

GENERAL NOTES

This plan was designed and drafted BY Advanced House Plans to meet average conditions and codes in the State of Nebraska at the time it was designed. Because codes and requirements can change and may vary from jurisdiction to jurisdiction, AHP cannot warrant compliance with any specific code or regulation. Consult your local building official to determine the suitability of these plans for your specific site and application. This plan can be adapted to your local building codes and requirements, however, it is the responsibility of the purchaser and/or builder of this plan to see that the structure is built in strict compliance with all governing municipal codes (city, county, state and federal). The purchaser and/or builder of this plan releases the designer from any claims or lawsuits that may arise during the construction of this structure or anytime thereafter.

* If the contractor or sub-contractor, in the course of their work finds any discrepancies between the plan and the physical conditions of the site or structure, or any errors in the plans or specifications, it shall be their responsibility to immediately inform AHP, who will promptly verify and if necessary correct the working drawings. Any work done after such discovery will be done at the contractor's expense.

* Only the purchaser of this plan has permission to build this plan. The purchaser is given permission to reproduce the drawings only as required for such construction. The purchaser also has permission to modify this plan. No permission is given to any party to claim copyright on the original or modified plan. The modified plans shall remain subject to the license and may not be sold, distributed or otherwise transferred without the express written consent of Advanced House Plans. Infringing upon Advanced House Plans' copyright through reproduction, distribution, construction, or redrawing & design is punishable by law with fine up to \$150,000 as defined by architectural copyright laws.

DESIGN LOADS:

* Ultimate design wind speed: 115 mph, Exposure Category: B

* Seismic Design Category A

* Floor: 40 psf. live 30 psf. live Ceiling: 15 psf. dead 10 psf. dead 5 psf. dead

* Soil bearing Capacity – 1500 psf.

* Live loads, dead loads, wind loads, snow loads, lateral loads, seismic zoning and any specialty loading conditions will need to be confirmed before construction and adjustments to plans made accordingly. See your local building officials for verification of your specific load data, zoning restrictions and site conditions.

CONCRETE AND FOUNDATIONS:

- * All foundation walls and slabs on grade shall be 3000 PSI (28-day compressive strength concrete), unless noted otherwise.
- * All interior slabs on grade shall bear on 4" compacted granular fill with 6 mil. polyethylene vapor barrier underneath.
- * Provide proper expansion and control joints as per local requirements.
- * All 36" x 36" x 18" concrete pads to have (3) #5 rods each way.
- * All 48" x 48" x 24" concrete pads to have (4) #5 rods each way.
- * Foundation walls are not to be backfilled until properly braced.
- * Verify depth of frost footings with your local codes.
- * Provide termite protection as required by HUD minimum property standards.
- * Foundation bolts must be anchored to sill plate with 5/8" bolts embedded 15" in concrete walls.
- * For window openings in conc. wall, provide #5 bars @4" o.c. (two total) w/1/2" clearance from top & sides of opa. for jamb & lintel reinforcing. Extend reinforcing a minimum of 2' past opening edges.

STEEL:

- * All structural steel for beams and plates shall comply with ASTM specification A-36.
- * All structural steel for steel columns shall comply with ASTM specification A-53 Grade B or A-501.
- * All reinforcing steel for concrete shall comply with ASTM specification A-615 Grade 60.
- * Provide steel shims in all beam pockets.
- * Steel columns are to be 3" I.D. (inside diameter) unless noted otherwise.

FRAMING MEMBERS:

- * Unless noted otherwise, all framing lumber shall have the following characteristics:
 - Fb = 1,000 psi Fv = 75 psi E = 1,400,000 psi
- * Contractor to confirm the size, spacing and stress characteristics of all framing and structural members to meet your local code requirements.
- * Wall bracing method assumed as CS-WSP. Since braced wall line spacing and braced wall panel calculations vary by location, purchaser will need to consult a local professional for specific wall bracing calculations and diagrams.
- * Hole sizes and locations in Glulam or Laminated Veneered Lumber (LVL) members are to be confirmed by a professional engineer.
- * Any structural or framing members not indicated on the plan are to be sized by contractor.
- * Double floor joists under all partition walls, unless noted otherwise.
- * All subflooring is assumed to be 3/4" thick, glued & nailed.
- * All exterior walls are dimensioned to outside of 1/2" sheathing
- * Calculated dimensions take precedence over scaled dimensions.
- * All angled walls on floor plans are at 45 degree angle, unless otherwise noted.
- * Laterally unsupported walls 12'-0" high or higher shall be 2x6 and balloon framed unless noted otherwise.
- * Unless noted otherwise, above all openings that are:
 - (1) Load bearing and less than or equal to 3 ft. use 4x6
 - (2) Load bearing and more than 3 ft. use (2) 2x12 with 1/2" Plywood between.
 - (3) Non-load bearing and less than or equal to 6 ft. use 4x6
 - (4) Non-load bearing and more than 6 ft. use (2) 2x12 with 1/2" Plywood between.
 - (5) All exterior openings use (2) 2x12 with 1/2" Plywood between.
- * All trusses to be engineered by truss manufacturer according to the loading indicated on this plan.
- * All exterior corners shall be braced in each direction with let-in diagonal bracing or plywood.
- * Place (1) row of 1" x 3" cross-bridging on all spans over 8'-0" and (2) rows of 1" x 3" cross-bridging on all spans over 16'-0".
- * Collar ties are to be spaced 4'-0" o.c.
- * All purlins and kickers are to be 2x6s, unless noted otherwise.
- * Any hip or valley rafters over a 28'-0" span are to be Laminated Veneer Lumber (LVL).

MISC. NOTES:

- * Prefabricated fireplaces and flues are to be U.L. approved and installed as per manufacturer's specifications.
- * All materials, supplies and equipment to be installed as per manufacturer's specifications and per local codes and requirements.
- * Provide proper insulation for all plumbing.
- * 1/2" water-resistant drywall around showers, tubs and whirlpools.
- * 1/2" drywall on interior walls and ceilings.
- * 5/8" type 'X' fire code drywall on garage walls and ceilings.
- * When no brand is specified Windows are called out by glass size only.
- * In dwelling units, where the top of the sill of an operable window opening unit is located less than 24 inches above the finished floor and greater than 72 inches above the finished grade, fall protection must comply with R312.2.1
- * Window opening control devices on windows serving as a required emergency escape and rescue shall comply with ASTM F2090.
- * Windows, if not noted, are assumed to be casements.
- * Window header heights are 6'-8" unless noted otherwise.
- * Header heights are labeled to bottom of arched transoms.
- * Confirm window openings for your local egress requirements and minimum light and ventilation requirements.
- * Headroom at stairs shall have a minimum clearance of 6'-8" high.
- * Provide proper handrails at stairs per local codes.
- * The mechanical and electrical layouts are suggested only. Consult your mechanical and electrical contractors for exact specifications, locations and sizes.
- * Jog flue to rear of ridge as necessary.
- * Provide proper wiring for all electrical appliances, mechanical equipment and whirlpools per manufacturer's specifications.
- * Air conditioner locations may vary depending on restrictive covenants and codes.

Stillwater

SCAN TO CONNECT WITH
ADVANCED HOUSE PLANS



SCAN TO RECEIVE
OUR LATEST DESIGNS



SCAN TO VISIT
OUR WEBSITE



PRELIM
FINAL
6/15/2023
REVISION

40 Bealy Farm Rd
Zebulon NC 2759



ADVANCED DESIGNS INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM LOCATED IN OMAHA, NE. BECAUSE SITE CONDITIONS VARY, ADVANCED DESIGNS INC. CANNOT BE RESPONSIBLE FOR THE ACCURACY OF ANY OF YOUR SPECIFIC SITE CONSTRUCTION FROM THESE PLANS. SHOULD NOT BE UNDERTAKEN WITHOUT THE ASSISTANCE OF A CONSTRUCTION PROFESSIONAL. DIMENSIONS, MATERIALS, STRUCTURAL CODE & SITE REQUIREMENTS PRIOR TO CONSTRUCTION. ADVANCED DESIGNS INC. ASSUMES NO LIABILITY FOR ANY LAWSUITS THAT MAY OCCUR DURING OR AFTER THE BUILDING PROCESS.

© 2023

30086

SHEET

08 1



PRELIM
FINAL
6/15/2023
REVISION

40 Bealy Farm Rd
Zebulon NC 2759



advancedhouseplans
www.advancedhouseplans.com
844.678.9838

ADVANCED DESIGNS INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM
LOCATION: OMAHA, NE. BECAUSE SITE CONDITIONS VARY, ADVANCED DESIGNS INC. CANNOT BE
YOUR SPECIFIC SITE. CONSTRUCTION FROM THESE PLANS SHOULD NOT BE
BASED ON THE ASSUMPTION THAT THE PLANS ARE A REPRESENTATION OF AN
HOMESITE/CONTRACTOR MUST THOROUGHLY REVIEW & VERIFY ALL
DIMENSIONS, MATERIALS, STRIPS, CLIMATIC, & SITE REQUIREMENTS PRIOR TO
CONSTRUCTION. ADVANCED DESIGNS INC. CANNOT BE RESPONSIBLE FOR ANY
LAWSUITS THAT MAY OCCUR DURING OR AFTER THE BUILDING PROCESS.

© 2026

30086

SHEET
2
of
8

100% SCALE @ 3/8"=1'-0"

The purchaser of these plans is given the limited license to reproduce these plans for construction purposes only and further distribution is illegal. Do not scale prints — see dimensions.

GENERAL NOTES

RESIDENTIAL STANDARD NOTES

DESIGN LOADS:

- Design loads are all dead loads plus:
 - Sleeping rooms..... 30 PSF
 - All other floors 40 PSF
 - Balconies 60 PSF
 - Attic floor live loading with the following:
 - Area accessible by stairs 30 PSF
 - Roof slopes > 3:12 20 PSF
 - Roof slopes < 3:12 10 PSF
 - Roof live load 20 PSF, or as required by code
 - Wind load 115 MPH, or as required by code
 - Snow load 20 PSF, or as required by code
- All designs are in accordance with the 2018 North Carolina Residential Code. Refer to the relevant Code for any additional information not covered in these notes or the designs.

RESIDENTIAL FOUNDATIONS:

- All continuous wall footings are 8" x 16" for one- and two-story houses and footings for three-story walls shall be 12" x 24" unless otherwise noted. Reinforcing is to be as noted on plans. Footings on original soil do not need rebar. Rebar is required on any compacted fill regardless of compaction.
- All interior piers are 8" x 16" CMU up to a maximum height of 32'. All piers over 32' high must be filled with Type S mortar. Maximum height for 8" x 16" filled pier is 6'-8". Piers larger than 8" x 16" are noted on plans and must be filled with Type S mortar. For one-story structures, pier caps are to be 4' solid masonry. For two-story structures, pier caps are to be 8' of solid masonry.
- Footings for 8" x 16" piers are 24" x 36" x 10' unless noted otherwise. Reinforcing is to be as noted on plans.
- Interior thickened slab footings which occur in basements and 'slab on grade' floors are 10' deep by 16" wide with 2-#4 reinforcing bars running continuously unless noted otherwise. Thickened footings are required under all bearing walls.
- All rebar splices shall be a minimum of 2'-0" unless otherwise noted.
- Shallow foundations are designed for an assumed soil bearing capacity of 2,000 psf. The contractor is responsible for notifying the Engineer of Record if any soils are found to be unsuitable for this bearing capacity. The contractor is responsible for obtaining soil testing to ensure that the bearing capacity of the soil meets or exceeds this value. All fill is to be compacted to 95% density as measured by the Standard Proctor Test (ASTM D-698).
- All soils and fill under floors and/or within or under buildings shall have preconstruction soil treatment for protection against termites. Certification of Compliance shall be issued to the Building Department by a licensed pest control company.
- All footing excavations shall be neat, straight, and level in the proper elevations to receive the concrete. Excessive variations in the dimensions of footings or slabs will not be permitted. Reinforcing steel and mesh shall be accurately placed and supported to maintain their position during the concrete pouring. Edge forms shall be used for concrete that will be exposed.
- All slab penetrations are to be the responsibility of the contractor. Penetrations interfering with reinforcing shall be approved by the Engineer of Record prior to the placement of concrete.
- Elevation differences between the bottom of adjacent footings shall be less than their horizontal distance less one foot. Differential heights between footings can become excessive usually where a pier footing in a crawlspace or garage footing is next to a basement wall footing.

SPECIAL FOUNDATION CONSIDERATIONS:

- Waffle slabs are self-supporting slabs reinforced according to details and do not require firm soil for support. Soil must only be capable of supporting concrete until it hardens and develops strength.
- Caisson foundations shall be a minimum of 12 diameter drilled unreinforced concrete caissons. Caissons shall extend to a minimum depth providing 5' penetrations into good original ground. Depth of drilling is limited to 15'. Therefore, no poor material more than 15' deep is suitable for a caisson foundation. A caisson cannot be used if water rises immediately into a drilled hole. Piles will have to be used in such cases.
- Treated wood piles with a minimum diameter of 6" and a minimum design load of six tons are used for all foundations with unsuitable soil deeper than 13' or with water in drilled caisson holes. Drive per North Carolina or South Carolina Code.
- Sizes and reinforcing for footing caps over caissons or piles shall be as shown on plans.
- Chimney footings are to be 12" larger than the chimney footprint by 12" thick.
- Foundation walls backfilled with dirt which support structural framing shall be constructed as follows:
 - For earth fill up to a maximum height of 4': Use 6" CMU or 8" brick with Bututhene membrane waterproofing on exterior. Footings are to be 8" x 16" or 8" x 24" as noted on the plan.
 - For earth fill 4' to a maximum height of 9': Use 8" x 24" footing with #4 at 16" vertical bars located 4" from non-dirt fill face, lap all splices 12" and use Duro-wall horizontal reinforcing every 8" in CMU joints. Install 1-#3 L-bar with 24" legs in every other joint horizontally at all corners, i.e., #3 corner bars at 16" o.c. vertically. Fill all open cells of CMU with either type S or M mortar or fill with 2,600 psi concrete. Install waterproof Bututhene membrane or equal.
 - In lieu of the preceding design, basement walls may be constructed in accordance with R404.1 of the Code. However, 24" x 24", #3 corner bars shall be installed at 16" o/c vertically regardless of the wall height.

ERECT ALL FRAMING BEFORE BACKFILLING.

- For retaining walls without framing see special designs on drawings.

FRAMING CONSTRUCTION — OTHER THAN ROOF:

- See Table R902.3(1) of the Code for a fastener schedule for structural members.
- Wood beams shall be supported by metal hangers of adequate capacity where framing into beams or ledgers. The allowable load capacity of the hanger shall be equal to or greater than the load specified on the plan. Where no load is specified, the lightest available hanger for the application is acceptable.
- Crawl girders and band with 4" curtain wall and pier construction shall be 2-2 x 10 Southern Yellow Pine #2 unless noted otherwise. Maximum clear spans are to be 4'-8" (6'-0" o/c spacing of piers).

To avoid objectionable cracking in finished hardwood floors over any girders, use the following procedure:

- Nailing
 - All floor joists must be toenailed to their support girders with a minimum of 3-8d nails at each end. Larger nails will split and render the toenail ineffective. No end nailing through the girder or band is permitted.
 - If dropped girders are used, end lap all joists and side nail each with a minimum of 3-16d nails at each end of each joint. Ledger strips should be spaced 3' apart and nailed with 3-16d nails at each joint end.
 - Nail multiple member built-up girders with two rows of 16d nails staggered at 32" o/c, 2" down from the top and 2" up from the bottom with 3-16d nails at each end of each piece in the joint through the members making up the multiple girder.
 - This nailing pattern will ensure a tight floor from the outside of the house to the outside so that when the framing shrinks during the first heating season, the shrinkage will be uniformly distributed over the entire floor. If the girder nailing pattern is omitted, then the shrinkage will accumulate over the girders and an objectionable crack will develop in the finished hardwood floor over the girder line.
 - At all girders where the joists change direction, install bridging at 6' o/c for a minimum of six joint spacings beyond any joint direction change. This will insure shrinkage distribution over the floor and not let it accumulate at the girder.
 - There must be wood blocking thru bolted to the steel beam with joists toenailed or attached to the beam with metal hangers under any hardwood floors that pass over a steel beam supporting floor joists. This condition often exists over basement areas.
- All other lumber may be Spruce #2 unless noted otherwise.
 - Steel beams must have 5-2x4 stud jacks under each end support unless noted otherwise.
 - Lam beams must have 3-2x4 stud jacks under each end support unless noted otherwise.
 - Masonry lintels:
 - For spans up to 6': Use 3 3/4 x 3 3/4 x 1/4 steel angles.
 - For spans from 6' to 10': Use 5 x 3 3/4 x 5/16 steel angles.
 - For spans from 10' to 18': Use a pair of 8-gauge wires in each of the first 3 courses of brick on a 5 x 3 3/4 x 5/16 steel angle. Lap all 8-gauge wire splices a minimum of 12" and extend wires a minimum of 12" into jambs. Temporarily support the steel angles before laying masonry. The shoring may be removed five days following the installation of masonry.
 - When structural steel beams with bottom plates are used to support masonry, the bottom plate must extend the full length of the steel beam. This provides support to the ends of the plate by bearing on the adjacent masonry jambs. The beam should be temporarily shored prior to laying the masonry. The shoring may be removed five days after laying the masonry.
 - All brick veneer over lower roofs (brick chimneys) must have a structural angle lag screwed to an adjacent stud wall in accordance with detail, with steel brick stops to prevent sliding of brick.
 - All rafter braces must have two studs from plate through all floors to the foundation or supporting beam below. No braces shall be attached to top wall plate without studs directly under them.

- Where partitions fall between floor joists or trusses, 2 x 4 ladders at 16" o/c must be placed perpendicular to the trusses to support the plywood decking. The ladders shall be supported with Simpson Z clip or similar device.
- All wood I-joists and open joists must be braced in accordance with the manufacturer's directions plus details shown on plans. Load-bearing partitions, joists, beams and column supports must be solid blocked through floor. Trusses and plywood shall not carry concentrated point loads. I-joint material should not be used as blocking under concentrated point loads. All point loads must be carried to foundations with adequate blocking and/or beams.
- All steel columns Where steel columns bear on concrete or masonry, unless otherwise noted, a 5/8 x 6 1/2 x 6 1/2 or 5/8 x 3 1/2 x 8" base plate shall be used to spread the column load across the bearing surface. Base plates shall be bolted with at least two 3/4" diameter anchor bolts or expansion bolts to concrete or masonry.
- Unless noted otherwise on plans, all exterior facing wall studs taller than 10' shall be constructed as follows:
 - Walls 10' to 12' high: Balloon frame 2 x 4 studs at 12" o/c with 1/2" OSB sheathing and 3 king studs on each side of each opening nailed securely to the header.
 - Walls 12' to 20' high: Balloon frame 2 x 6 studs at 16" o/c (1/2" OSB sheathing required for wall heights > 17'). Provide 2-1 1/2" x 5 1/4" LVL king studs on each side of openings 3' to 6' wide and 2-2 x 6 king studs for openings less than 3' wide. Fasten king studs securely to all headers with a minimum of 12-16d nails or 4-3/8" diameter lag screws embedded a minimum of 4" into the header.
 - Gable end walls or rooms with vaulted ceiling joists: Balloon frame wall and provide triple king stud on each side of openings, nailed securely to the header.
 - Two-story high foyer walls less than 9' wide: Extend 3 1/2 x 9 1/4 PSL member with 3-2 x 4 flat plates across the entire wall. Locate the beam near mid-height of the wall at or near first floor top plate.

NOTE: SEE SPECIAL DESIGN OR ENGINEER FOR WALLS TALLER THAN 20'. WHEN OPENINGS IN HIGH WALLS EXCEED 6' IN WIDTH, OR IF THE WALL CANNOT BE CONSTRUCTED USING ANY OF THE METHODS MENTIONED.

- Continuous 2 x 6 bridging shall be nailed to diagonal or vertical web members of all open-web floors trusses over 10' long. They shall be installed near mid-span as a load distribution member. If the 2 x 6 bridging is not continuous, lab ends of bridging one truss space.
- Lower stud walls for buildings over two stories, but not more than three stories:
 - Interior walls
 - Load bearing 2 x 4 @ 12" o/c
 - Non load bearing 2 x 4 @ 12" o/c
 - Exterior walls
 - Use 2 x 6 at 16" o/c with 1/2 x 4 x 8' plywood sheathing at all corners and every 25'; OR use 2 x 4 at 12" o/c with 1/2 plywood sheathing solid on walls.
- Headers shall be as shown unless noted differently on plans:
 - Interior and exterior
 - Spans up to 2'-6" 2-2 x 6's
 - Spans 2'-6" to 3'-8" 2-2 x 8's
 - Spans 3'-8" to 6'-8" 2-2 x 10's
 - Spans 6'-8" or more See Plan
 - Headers wider than 5' shall have a minimum of three king studs on each side unless noted otherwise.
- When ceiling joists are parallel to an exterior wall, tie the rafters near the top plate to ceiling joists with a 2 x 6 strongback a minimum of 6' long at 4 feet on center across the top of the ceiling joists. 2 x 4 rafter ties shall be fastened to the side of the ceiling and the strongback.
- At all exterior diagonal wall panels, each panel shall be nailed to each adjacent panel with 5-16d nails or tied together with metal stripping nailed at four locations between floors with a minimum of 2-16d nails into each panel at each strap. This will avoid vertical cracking in panel joints due to horizontal oscillating panels.
- At all stairs, every stud at each stringer must be nailed to each stringer with a minimum of 2-16d nails. This will avoid cracking between wallboard and top of base molding due to vertical oscillation of stair stringers.
- Roof trusses that have non-bearing partitions passing under them should be nailed to the partition plates to avoid ceiling-wall cracking.
- Roof trusses close to side walls framing and used as dead wood for sheetrock boards should be nailed to the wall framing to prevent ceiling-wall cracking.
- All structural framing lumber exposed directly to the weather or bearing directly on exterior masonry piers or concrete shall be treated. All wood in contact with the ground is to be ground-contact approved. All wood exposed directly to the weather shall be protected to prevent the occurrence of rot.
- Unless otherwise detailed, all stick-built, false chimneys shall be constructed with 2 x 4 studs at 12" o/c, balloon-framed from attic ceiling or floor. Fasten 15/32" CDX plywood on all sides of the chimney along the full length of the studs. Fasten each stud to the supporting beam or ceiling joist with a 1 1/4 x 24, 15-gauge metal strap, or a similar connector.

NOTE: ALL POINT LOADS FROM ROOF BRACES, JACK STUDS, BEAM SUPPORTS — WHATEVER WOOD OR STEEL — CANNOT BEAR ON SHEATHING ALONE. BLOCKING EQUAL TO OR BETTER THAN THE POINT LOAD SUPPORTS ABOVE MUST BE CARRIED THROUGH ALL CONSTRUCTION TO THE FOUNDATION.

NOTE: Note to apply to all hard coat stucco exterior finishes:

- Joints are necessary at the following locations:
 - Horizontally at each floor line.
 - No areas larger than 144 S.F. surface exposed.
 - No dimension longer than 16'.
 - No dimension longer than 2 1/2 times the shortest dimension.
- Drip screed required at the bottom of all walls 2" above paved areas and 4" above grade.
- See ASTM 926 and 1063 for further information.
- Application of an approved chemical curing compound.

The curing shall continue until the cumulative number of days when the ambient temperature above 50°F has totaled seven. During curing, the concrete shall be protected from any mechanical injury, load stresses, shock, vibration, or damage to finished surfaces.

ROOF CONSTRUCTION:

- All roof trusses must be built in accordance with truss manufacturers' requirements. Tie-down connections to resist uplift shall be installed where required. When roof truss manufacturers do not provide the required connectors, it is the responsibility of the contractor to notify the roof truss engineer or the Engineer of Record to provide an adequate connector.
- In addition to the Code's fastener schedule, unless noted otherwise on the plan, roof members shall be tied down with additional metal connectors as follows:
 - Stick-framed rafter members exceeding 10' in length, as measured from their horizontal projection, and all roofs over unenclosed areas such as porches use Simpson HZ-5 connectors every 4' or at every third rafter to fasten the lower end of the rafter to the top plate.
 - All lower ends of valley and hip members which bear on a top plate use a Simpson HCP or equivalent connector.
- Rafters shall be 2 x 6 at 16" o/c spruce-pine-fir #2 for rhingles except as noted. They are to be cut into hips, ridges, etc., unless noted otherwise. Tie, slate and other heavy roof coverings shall use 2 x 8 at 16" o/c spruce-pine-fir #2 rafters unless noted otherwise.
- Collar ties shall be 2 x 6 at 48" o/c at all ridges unless noted otherwise and located a nominal 3" below the ridge. Vaulted ceilings require special collar tie or ridge beam details. See the end of Table R902.5.1. in the Code unless otherwise detailed on the plan.
- A minimum of three collar ties shall be used at all ridges even if two ties must be put on one set of rafters.
- All hips and ridges are a size larger than rafters unless noted otherwise.
- All hogs on ceiling joists or rafters are 12" long and 2 x 6's unless noted otherwise. Rafters may be spliced over hogs. Splice rafter hogs only at a roof brace.
- Gable end framing must be braced parallel to ridges with a minimum of 2 x 6 diagonal braces at 6' o/c along the gable wall to interior ceiling joists. Braces to bear on 2 x 6 hogs and to the gable wall at approximately mid-height of gable walls. Braces shall be at an angle of approximately 45°. Other bracing may be used with the design engineer's approval.
- Gable end framing must be braced parallel to ridges with a minimum of 2 x 6 diagonal braces at 6' o/c along the gable wall to interior ceiling joists. Braces to bear on 2 x 6 hogs and to the gable wall at approximately mid-height of gable walls. Braces shall be at an angle of approximately 45°. Other bracing may be used with the design engineer's approval.
- Ceiling joists when erected parallel to rafters must be sistered to rafters and nailed with 3-16d nails at each rafter. If a knee-wall is used and ceiling joists cannot touch rafters, then rafters must be tied to the ceiling joists using 2 x 4 or 1 x 6 rafter tie spaced no more than 4' on center.
- Roof Plan Legend:
 - ⊗ Indicates location of roof brace point at rafter level
 - Arrow away from the brace point indicates direction of roof brace to partition, beam, or other brace point below.
 - ⊙ Arrow into brace point indicates a vertical or almost vertical roof brace to partition, beam, or other brace point below.
 - All roof braces are 2-2 x 4 nailed with 16 penny nails at 9" o/c vertically from top to bottom. Braces longer than 10' must be braced horizontally in two directions at mid-height.
 - Maximum spacing of roof braces is to be as follows:
 - For 2 x 6 Hog 6'-0" o/c
 - For 2 x 8 Hog 7'-6" o/c

MATERIALS SPECIFICATIONS:

CONCRETE GENERAL NOTES:

- Except where otherwise noted, for all concrete, the proportions of cement, aggregate, and water to attain required plasticity and compressive strength shall be in accordance with ACI 318 Code. Concrete shall be 2,600 psi in 28 days for footings and 3,000 psi for walls, beams, and columns, unless noted otherwise.
- Before placing concrete, all debris, water and other deleterious material shall be removed from the places to be occupied by the concrete. The placing of all concrete shall be in accordance with ACI 318 and ASTM C94 requirements. Pumping of concrete will be permitted only with the Engineer of Record's approval of proposed concrete mix and method of pumping. Concrete shall be rapidly handled from the mixer to forms and deposited as nearly as possible to its final position to avoid segregation due to rehandling. Concrete to be spaded and worked by hand and vibrated to ensure close contact with all surfaces of forms and reinforcing steel and leveled off at proper grade to receive finish. All concrete shall be placed upon clean, damp surfaces. Vibration shall be applied directly to the concrete and shall be sufficient to cause flow of settlement but not long enough to cause segregation of the mix.
- Construction joints shall be located in accordance with ACI 301. All reinforcing steel shall be continuous across joints. In slabs on grade, saw contraction joints shall not be over 20 feet center to center each way. Joints shall be sawn a depth of one-third of the slab thickness. Sawing of the joints shall commence as soon as the concrete has hardened sufficiently to permit sawing without excessive raveling. Fill the saw cuts with approved joint filler after the concrete has cured.
- Concrete, when deposited, shall have a temperature not below 50°F and not above 90°F. The methods and recommended practices as described in ACI 308 shall be followed for cold weather concreting and ACI 305 for hot weather concreting.
- Freshly placed concrete shall be protected from premature drying by one of the following methods:
 - Ponding or continuous sprinkling.
 - Absorptive mat or fabric kept continuously wet.
 - Waterproof paper conforming to ASTM C171
 - Application of an approved chemical curing compound.

The curing shall continue until the cumulative number of days when the ambient temperature above 50°F has totaled seven. During curing, the concrete shall be protected from any mechanical injury, load stresses, shock, vibration, or damage to finished surfaces.

- Reinforcing steel bars shall be deformed in accordance with ASTM A505 and or A408 and formed of ASTM A615-78 Grade 60 steel. Welded wire fabric reinforcing to be ASTM A185 steel wire. Accessories shall conform to the CRSI Manual of Standard Practice. The following minimum concrete cover shall be provided over reinforcing bars:

A) Exposed to Earth	3"
B) Exposed to Weather	1 1/2"
C) Slabs not Exposed to Weather	3/4"
D) Beams and Columns	1 1/2"

MASONRY GENERAL NOTES:

- Masonry walls are to be of the sizes and in the locations shown on the plans and shall be constructed in accordance with the provisions of ACI 530.
- Hollow Load Bearing Units: ASTM C590 made with lightweight or normal weight aggregate. Grade N-1 units shall be provided for exterior and foundation walls. Grade N-1 or S-1 units shall be provided for other load-bearing walls or partitions.
- Concrete Building Brick: ASTM C50 made with lightweight or normal aggregates. Grade N-1 or S-1 except that brick exposed to weather shall be N-1.
- Mortar: ASTM C270-95, Type S prepackaged mortar mix which shall not contain any non-conventional fillers combined with not more than three parts sand per on part mix.
- Reinforcing Steel: ASTM A615 Grade 60 steel deformed bars where indicated on the plans. Where reinforcing bars are installed in the cells of concrete masonry units, they shall be secured with wire ties at intervals not exceeding 24" o/c to maintain the bars location in the cell. The tolerance for spacing of vertical bars is ± 2 inches along the length of the wall. The tolerance for the distance between the face of the concrete masonry unit and the center of the bar shall not exceed ± 1/2".
- Mortar protrusion shall be less than 1/4". A protrusion of 1/4" or greater must be removed before grouting.
- Horizontal Joint Reinforcement: ASTM A82 fabricated from cold drawn steel wire and hot dip zinc coated (ASTM A103). It shall consist of two or more parallel, longitudinal wires 0.1875" in diameter with weld-connected cross wires 0.1483" in diameter at a minimum of 16" o/c. Joint reinforcement is to be installed in every other course and in the first two courses at the bottom and top of wall openings and shall extend not less than 24" past the opening. Splices shall overlap not less than 12".
- Execution: Masonry units shall be laid in a running bond pattern unless noted otherwise. The walls shall be carried up level and plumb within the tolerances specified in ACI 530.1-88, Section 2.3.3.2. If nonstandard dimensions are encountered, block shall be cut with a masonry saw to fit, not by stretching or shrinking joints. Unfinished work shall be stepped back for joining with new work. Tooling will not be permitted except where specifically approved. Damaged units are to be cut out and new units set in place.
- The filled cells and bond beam blocks of reinforced masonry walls are to be filled with ASTM C476-91, Grout for Masonry with minimum compressive stress of 2,000 psi and slump range or 8" to 11". The outside face of the bottom block of each cell is to be broken out for inspection of reinforcing and clean out of mortar droppings in cell. The grout is to be pumped into the cell in maximum five foot lifts and must be immediately vibrated to minimize any voiding of the grout. Reconsolidate each lift by vibrating several inches into the preceding lift before plasticity is lost. Reconsolidate the top lift and fill with grout any space left by settlement shrinkage.

LUMBER GENERAL NOTES:

- All common framing lumber is to meet the following minimum specifications at 19% moisture content:

MATERIAL	Fb (psi)	Fx (psi)	Fx (psi)(Parallel)	Fx (psi)(Perp.)	E (psi)
#2 Spruce Pine Fir	875	450	425	1,400,000	
Southern Yellow Pine	750	450	565	1,400,000	
- All Structural Composite Lumber (LVL, LSL, PSL) is to meet the following minimum specifications:

APPLICATION	Fb (psi)	Fx (psi)(Parallel)	Fx (psi)(Perp.)	E (psi)
Girders & Beams (LVL/PSL)	2,600	2,310	850	1,900,000
Columns (LSL) & Rimboards	1,600	1,700	400	1,900,000
- All Glue Laminated Timber (Glu-lam) is to meet the following minimum specifications:

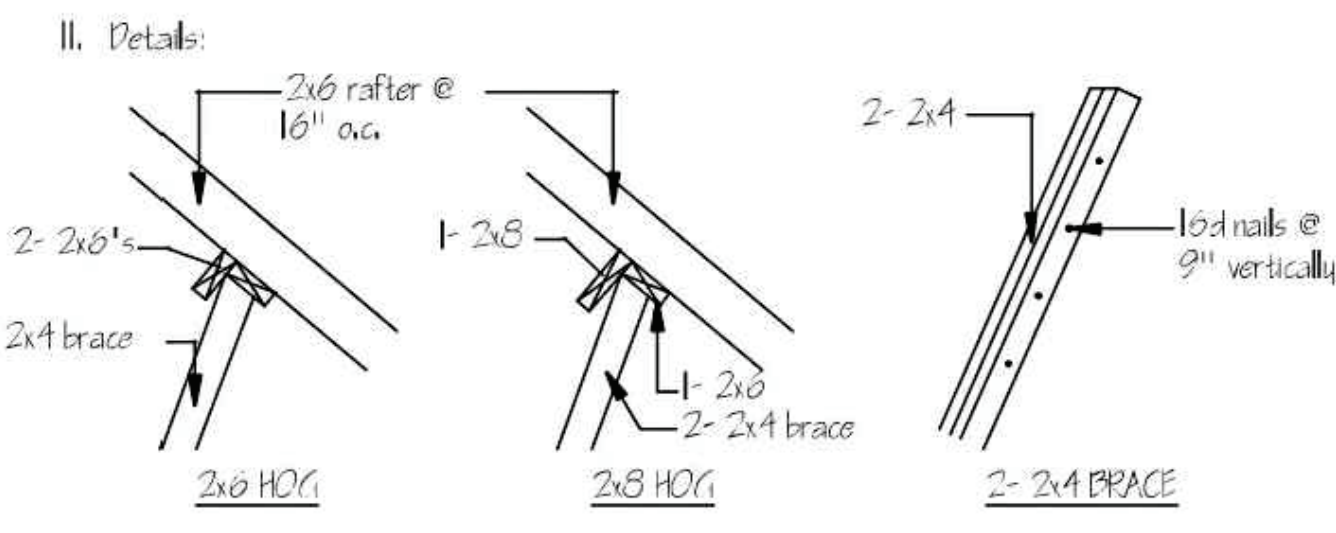
APPLICATION	Fb (psi)	Fx (psi)(Parallel)	Fx (psi)(Perp.)	E (psi)
Girders & Beams	2,400	1,700	740	1,700,000
Columns	1,600	1,550	560	1,500,000
- Open Web Floor Trusses:

APPLICATION	Fb
Top & Bottom Chords	2,500
Columns (LSL) & Rimboards	950

1.9E MSR Lumber
1.4E Lumber
- Where three or four-ply 'Lam' beams are side-loaded (joists frame into the side at the outside piers), fasten all piers together with two rows of 1/2" diameter bolts at 16" o/c. The bolts shall be located a minimum of 2" and a maximum of 9 1/4" from the top or bottom of the beam.
- Built-up wood columns consisting of multiple studs shall have each lamination nailed with 16d nails at 9" o/c.

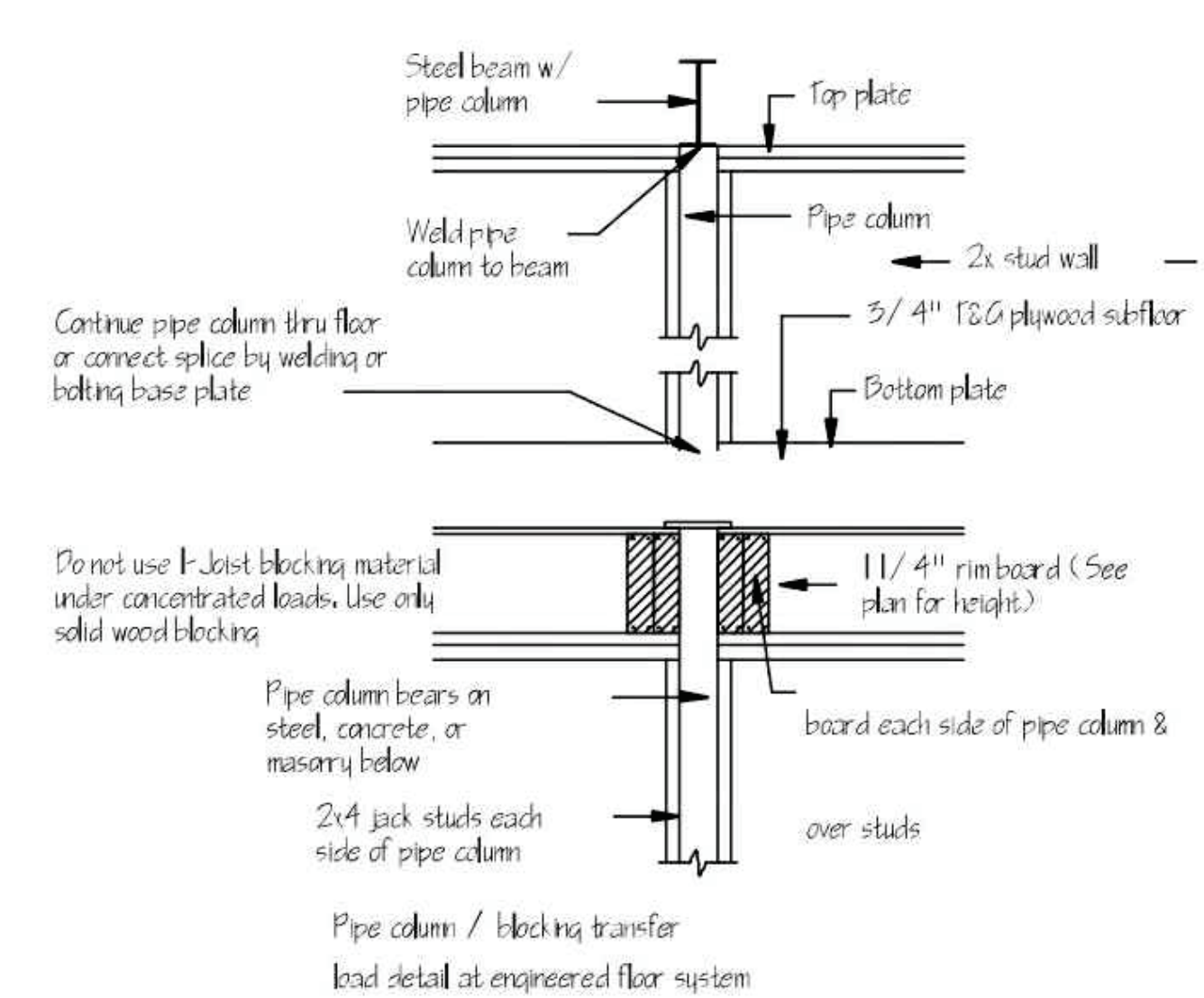
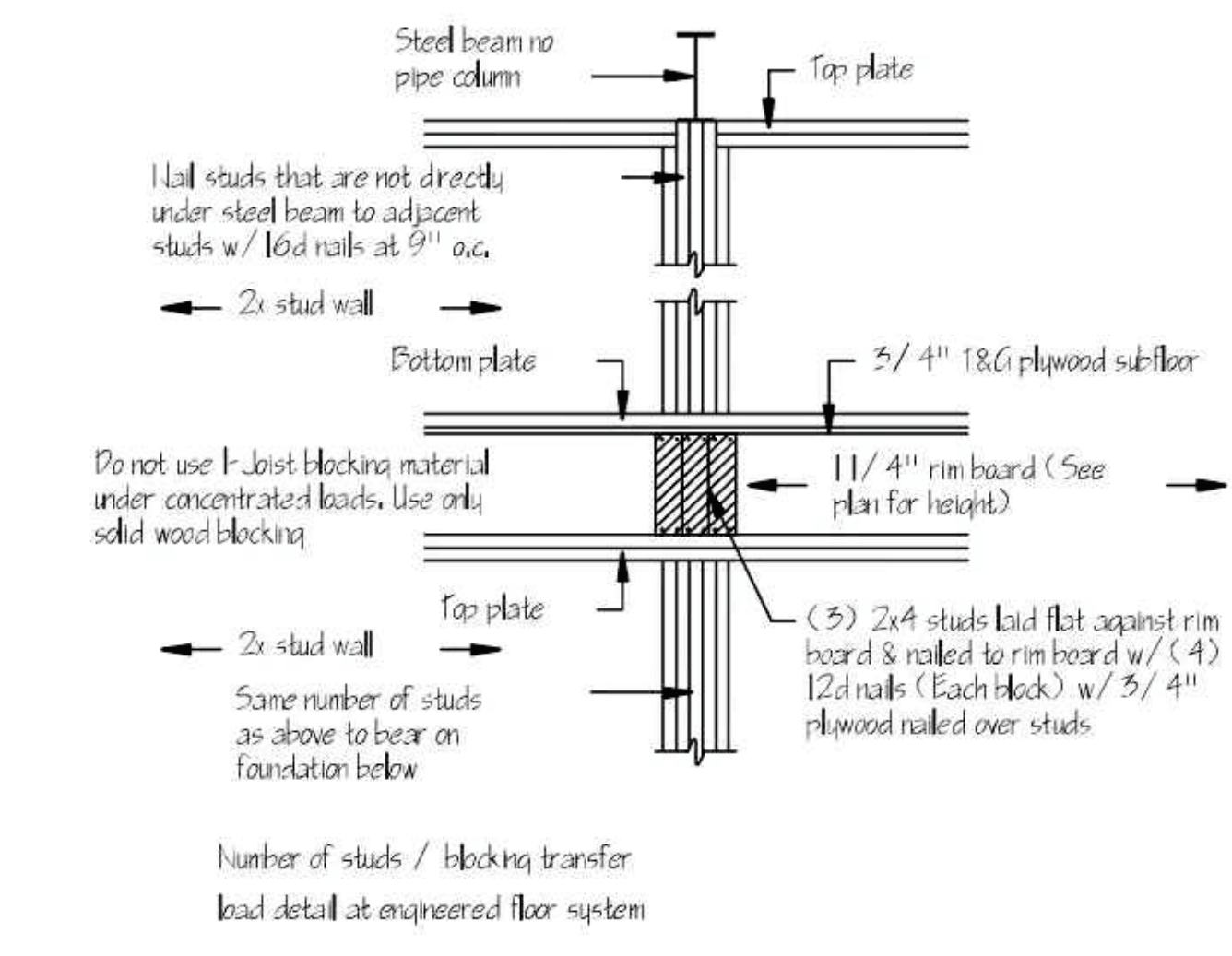
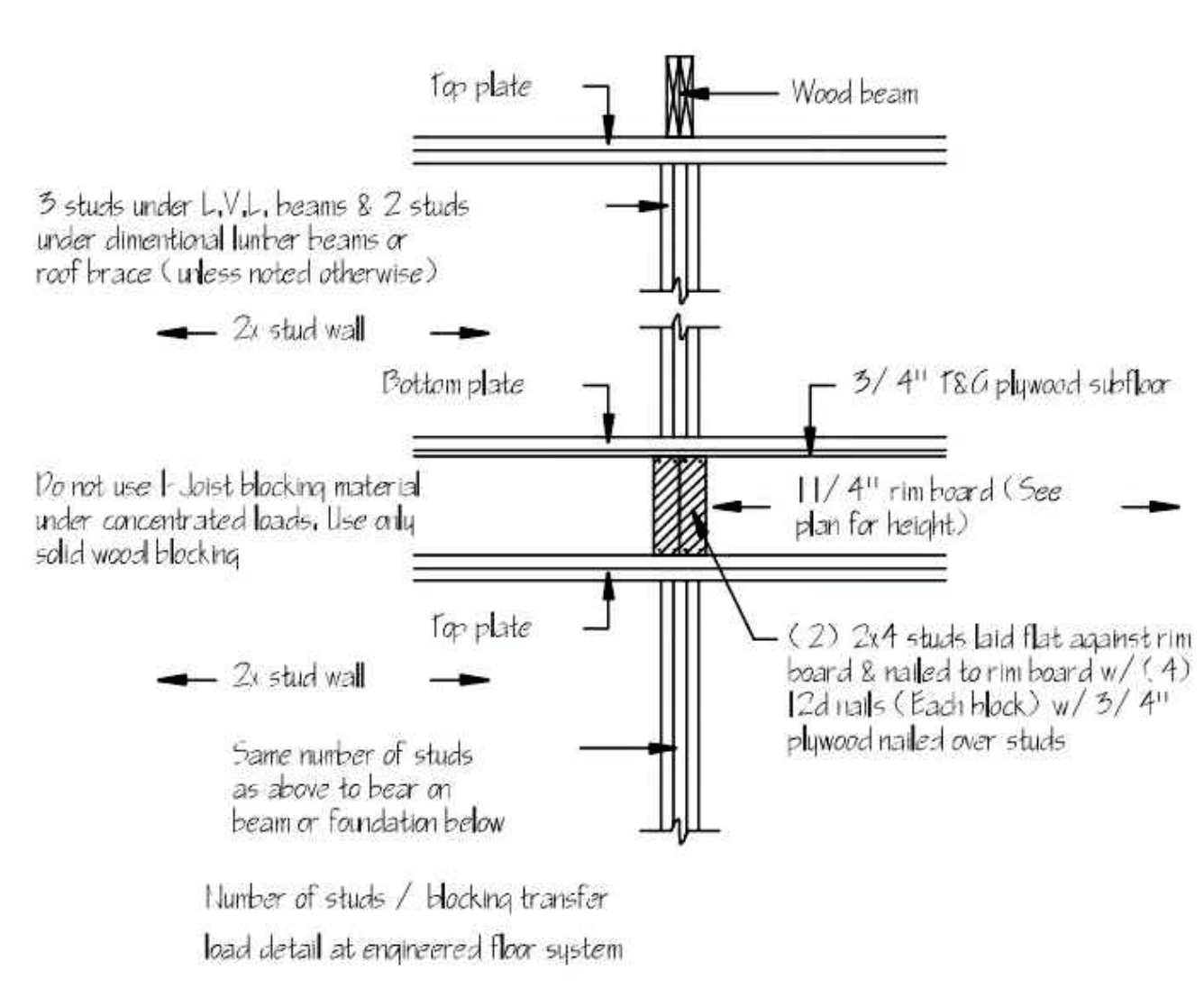
STEEL GENERAL NOTES:

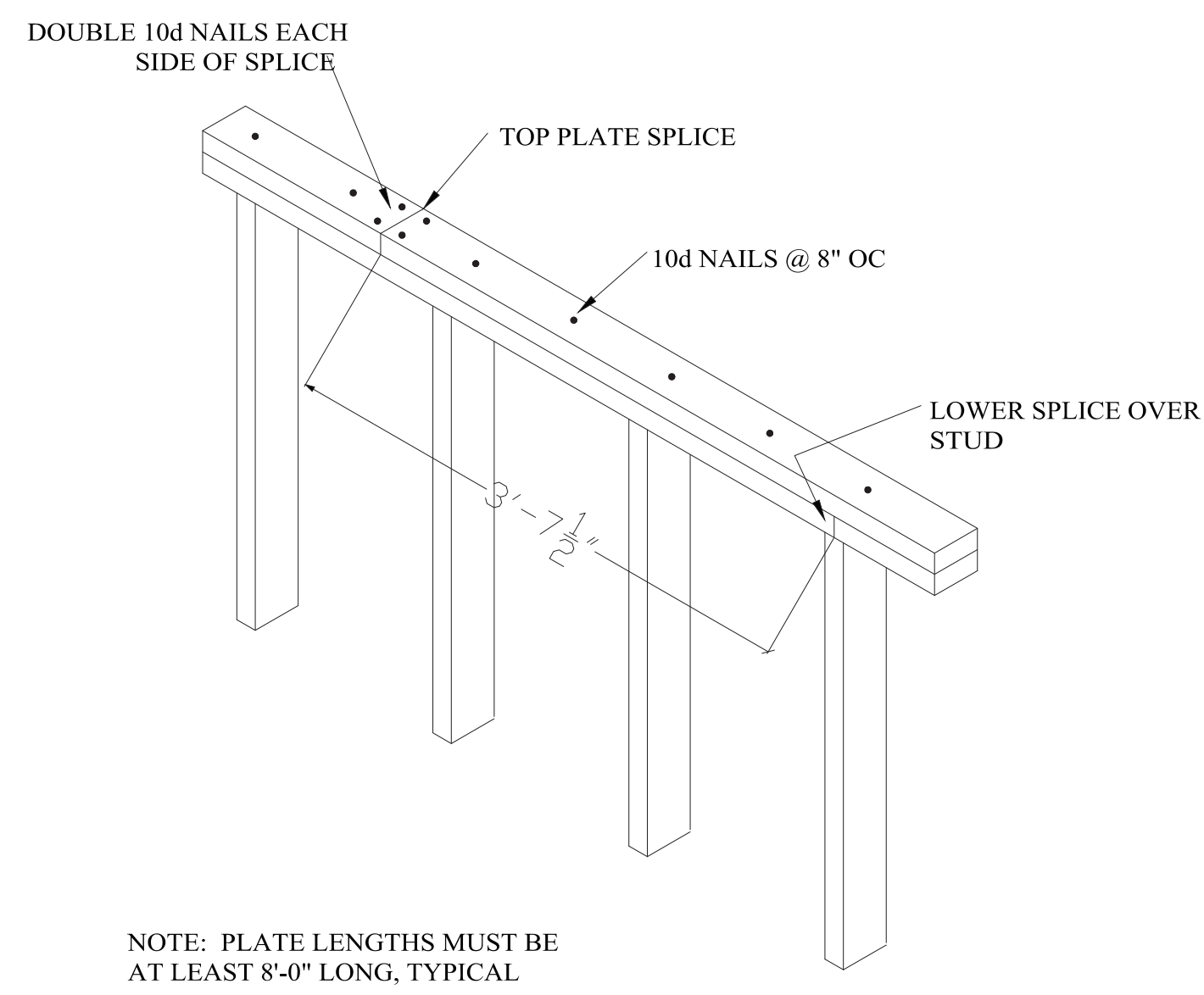
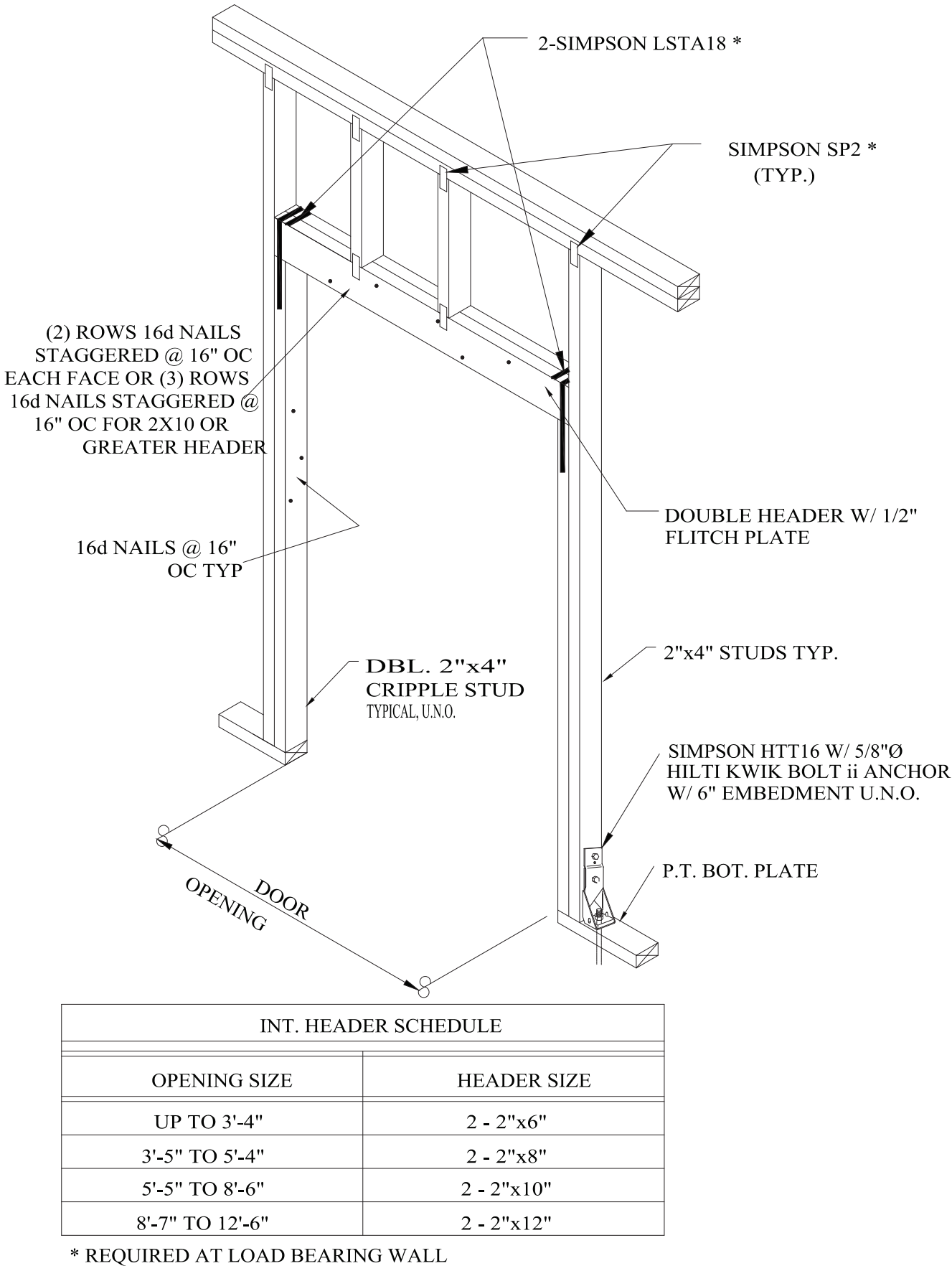
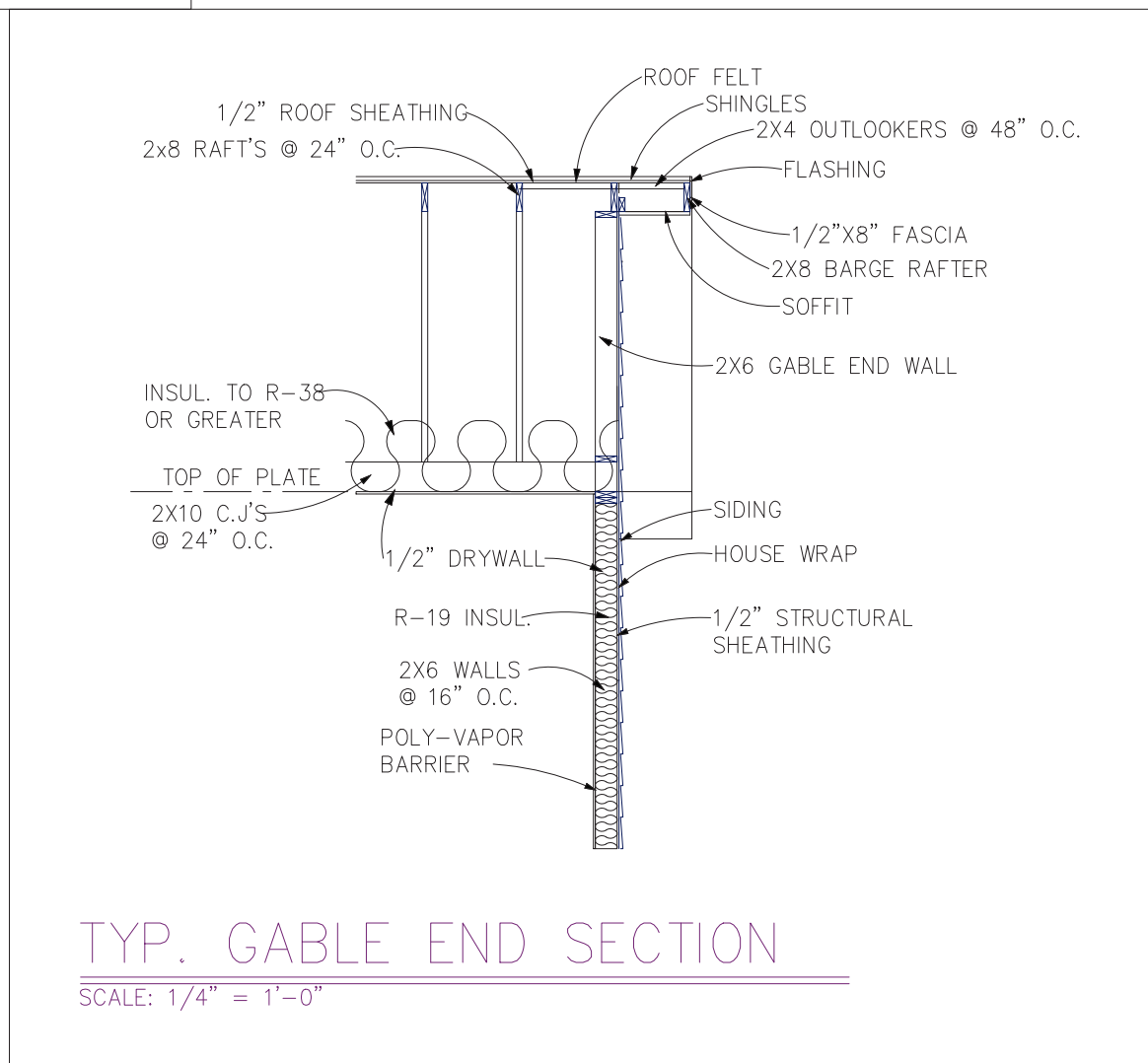
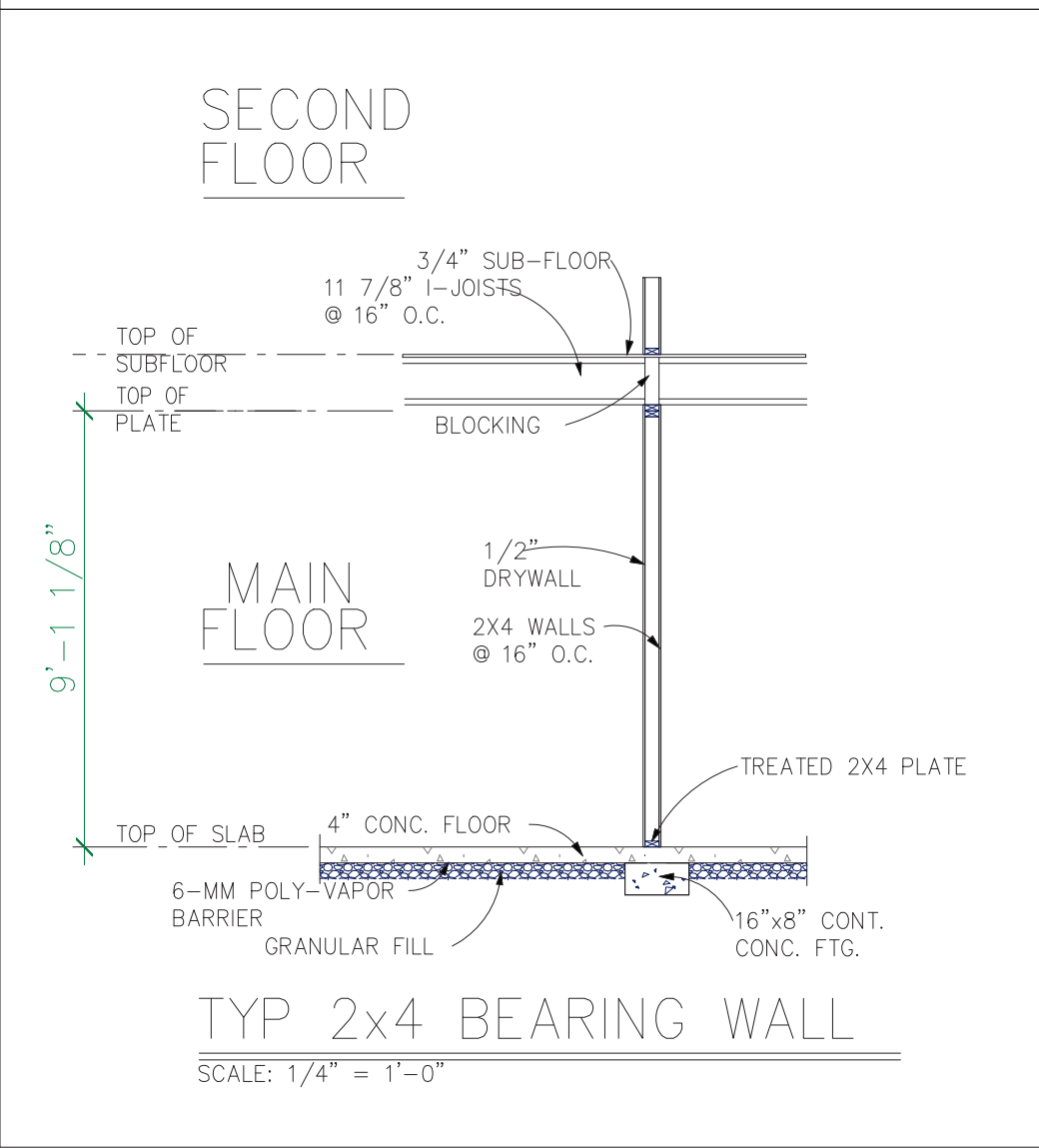
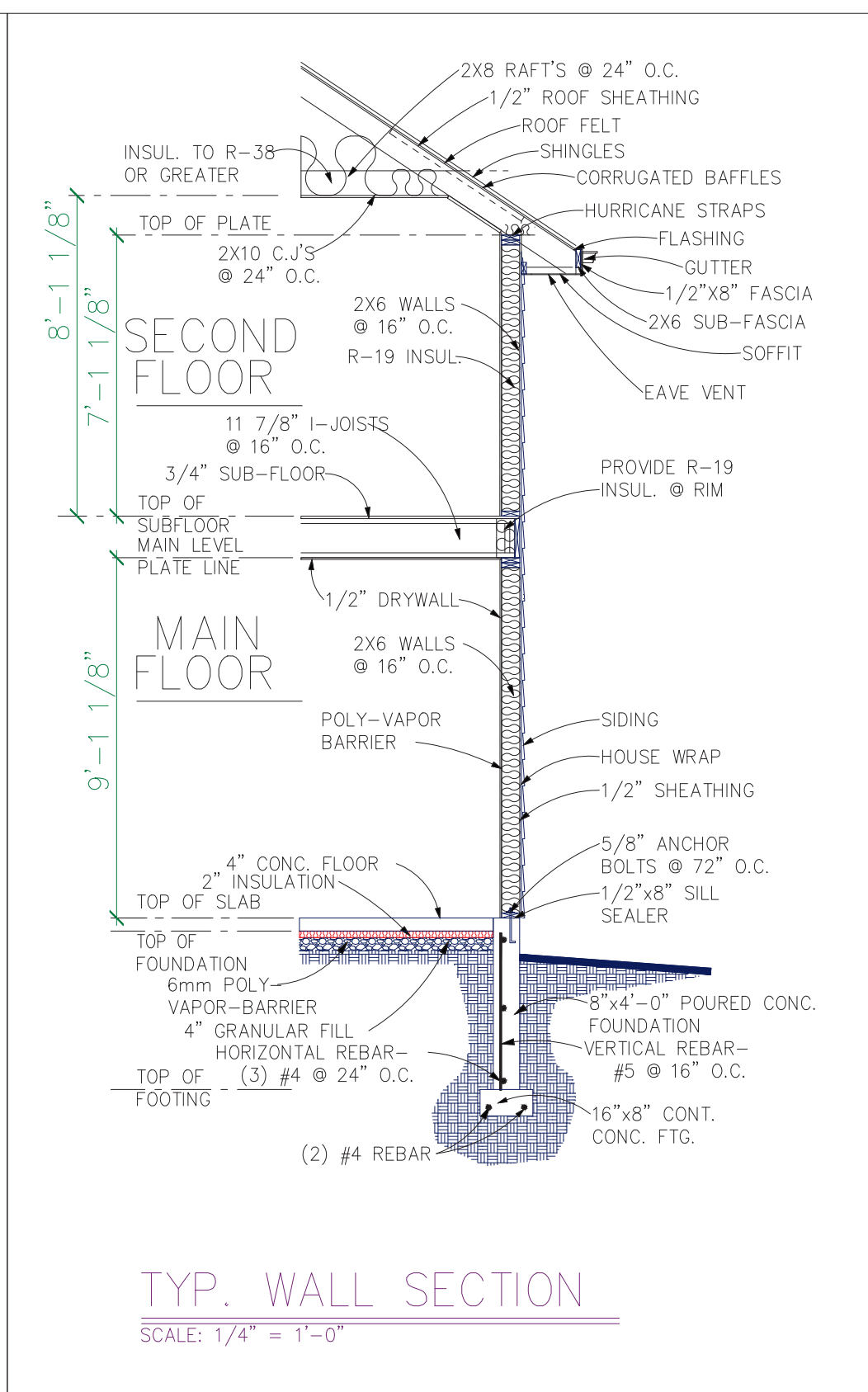
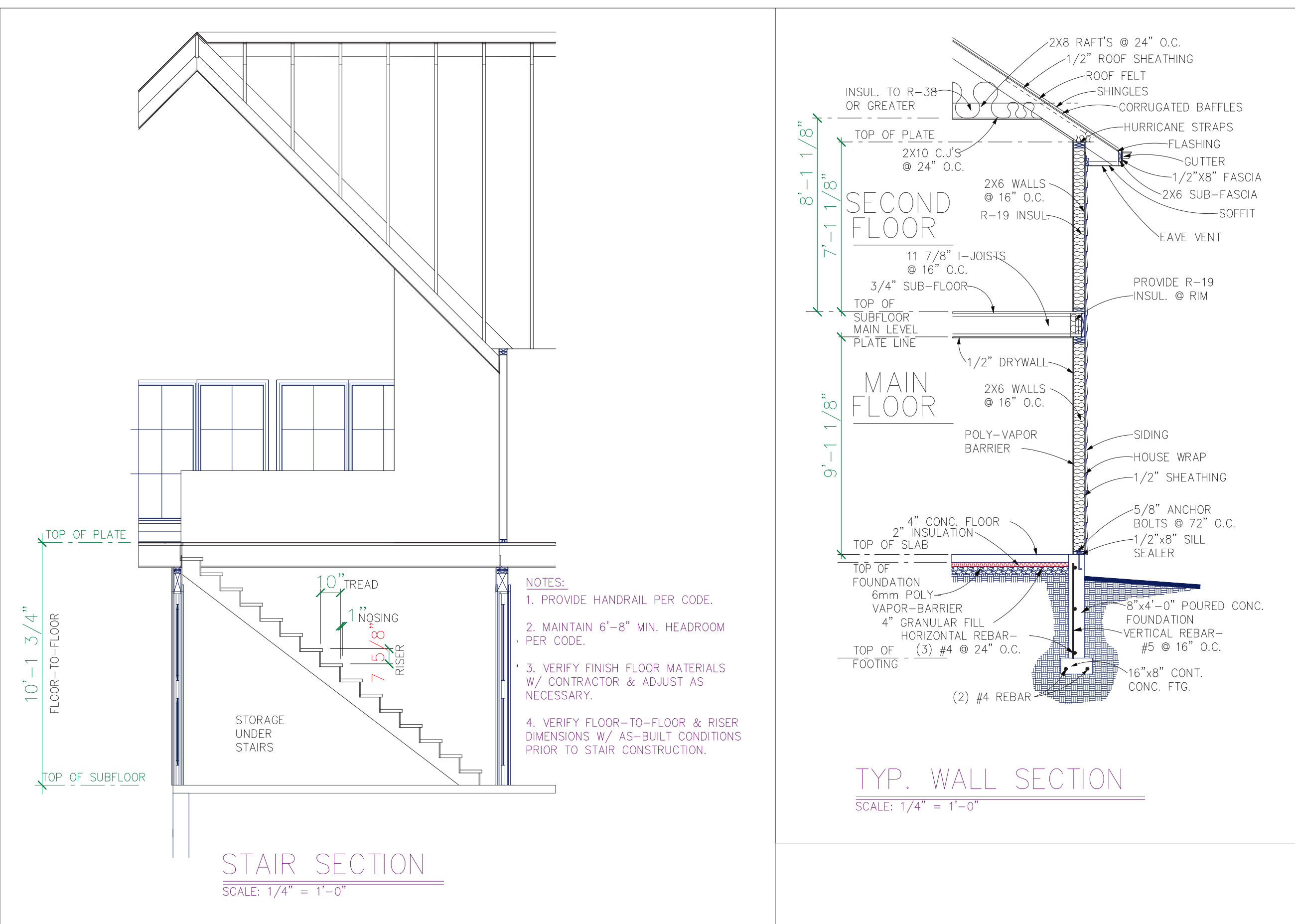
- All steel wide flange beams shall conform to ASTM A572 having a minimum yield stress of 50,000 psi.
- All steel pipes shall be Schedule 40 or better with a minimum yield stress of 35,000 psi.
- All steel tubes shall conform to ASTM A500, Grade B, having a minimum yield stress of 46,000 psi.
- All other shapes not listed above shall conform to ASTM A36 having a minimum yield stress of 36,000 psi.
- Unless otherwise noted, all welds shall be fillet type with a minimum 3/16" leg. Welding electrodes shall be E70xx type having a minimum yield strength of 70,000 psi. Welding work and materials shall conform to the American Welding Society Code (AWS D.1).
- Bolted connections shall include high strength bolts conforming to ASTM A325. Foundation anchor bolts or tie rods shall conform to ASTM A36 having a minimum yield strength of 36,000 psi.



Stucco Code Requirements

- Units are necessary at the following locations:
 - Horizontally at each floor line
 - To areas larger than 144 sq.ft. exposed
 - To dimension longer than 16'-0"
 - To dimension shorter than 2 1/2 times the shortest dimension
- Drip screed required at the bottom of all walls 2" above paved areas and 4" above grade.
- See ASTM 926 and 1063 for further information.



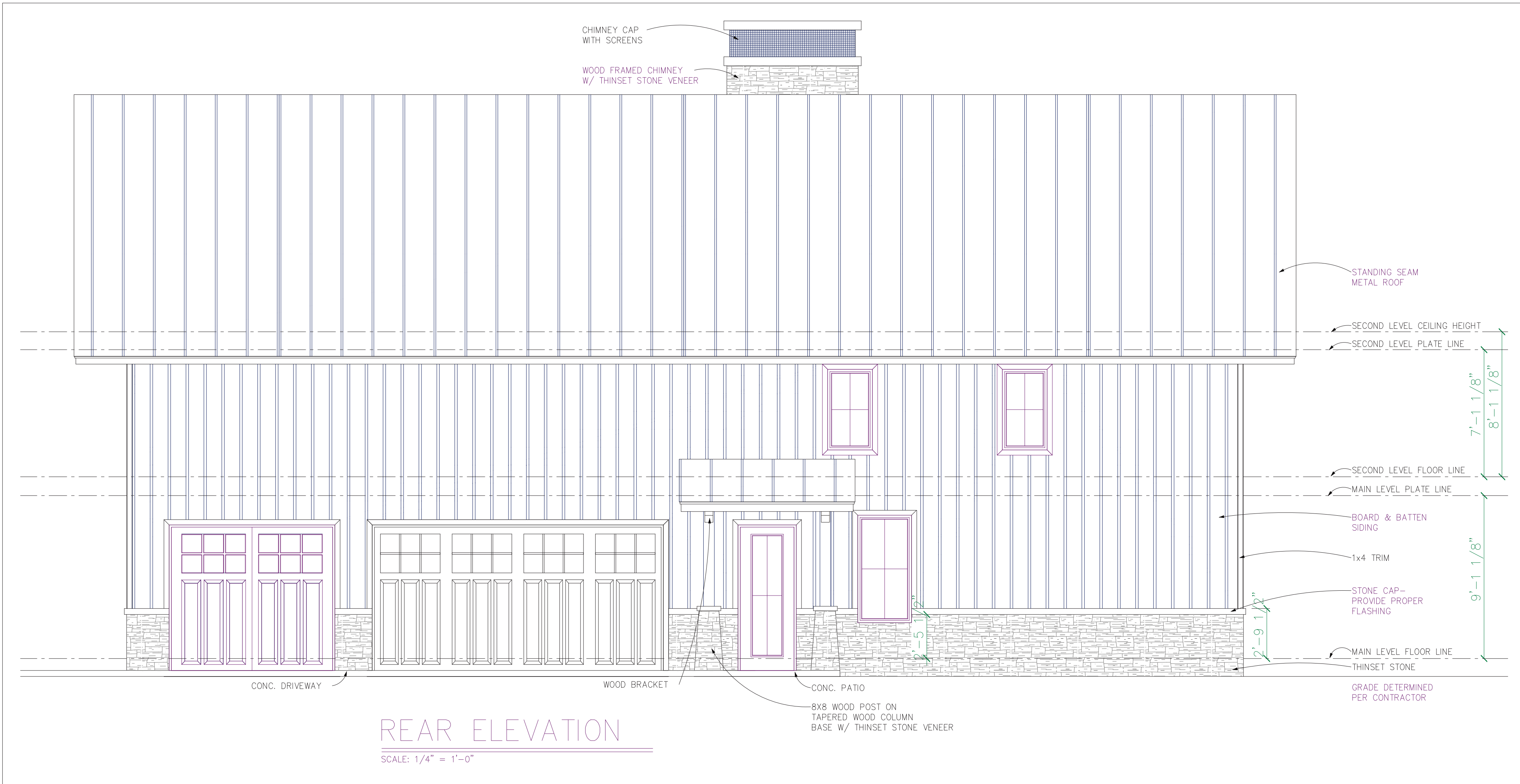


TOP PLATE SPLICE DETAIL
SCALE: N.T.S.

HEADER DETAIL
SCALE: N.T.S.



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



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



PRELIM
FINAL
6/15/2023
REVISION

40 Bealy Farm Rd
Zebulon NC 2759



advancedhouseplans
www.advancedhouseplans.com | 844.875.8838

ADVANCED DESIGNS INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM
LOCATION: OMAHA, NE. BECAUSE SITE CONDITIONS VARY, ADVANCED
DESIGNS INC. CANNOT BE RESPONSIBLE FOR THE ACCURACY OF ANY
UNDERSTANDING WITHOUT THE ASSISTANCE OF A CONSTRUCTION PROFESSIONAL.
DIMENSIONS, MATERIALS, STRUCTURAL, CODE, & SITE REQUIREMENTS PRIOR TO
LAWSUITS THAT MAY OCCUR DURING OR AFTER THE BUILDING PROCESS.

2026
30086

SHEET
3



PRELIM
FINAL
6/15/2023
REVISION

40 Bealy Farm Rd
Zebulon NC 2759



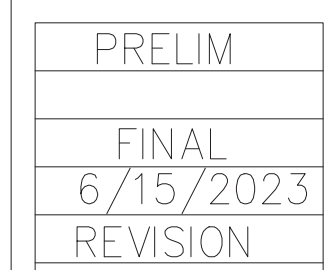
advancedhouseplans
www.advancedhouseplans.com | 844.875.9838

ADVANCED DESIGNS INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM
LOCATED IN OMAHA, NE. BECAUSE SITE CONDITIONS VARY, ADVANCED
DESIGNS INC. CANNOT BE HELD RESPONSIBLE FOR ANY CONSTRUCTION
UNDERPERFORMANCE WITHOUT THE ASSISTANCE OF A CONSTRUCTION PROFESSIONAL.
ADVANCED DESIGNS INC. DOES NOT GUARANTEE THE ACCURACY OF THE
DIMENSIONS, MATERIALS, STRUCTURAL CODE, & SITE REQUIREMENTS PRIOR TO
LAWSUITS THAT MAY OCCUR DURING OR AFTER THE BUILDING PROCESS.

© 2023

30086

SHEET
4



40 Bealy Farm Rd
Zebulon NC 2759



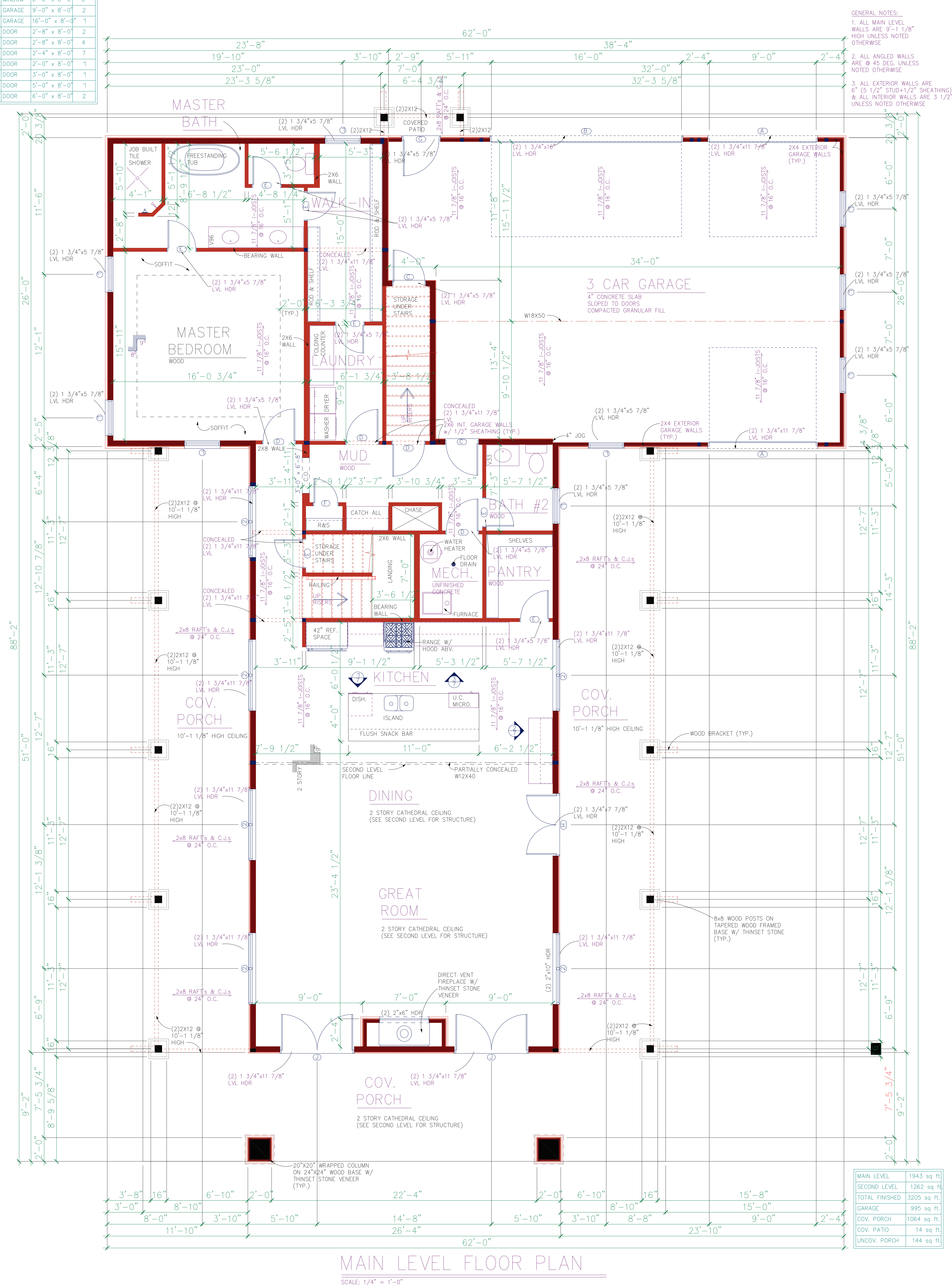
ADVANCED DESIGNS INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM LOCATED IN OMAHA, NE. BECAUSE SITE CONDITIONS VARY, ADVANCED DESIGNS CANNOT WARRANT THE SUITABILITY OF THESE PLANS FOR USE ON YOUR SPECIFIC SITE. CONSTRUCTION FROM THESE PLANS SHOULD NOT BE UNDERTAKEN WITHOUT THE ASSISTANCE OF A CONSTRUCTION PROFESSIONAL. HOMEOWNER/CONTRACTOR MUST THOROUGHLY REVIEW & VERIFY ALL DIMENSIONS, MATERIALS, STRUCTURAL CODE, & SITE REQUIREMENTS PRIOR TO CONSTRUCTION. THEY RELEASE ADVANCED DESIGNS INC. FROM ANY LAWSUITS THAT MAY OCCUR DURING OR AFTER THE BUILDING PROCESS.

© 2023

3008

SHEET

OPENING SCHEDULE					
OPENING ID	PRODUCT CODE	TYPE	SIZE	COUNT	
T	36X72 CASEMENT 1	WINDOW	3'-0" x 6'-0"	9	
T	72X72 CASEMENT 2	WINDOW	6'-0" x 7'-0"	6	
A	108X96 – COUNTRY 3 PANEL	GARAGE	9'-0" x 8'-0"	2	
B	192X96 – COUNTRY 3 PANEL	GARAGE	16'-0" x 8'-0"	1	
C	32X96 EXTERIOR 1	DOOR	2'-8" x 8'-0"	2	
D	32X96 1	DOOR	2'-8" x 8'-0"	4	
E	28X96 1	DOOR	2'-4" x 8'-0"	7	
F	24X96 1	DOOR	2'-0" x 8'-0"	1	
G	36X96 GLASS 1	DOOR	3'-0" x 8'-0"	1	
H	60X96 GLASS 2	DOOR	5'-0" x 8'-0"	1	
J	72X96 GLASS 2	DOOR	6'-0" x 8'-0"	1	



MAIN LEVEL	1943 sq ft.
SECOND LEVEL	1262 sq ft.
TOTAL FINISHED	3205 sq ft.
GARAGE	995 sq ft.
COV. PORCH	1064 sq ft.
COV. PATIO	14 sq ft.
UNCOV. PORCH	144 sq ft.



PRELIM
FINAL
6/15/2023
REVISION

40 Beatty Farm Rd
Zebulon NC 2759



advancedhouseplans
www.advancedhouseplans.com | 844.875.8838

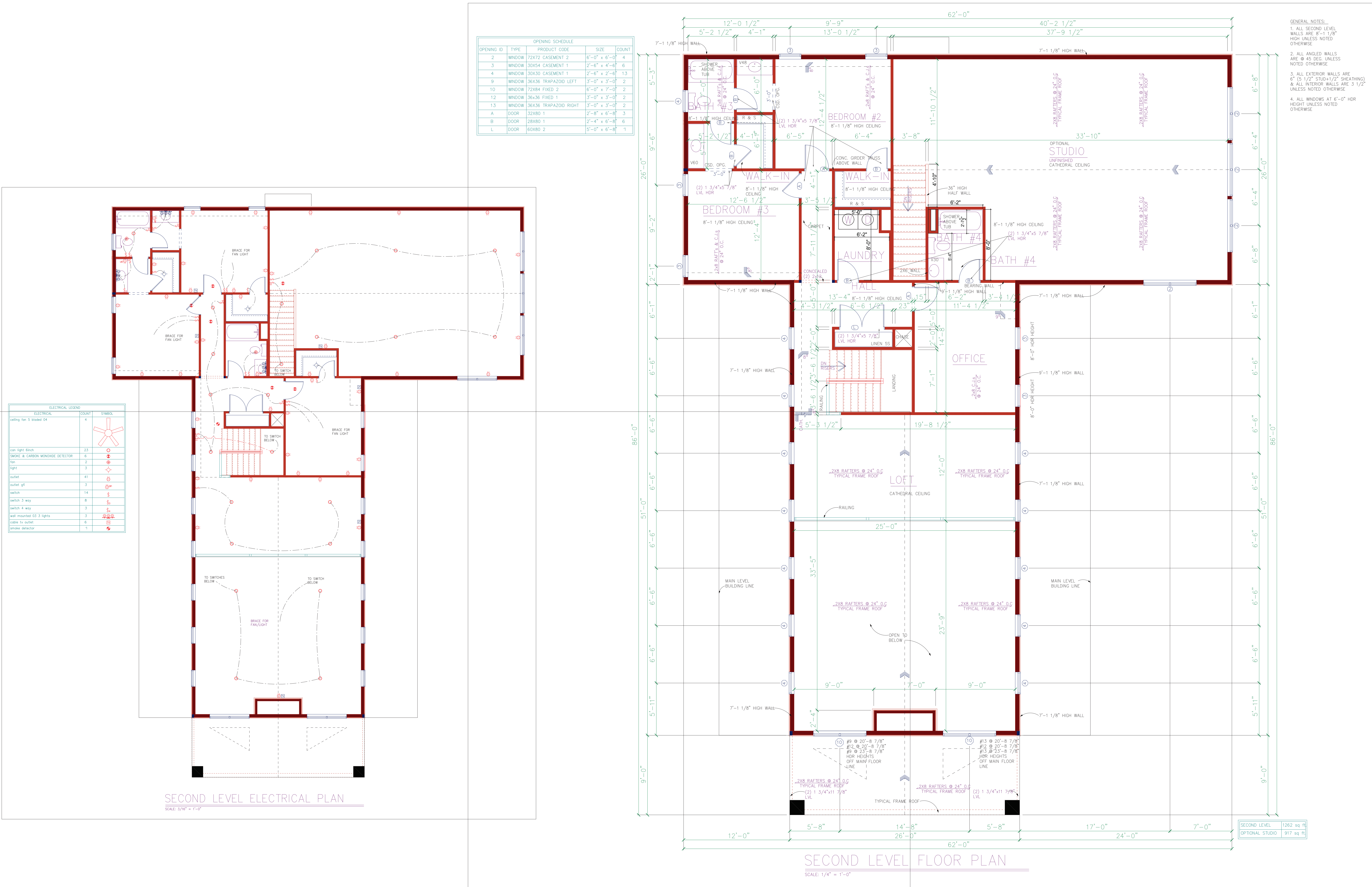
ADVANCED DESIGNS INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM
LOCATION: DANA, NE. BECAUSE SITE CONDITIONS VARY, ADVANCED
DESIGNS INC. CANNOT BE RESPONSIBLE FOR THE ACCURACY OF THE
UNDERSTANDING OF A CONSTRUCTION PROFESSIONAL. ADVANCED
DESIGNS INC. CANNOT BE RESPONSIBLE FOR THE ACCURACY OF THE
DIMENSIONS, MATERIALS, STRUCTURAL CODE, & SITE REQUIREMENTS PRIOR TO
LAWSUITS THAT MAY OCCUR DURING OR AFTER THE BUILDING PROCESS.

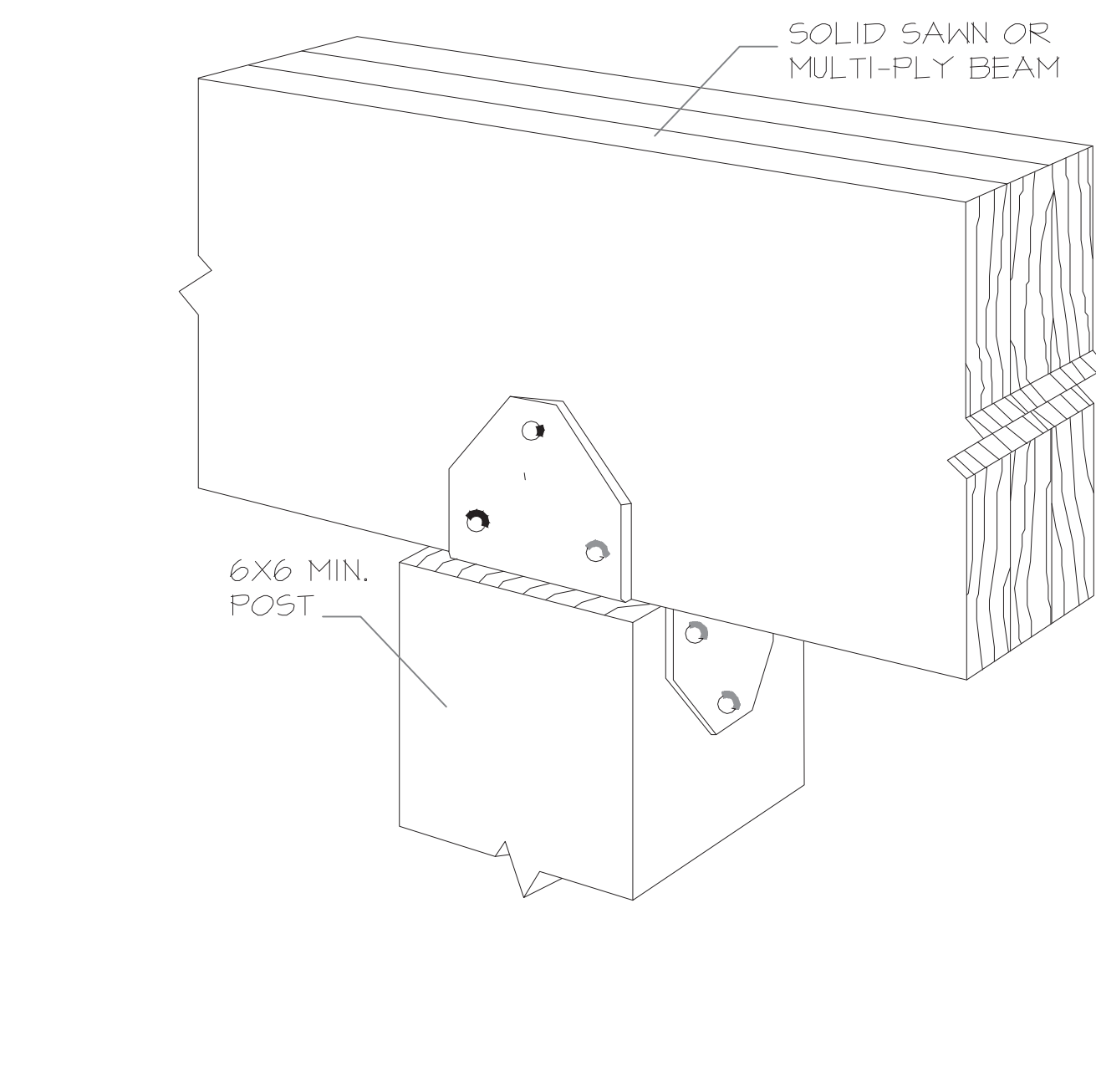
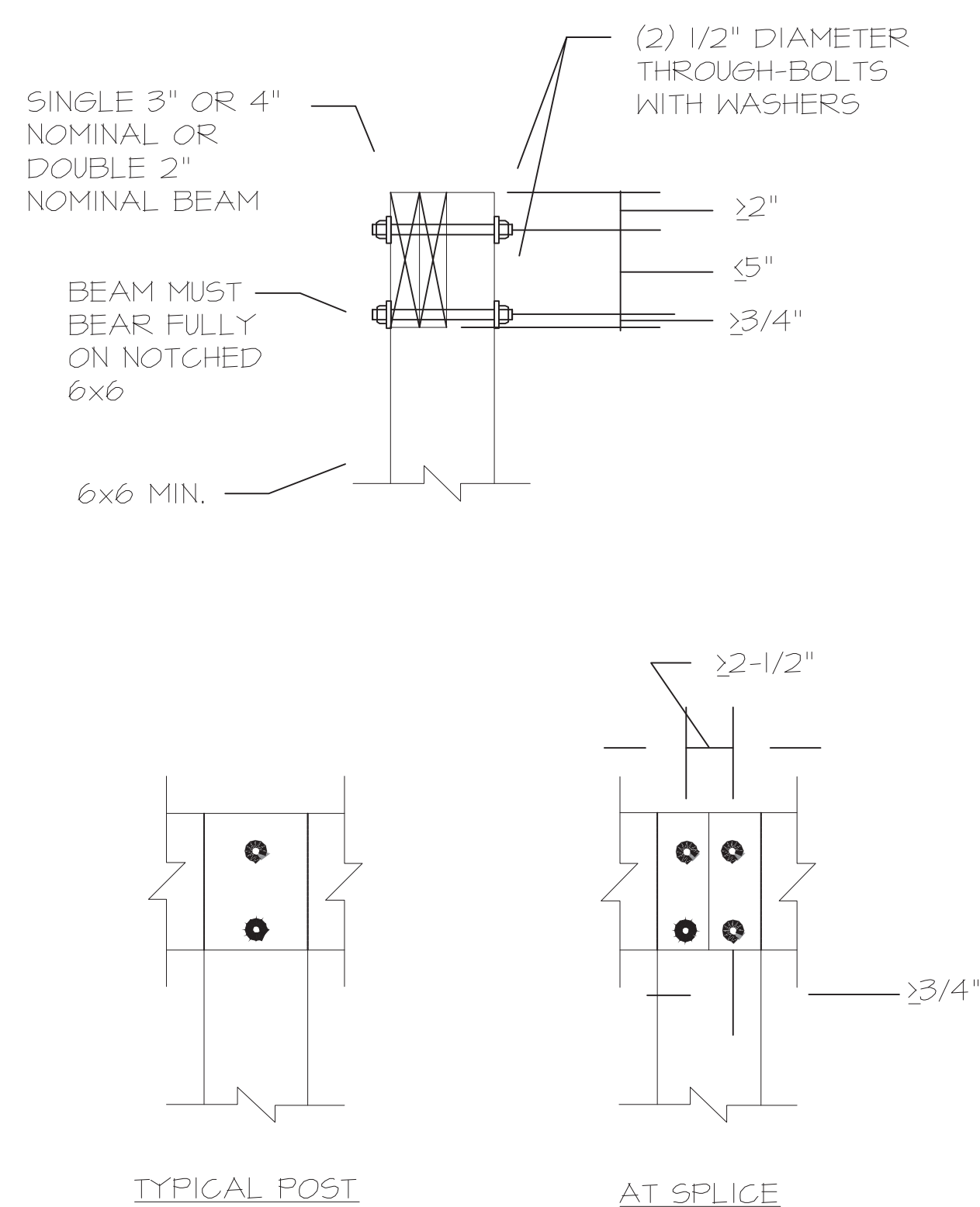
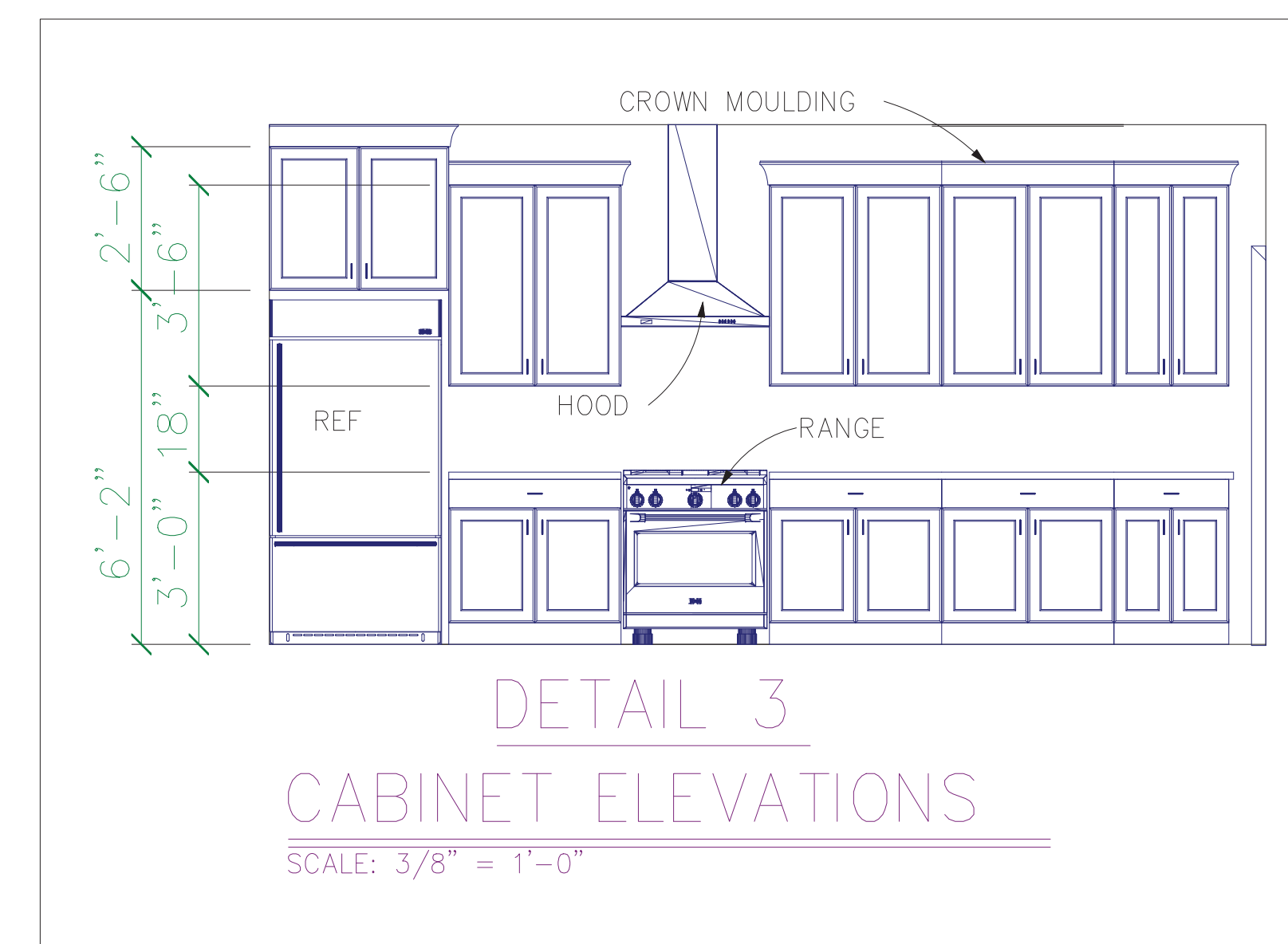
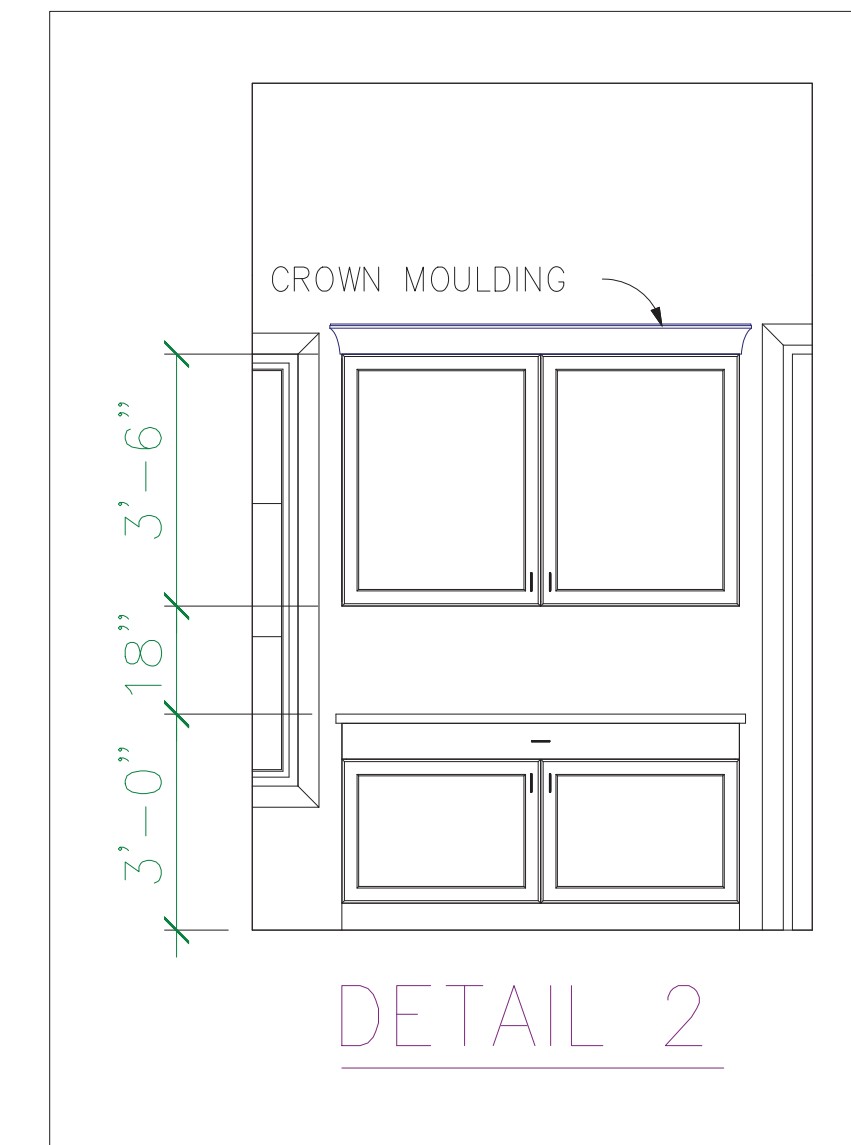
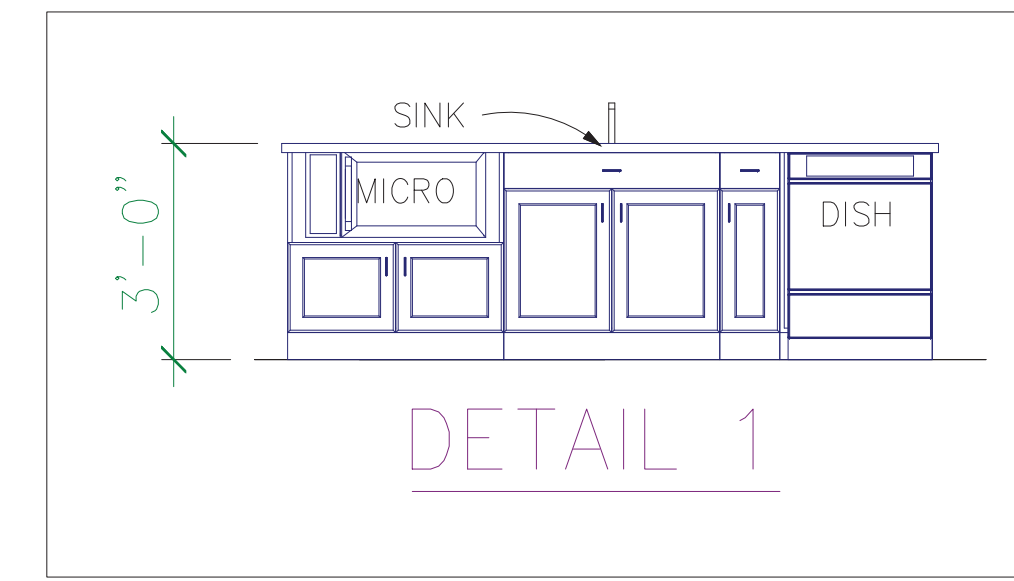
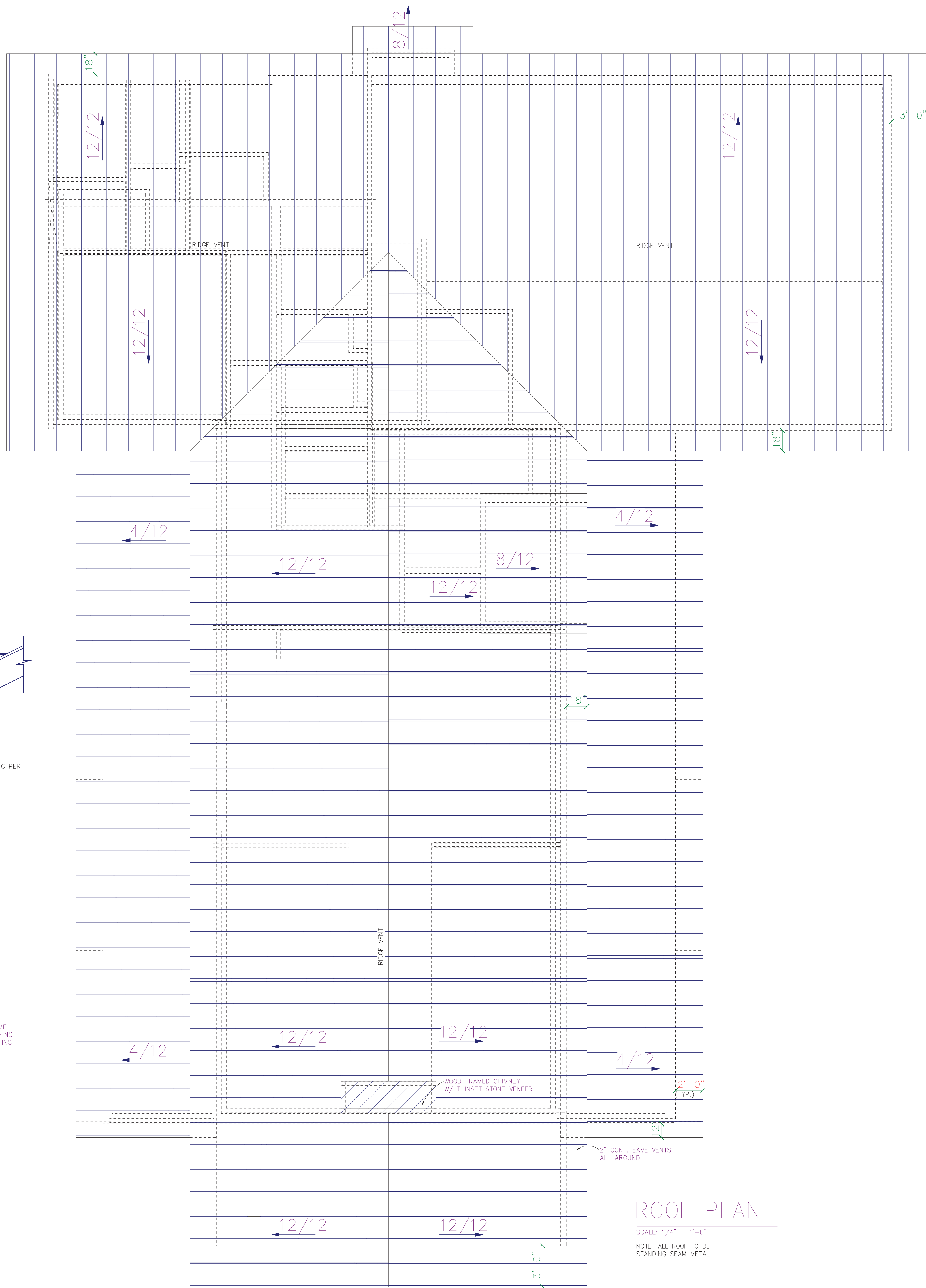
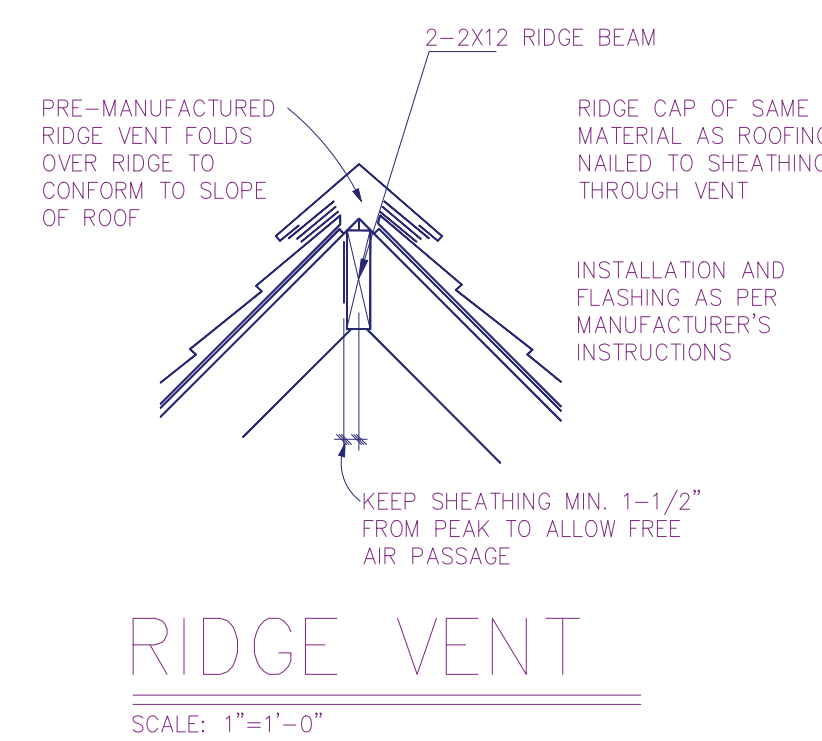
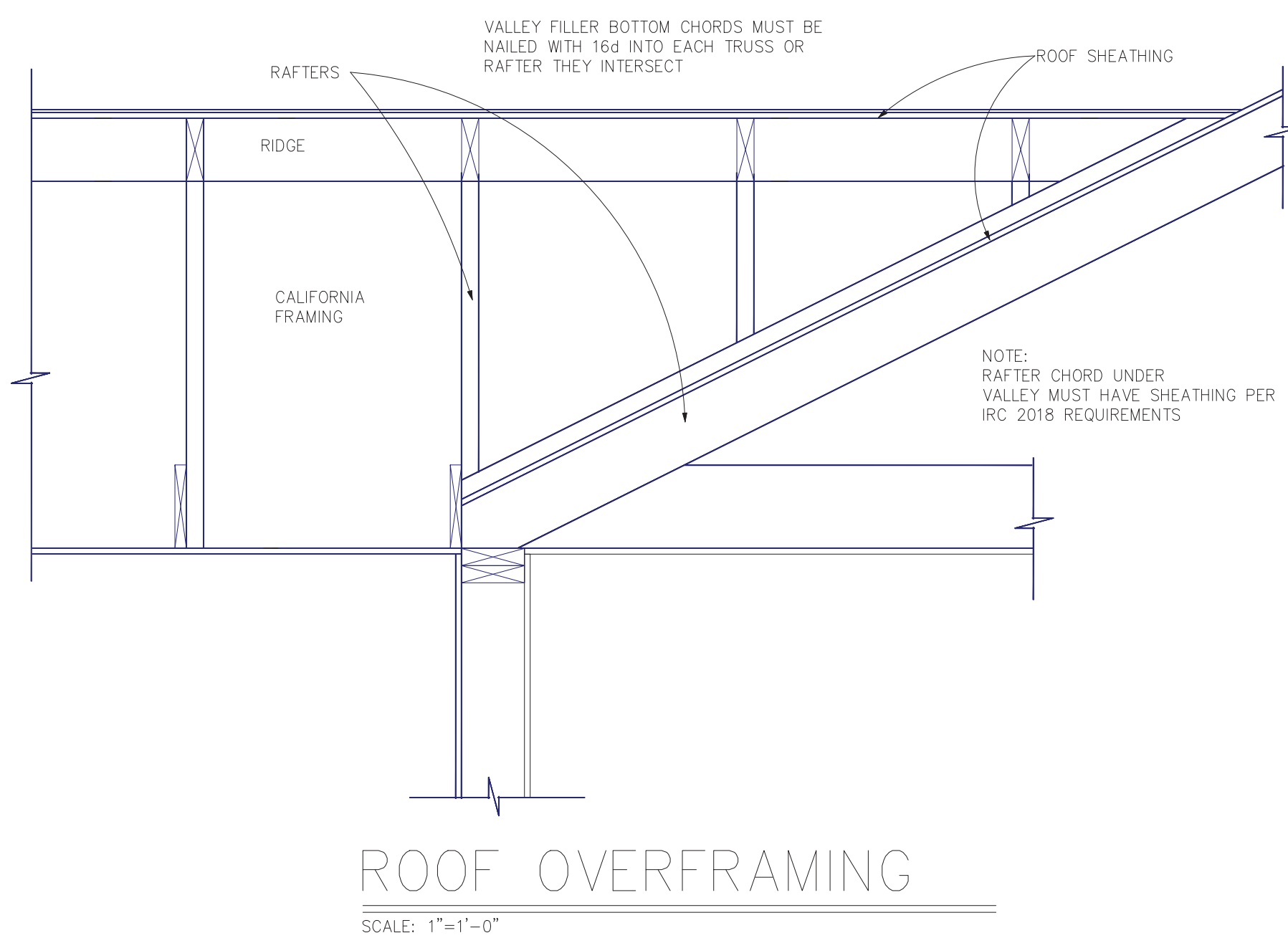
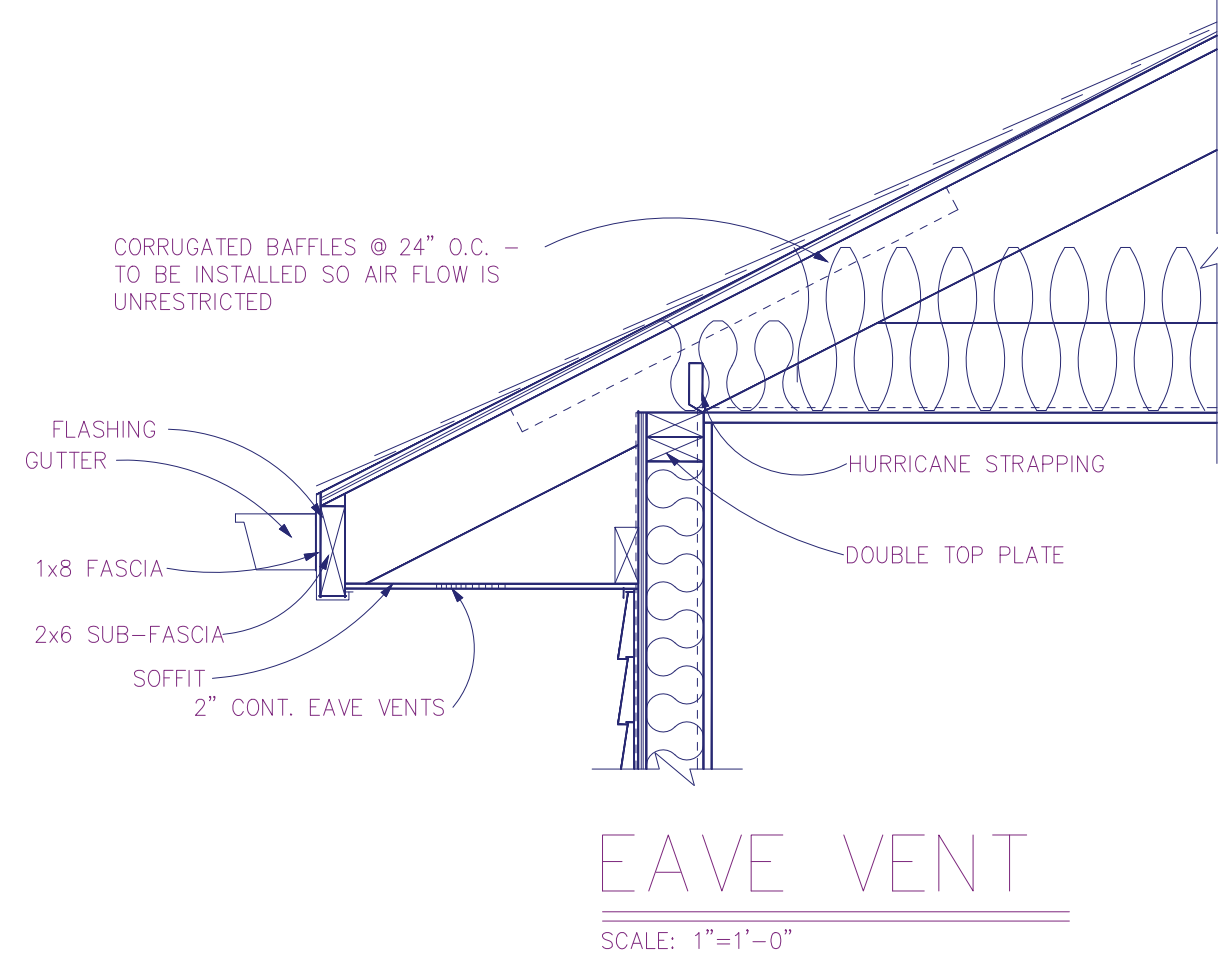
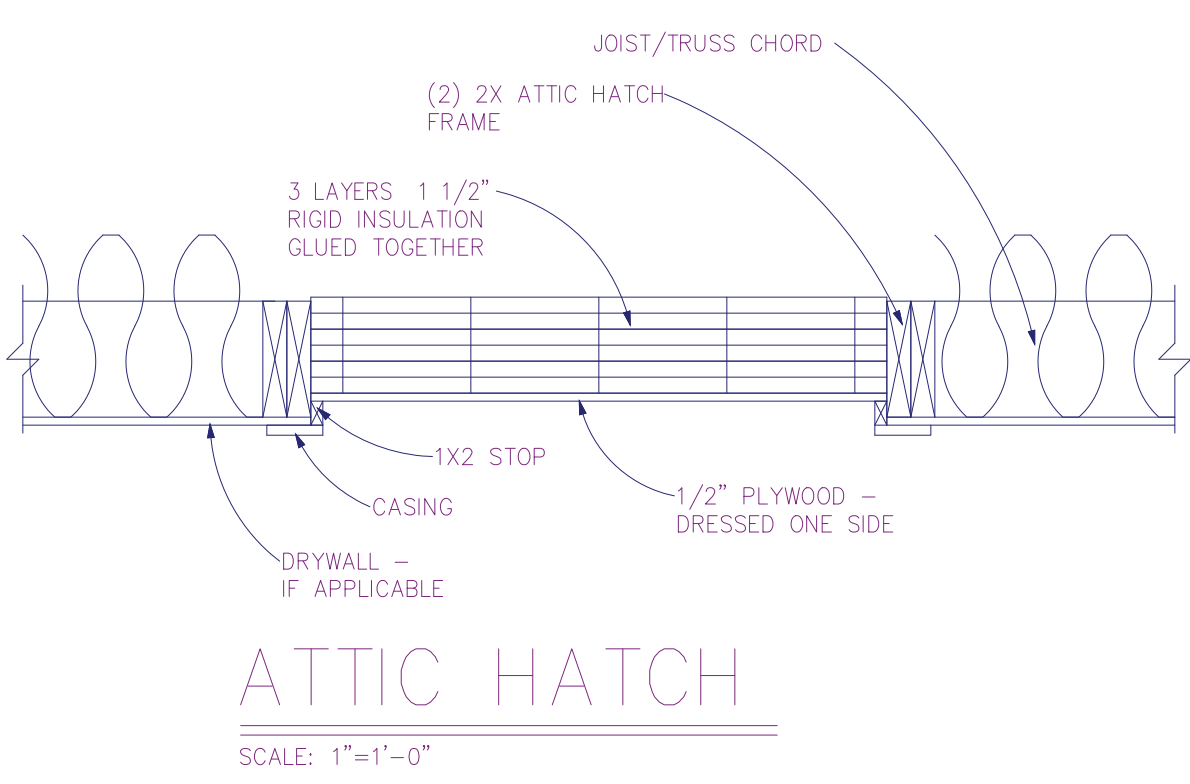
© 2023

30086

SHEET
7
OF
8

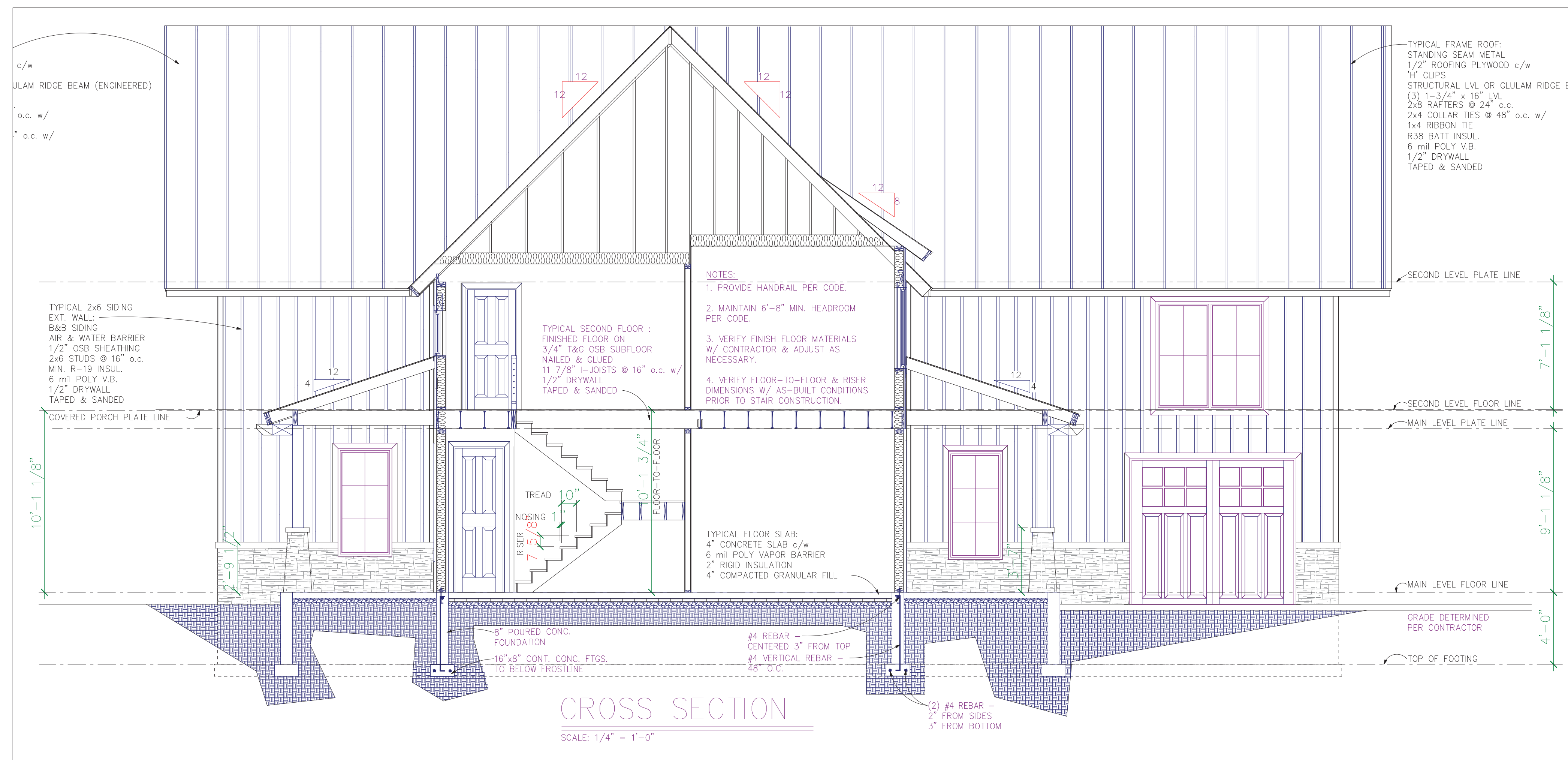
100% SCALE @ 36"x48"





POST-TO-BEAM ATTACHMENT DETAIL
SCALE: NOT TO SCALE

ALTERNATE POST-TO-BEAM DETAIL
SCALE: NOT TO SCALE



PRELIM
FINAL
6/15/2023
REVISION

40 Bealy Farm Rd
Zebulon NC 2759



advancedhouseplans
www.advancedhouseplans.com | 844.875.9838

ADVANCED DESIGNS INC. IS A PROFESSIONAL RESIDENTIAL DESIGN FIRM
LOCATION: DALLAS, TEXAS
DESIGN: 100%
CONSTRUCTION: 100%
YOUR SPECIFIC SITE CONSTRUCTION FROM THESE PLANS SHOULD NOT BE
UNDERSTOOD WITHOUT THE ASSISTANCE OF A CONSTRUCTION PROFESSIONAL
DIMENSIONS, MATERIALS, STRUCTURAL CODE, & SITE REQUIREMENTS PRIOR TO
LAWSUITS THAT MAY OCCUR DURING OR AFTER THE BUILDING PROCESS.

© 2023

30086

SHEET

8

100% SCALE @ 36"x48"