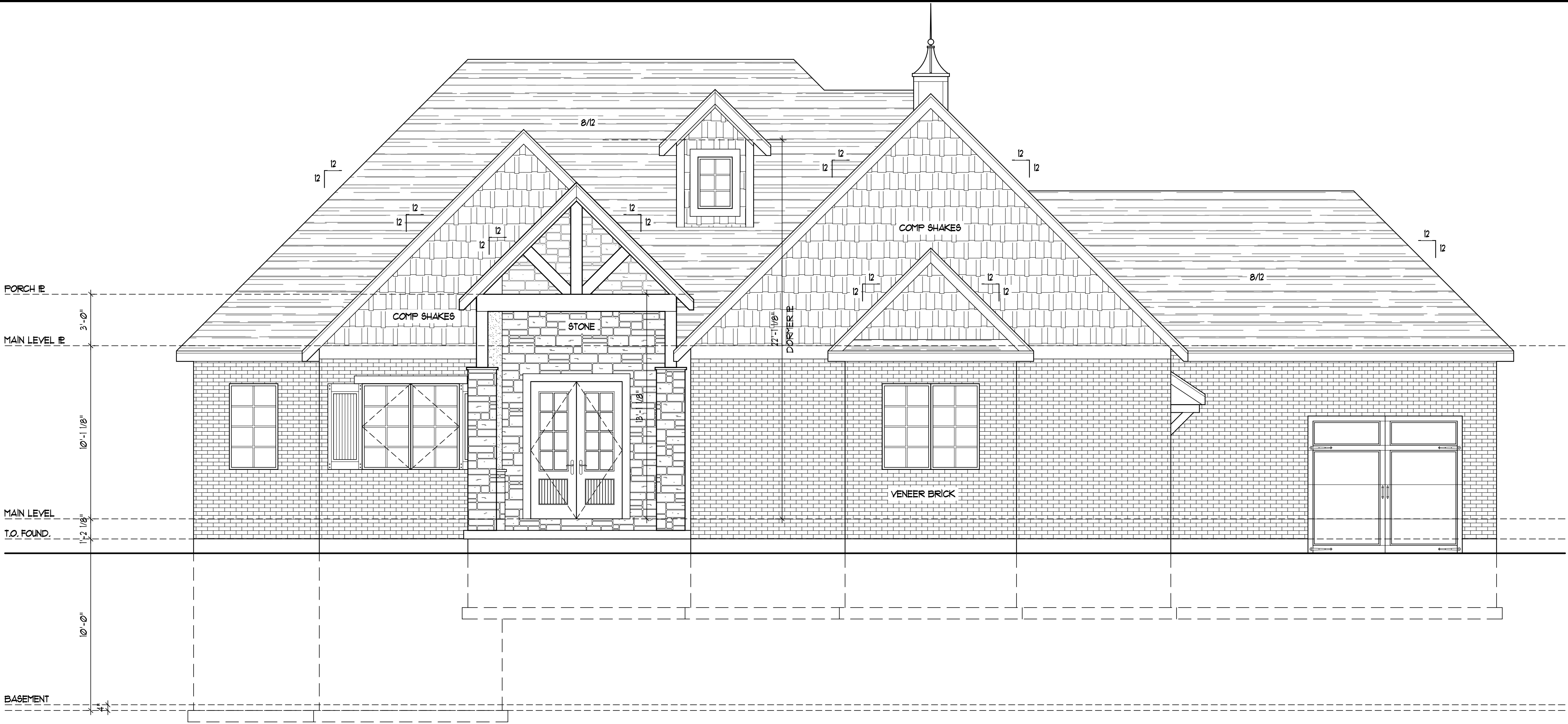
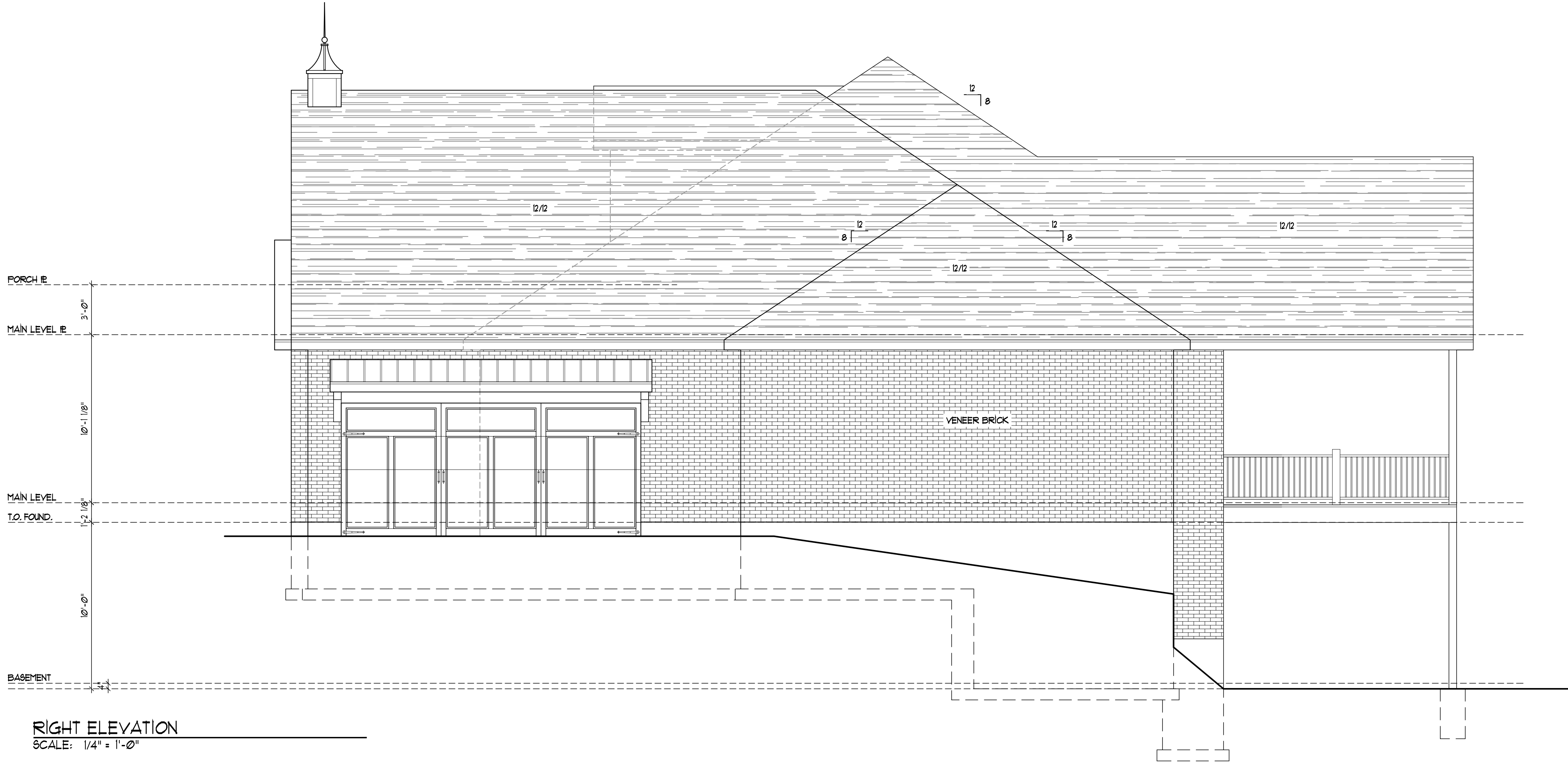




FRONT ELEVATION
SCALE: 1/4" = 1'-0"



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

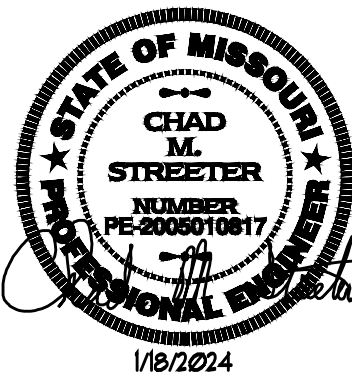


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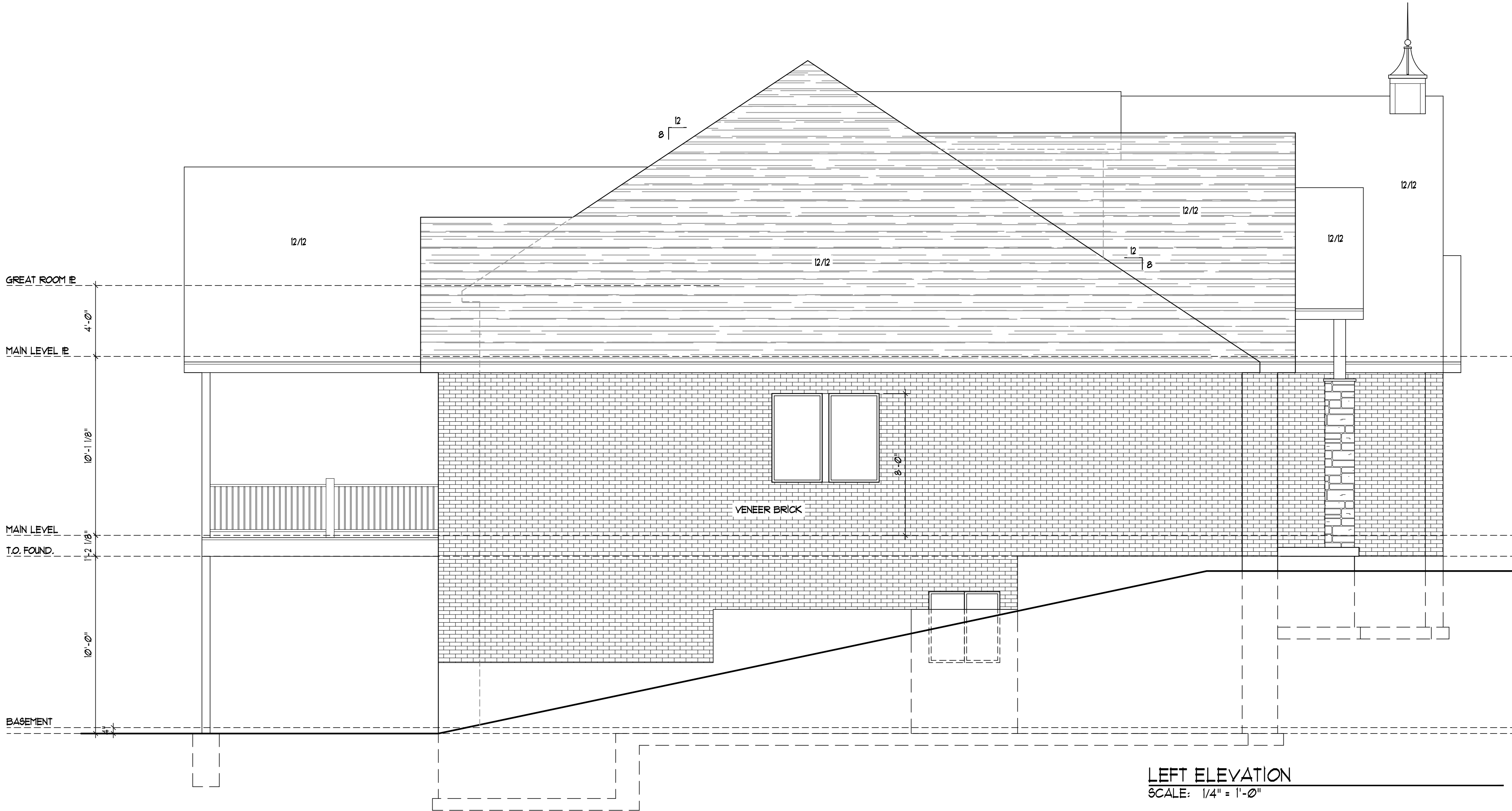
Permit: 1/18/2024

ELEVATIONS FOR:

THE MAPLEWOOD REVERSE CUSTOM

Bill & Jennifer Osborne
2116 NW O'Brien Rd, Lee's Summit, MO
Lot 164 - Woodside Ridge

GA1



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

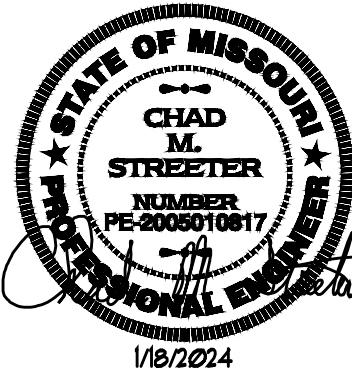


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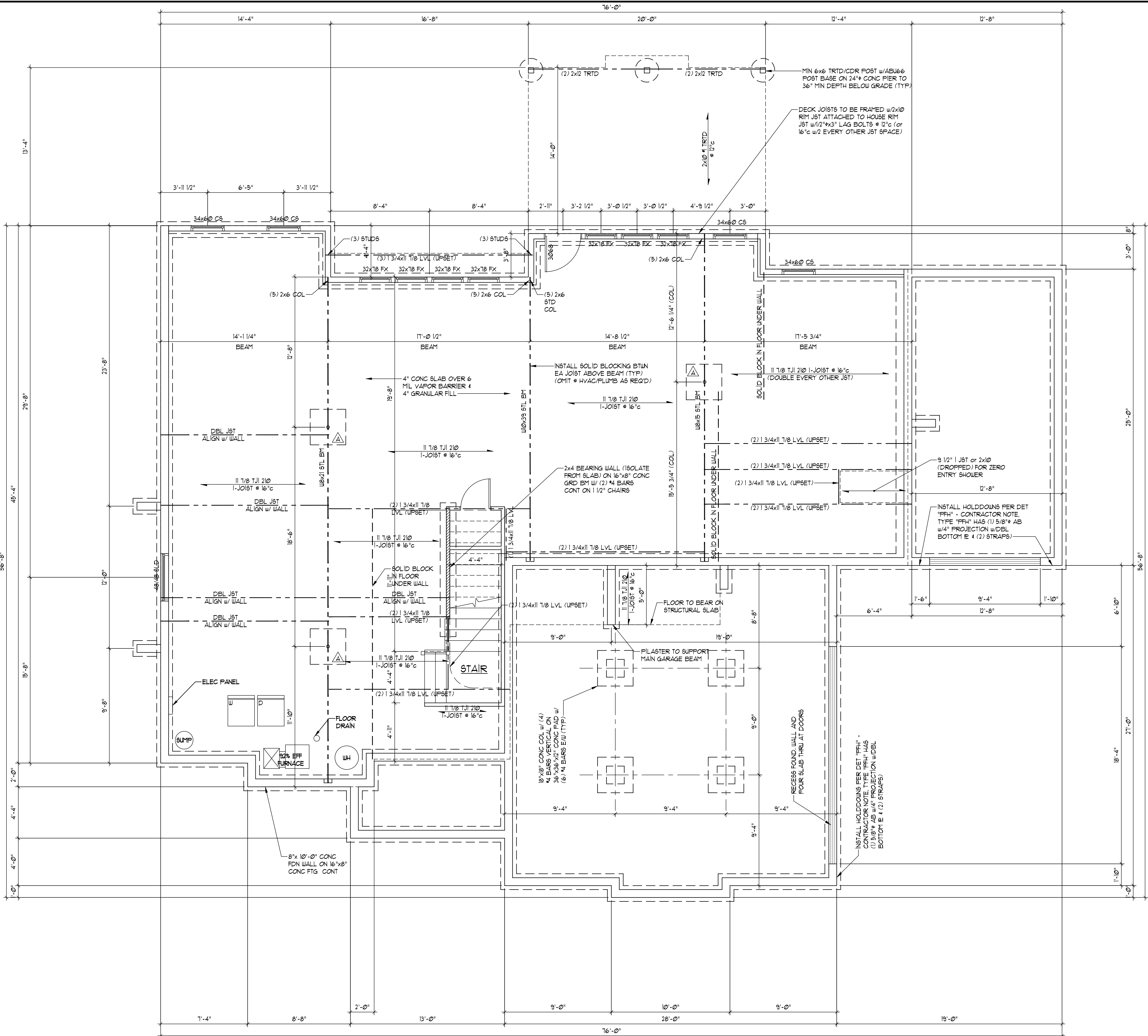
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Project #: 8083-XXXX

DATE:

Permit: 1/18/2024



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

GENERAL NOTES

- BUILDING PERMIT WILL BE REQUIRED FOR THE PROJECT. THIS SET OF DOCUMENTS TO BE SUBMITTED AS A PERMIT SET OF DRAWINGS.
- ALL CONTRACTORS SHALL VISIT THE JOB SITE AND SHALL REVIEW THE PERMIT DRAWINGS TO FAMILIARIZE HIMSELF WITH THE REQUIREMENTS AND INTENT OF THE SCOPE OF WORK. ANY DEFICIENCIES OR DISCREPANCIES DISCOVERED SHALL BE REPORTED FOR REVIEW AND CLARIFICATION PRIOR TO COMMENCING ANY WORK.
- ALL NEW CONSTRUCTION SHALL MEET LATEST EDITIONS OF ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES - INTERNATIONAL RESIDENTIAL CODE.
- WORKMANSHIP SHALL BE OF THE HIGHEST QUALITY. QUALITY MATERIALS SHALL BE USED THROUGHOUT. ALL WORK SHALL BE DONE IN A MANNER SO AS TO MATCH ADJACENT WORK AND FINISHES AND APPROVED BY OWNER.
- CONTRACTORS SHALL REMOVE ALL CONSTRUCTION DEBRIS. ALL CONSTRUCTION DEBRIS SHALL BE CONTAINED PER CITY REQUIREMENTS.
- AREAS FOR MATERIAL STORAGE, TRASH DISPOSAL, WORKMEN'S PARKING, ETC., SHALL BE COORDINATED WITH THE CITY.
- ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR.
- IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO COORDINATE WITH THE OWNER THE QUANTITY AND LOCATION FOR ALL LIGHTING, ELECTRICAL OUTLETS, TELEPHONE OUTLETS, AND MECHANICAL AND PLUMBING SYSTEMS AS REQUIRED.
- THE CONTRACTORS SHALL ADHERE TO THE STATE OF KANSAS ONE CALL SYSTEM, 1-800-344-1233 (MISSOURI ONE CALL SYSTEM, 1-800-344-1483). THE PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT OF WAY MUST GIVE NOTICE TO AND OBTAIN INFORMATION FROM UTILITY COMPANIES. THE CONTRACTORS SHALL NOTIFY THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED WHEN WORK COMMENCES.

GENERAL FOUNDATION REQUIREMENTS

- ALL FOOTINGS ARE TO BE EXTENDED TO MIN 36" BELOW FINISHED GRADE.
- ALL INTERIOR FOOTINGS FOR LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
- FOR ALL CONC WALL OPENINGS, FOOTING 4 WALL STEPS. PROVIDE ONE #4 BAR, 48" LONG DIAGONALLY AS CLOSE AS PRACTICAL TO CORNER.
- ALL REINFORCEMENT SHALL BE LAPPED A MIN OF 24" AT ENDS SPLICES AND AROUND CORNERS.
- ANCHOR BOLTS ARE TO BE SPACED @ 36" WITH 1" MIN EMBED. A BOLT SHALL BE PLACED WITHIN 12" OF THE END OF EACH PLATE SECTION.
- FASTEN JOISTS TO SILL PLATES WITH (3) 8d CORN NAILS.
- WHERE JOIST IS PARALLEL TO FOUNDATION, PROVIDE SOLID BLOCKING @ 32" c FOR (3) JOIST SPACES. FASTEN TO SILL PLATE PER NOTE 6.
- VAPOR BARRIER: 6 MIL PE VAPOR RETARDER WITH JOINTS LAPPED A MIN OF 6" BETWEEN SLAB & BASE.
- DAMP PROOFING: ONE COAT (MIN) OF DAMP PROOFING OR EQUIVALENT FOUNDATION MEMBRANE SHALL BE APPLIED TO EXTERIOR WALL SURFACES BELOW GRADE. SEAL TIE HOLES, VOIDS BEFORE APPLICATION.
- FOUNDATION DRAIN: INSTALL CONT 4" PERFORATED PVC DRAIN TILE. DRAIN TILE TO BE EXTENDED TO SQUARE SUMP PIT WHICH EXTENDS A MIN 24" BELOW BASEMENT FLOOR.
- ALL FRAMING MEMBERS IN CONTACT WITH CONCRETE SHALL BE ACQ TREATED LUMBER.
- ALL STEEL FASTENERS (INCLUDING FOUND. ANCHOR BOLTS) ON ACQ TO BE (DOUBLE HOT-DIPPED) GALVANIZED.
- PROVIDE A "UFER" GROUND PER IRC 3608.1
- EGRESS WELL REQUIREMENTS:
 - IF THE VERTICAL DISTANCE FROM THE WINDOW SILL TO ADJACENT GRADE IS GREATER THAN 44", PROVIDE A LADDER.
 - ADD DRAIN TO DAYLIGHT OR SUMP PUMP.
- RECESS FOUNDATION WALLS AND POUR SLAB THRU AT ALL GARAGE DOORS TO MEET 15 MPH REQUIREMENTS (MIN 8" STEM WALL).

COLUMN & PIER PAD SCHEDULE			
COLUMN MARK	PAD SIZE	REINFORCEMENT	COLUMN SIZE
A	36" x 36" x 12"	(6) #4 BAR E/W	3" x SCHED 40
B	42" x 42" x 14"	(7) #4 BAR E/W	3" x SCHED 40
C	48" x 48" x 16"	(8) #4 BAR E/W	3" x SCHED 40
D	54" x 54" x 16"	(9) #4 BAR E/W	3 1/2" x SCHED 40
E	60" x 60" x 18"	(10) #4 BAR E/W	3 1/2" x SCHED 40

- COLUMN & PIER PAD SIZES SHOWN ARE BASED ON AN ASSUMED MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 1500 psf.
- GARAGE FOOTINGS PER DETAIL, COLUMN NOT REQUIRED UNLESS NOTED ON PLANS

I JOIST AND TRUSS NOTES

- FLOOR TRUSSES OR I-JOIST LOADING SHALL BE PER THE GENERAL NOTES.
- I JOISTS MAY BE SHOWN AS SIMPLE SPAN TO DEFINE SPANS AND BEARING POINTS. TRUSS MFG TO RUN CONTINUOUS WHERE POSSIBLE.
- COORDINATE I-JOISTS LOCATIONS WITH PLUMBING DRAIN LINES AT ALL TOILET LOCATIONS.
- EXACT I-JOIST OR FLOOR TRUSS LAYOUT TO BE PROVIDED BY TRUSS MANUFACTURER. DESIGN AND LAYOUT TO BE SUBMITTED TO VAN DEURZEN AND ASSOCIATES TO REVIEW FOR GENERAL CONFORMANCE TO THE DESIGN OF THE BUILDING PRIOR TO SUBMITTAL TO THE CODES ADMINISTRATION FOR PERMITTING.
- IF A CONFLICT EXISTS BETWEEN SHOP DRAWINGS AND CONTRACT SET, THE CONTRACT SET SUPERCEDES THE JOIST/TRUSS LAYOUT.
- IF BUILDING CODE HAS NOT BE ATTENDED BY LOCAL JURISDICTION ALL I-JOIST AND OPEN WEB TRUSSES OVER UNFINISHED SPACE EXCEEDING 80 SQUARE FEET IN AGGREGATE AREA TO BE PROTECTED BY ONE OF THE FOLLOWING METHODS:
 - 1 LAYER 1/2" GYP SHEETROCK - NO MUD AND TAPE REQD.
 - PLUMBER INSTALLED RESIDENTIAL SPRINKLER SYSTEM
 - FACTORY APPLIED, FIRE PROTECTIVE COATING BY I-JOIST MANUFACTURER
 - 3" MINERAL ROCK WOOL COVERING BTM CHORD AND NETTING PER APA FORM R425 METHOD 4

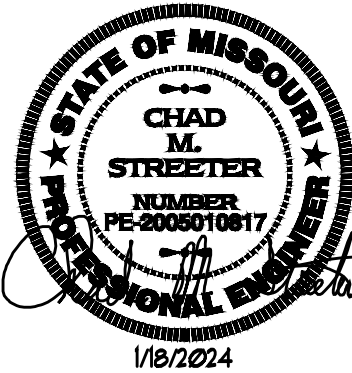


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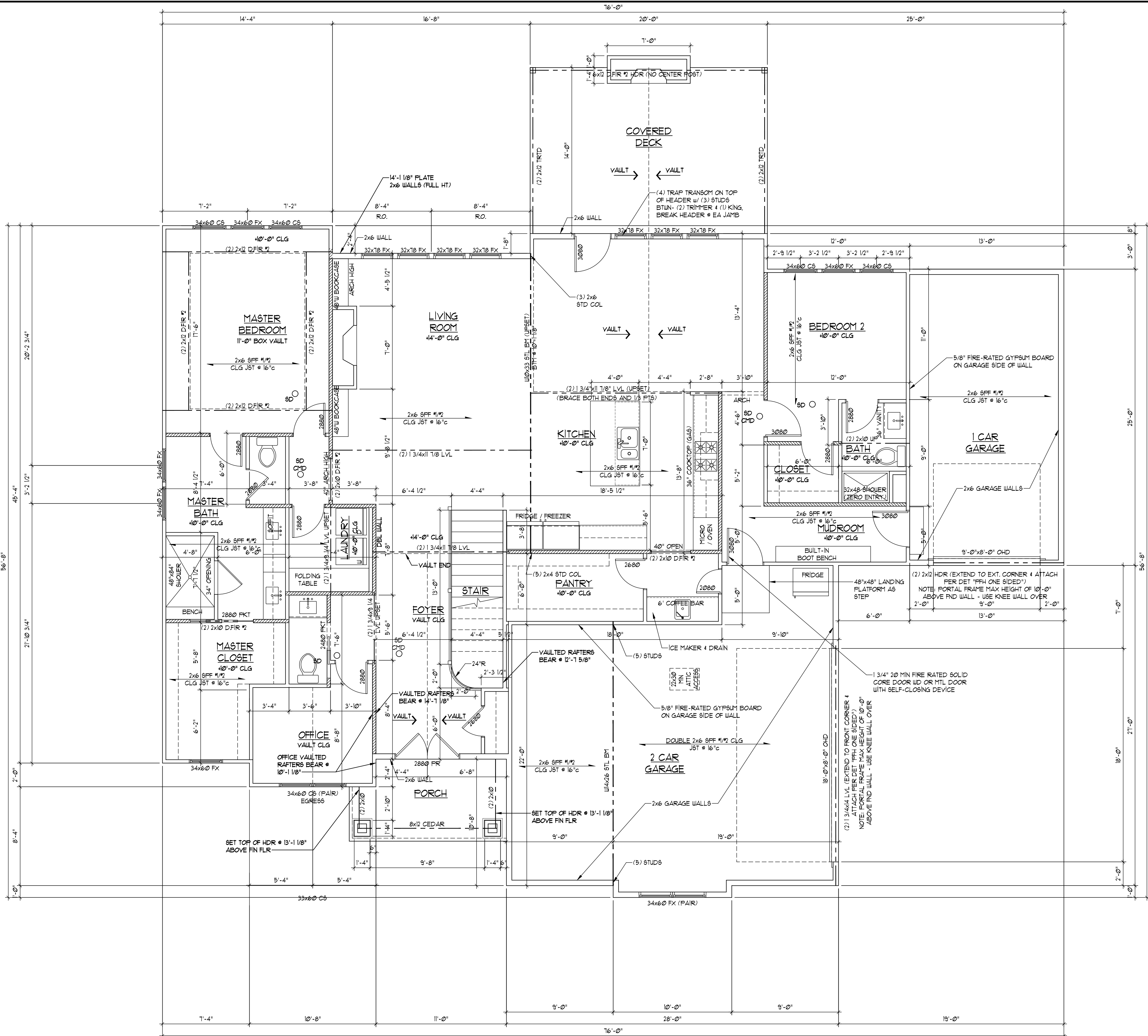
DATE:

Permit: 1/18/2024

FOUNDATION PLAN FOR:
THE MAPLEWOOD REVERSE CUSTOM

Bill & Jennifer Osborne
2116 NW O'Brien Rd, Lee's Summit, MO
Lot 164 - Woodside Ridge

GA3



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

GENERAL PLAN REQUIREMENTS

- ALL STUD WALL FRAMING SHALL BE CONTINUOUS FROM THE FLOOR TO ROOF OR CEILING DIAPHRAGM, UNO. ALL WALLS OVER 10'-0" ARE TO BE 2x6 @ 16" UNO.
- PROVIDE WATER-RESISTANT EXTERIOR WALL COVERING ON ALL FRAMED WALLS TO COMPLY WITH IRC SECTION 103.2.
- PROVIDE GFCI ELECTRICAL OUTLETS ON EXTERIOR, IN UNFINISHED BASEMENT, IN BATHROOMS, ABOVE KITCHEN COUNTERS, IN GARAGE, AND WITHIN 6'-0" OF ANY SINK.
- ALL EXTERIOR DOORS SERVED BY LANDING.
- INSTALL CARBON MONOXIDE DETECTORS PER IRC SECTION 315 OUTSIDE OF EACH SLEEPING AREA.
- INSTALL SMOKE DETECTORS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA, WITH A MINIMUM OF ONE ON EACH FLOOR PER IRC SECTION 314. PROVIDE A "UFER" GROUND PER IRC 3608.1.
- REFER TO SHEET 83 FOR ALL WALL BRACING DETAILS AND/OR CALCULATIONS.
- INSTALL BLOCKING FOR TP HOLDERS, TOWEL BARS, AND TRIM BEAMS.
- GARAGE DOOR H-FRAME, THE H-FRAME FOR ATTACHMENT OF THE TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING ATTACHED WITH 3 1/4"x120 NAILS @ 1" C STAGGERED WITH (1) 3 1/4"x120 NAILS THRU JAMB INTO HEADER, MINIMUM 2x8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.
- OVERHEAD GARAGE DOORS TO MEET 18 MPH WIND LOAD RESISTANCE REQUIREMENTS OF DASHA 108-11 AND ASTM E 330-07.
- MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 1 3/4" AND THE TREADS SHALL PROVIDE A MINIMUM TREAD DEPTH OF 10".
- ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS TO BE (2) 2x10 DFR #2 UNLESS NOTED OTHERWISE ON PLANS.
- ALL HEADER BEARINGS (OTHER THAN WINDOWS) TO BE (2) 2x4 STUDS UNLESS NOTED OTHERWISE. WINDOW HEADER BEARING TO BE (1) 2x4 EA END UNLESS NOTED OTHERWISE.
- SLOPING VAULTS SHALL BE FURRED DOWN WITH 2x MATERIAL 4 AFFIXED WITH 1/2" OSB FLITCH PLATE TO PROVIDE REQUIRED DEPTH FOR INSULATION (RE: ENERGY REQUIREMENTS and/or FRAMING DETAILS).

////////// DENOTES LOAD BEARING STUD WALL

WINDOW AND DOOR NOTES

- ALL WINDOWS ARE SHOWN IN INCHES (I.E. 30x60 IS A 30"x60" WINDOW). ALL DOORS SHOWN IN FEET AND INCHES (I.E. 28x8 DOOR IS A 2'-8"x6'-8" DOOR). CONTRACTOR/INSTALLER TO VERIFY R.O. DIMENSIONS WITH BUILDER SUPPLIED CUT SHEET PRIOR TO FRAMING.
- ALL WINDOWS TO BE LOW-E GLASS TO MEET ALL LOCAL ENERGY CODE REQUIREMENTS.
- PROVIDE EGRESS WINDOW IN ALL SLEEPING ROOMS. WINDOWS SHALL COMPLY WITH THE FOLLOWING:
 - MINIMUM OPEN AREA 5.7 SF
 - MINIMUM OPENING HEIGHT 24 INCHES
 - MINIMUM OPENING WIDTH 20 INCHES
 - SILL HEIGHT 44" MAX ABOVE FLOOR
- ALL WINDOW SILLS ARE TO BE 24" MIN ABOVE FINISH FLOOR, OR SHALL BE FIXED/INOPERABLE.
- ALL WINDOWS AND GLAZED DOORS SHALL COMPLY WITH IRC SECTION R308. IRC SECTION R308.4: GLAZING IN HAZARDOUS LOCATIONS SHALL BE APPROVED SAFETY GLAZING MATERIALS. GLAZING IN: STORM DOORS, INDIVIDUAL FIXED OR OPERABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 24" ARC OF THE DOOR IN A CLOSED POSITION AND WHOSE BOTTOM EDGE IS WITHIN 60" OF THE FLOOR, WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 60" OF THE TOP OR BOTTOM OF STAIR ENCLOSURES FOR TUBS, SHOWERS AND WHIRLPOOLS, GLAZING IN FIXED OR OPERABLE PANELS EXCEEDING 9 SF AND WHOSE BOTTOM EDGE IS LESS THAN 18" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 36".
- ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC R312.2.
- ALL GLAZING IN WINDOWS AND DOORS SHALL COMPLY WITH THE TEST CRITERIA FOR CATEGORY II IN ACCORDANCE WITH CPSC 16 CFR 1201.
- WINDOW MANUFACTURER TO CONFIRM EXACT SAFETY AND EGRESS WINDOW LOCATIONS PER LOCAL CODES.

ENERGY REQUIREMENTS

CONTRACTOR TO PROVIDE ENERGY AUDIT USING THE HERS ENERGY RATING SYSTEM. IN LIEU OF AN ENERGY AUDIT, THE FOLLOWING PRESCRIPTIVE REQUIREMENTS MAY BE FOLLOWED:

- ALL DUCTS, AIR HANDLERS, FILTER BOXES, AND BUILDING CAVITIES TO BE SEALED PER IRC SECTION N103.2.
- THE BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED PER IRC SECTION N102.4.
- CONTRACTOR TO SUBMIT "MANUAL J" AND "MANUAL D" CALCULATIONS FOR THE HVAC SYSTEM.
- INSULATION TO COMPLY WITH IECC AS FOLLOWS:

WALLS	R-13
CEILING (FLAT)	R-49
CEILING (VAULTED)	R-38 (NOTE: VAULTED AREA NOT TO EXCEED 500sq ft OR 20% OF ROOF AREA, WHICHEVER IS LESS)
FLOORS OVER UNCONDITIONED SPACE	R-19
CRAWL SPACE WALLS	R-13 (or R-10 CONTINUOUS)
BASEMENT WALLS	R-13 (or R-10 CONTINUOUS)
SLABS	N/R
DUCTWORK	R-8
WINDOWS	U 0.32 (MAX)
SHGC	0.40 (MAX)
SKYLIGHTS	U 0.35 (MAX)
SHGC	0.40 (MAX)

WALL BRACING NOTES:

- ALL WALLS ARE TYPE "CS-W8P" AND ARE CONTINUOUSLY SHEATHED UNLESS NOTED OTHERWISE, THE BRACED WALL NOTATIONS (IF SHOWN) REFLECT THE MINIMUM SHEATHING REQUIREMENTS PER CODE.
- IF NO NOTATIONS ARE SHOWN FOR WALLS TYPE "CS-W8P" ON PLAN, WALL IS FULLY SHEATHED AND MEETS ALL REQUIREMENTS WITH END CONDITION #1, #3, OR #4.
- EC # - END CONDITION PER IRC FIGURE R602.10.1, (FOR CONDITIONS #1, #3, & #4 NO HOLDDOWN REQUIRED)
- INTERIOR WALL BRACING NOT REQUIRED

XXXXXXXXXXXXX DENOTES EXTERIOR BRACED WALL WOOD STRUCTURAL PANEL (W8P OR CS-W8P)
XX" PANEL ATTACHED PER DETAILS AND GENERAL NOTES

BUILDING AREAS	
MAIN LEVEL	2306 SF
LOWER LEVEL FINISH	1684 SF
LOWER LEVEL UNFINISHED	310 SF
2 CAR GARAGE	754 SF
1 CAR GARAGE	338 SF
FRONT PORCH	10 SF
COVERED DECK	281 SF

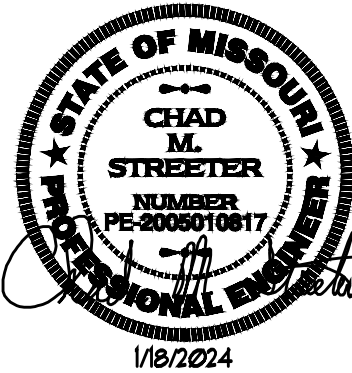


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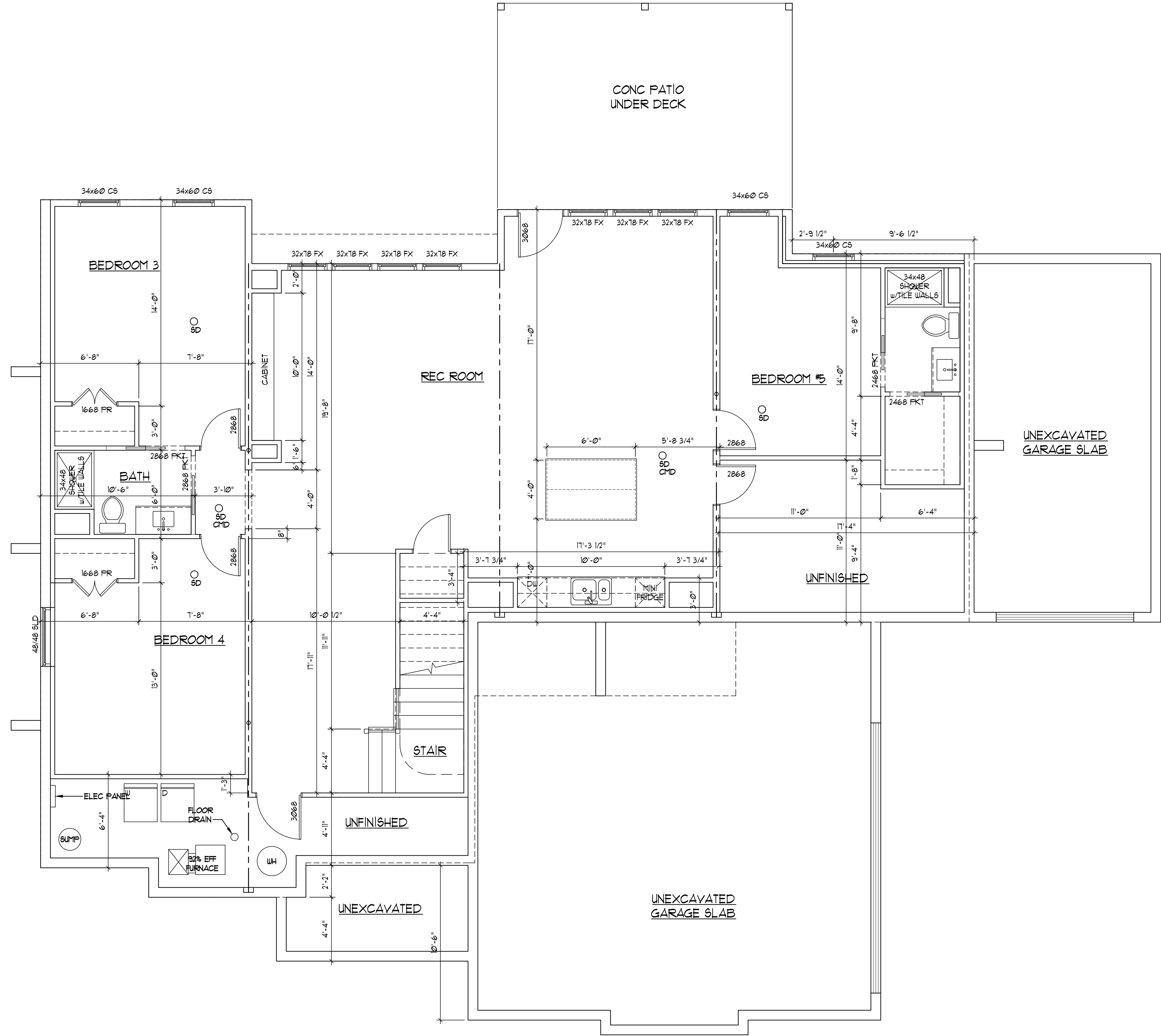
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MAIN FLOOR PLAN FOR:
THE MAPLEWOOD REVERSE CUSTOM
Bill & Jennifer Osborne
2116 NW O'Brien Rd, Lee's Summit, MO
Lot 164 - Woodside Ridge

GA4



LOWER LEVEL FINISH PLAN
SCALE: 1/4" = 1'-0"

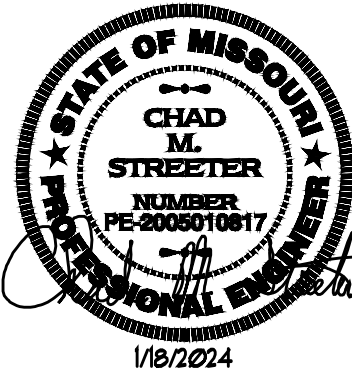


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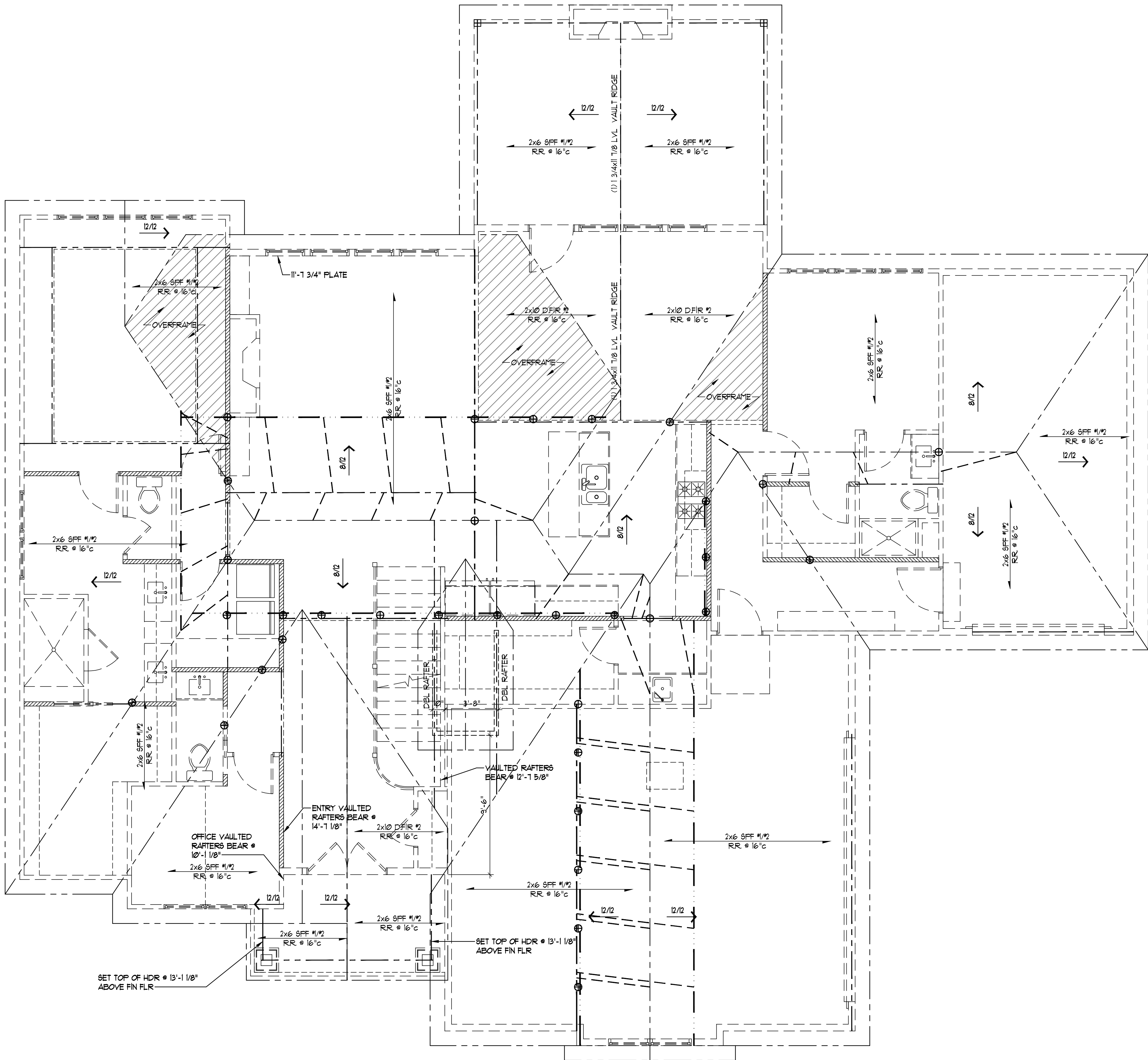
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Permit: 1/18/2024

LOWER LEVEL FINISH PLAN FOR:
THE MAPLEWOOD REVERSE CUSTOM
Bill & Jennifer Osborne
2116 NW O'Brien Rd, Lee's Summit, MO
Lot 164 - Woodside Ridge

GA5



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

ROOF PLAN NOTES

- ALL ROOF RAFTERS NOT CALLED OUT ARE TO BE 2x6 SFF #1/2 @ 16" c/c
- ALL CEILING JOISTS NOT CALLED OUT ARE TO BE 2x6 SFF #1/2 @ 16" c/c
- ALL VAULTS TO BE FURRED DOWN w/2x MATERIAL TO PROVIDE FOR R-38 INSULATION
- ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS TO BE (2) 2x10 DFR #2 UNLESS NOTED OTHERWISE ON PLANS
- ALL RIDGES, HIPs, AND VALLEYS NOT MARKED SHALL BE (1) NOMINAL SIZE LARGER THAN THE INTERSECTING RAFTERS
- CEILING JOISTS AND RAFTERS SHALL BE NAILED TO EACH OTHER WITH (3) 16d COM (3 1/2"x0.62") NAILS AND THE RAFTER SHALL BE NAILED TO THE TOP WALL PLATE WITH (3) 8d COM (2 1/2"x0.31") NAILS. CEILING JOISTS SHALL BE CONTINUOUS OR SECURELY JOINED WITH (3) 16d COM (3 1/2"x0.62") NAILS WHERE THEY MEET OVER INTERIOR PARTITIONS AND ARE NAILED TO ADJACENT RAFTERS TO PROVIDE A CONTINUOUS TIE ACROSS THE BUILDING WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS
- WHERE CEILING JOISTS ARE NOT CONNECTED TO THE RAFTERS AT THE TOP WALL PLATE (or AT LOCATIONS WHERE C.J. ARE PERPENDICULAR TO RAFTERS), INSTALL 2x4 RAFTER TIES @ 16" c/c WITH (3) 16d COM (3 1/2"x0.62") NAILS EA END.
- ADDITIONAL NOTE: ROOFS WITH SLOPE OF 4:12 OR SHALL OVER SHALL HAVE (5) 16d COM NAILS AT THE CONNECTIONS LISTED IN NOTE #6 AND #7.
- RAFTER CONNECTIONS DESIGNED TO RESIST UPLIFT FORCES PER IRC TABLE 602.11. ROOF HEADERS DO NOT HAVE NOTABLE UPLIFT TO REQUIRE HOLD DOWNS. REFER TO STRUCTURAL DETAIL SHEET S1 CONNECTION TABLE FOR FASTENERS
- INSTALL 2x4 COLLAR TIES @ 48" c/c IN UPPER 1/3rd OF ROOF RAFTER
- IF COLLAR TIES CAN NOT BE INSTALLED (AND FOR VAULTED/ CATHEDRAL ROOFS) INSTALL 1 1/4" x 12g8 RIDGE STRAP (SIMPSON LSTA2 or EQUIV.) PER FASTENER SCHEDULE.
- PROVIDE METAL FLASHING OR CLOSED CUT CORNER VALLEY w/ICE & WATER SHIELD AT ALL ROOF VALLEYS.
- ROOF AND SOFFIT VENTS PER LOCAL CODES. WHERE POSSIBLE, PROVIDE ROOF VENTING ON BACK SIDE OF ROOF. BATH VENTS TO VENT DIRECTLY TO THE OUTSIDE.
- PER IRC SECTION R802.3 - FOR ROOF PITCHES 3/12 OR GREATER, STRUCTURAL MEMBERS THAT SUPPORT RAFTERS AND CEILING JOISTS SUCH AS RIDGE BEAMS, HIPs AND VALLEYS THAT ARE SUPPORTED BY BRACES AND/OR FURLINS AT THE ENDS ARE NOT REQUIRED TO BE DESIGNED AS BEAMS AND ARE TO BE FRAMED USING LUMBER THAT IS NOMINALLY 2" WIDE BY ONE SIZE GREATER THAN ATTACHING FRAMING MEMBER (NOTE #5). THERE IS NO STRUCTURAL LINE LOADING ON THE MEMBER.
- ALL HIPs AND HIP TO RIDGE CONNECTIONS SHOULD BE INSTALLED AND TIED PER THE ATTACHED DETAILS ON SHEET S2. THIS INCLUDES ADDITIONAL 2x8 CEILING JOISTS AND COLLAR TIES.
- EXACT GUTTER AND DOWNSPOUT LOCATION BY GUTTER INSTALLER.

ROOF BRACING

- ROOF FURLINS TO BE PLACED APPROXIMATELY WHERE SHOWN ON PLANS, USE 2x6 STUD GRADE FURLIN PLACED PERPENDICULAR TO RAFTERS (UNLESS NOTED OTHERWISE ON PLANS)
- RIDGE, HIP, VALLEY, AND FURLIN BRACE STRUTS TO BE PLACED AS SHOWN ON PLANS. STRUTS TO BE 2x4 STUD GRADE w/ MAXIMUM UNBRACED LENGTH OF 8'-0" AND AT A 45° ANGLE w/ HORIZONTAL OR GREATER (VERTICAL WHERE POSSIBLE)
- BRACES LONGER THAN 8'-0" SHALL BE 2x4 STRONG BACK BRACES

NOMENCLATURE

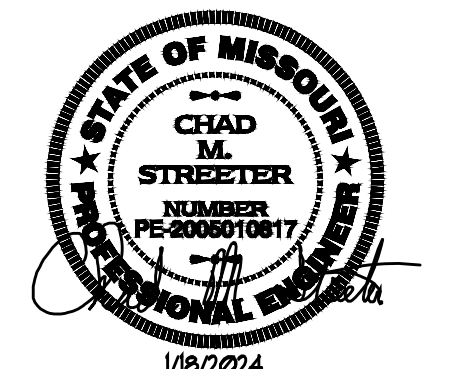
- CEILING HEADERS AND BEAMS
- 2x6 ROOF FURLINS (UNLESS NOTED OTHERWISE ON PLANS)
- 2x4 FURLIN/RIDGE BRACING @ 4'-0" c/c (STRONG BACK IF OVER 8'-0" LONG)
- 2x4 STRONGBACK HIP, VALLEY, OR RIDGE RAFTER SUPPORT
- LOAD BEARING STUD WALLS



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ROOF PLAN FOR:
THE MAPLEWOOD REVERSE CUSTOM
Bill & Jennifer Osborne
2116 NW O'Brien Rd, Lee's Summit, MO
Lot 164 - Woodside Ridge

GA6

STRUCTURAL GENERAL NOTES

DIVISION 1 - GENERAL REQUIREMENTS

1. Design and construction work for this project shall conform to the requirements of the 2018 International Residential Code as amended by the City of Lee's Summit, MO

2. Furnish all labor, materials and equipment necessary to complete the work as shown or inferred by the drawings.

3. Design Loads:

A. Elevated Floor:

Residential (Live Loads) 40 PSF
Sleeping rooms (Live Loads) 30 PSF
Floor Dead Load L240
Floor Joist Deflection (Total) L/360
Atic Storage (Live Loads) 10 PSF
5 PSF
Ceiling Dead Load L/240
Ceiling Joist Deflection 20 PSF

B. Roof Live Load:
Ground Snow Load, pg 20 PSF
Flat Roof Snow Load, pf 20 PSF
Snow Exposure Factor, Ce 1.0
Snow Load Importance Factor, Is 1.0
Thermal Factor, Ct 1.0

C. Roof Snow Load:
Ground Snow Load, pg 20 PSF
Flat Roof Snow Load, pf 20 PSF
Snow Exposure Factor, Ce 1.0
Snow Load Importance Factor, Is 1.0
Thermal Factor, Ct 1.0

D. Wind Load:
Basic Wind Speed (Vult) 115 MPH
Risk Category II
Exposure B
Internal Pressure Coefficient ±0.18

4. The contractor shall examine actual job conditions and be responsible for verifying all dimensions and elevations shown on structural plans with those shown on architectural and mechanical drawings. If errors, omissions or discrepancies are found they shall be reported to the engineer before proceeding with the work.

5. Plans indicate size, location and general arrangement of construction. Dimensions lacking or not drawn to scale shall not be scaled but referred to the designer for interpretation.

DIVISION 2 - EARTHWORK

1. It is recommended that the contractor employ the services of a geotechnical engineer to observe, test and approve all excavation, fill and backfill work, and to determine that subsgrade conditions are compatible with those used in the design.

2. The minimum soil bearing capacity is 1500 PSF in accordance with Table 1804.2 of the International Building Code. All footings are designed to bear on natural undisturbed soil or controlled fill capable of adequately sustaining a maximum bearing pressure of 1500 PSF.

3. All excavated material and existing structures shall be removed from building area and from areas to be paved. Stockpile all topsoil for reuse.

4. Controlled Fill Materials:
A. Granular Fill - Granular fill shall consist of washed, evenly graded mixture of crushed stone or crushed or uncashed gravel, with 100 percent passing a 1 1/2 inch sieve and not more than 5 percent passing a no. 4 sieve.

B. Shrinkage-Swell control fill - Shrinkage-swell controlled fill shall consist of material having a relatively low plasticity with a liquid limit of less than 45 percent and a plasticity index of less than 21 percent.

C. Controlled Fill - Controlled fill shall be either granular or shrinkage-swell controlled fill as specified above and as approved by the geotechnical engineer.

5. Controlled fill shall consist of material having a relatively low plasticity with a liquid limit of less than 45 percent and a plasticity index of less than 21 percent.

6. Foundation Preparation:
A. Proofroll site to identify soft or disturbed areas. If areas are found to be unsuitable for support of footings and/or slab-on-grade please contact the Engineer of Record.

B. Backfill directly under slab-on-grade with minimum of 4 inches of granular fill consisting of washed, evenly graded mixture of crushed stone, or crushed or uncashed gravel, with 100 percent passing a 1 1/2 inch sieve and not more than 5 percent passing a no. 4 sieve.

Controlled Fill and Backfill Compaction:

A. All controlled fill and backfill shall be placed in lifts having maximum loose lift thickness of 9 inches.

B. Granular Fill - Compact granular fill below footing bearing elevation to a minimum of 98 percent of material's maximum dry density as determined by ASTM D 698 and to a minimum of 95 percent of material's maximum dry density above footing bearing elevation.

C. Shrinkage-swell controlled fill - Compact shrinkage-swell controlled fill below footing bearing elevation to minimum of 98 percent of material's maximum dry density as determined by ASTM D 698 and to a minimum of 95 percent of material's maximum dry density above footing bearing elevation.

D. Controlled Fill - Compact controlled fill at a moisture content within a range of 0 to 4 percent above optimum moisture content.

DIVISION 3 - CONCRETE

1. All concrete work shall conform to the requirements of ACI 318 "Building Code Requirements for Reinforced Concrete" and ACI 301 "Specification for Structural Concrete Buildings."

2. Concrete materials shall comply with:
A. Cement - ASTM C 150 Type I
B. Aggregate - ASTM C 33, maximum aggregate size 3/4 inch
C. Water - Potable
D. Air-entraining admixture - ASTM C 260
E. Water-reducing admixture - ASTM C 494, including superplasticizers.

F. Fly ash - ASTM C 618, Class C
3. Concrete shall develop the following minimum 28 day design compressive strength (f'c):

A. Footings, walls and basement slab 3000 PSI
B. Garage Slab 3500 PSI
C. Exterior slabs, steps, and curbs 4000 PSI (air-entrained concrete)

4. Concrete proportions shall be established on the basis of field experience and/or trial mixtures in accordance with ACI 318-48 Sections 5.2 and 5.3. When fly ash is utilized in the mix, mix shall contain a water-reducer. Fly ash shall be added at the rate of not more than 100 pounds per cubic yard and cement shall be reduced by not more than 15 percent by weight.

5. Proportion and design mixes to result in concrete slump at point of placement of not more than 4 inches, except grout for masonry of not more than 6 inches.

6. Use all entraining admixture in exterior exposed concrete to result in concrete at point of placement having air content of 5 to 7 percent entrained air.

7. Reinforcing Steel:
A. Reinforcing bars - ASTM A 615, grade 40, deformed
B. Welded wire fabric - ASTM A 1064, lap at least one full mesh and lace spikes with wire.
C. Supports for reinforcement - comply with CRSI recommendations.

8. Concrete Work Execution:
A. Minimum concrete cover for reinforcement shall be, unless noted otherwise on the drawings:
Cast against and exposed to earth—3 inches
Exposed to earth or weather—2 inches
Not exposed to earth or weather—1 1/2 inches

B. All concrete is reinforced, reinforce concrete not otherwise indicated with same reinforcement as similar sections.

C. Protect concrete work from physical damage or reduced strength due to weather extremes:
A. Minimum concrete cover for reinforcement shall be, unless noted otherwise on the drawings:
Cast against and exposed to earth—3 inches
Exposed to earth or weather—2 inches
Not exposed to earth or weather—1 1/2 inches

D. In corners of grade beams and walls provide corner reinforcement. Lap two feet each direction in outside face, matching size and spacing of horizontal reinforcement.

E. At openings in walls, add one #4 bar (opening dimension plus 60 bar diameters) each face, each corner of opening.

F. Provide one #4 bar diagonally at each face of all steps in grade beams and foundation walls.

G. Provide construction joints in footings, grade beams and walls at not greater than 80 feet in any direction, key and dowel construction joints.

H. Provide control joints in slabs-on-grade at not greater than 20 feet on center in each direction. Saw cut control joints minimum 1/4 of slab depth, as soon after slab finishing as possible without dislodging aggregate.

I. Coordinate concrete work with architectural and mechanical drawings for concrete finishes, recessed areas, embedded items and other conditions.

DIVISION 5.5 - MISCELLANEOUS STRUCTURAL STEEL

1. All miscellaneous structural steel work shall conform to the requirements of AISC "Specifications for Design, Fabrication, and Erection of Structural Steel for Buildings".

2. Miscellaneous structural steel material shall comply with:
A. Structural Steel - ASTM A 36
B. Cold-formed Steel Tubing - ASTM A 500 Grade B
C. Anchor Rods - ASTM F-1554, non-headed type unless otherwise noted.

DIVISION 6 - ROUGH CARPENTRY

1. All rough carpentry work shall conform to the requirements of NFPA "National Design Specification of Wood Construction", TP "Design Specifications for Light Metal Plate Connected Wood Trusses", APA Plywood Design Specifications, DOC PS 1 "Product Standard for Construction and Industrial Plywood", DOC PS 56 "Structural Glued Laminated Timber" and Chapter 23 of the International Building Code.

2. Rough carpentry materials shall comply with:
A. Lumber - S4S, surface dry, grade marked, complying with PS 20; graded under WPPA or SPIB rules:
Joist: Stud Grade - Spruce-Pine-Fir
Joist: No. 2 Douglas Fir No. 2 Hem Fir
Header: No. 2 Douglas Fir
Rafter: No. 3 Douglas Fir No. 2 Spruce-Pine-Fir
Plates: No. 3 Spruce-Pine-Fir
Blocking: No. 3 Spruce-Pine-Fir

B. Metal framing fasteners - ASTM A 153, hot-dip galvanized fasteners, equal to Simpson strong-tie connectors complying with CBO No. 1258.
C. Plywood - APA rated sheathing, complying to PS 1.
D. LVL - Laminated veneer lumber shall be grade 2800 F-2 OE and shall meet the requirements of NER-442, NER-474 or ER-4021.

E. Laid - 1 joist shall be fabricated from APA rated sheathing board webs, LVL frames, utilizing waterproof type glue and shall meet requirements of NER-450, NER-446, NER-476 or IBCO PFC-3754.

F. Gypsum Beams - Combination 20F-V3 in accordance with Table No. 25-C-1 Part A of Chapter 23 of the International Building Code.
G. Fiberboard Sheathing - DOC Standard PS 57-73.
H. Gypsum Sheathing Board - ASTM C 78 and UBC Standard No. 47-10.
I. Gypsum Wallboard - ASTM C 36 and UBC Standard No. 47-11.

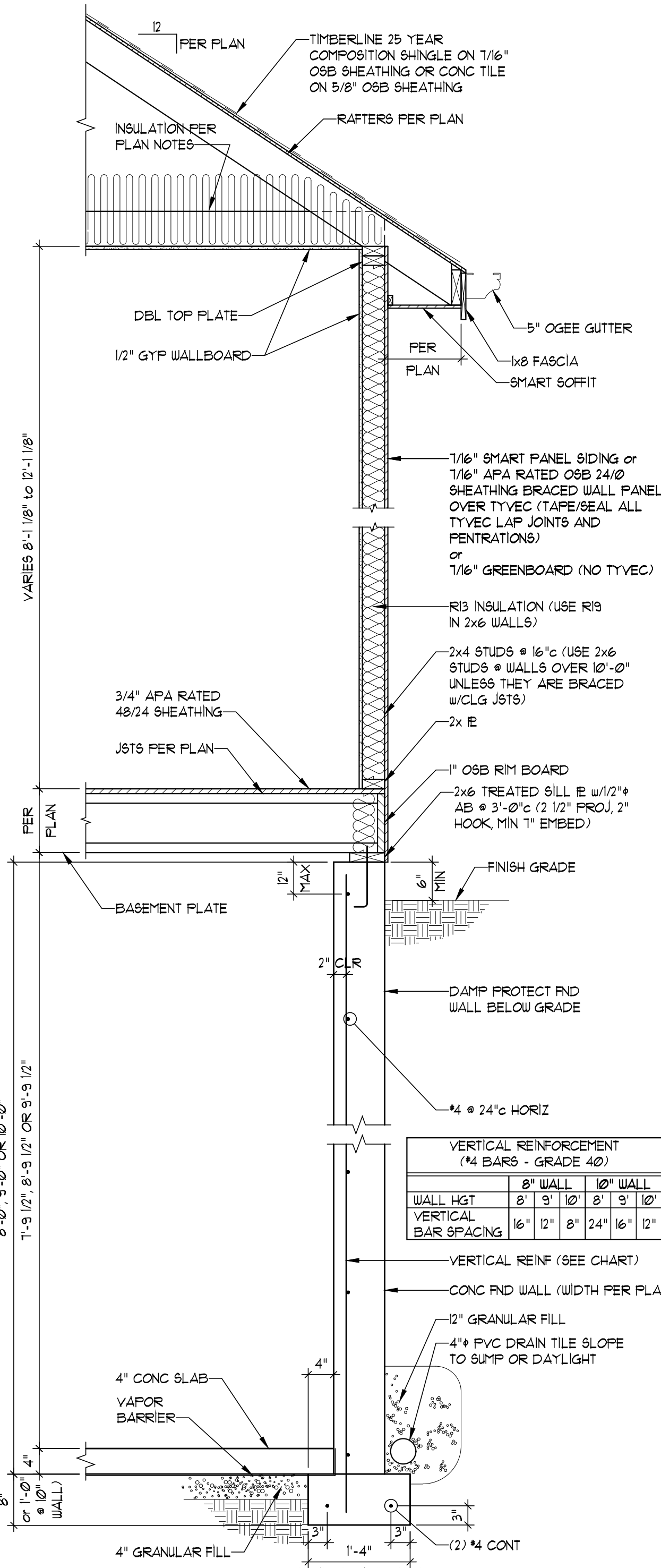
3. Roof sheathing for standard asphalt roofing shall be 1/2 inch APA rated sheathing 24/0 exterior glued and clipped. Roof sheathing for Conc Tile shall be 5/8 inch APA rated 32/16 exterior glued and clipped. Lay sheathing with face grain perpendicular to support members and stagger end joints 4'-0". FASTEN PER SCHEDULE BELOW.

4. Floor sheathing shall be 3/4 inch APA rated sheathing 49/24 exterior glued. Lay sheathing with face grain perpendicular to support members and stagger end joints 4'-0". FASTEN PER SCHEDULE BELOW.

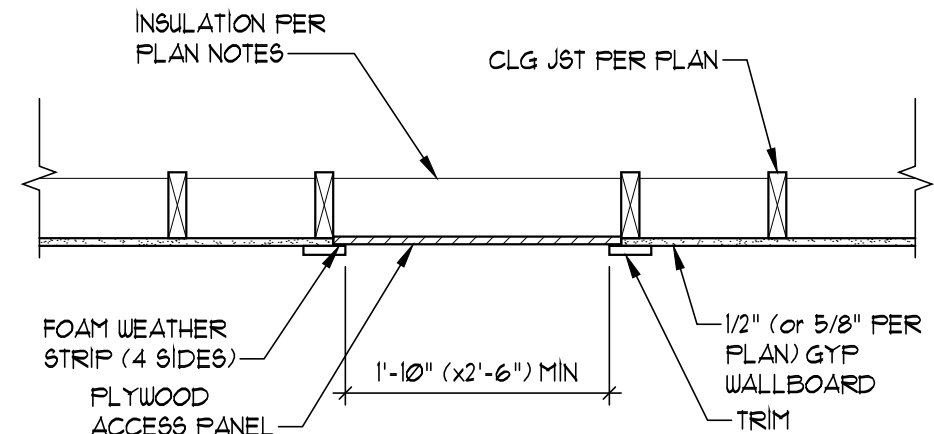
5. Exterior wall sheathing shall be 1/2 inch APA Rated sheathing 24/0 or 7/16 inch LP Smart Siding exterior glued. Provide solid blocking at all unsupported panel edges FASTEN PER SCHEDULE BELOW. For LP Siding, fasten through both panels at edge supports.

6. Interior shear wall sheathing where noted shall be 1/2 inch gypsum wallboard. FASTEN PER SCHEDULE BELOW.
Attach metal framing fasteners to framing members with minimum number and size of nails listed in IBCO Report No. 1258.

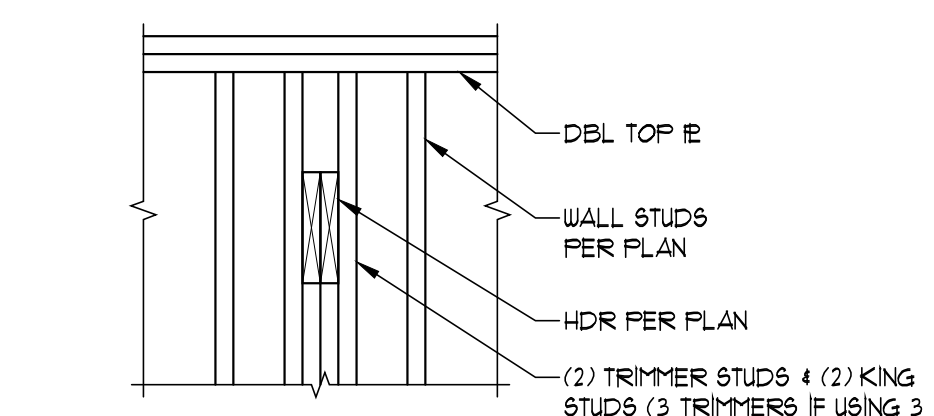
7. Provide full depth solid blocking, 1 X 4 cross bracing, or 16 gage metal cross bracing bridged at ends of members and at 8'-0" intervals along members.



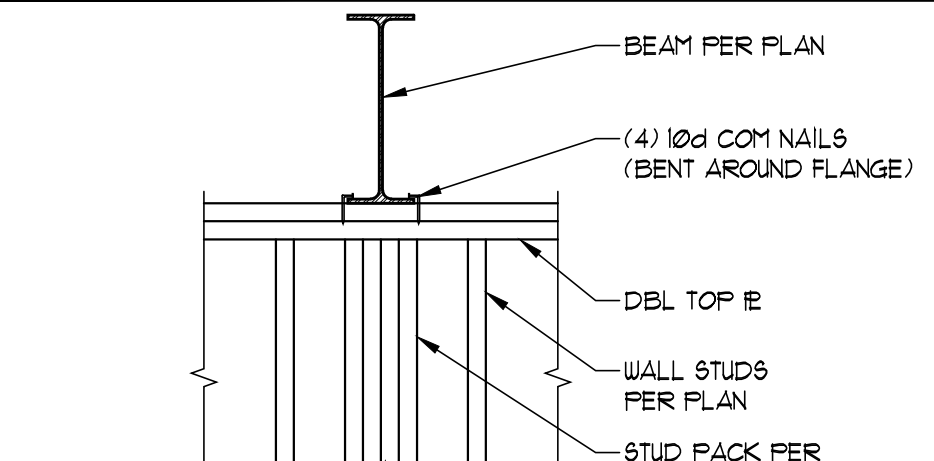
TYPICAL WALL SECTION
SCALE: 3/4" = 1'-0"



ATTIC ACCESS HATCH
SCALE: 3/4" = 1'-0"

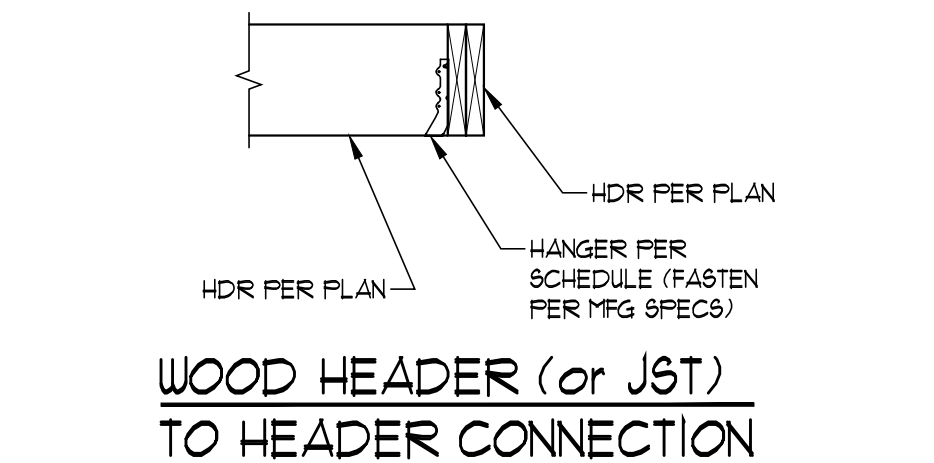


WOOD HEADER TO WALL CONNECTION
SCALE: 3/4" = 1'-0"

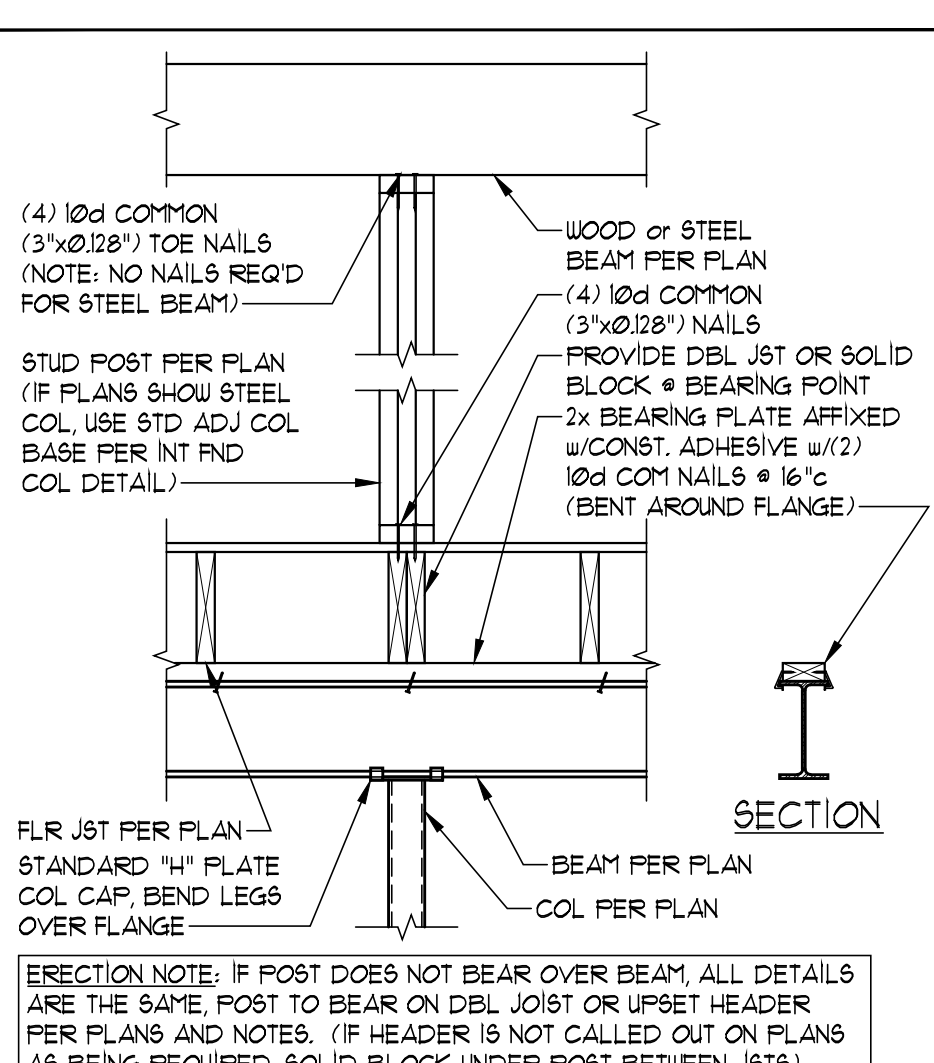


UPSET STEEL BEAM TO WALL CONN.
SCALE: 3/4" = 1'-0"

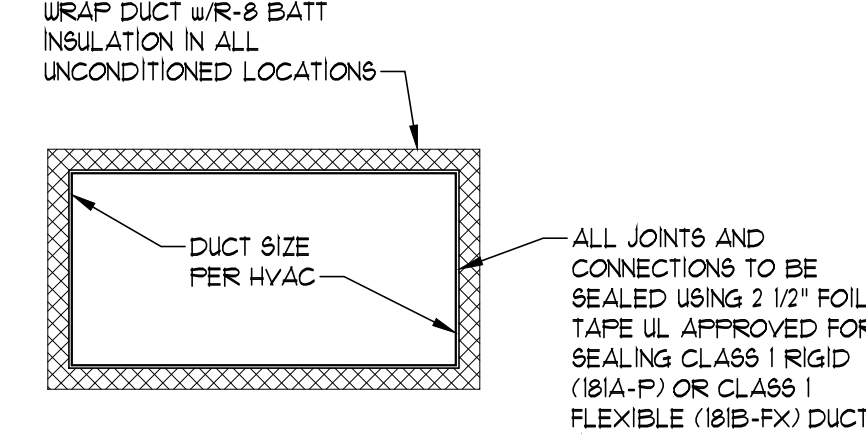
HANGER SCHEDULE			
SOLID SAUN LUMBER		ENGINEERED LUMBER	
HDR SIZE	HANGER	HDR SIZE	HANGER
2x6	LUS24	1 3/4x1 1/4	HU1
2x8	LUS26	1 3/4x9 1/4	HU9
2x10	LUS28	1 3/4x1 1/2	HU9
2x12	LUS210	1 3/4x1 1/8	HU11
(2) 2x6	LUS24-2	(2) 1 3/4x1 1/4	HU48
(2) 2x8	LUS26-2	(2) 1 3/4x9 1/4	HU410
(2) 2x10	LUS28-2	(2) 1 3/4x9 1/2	HU410
(2) 2x12	LUS210-2	(2) 1 3/4x1 1/8	HU412



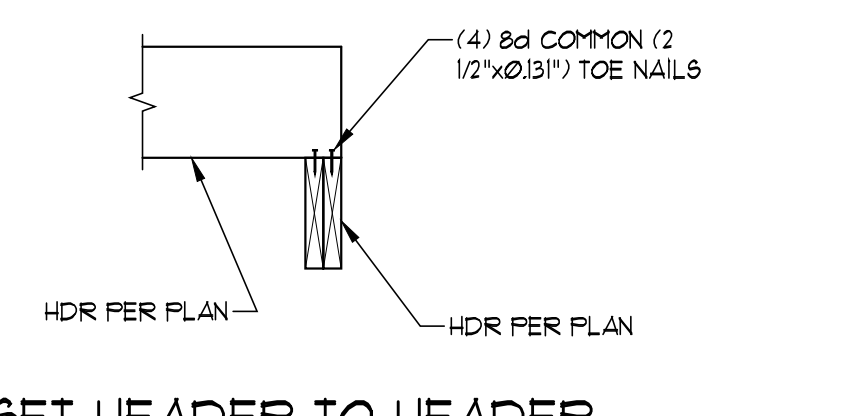
WOOD HEADER (or JST) TO HEADER CONNECTION
SCALE: 3/4" = 1'-0"



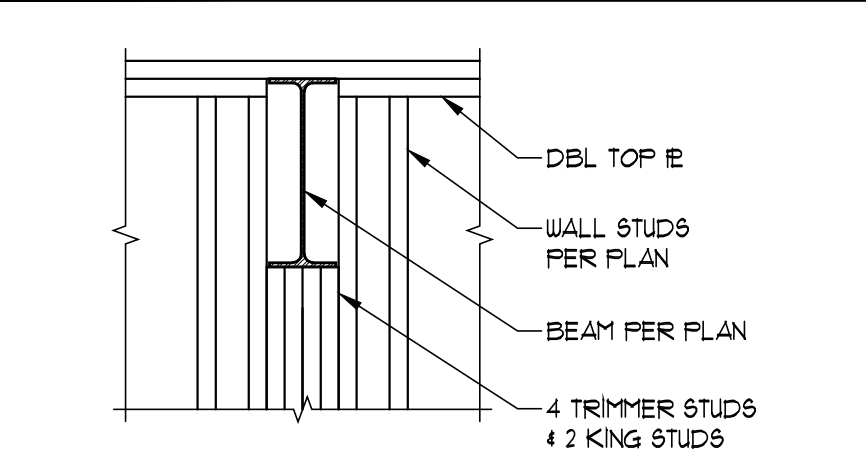
STEEL POST CAP AND MISC POST CONN DETAILS
SCALE: 3/4" = 1'-0"



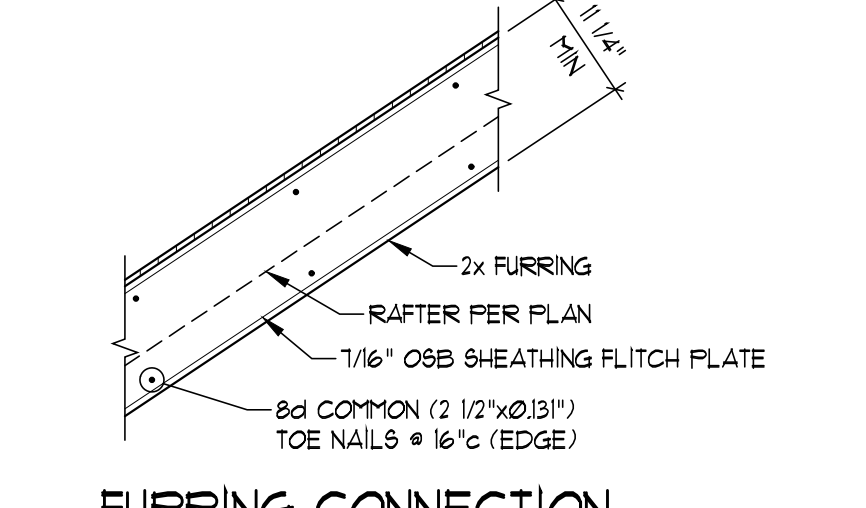
DUCT INSTALLATION



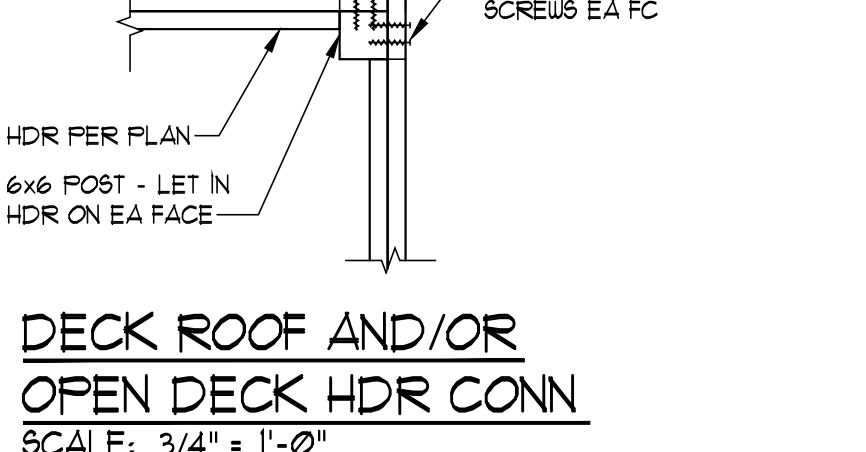
UPSET HEADER TO HEADER CONNECTION (UPSET HDR TO WALL SIM)
SCALE: 3/4" = 1'-0"



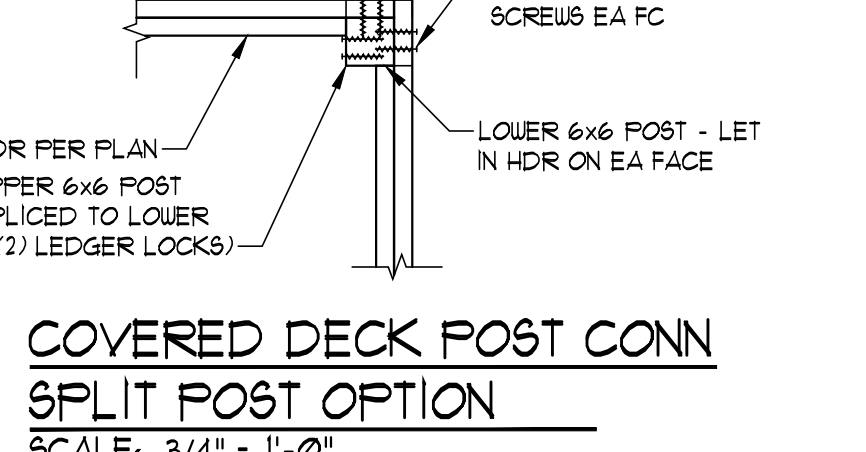
STEEL BEAM TO WALL CONNECTION
SCALE: 3/4" = 1'-0"



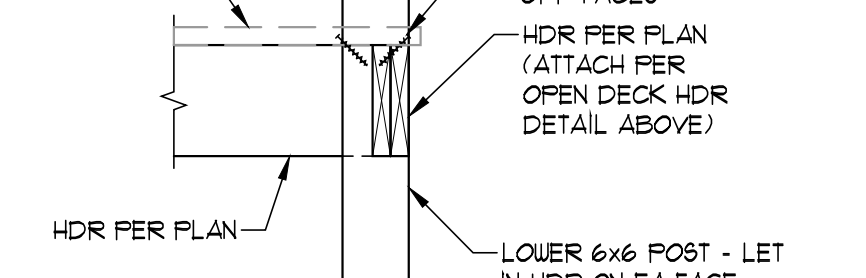
FURRING CONNECTION
SCALE: 3/4" = 1'-0"



DECK ROOF AND/OR OPEN DECK HDR CONN
SCALE: 3/4" = 1'-0"



COVERED DECK POST CONN SPLIT POST OPTION
SCALE: 3/4" = 1'-0"



COVERED DECK POST CONN STACKED POST OPTION
SCALE: 3/4" = 1'-0"



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1314 SW Market Street
Lee's Summit, MO 64081
v: 816.786.4008
jfeconstruction.com



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Project #: 8083-XXXX

DATE:

Permit: 1/18/2024



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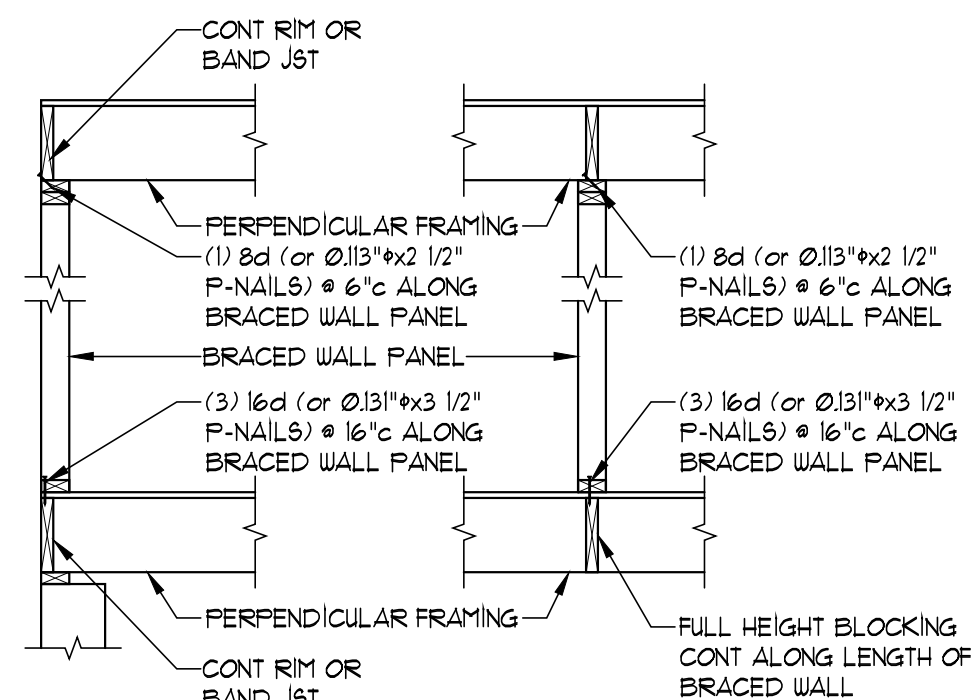


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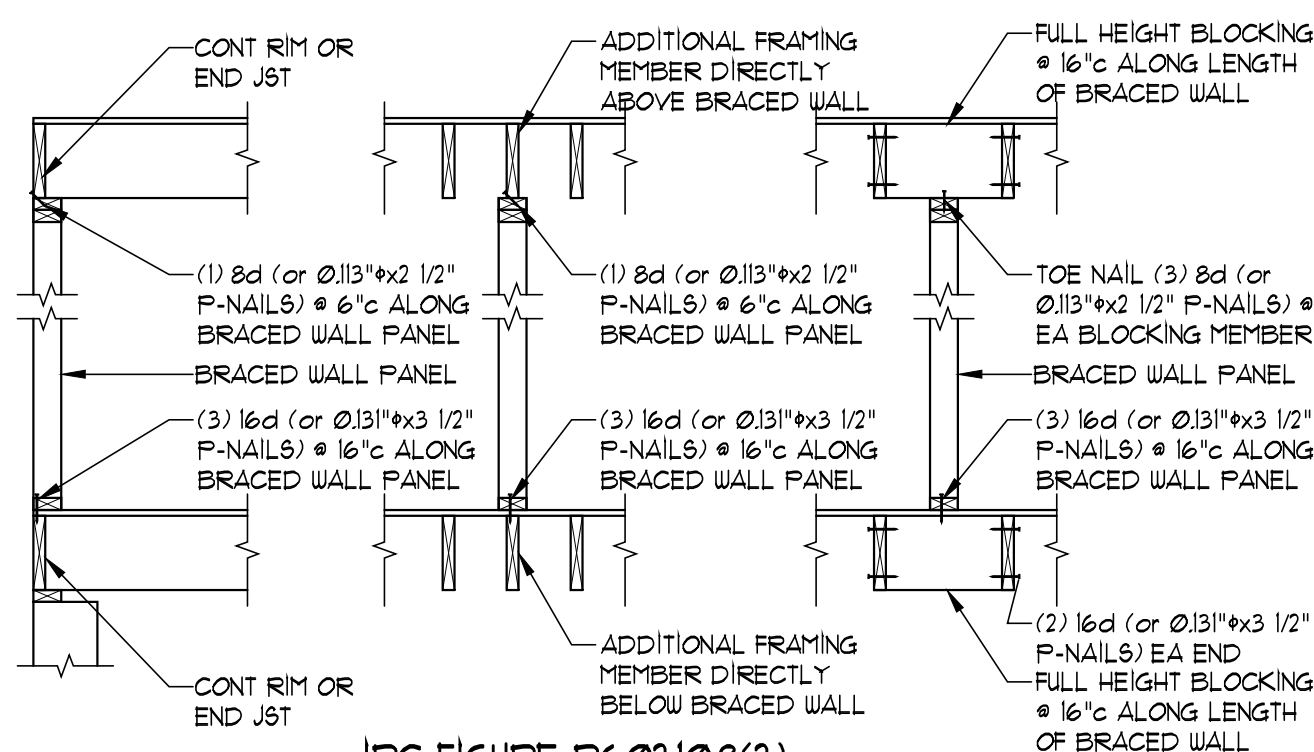
DATE:

Permit: 1/18/2024

STRUCTURAL DETAILS FOR:
THE MAPLEWOOD REVERSE CUSTOM
Bill & Jennifer Osborne
2116 NW O'Brien Rd, Lee's Summit, MO
Lot 164 - Woodside Ridge



IRC FIGURE R602.10.8(1)
BRACED WALL PANEL CONNECTION WHEN
PERPENDICULAR TO FLOOR/CEILING FRAMING



IRC FIGURE R602.10.8(2)
BRACED WALL PANEL CONNECTION WHEN
PARALLEL TO FLOOR/CEILING FRAMING

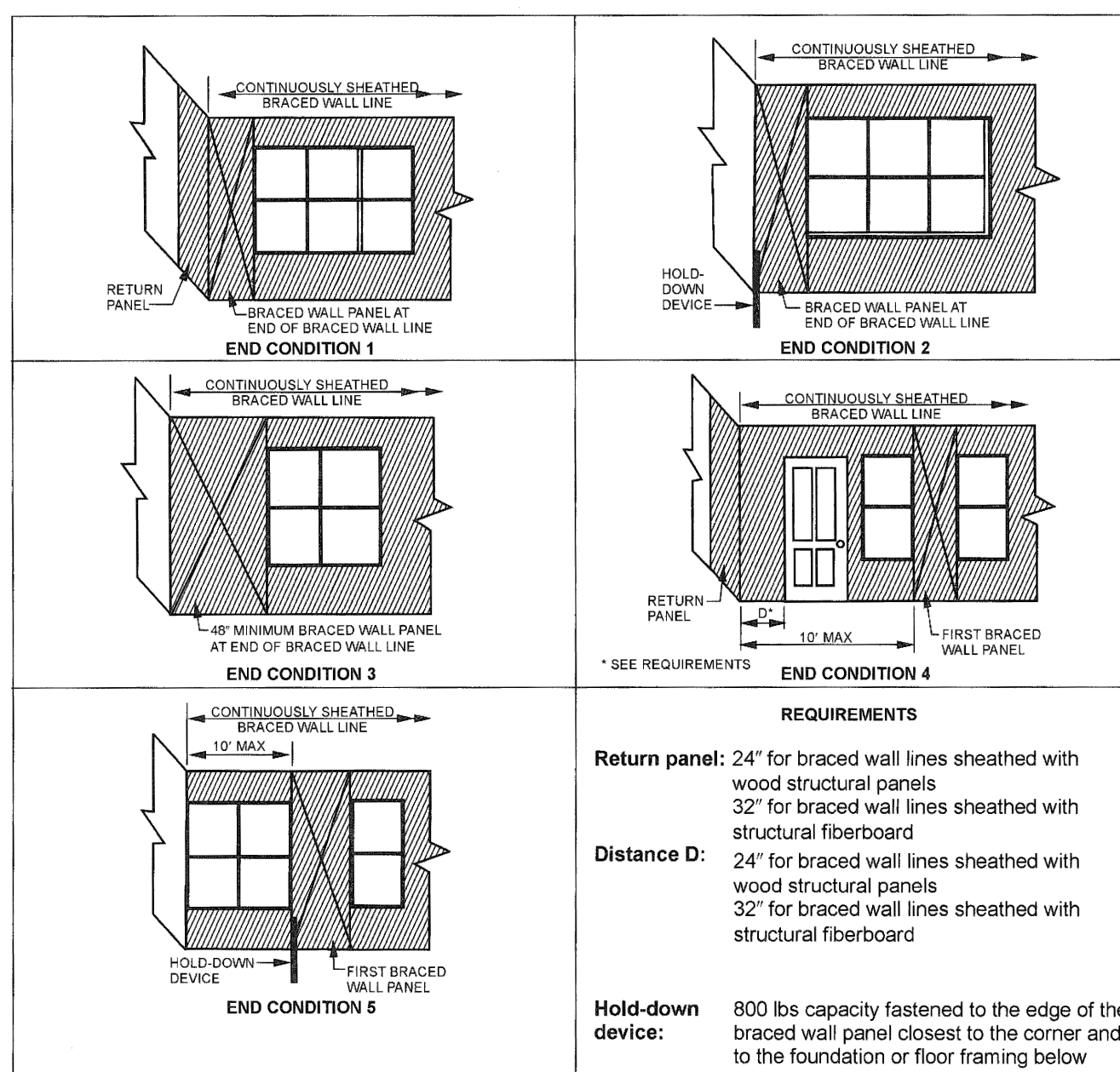
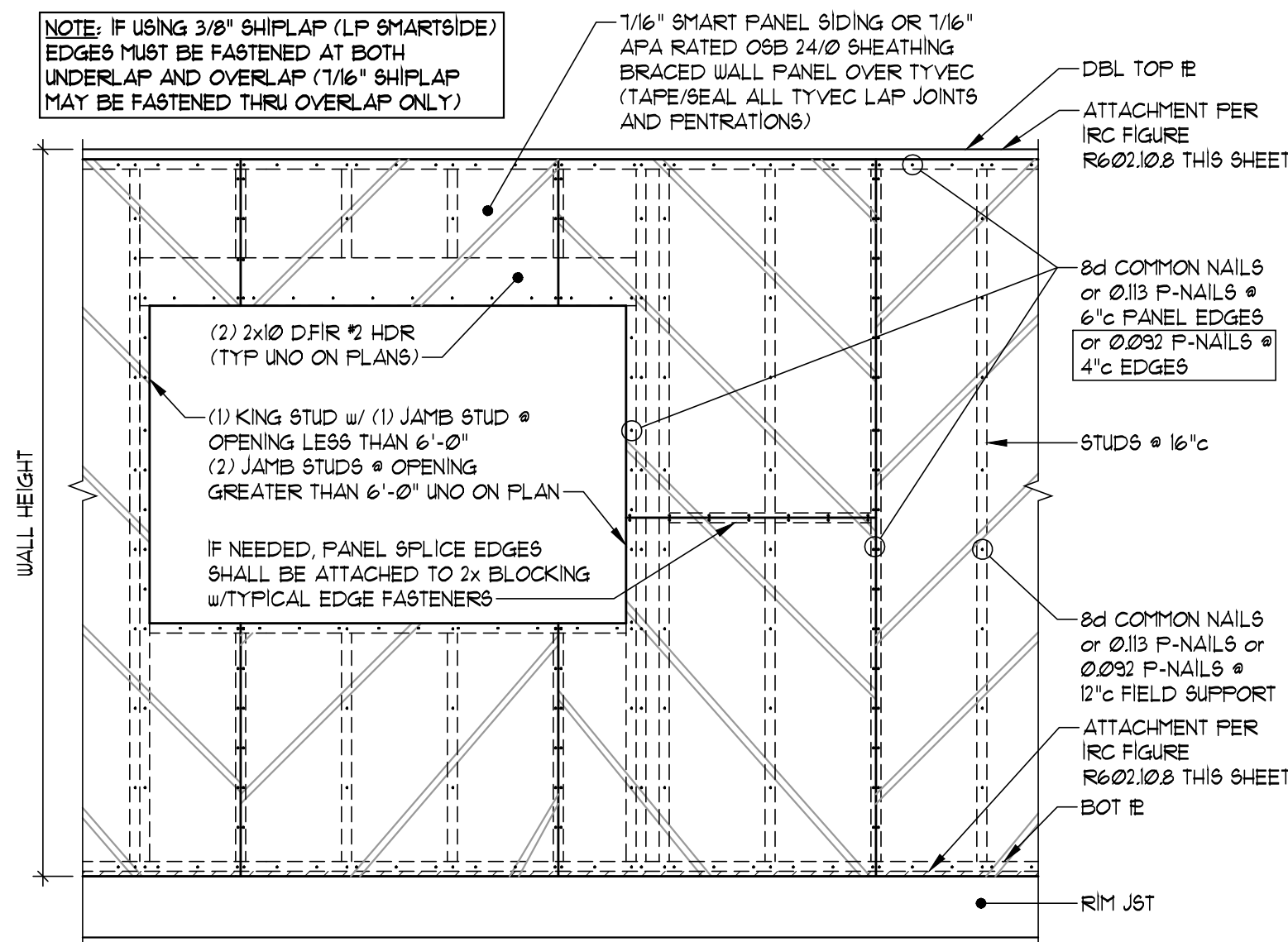
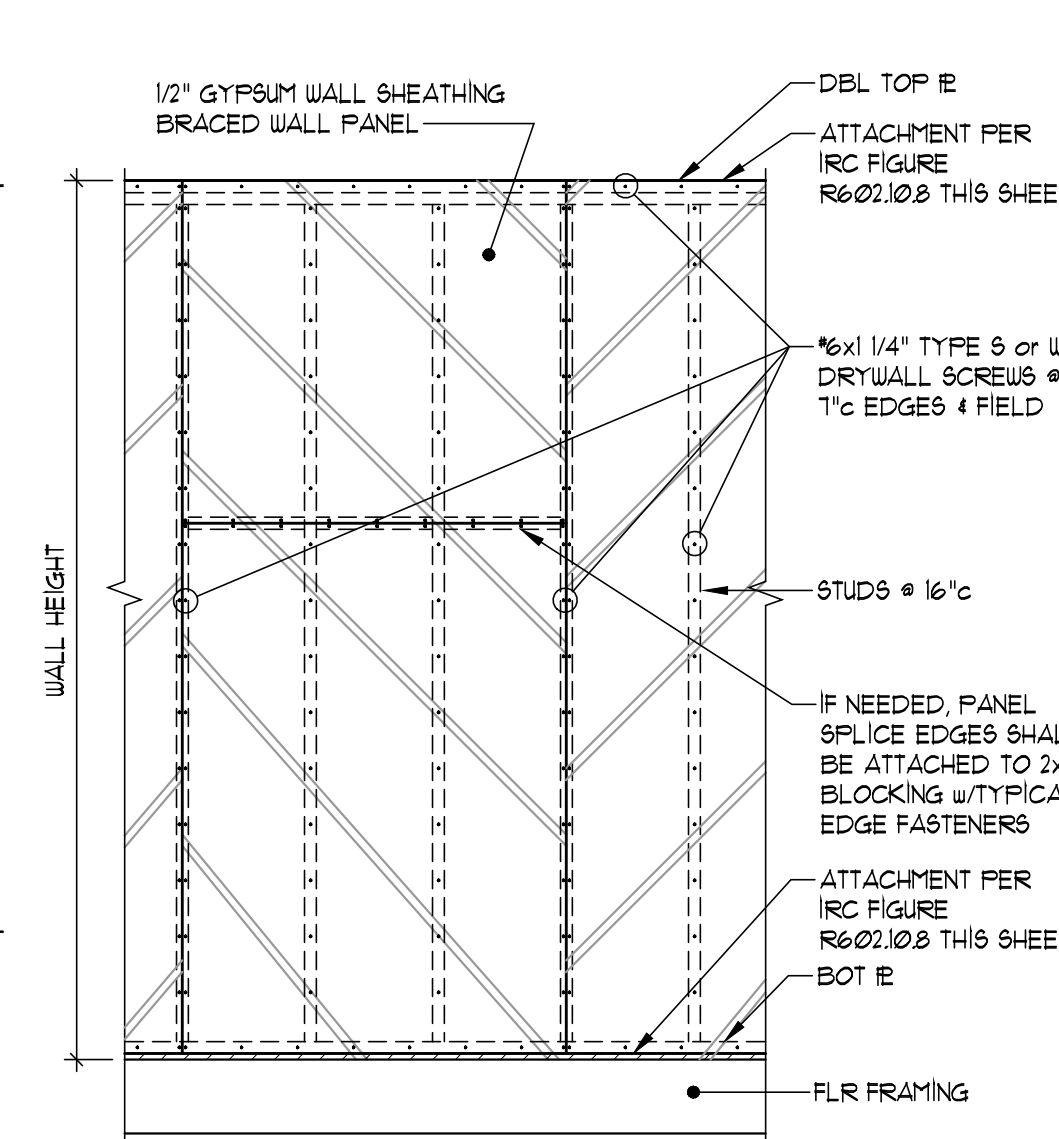


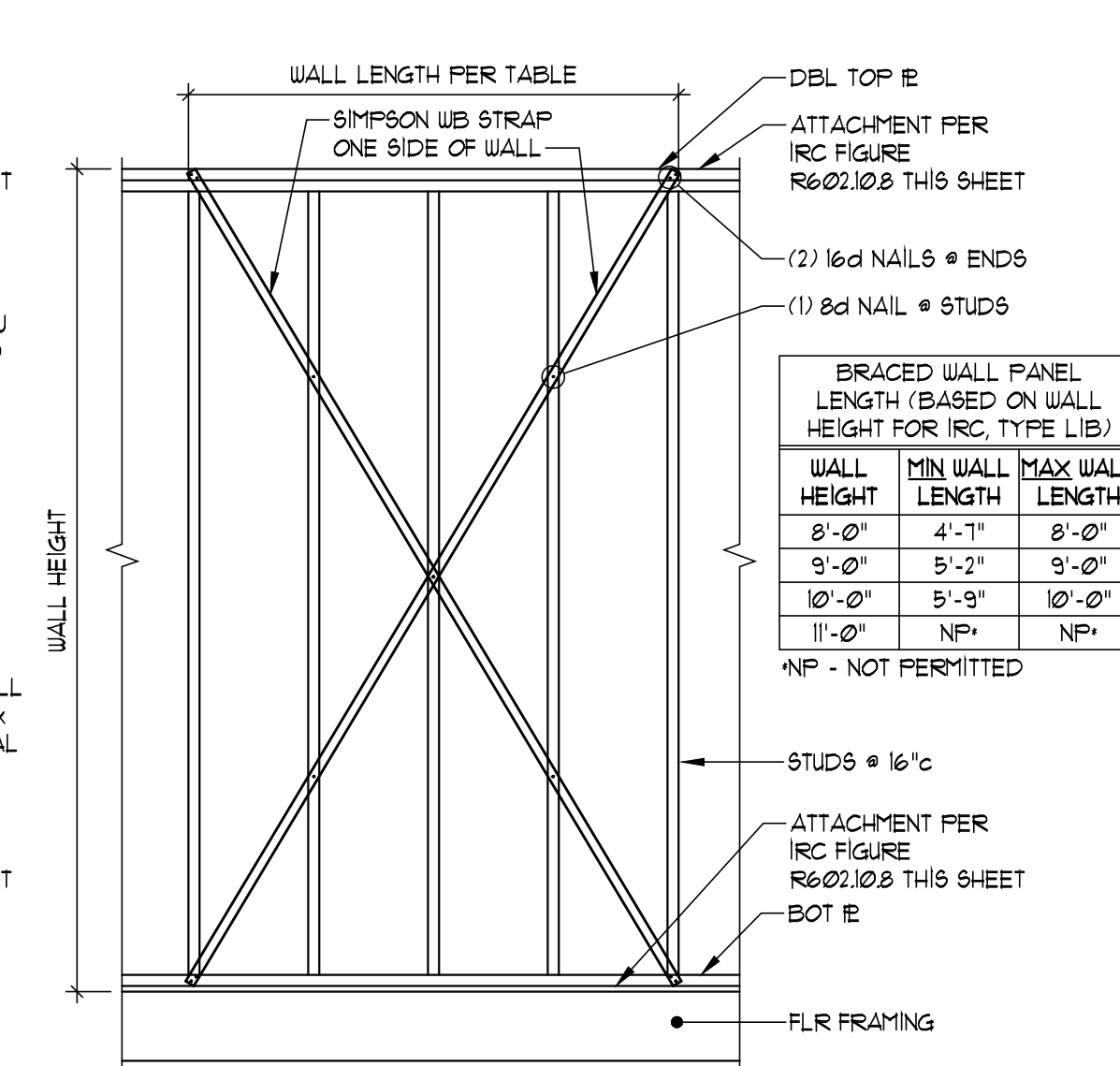
FIGURE R602.10.7
END CONDITIONS FOR BRACED WALL LINES WITH CONTINUOUS SHEATHING



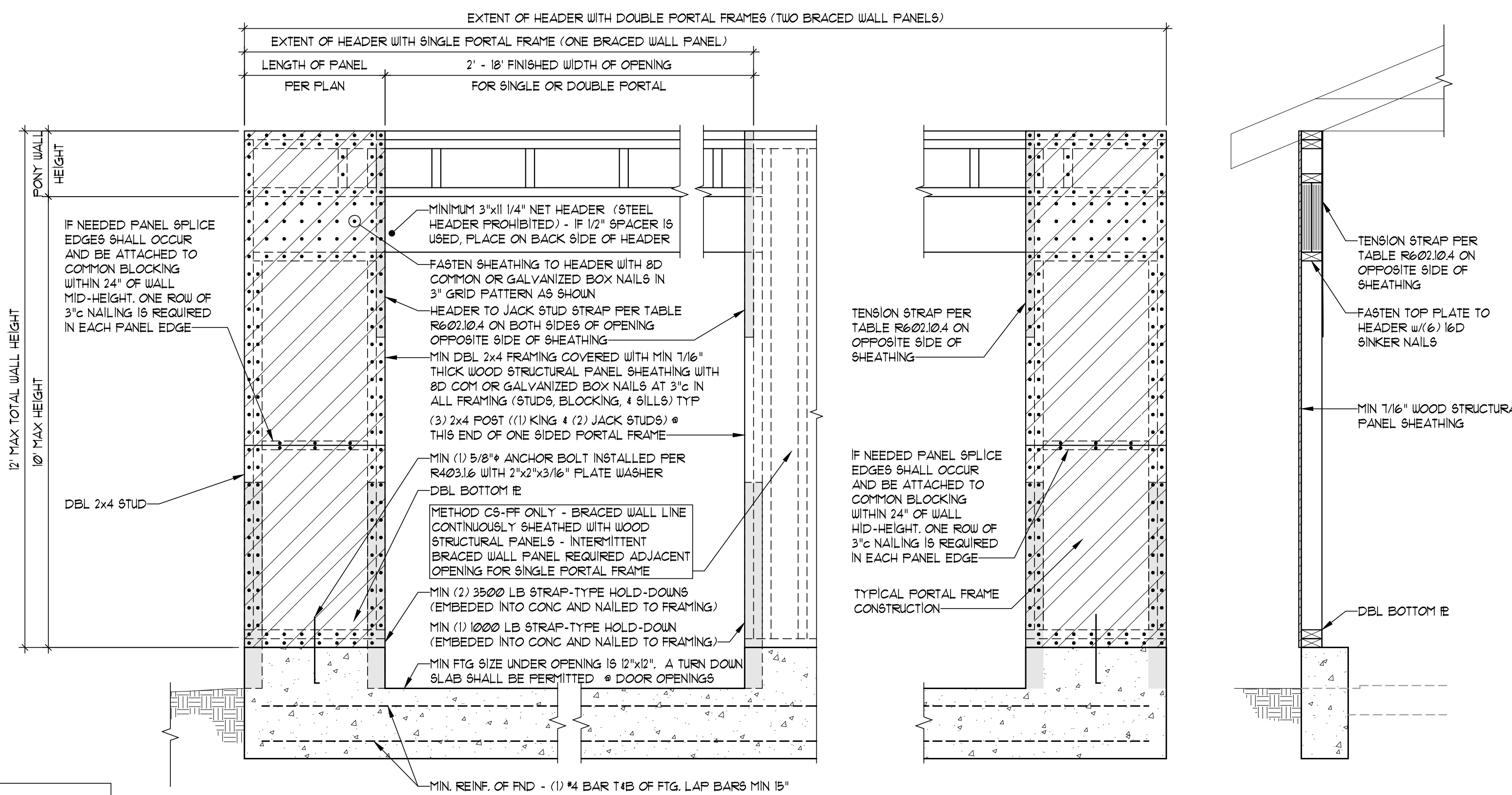
TYPICAL EXTERIOR SHEATHING
INSTALLATION (METHOD WSP & CS-WSP)
SCALE: 1/2" = 1'-0"



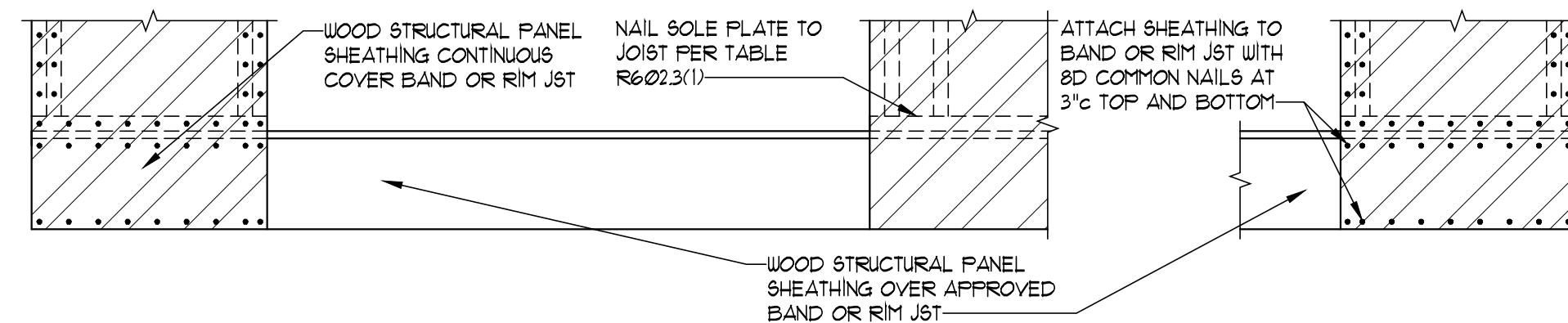
TYPICAL INTERIOR SHEATHING
INSTALLATION (METHOD GB)
SCALE: 1/2" = 1'-0"



INTERIOR SHEATHING
INSTALLATION (METHOD LIB)
SCALE: 1/2" = 1'-0"

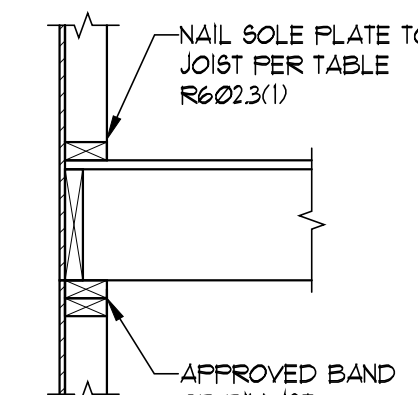


BRACED WALL METHOD "PFH" (also HEADER ATTACHMENT FOR CS-PF)
SCALE: 3/4"=1'-0"



BRACED WALL METHOD "CS-PF" (ATTACHMENT TO WOOD FLOOR)
(REFER TO BRACED WALL METHOD "PFH" FOR HEADER ATTACH)
SCALE: 3/4"=1'-0"

SECTION



SECTION

TABLE 602.10.6.4 TENSION STRAP CAPACITY REQUIRE FOR RESISTING WIND PRESSURES PERPENDICULAR TO METHOD PFH, FFG, AND CS-PF BRACED WALL PANELS					
MINIMUM WALL STUD FRAMING NOMINAL SIZE AND GAGE	MAXIMUM PONY WALL HEIGHT (FEET)	MAXIMUM TOTAL WALL HEIGHT (FEET)	MAXIMUM OPENING WIDTH (FEET)	TENSION STRAP CAPACITY REQUIRED (LBS) FOR V _{ult} = 15mph	
2x4 1/2 GRADE	0	10	10	1000	1000
	1	10	9	1000	1000
	1	10	10	1075	2500
	1	10	12	1215	2850
	1	10	9	1000	1875
	2	10	16	2175	4125
	2	10	18	2500	DESIGN
	2	10	9	1500	3175
	2	12	16	3375	DESIGN
	2	12	18	3975	DESIGN
2x6 STUD GRADE	2	12	9	2150	DESIGN
	2	12	12	3175	DESIGN
	2	12	9	1000	2025
	2	12	16	2500	3675
	2	12	18	2550	DESIGN
	2	12	9	1750	DESIGN
2x6 STUD GRADE	4	12	16	2400	DESIGN
	4	12	18	3800	DESIGN