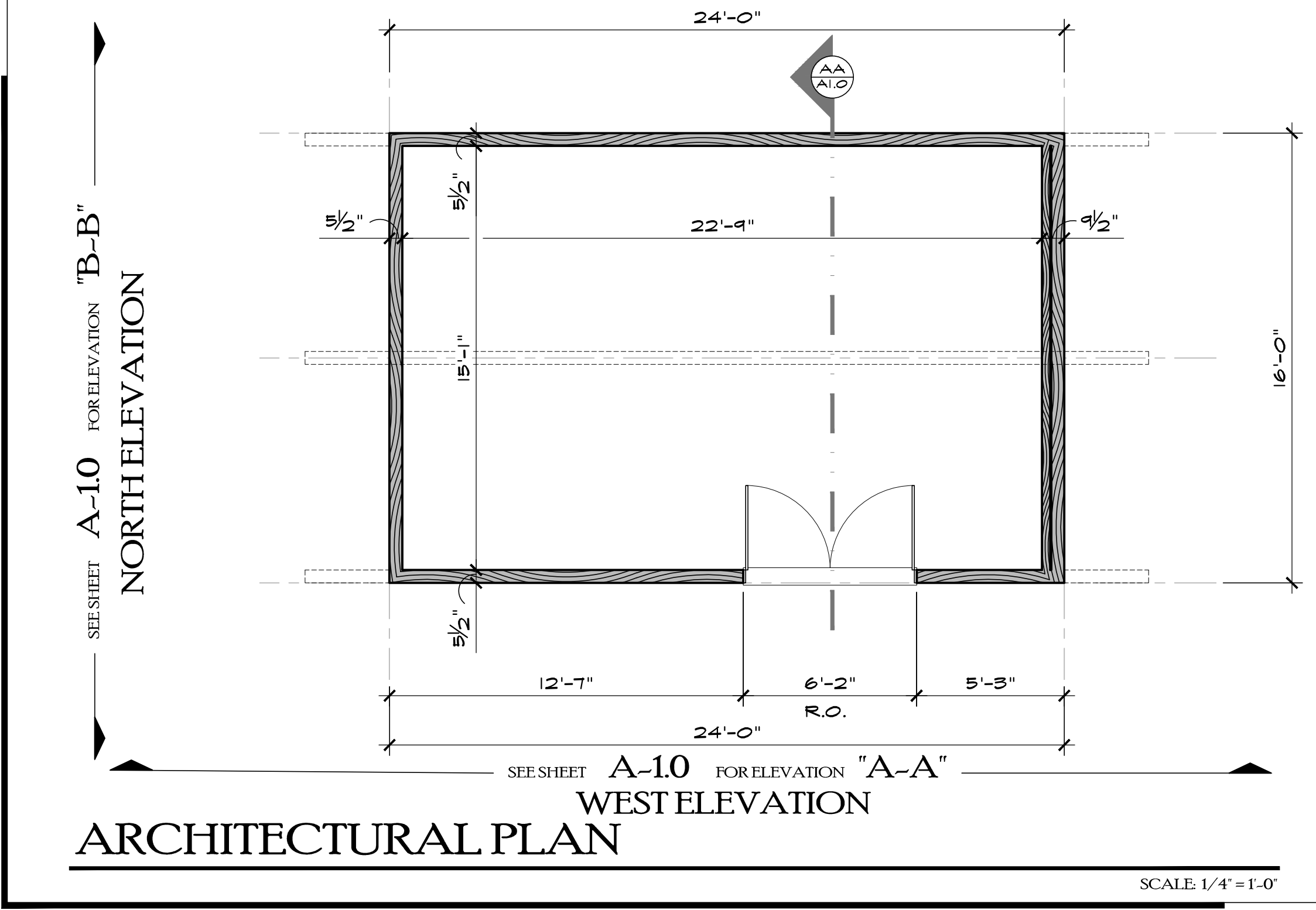
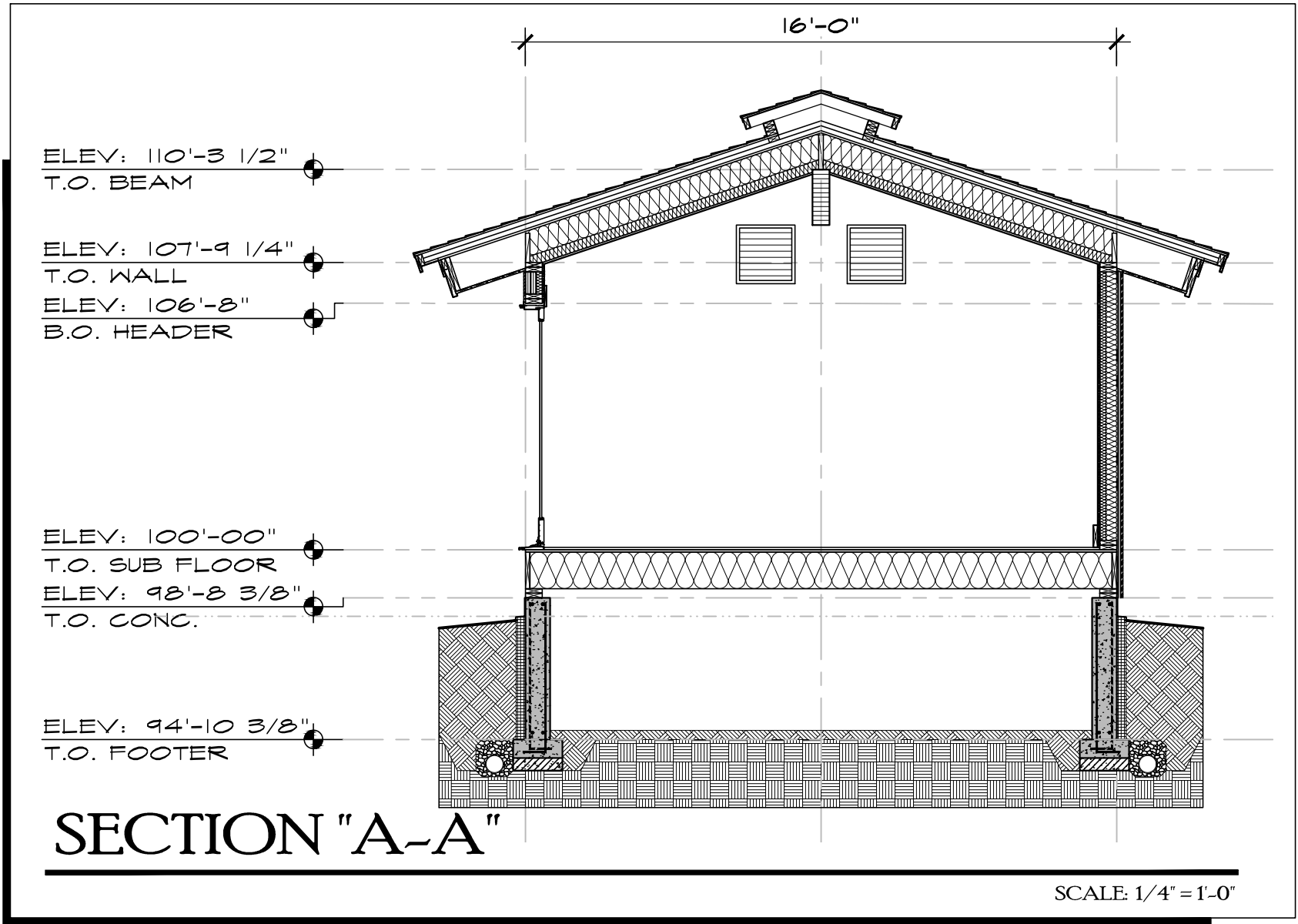
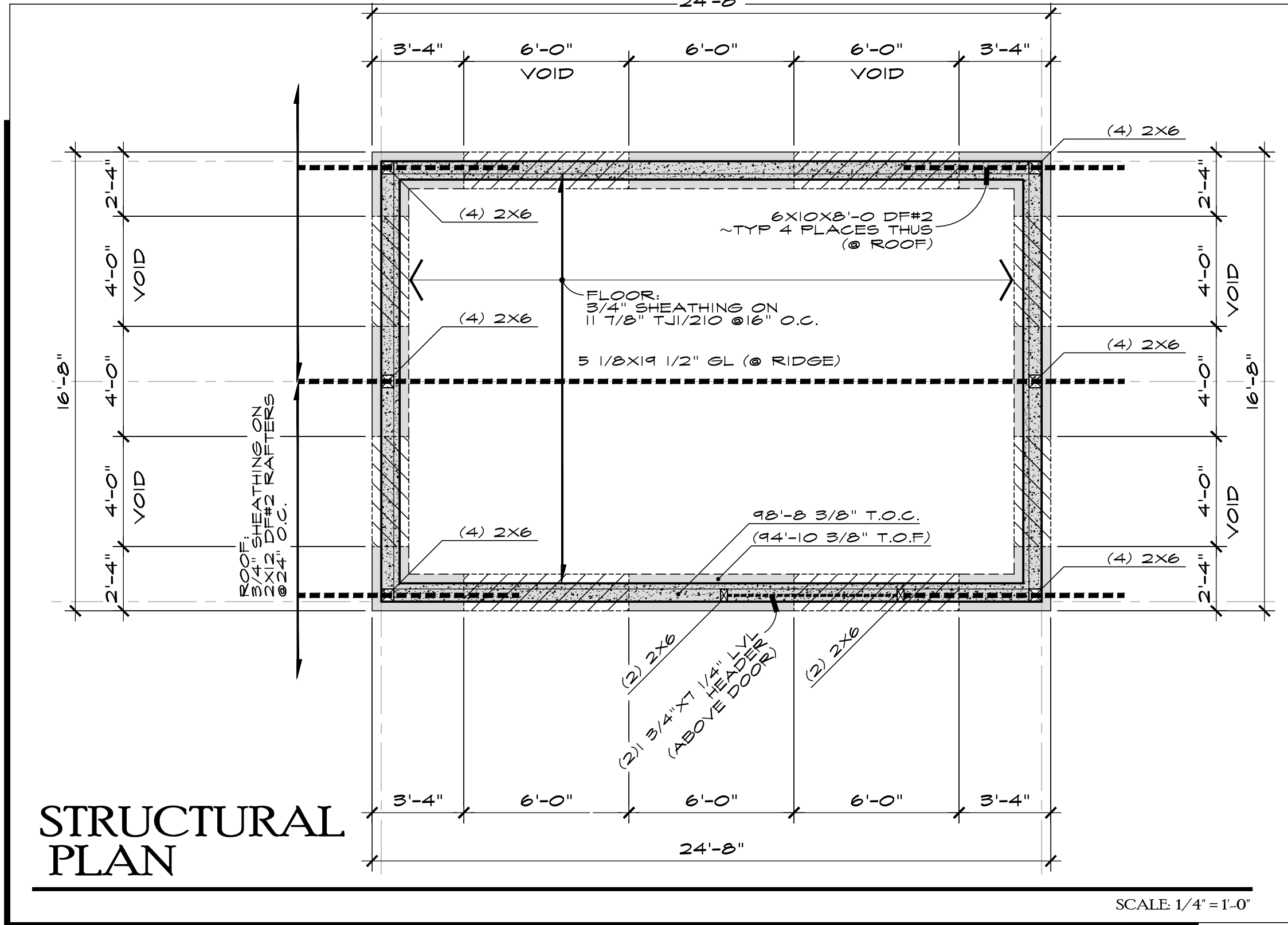
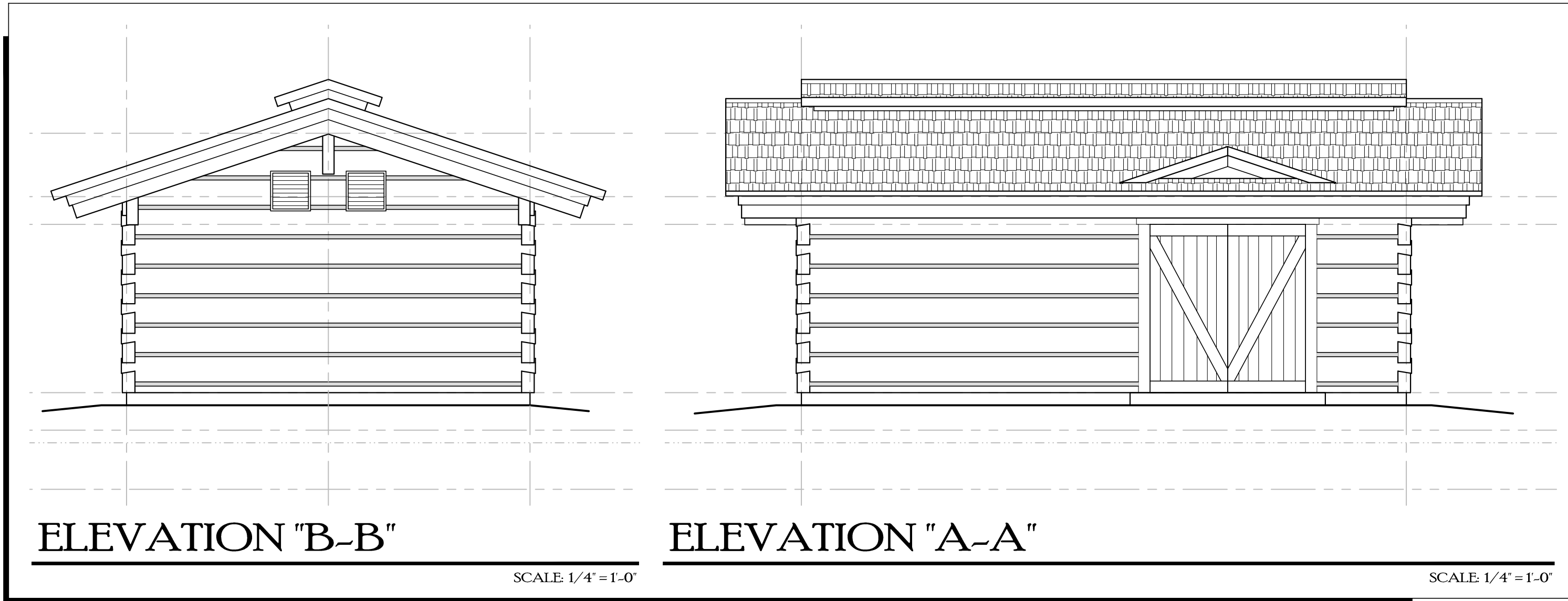
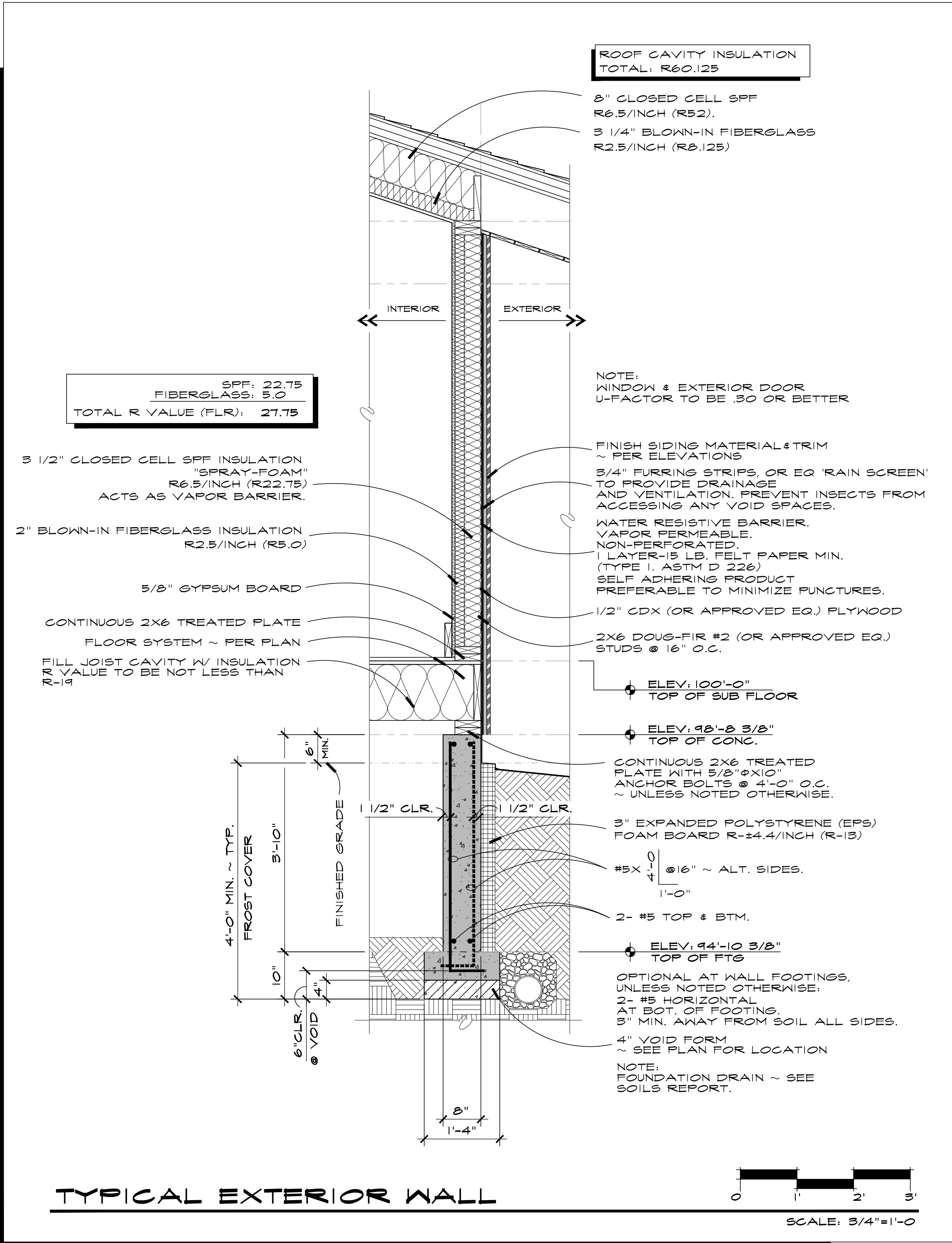
DWN BY:  
BWR  
CONCEPT DESIGN:  
10/04/2023  
12/07/2023  
PERMIT ISSUE:  
12/19/2023

A NEW PLAN FOR THE  
HOMERANCH  
27315 HOMERANCH ROAD  
ROUTT COUNTY, COLORADO

WATER TREATMENT  
FACILITY



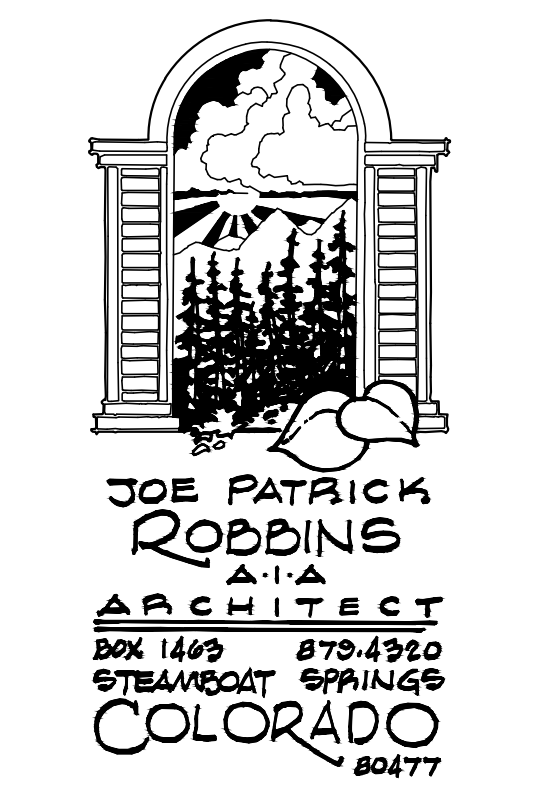
MARK	DESCRIPTION
①	INCLUDES EXTERIOR WALLS NOT OTHERWISE NOTED. 1/2" SHEATHING NAILED WITH 8d @ 6" AND 12". SOLE PLATE NAILED WITH 16d BOX @ 6". 5/8"φx10" ANCHOR BOLTS @ 4'-0".
②	1/2" SHEATHING NAILED WITH 8d @ 4" AND 12". SOLE PLATE NAILED WITH 16d BOX @ 4". 5/8"φx10" ANCHOR BOLTS @ 3'-0" O.C.
③	1/2" SHEATHING EA. SIDE NAILED WITH 8d @ 4" AND 12". STAGGER PANEL JOINTS. 1/2" SIDE OF WALL. SOLE PLATE NAILED WITH 16d BOX @ 5". 5/8"φx10" ANCHOR BOLTS @ 1'-4" O.C.
SHEAR WALL NOTES: 1. SEE GENERAL NOTE 5.E. ON THIS SHEET FOR OTHER REQUIREMENTS. 2. SEE PLAN FOR COLUMNS AND HOLDDOWN REQUIRED IN SHEAR WALLS. ANCHOR BOLT AT HOLDDOWN SHALL BE 7/8"φ A307 ANCHOR BOLT EMBEDDED A MINIMUM OF 8" USING THE SIMPSON SET ANCHORING SYSTEM. HOLD DOWN SHALL BE "HDB" UNLESS OTHERWISE NOTED.	



0 1' 2' 4' 8'

DWN BY:  
BWR

CONCEPT DESIGN:  
10/04/2023  
12/07/2023  
PERMIT ISSUE:  
12/19/2023



A NEW PLAN FOR THE  
**HOME RANCH**  
WATER  
TREATMENT  
27315  
HOME RANCH ROAD  
ROUTT COUNTY  
COLORADO  
SHEET NUMBER  
**A-1.0**