

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/01/2022 4:27:12

ELEVATION NOTES

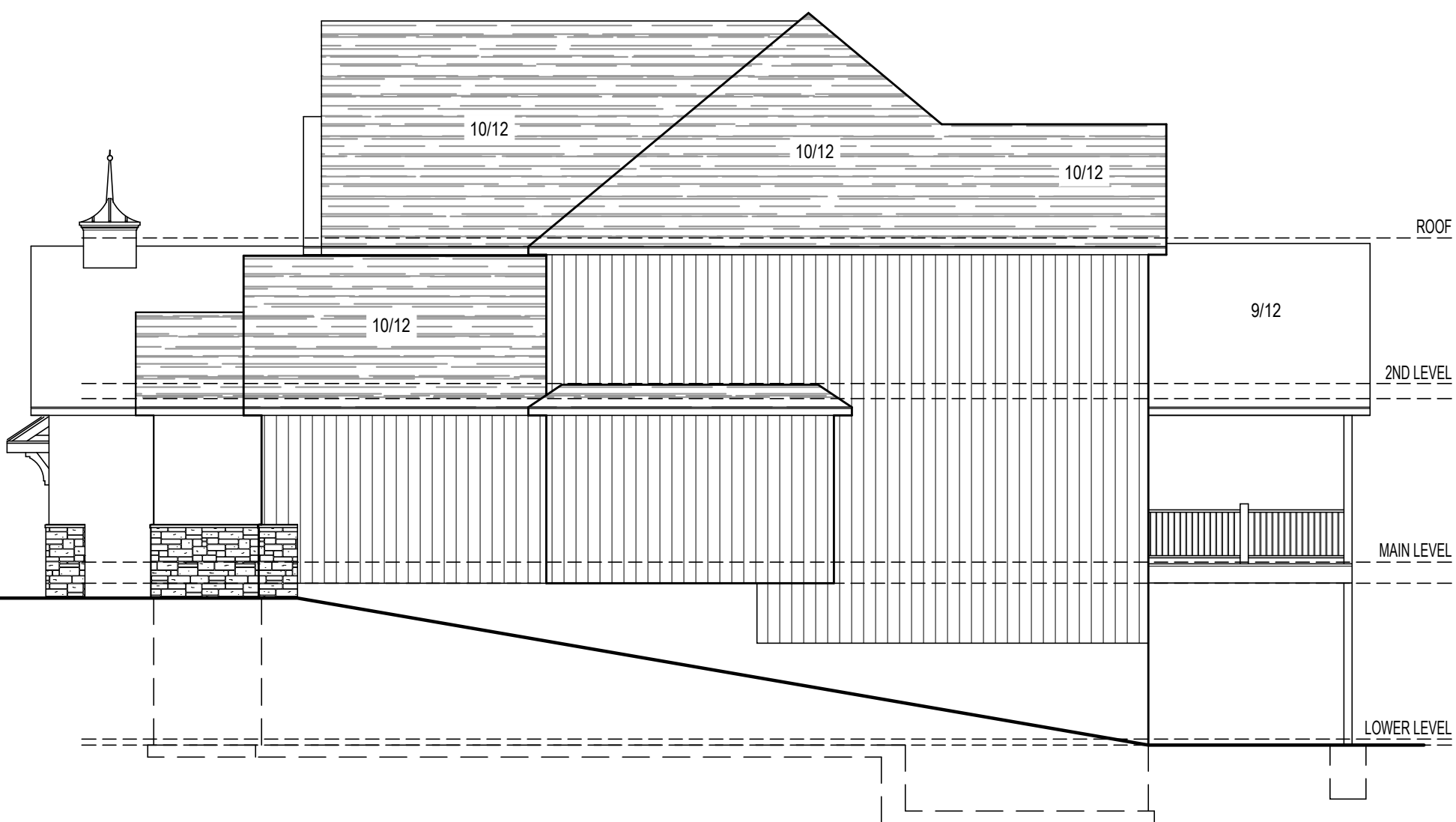
1. FINAL GRADE LINE MAY VARY PER EXISTING SITE CONDITIONS. REFER TO PLOT PLAN FOR SPECIFIC SITE GRADE CONDITIONS.
2. ALL ROOFING TO BE ASPHALT COMPOSITION UNLESS NOTED OTHERWISE.
3. ROOF AND SOFFIT VENTS PER LOCAL CODES. WHERE POSSIBLE, PROVIDE ROOF VENTING ON BACK SIDE OF ROOF.
4. GUTTER AND DOWNSPOUT LOCATIONS TO BE DETERMINED BY GUTTER INSTALLER.
5. SMART PANEL SIDING ON SIDE AND REAR ELEVATIONS UNLESS NOTED OTHERWISE.



Front Elevation

1/4" = 1'-0"

1



Side Right Elevation

1/8" = 1'-0"

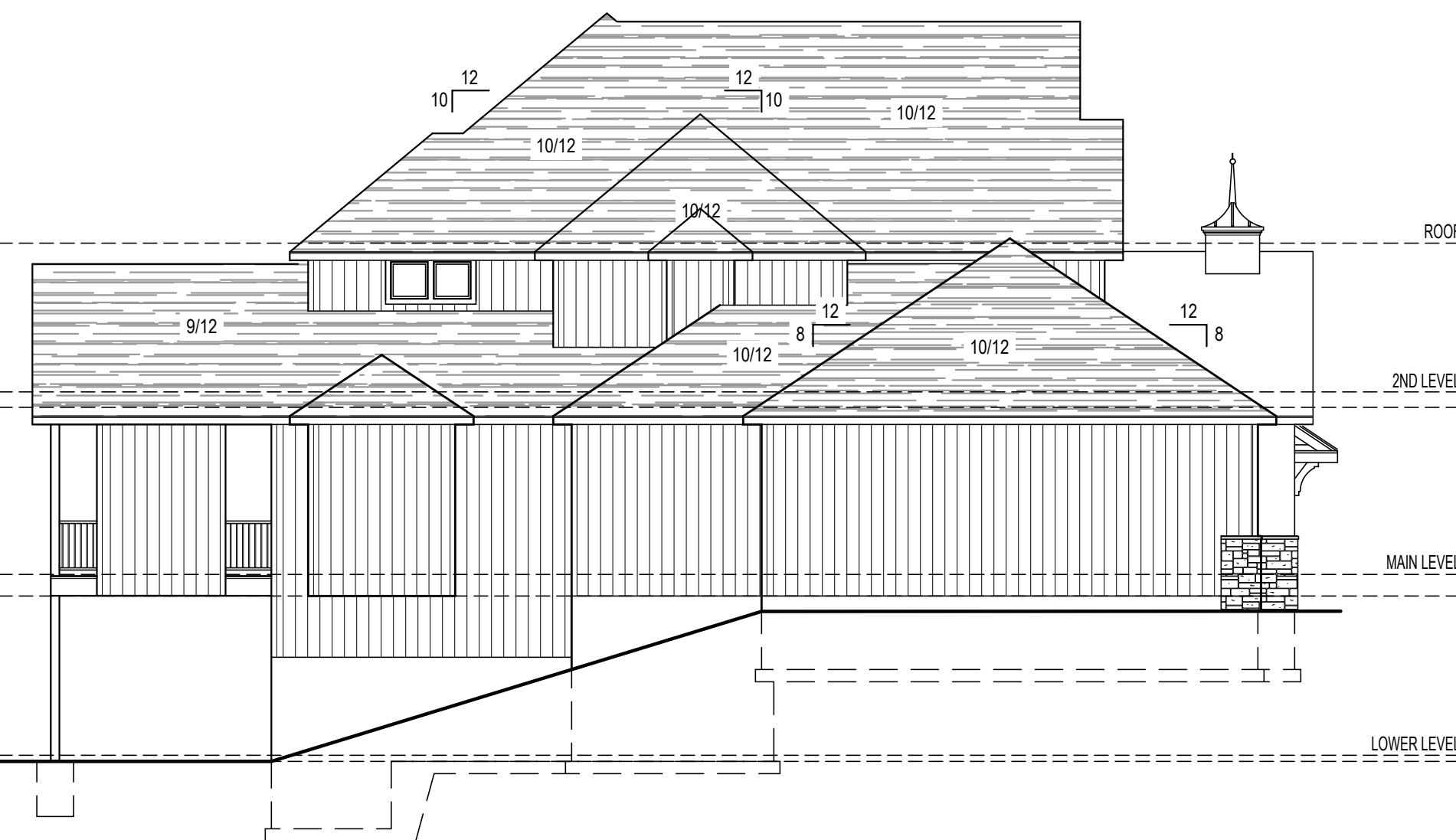
2



Rear Elevation

1/8" = 1'-0"

3



Side Left Elevation

1/8" = 1'-0"

4



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Lee's Summit, MO 64081
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THE MAPLEWOOD III

Spec Residence
370 NW Patch Court, Lee's Summit, MO
Lot 161 - Woodside Ridge Subdivision

Project #: 8083-XXXX

DATE:

Permit: 7/1/2022

Exterior
Elevations

A100

I JOIST AND TRUSS NOTES

1. BUILDING PERMIT WILL BE REQUIRED FOR THE PROJECT. THIS SET OF DOCUMENTS TO BE SUBMITTED AS A PERMIT SET OF DRAWINGS.
2. ALL CONTRACTORS SHALL STATE THE JOB SITE AND SHALL REVIEW THE PROJECT DRAWINGS TO FAMILIARIZE THEMSELVES WITH THE PROJECTS AND INTENT OF THE SCOPE OF WORK. ANY DEFICIENCIES OR DISCREPANCIES DISCOVERED SHALL BE REPORTED FOR REVIEW AND CORRECTION TO THE PROJECT ENGINEER.
3. ALL NEW CONSTRUCTION SHALL MEET LATEST EDITIONS OF ALL APPLICABLE NATIONAL, STATE, AND LOCAL BUILDING CODES - INTERNATIONAL RESIDENTIAL CODE.
4. ALL CONSTRUCTION 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 MATCH EXISTING WORK.
5. CONTRACTORS SHALL REMOVE ALL CONSTRUCTION DEBRIS. ALL CONSTRUCTION DEBRIS SHALL BE CONTAINED PER CITY REQUIREMENTS.
6. AREAS FOR MATERIAL STORAGE, TRASH DISPOSAL, WORKMENS OFFICE, ETC., SHALL BE IDENTIFIED AND MARKED BY THE CONTRACTOR. ALL DIMENSIONS TO BE VERIFIED BY CONTRACTOR.
7. IT IS THE RESPONSIBILITY OF THE CONTRACTORS TO COORDINATE WITH THE OWNER THE QUANTITY AND LOCATION FOR ALL LIGHTING, TELEPHONE CABLES, TELEVISION CABLES, OUTLETS, AND MECHANICAL AND PLUMBING SYSTEMS AS REQUIRED.
8. THE CONTRACTORS SHALL ADDRESS TO THE STATE OF KANSAS ONE CALL SERVICE 800-477-7338 PRIOR TO ANY EXCAVATION OR TRENCHING. 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 OF THE UTILITIES LOCATED AND THE SCOPE OF THE CONSTRUCTION TO BE PERFORMED WHEN WORK COMMENCES.

1. FLOOR TRUSS OR JOIST LOADING SHALL BE PER THE GENERAL NOTES.
2. JOISTS MAY BE SHOWN AS SIMPLE SPAN TO DEFINE SPANS AND BEARING POINTS. TRUSS MGFS TO RUN CONTINUOUS WHERE POSSIBLE.
3. COORDINATE JOIST LOCATIONS WITH PLUMBING DRAIN LINES AT ALL LEVELS AND RISERS.
4. JOIST BLOCKING WHERE NOTED ON PLANS MAY BE OMITTED AT HVAC AND PLUMBING LOCATIONS AS REQUIRED.
5. EXACT JOIST OR FLOOR TRUSS LAYOUT TO BE PROVIDED BY TRUSS MANUFACTURER. DESIGN AND LAYOUT TO BE SUBMITTED TO VAN DERZEE AND ASSOCIATES TO REVIEW FOR GENERAL CONFORMANCE TO THE CODES OF THE CITY OF CHICAGO PRIOR TO SUBMITTAL TO THE CODES ADMINISTRATION FOR PERMITTING.
6. IF A CONFLICT EXISTS BETWEEN SHOP DRAWINGS AND CONTRACT SET THE CONTRACT SET SUPERCEDES THE JOIST/TRUSS LAYOUT.

ALL I-JOIST AND OPEN WEB TRUSSES OVER UNFINISHED SPACE EXCEEDING 80 SQUARE FEET IN AGGREGATE AREA TO BE PROTECTED BY THE FOLLOWING METHOD:

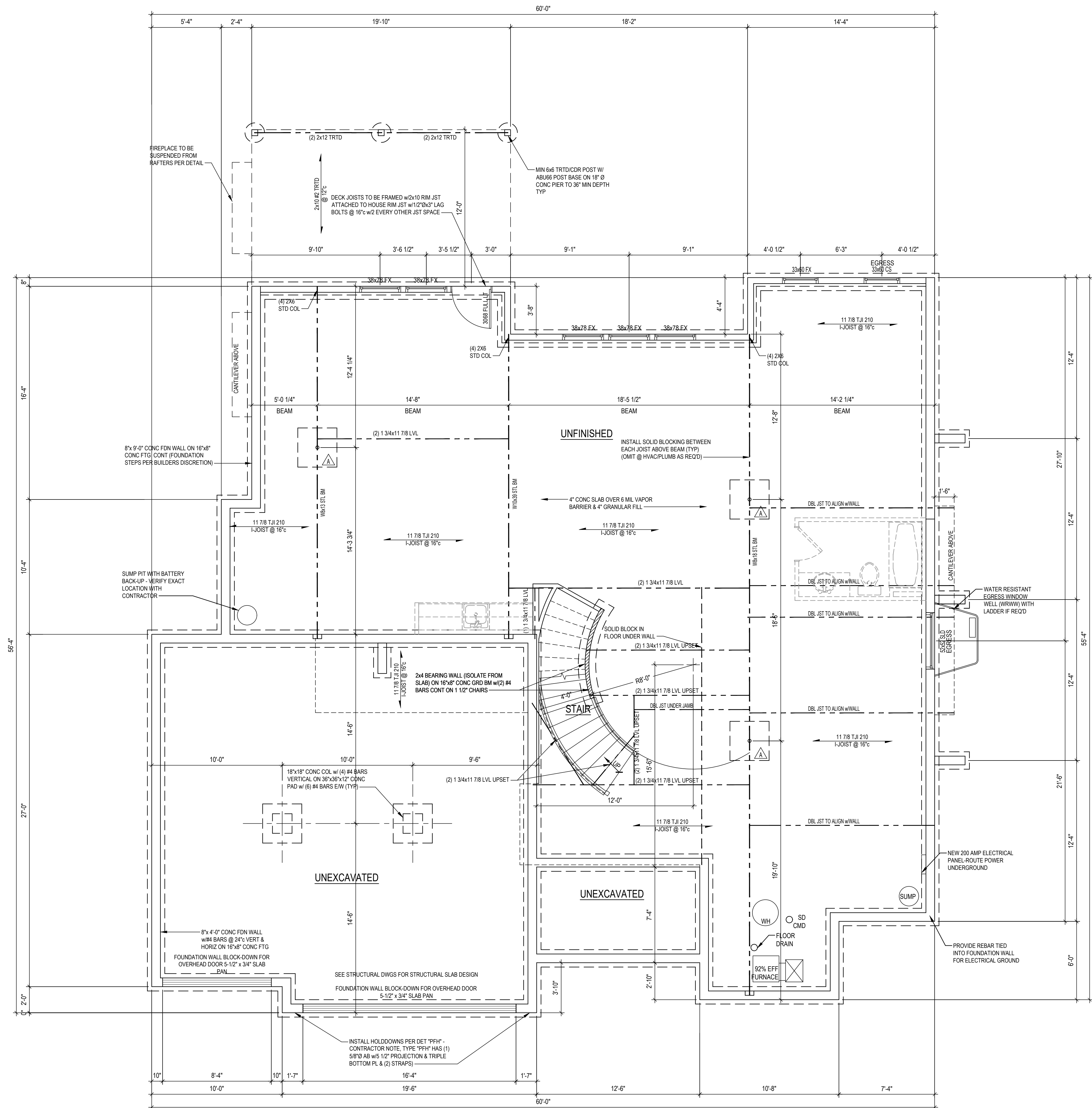
ALL I-JOIST AND OPEN WEB TRUSSES OVER UNFINISHED SPACE EXCEEDING 80 SQUARE FEET IN AGGREGATE AREA TO BE PROTECTED BY THE FOLLOWING METHOD:

- 3" MINERAL/ROCK WOOL COVERING BTM CHORD AND NETTING PER APA FORM R425 METHOD 4

1. ALL FOOTINGS ARE TO BE EXTENDED TO MIN 36" BELOW FINISHED GRADE.
2. ALL ANCHOR FOOTINGS FOR LOAD BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB.
3. ALL CONCRETE WALL OPENINGS, FOOTINGS & WALL STEPS, PROVIDE ONE #4 BAR, 48" LONG DIAGONALLY AS CLOSE AS PRACTICAL TO CORNER. ALL ANCHOR FOOTINGS SHALL BE LAPPED A MIN OF 24" AT ENDS SLIPS, AND LONG CORNERS.
4. ANCHOR BOLTS ARE TO BE SPACED @ 36" WITH 7" MIN EMBED. A BOLT IS REQUIRED WITHIN 12" OF THE FACE OF EACH FACE SECTION.
5. FASTEN JOISTS TO SILL PLATES WITH (3) 8d COM NAILS.
6. WHERE JOIST IS PARALLEL TO FOUNDATION, PROVIDE SLOD BLOCKING @ 36" OR 48" ON JOIST SPACES. FASTEN TO SILL PLATE PER NOTE 6.
7. PROVIDE 2x6 SILL PLATE, 1x6 JOIST RETAINER WITH JOISTS LAPPED A MIN OF 6" BETWEEN SLAB & JOIST.
8. DAMP PROOFING: ONE COAT (MIN) OF DAMP PROOFING OR EQUIVALENT WATER RESISTANT MEMBRANE TO BE APPLIED TO ALL EXTERIOR WALL SURFACES BEFORE DRAIN. SEAL THE HOLES. VOIDS BEFORE BACKFILL.
9. DRAIN: DRAIN: INSTALL CONT 4" OF PERFORATED PVC DRAIN TILE. DRAIN TILE TO BE EXTENDED TO SQUARE SUMP PIT WHICH EXTENDS A MIN 24" BELOW BASEMENT FLOOR.
10. ALL FRAMING MEMBERS IN CONTACT WITH CONCRETE SHALL BE ACCO TREAT LUMBER.
11. ALL STEEL FASTENERS (INCLUDING FOUND. ANCHOR BOLTS) ON ACCO TO BE (DOUBLE HOT-DIPPED GALVANIZED).
12. PROVIDE A "UPPER GROUNDWATER TABLE" PER 3068.1
13. EGRESS WALL REQUIREMENTS:
 - a. IF THE VERTICAL DISTANCE FROM THE WINDOW SILL TO ADJACENT GRADE IS GREATER THAN 48" ADD:
 - b. ADD DRAIN TO DAYLIGHT OR SUMP PUMP.

COLUMN & PIER PAD SCHEDULE			
COLUMN MARK	PAD SIZE	REINFORCEMENT	COLUMN SIZE
A	36"x36"x12"	(6) #4 BAR E.W.	3'0" SCHED 40
B	42"x42"x14"	(7) #4 BAR E.W.	3'0" SCHED 40
C	48"x48"x16"	(8) #4 BAR E.W.	3'0" SCHED 40
D	54"x54"x16"	(9) #4 BAR E.W.	3 1/2" SCHED 40
E	60"x60"x18"	(10) #4 BAR E.W.	3 1/2" SCHED 40

1. COLUMN & PIER PAD SIZES SHOWN ARE BASED ON AN ASSUMED MINIMUM ALLOWABLE SOIL BEARING CAPACITY OF 1,500 psf.
2. GARAGE FOOTINGS PER DETAIL, COLUMN NOT REQUIRED UNLESS NOTED ON PLANS



LOWER LEVEL	
FINISHED AREA:	0 SF
UNFINISHED:	1923 SF

 LOAD BEARING WALL
 LOAD BEARING BEAM

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THE MAPLEWOOD III

Spec Residence
3370 NW Patch Court, Lee's Summit, MO
Lot 161 - Woodside Ridge Subdivision

Project #: 8083-XXXX

DATE: _____

Permit: 7/1/2022

Foundation Plan

A101

GENERAL PLAN REQUIREMENTS:

- ALL STUD WALL FRAMING SHALL BE CONTINUOUS FROM THE FLOOR TO ROOF OR CEILING DIAPHRAGM, U.N.O. ALL WALLS OVER 10'-0" ARE TO BE 2x6 @ 16" O.C.
- PROVIDE WATER-RESISTANT EXTERIOR WALL COVERING ON ALL FRAMED WALLS TO COMPLY WITH IRC SECTION 703.2.
- PROVIDE GFI 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 S3 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 @ 7" C STAGGERED WITH (7) 3 1/4"x120 NAILS THRU JAMB INTO HEADER. MINIMUM 2x6 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.
- OVERHEAD GARAGE DOORS TO MEET 115 MPH WIND LOAD RESISTANCE REQUIREMENTS OF DASHA 108-17 AND ASTM E 330-02 PER IRC SECTION R 608.4.
- MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 7 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 D FR #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.
- ALL EXTERIOR PLATE HGTS TO BE 9'-0" UNLESS OTHERWISE NOTED. INTERIOR PLATE HGTS AS INDICATED IN ROOM CLG HEIGHTS NOTATION. NO HANDRAIL IS REQD FOR STEPS HAVING LESS 3 RISERS OR LESS.
- ANY LUMBER IN DIRECT CONTACT WITH CONCRETE TO BE TREATED.

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 N1103.2.
- THE BUILDING THERMAL ENVELOPE IS REQUIRED TO BE SEALED PER IRC SECTION N1102.4.
- CONTRACTOR TO SUBMIT "MANUAL 2" AND "MANUAL 0" 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-FACTOR	U 0.35 (MAX)
SHGC	0.40 (MAX)
SKYLIGHTS	
U-FACTOR	U 0.55 (MAX)
SHGC	0.40 (MAX)

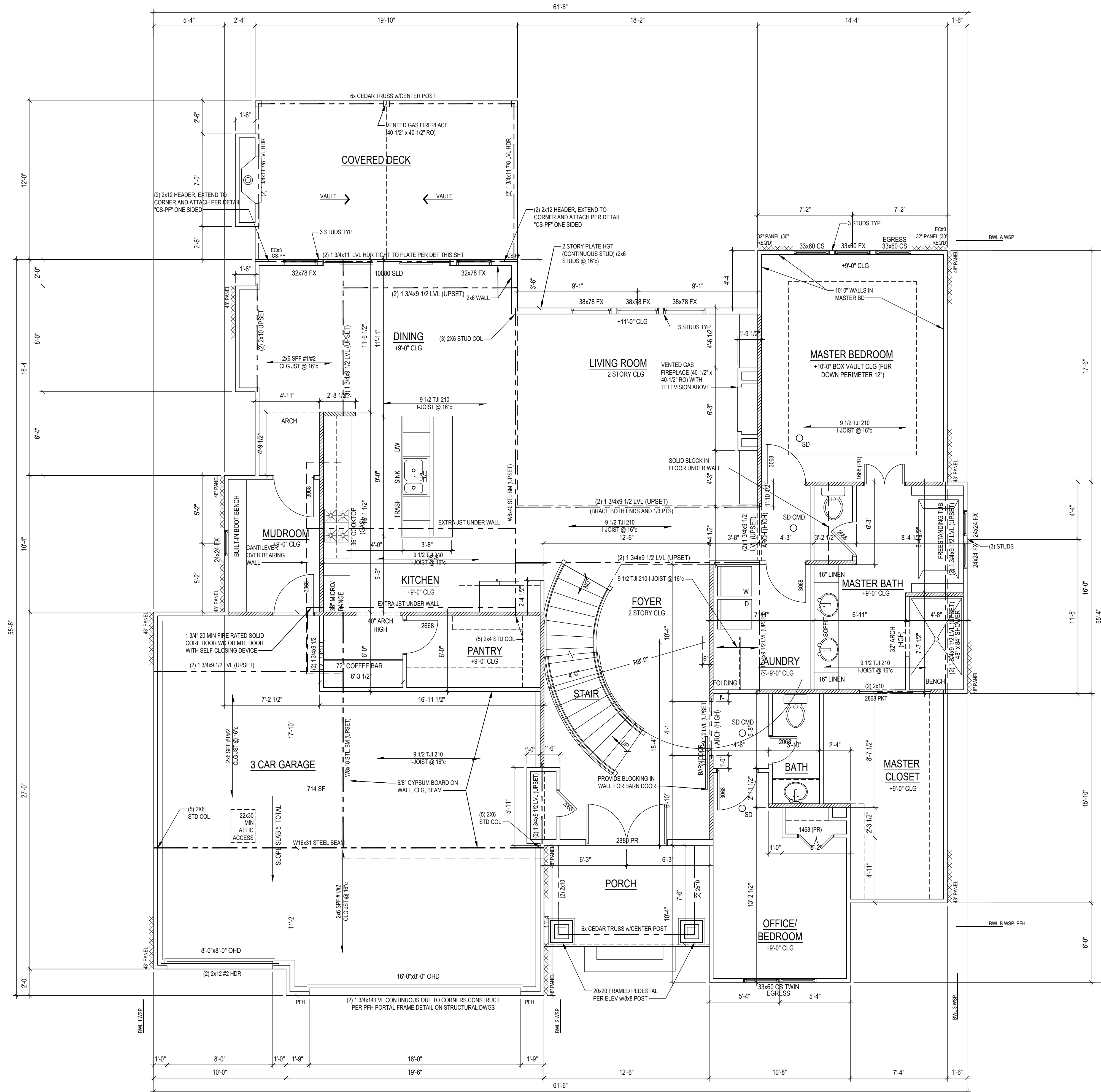
WINDOW AND DOOR NOTES

- 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"x8'-0" 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:
A. MINIMUM OPEN AREA 5.7 SF
B. MINIMUM OPENING HEIGHT 24 INCHES
C. MINIMUM OPENING WIDTH 20 INCHES
D. SILL HEIGHT 44" MAX ABOVE FLOOR
- ALL WINDOW SILLS ARE TO BE 24" MIN ABOVE FINISH FLOOR, OR SHALL BE FIXED/INOPERABLE.
- ALL WINDOWS TO BE FRAMED TIGHT TO HEADERS UNLESS NOTED OTHERWISE ON ELEVATIONS.
- ALL WINDOWS AND GLAZED DOORS SHALL COMPLY WITH IRC SECTION R308. IRC SECTION R308.4: GLAZING IN HAZARDOUS LOCATIONS SHALL BE OF APPROVED SAFETY GLAZING MATERIALS. GLASS 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 30".
- ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC R612.2.
- 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.

WALL BRACING NOTES:

- SHEATHING METHOD CS-WSP, PPH, GB (or LIB), CS-PF
- ALL EXTERIOR WALLS ARE TYPE "CS-WSP" 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-WSP" ON PLAN, WALL IS FULLY SHEATHED AND MEETS ALL REQUIREMENTS WITH END CONDITION #1, #3, OR #4.
 - EC IF - END CONDITION PER IRC FIGURE R602.10.7, (FOR CONDITIONS #1, #3, & #4 NO HOLD-DOWN REQUIRED)
 - INTERIOR WALL BRACING NOT REQUIRED FOR BRACED WALL SPACING 60FT OR LESS

XXXXXXXXXX DENOTES EXTERIOR BRACED WALL WOOD STRUCTURAL PANEL (WSP OR CS-WSP) ATTACHED PER DETAILS AND GENERAL NOTES
XX PANEL



MAIN LEVEL	2192 SF
FINISH	692 SF
GARAGE	692 SF
COVERED DECK	244 SF

LOAD BEARING WALL
LOAD BEARING BEAM

First Floor Plan

1/4" = 1'-0"

1



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THE MAPLEWOOD III

Spec Residence
370 NW Patch Court, Lee's Summit, MO
Lot 161 - Woodside Ridge Subdivision

Project #: 8083-XXXX

DATE:

Permit: 7/1/2022

First Floor
Plan

A102

GENERAL PLAN REQUIREMENTS:

- ALL STUD WALL FRAMING SHALL BE CONTINUOUS FROM THE FLOOR TO ROOF OR CEILING DIAPHRAGM. U.N.O. ALL WALLS OVER 10'-0" ARE TO BE 2x6 @ 16" O.C.
- PROVIDE WATER-RESISTANT EXTERIOR WALL COVERING ON ALL FRAMED WALLS TO COMPLY WITH IRC SECTION 703.2.
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- 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 S3 FOR ALL WALL BRACING DETAILS AND/OR CALCULATIONS.
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- MAXIMUM RISER HEIGHT OF STAIRWAYS SHALL NOT EXCEED 7 3/4" AND THE TREADS SHALL PROVIDE A MINIMUM TREAD DEPTH OF 10".
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- INSULATION TO COMPLY WITH IECC AS FOLLOWS:

WALLS	R-13
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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-FACTOR | U 0.35 (MAX) |
| SHGC | 0.40 (MAX) |
| SKYLIGHTS | |
| U-FACTOR | U 0.55 (MAX) |
| SHGC | 0.40 (MAX) |

WINDOW AND DOOR NOTES

- ALL WINDOWS ARE SHOWN IN INCHES (I.E. 3060 IS A 30"x60" WINDOW). ALL DOORS SHOWN IN FEET AND INCHES (I.E. 2668 DOOR IS A 2'-8"x8'-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:

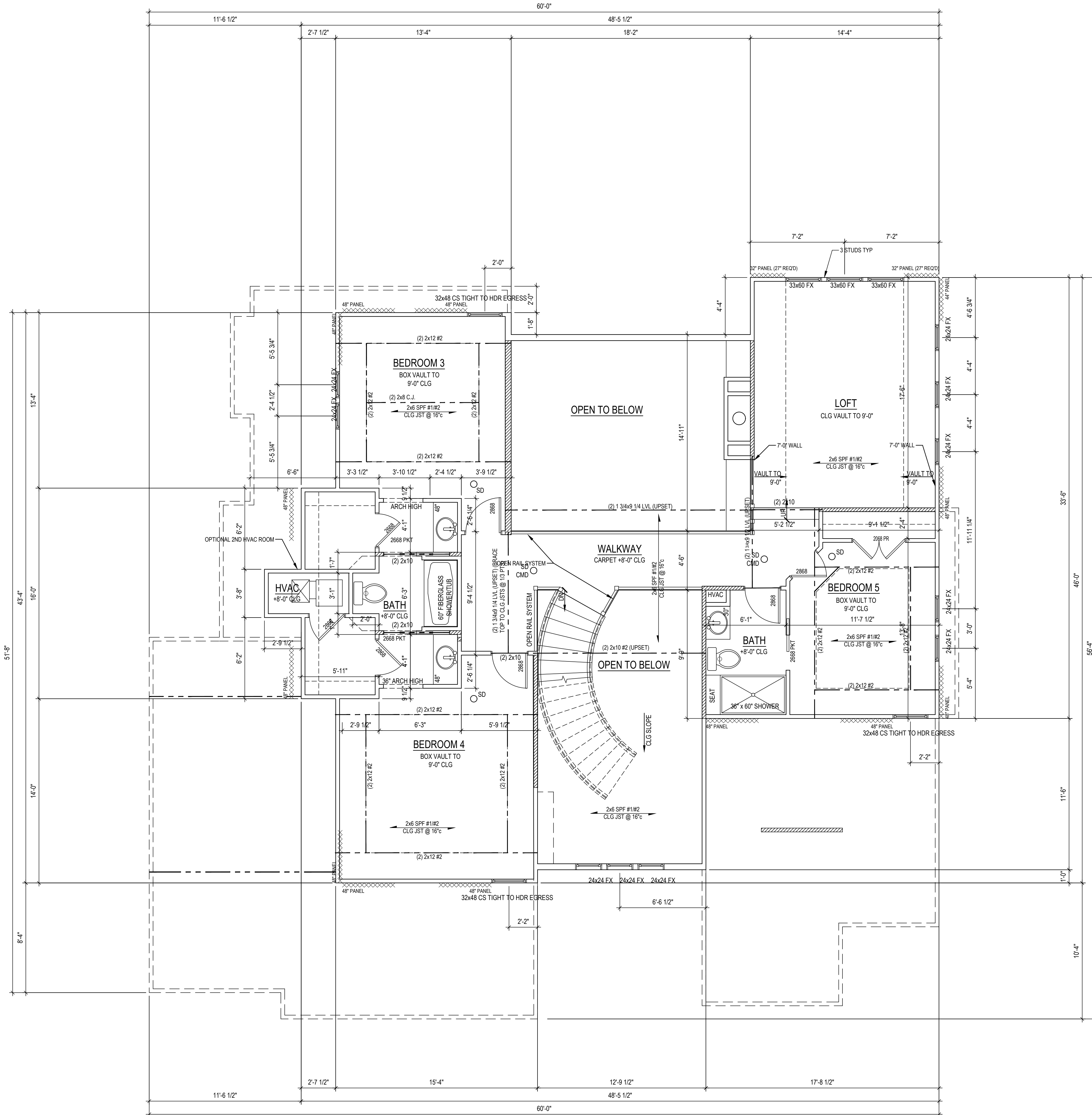
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- ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC R612.2.
- ALL GLAZING IN WINDOWS AND DOORS SHALL COMPLY WITH THE TEST CRITERIA FOR CATEGORY II IN ACCORDANCE WITH CPSC 16 CFR 1201.
- WINDOW MANUFACTURER TO CONFIRM EXACT SAFETY AND EGRESS WINDOW LOCATIONS PER LOCAL CODES.

WALL BRACING NOTES:

SHEATHING METHOD CS-WSP, WSP, PFB, GB (or LIB), CS-PF

- ALL EXTERIOR WALLS ARE TYPE "CS-WSP" 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-WSP" ON PLAN, WALL IS FULLY SHEATHED AND MEETS ALL REQUIREMENTS WITH END CONDITION #1, #3, OR #4.
- EC # - END CONDITION PER IRC FIGURE R602.10.7, (FOR CONDITIONS #1, #3, & #4 NO HOLDDOWN REQUIRED)
- INTERIOR WALL BRACING NOT REQUIRED FOR BRACED WALL SPACING 60FT OR LESS

XXXXXXXXXX DENOTES EXTERIOR BRACED WALL WOOD STRUCTURAL PANEL (WSP or CS-WSP) ATTACHED PER DETAILS AND GENERAL NOTES
XX PANEL



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THE MAPLEWOOD III
Spec Residence
370 NW Patch Court, Lee's Summit, MO
Lot 161 - Woodside Ridge Subdivision

Project #: 8083-XXXX

DATE:

Permit: 7/1/2022

Second Floor Plan

A103

Second Floor Plan

1/4" = 1'-0"

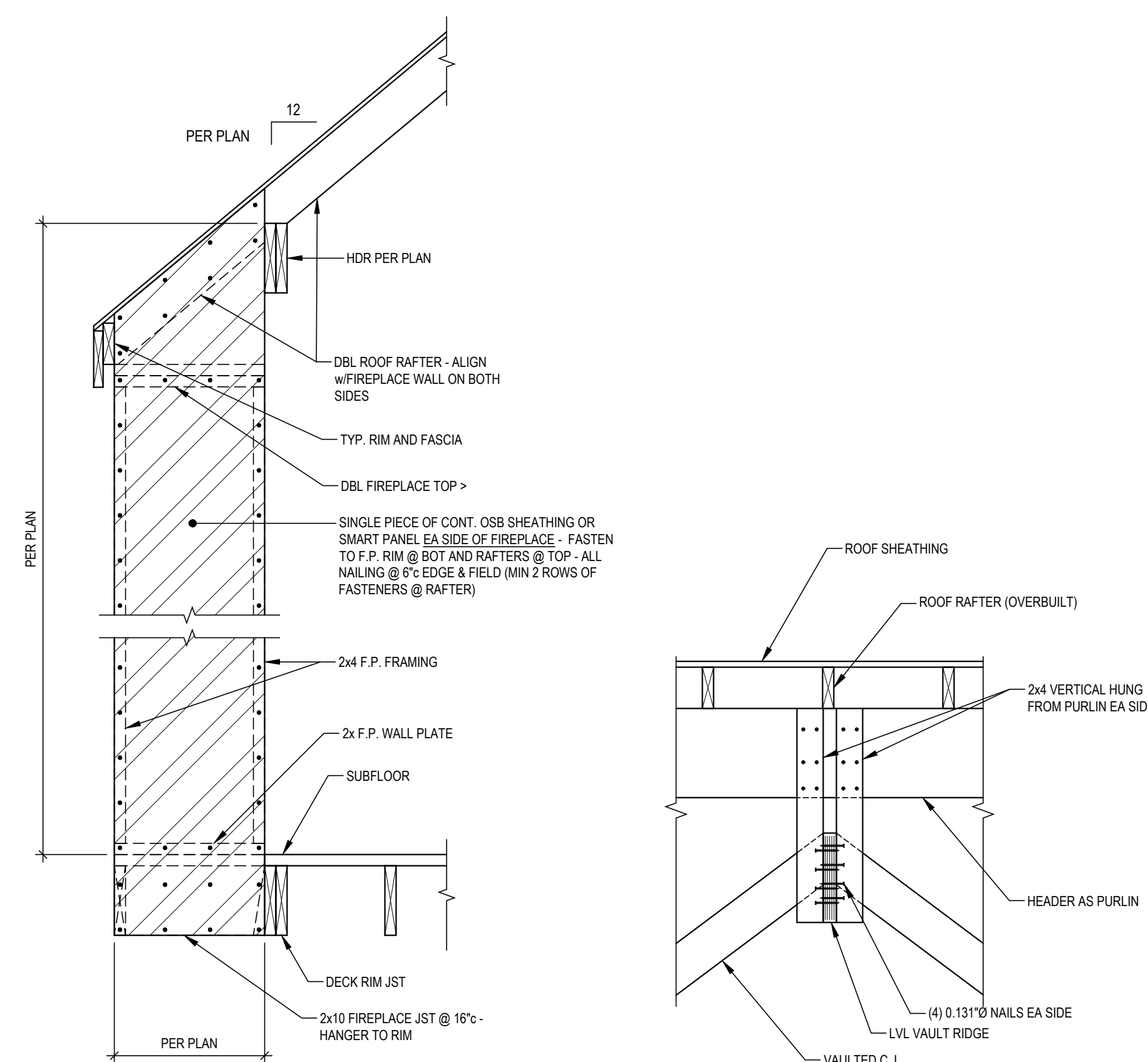
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1. ALL ROOF RAFTERS NOT CALLED OUT ARE TO BE 2x4 SPS #112 @ 16"o.c
2. ALL CEILING JOISTS NOT CALLED OUT ARE TO BE 2x6 SPS #112 @ 16"o.c
3. ALL VAULTS TO BE FURRED DOWN w/2x4 MATERIAL TO PROVIDE FOR A R-38
4. ALL EXTERIOR AND LOAD BEARING WINDOW AND DOOR HEADERS TO BE (2) 2x10 D PIER UNLESS NOTED OTHERWISE ON PLANS
5. RIDGES, HIPPS, AND VALLEYS NOT MARKED SHALL BE (1) NOMINAL 2"X12" LARGER THAN THE RAFTERS OR JOISTS THEY ARE TO SUPPORT
6. ALL CEILING JOISTS AND RAFTERS SHALL BE NAILED TO EACH OTHER WITH (3) 16x COM @ (3'12"x12" NAILS) AND THE RAFTER SHALL BE NAILED TO THE TOP WALL PLATE WITH (3) 8x COM @ (12"x10-13" NAILS). CEILING JOISTS TO BE CONTINUOUS OVER PARTITIONS AND PARTITIONS TO BE (3'12"x12" NAILS) WHERE THEY MEET INTERIOR PARTITIONS AND ARE NAILED TO ADJACENT RAFTERS TO PROVIDE A CONTINUOUS TIE ACROSS THE BUILDING WHEN SUCH JOISTS ARE PARALLEL TO THE RAFTERS.
7. WHERE CEILING JOISTS ARE NOT CONNECTED TO THE RAFTERS AT THE TOP WALL PLATE OR AT LOCATIONS WHERE C.J. ARE PERPENDICULAR TO RAFTERS, ALL WALL 2x4 NAIL TIES @ 16" C/W @ (3'12" COM @ (3'12"x12" NAILS) AS EN D.
8. ALL CONNECTIONS DESIGNED TO RESIST UPLIFT FORCES PER IRC TABLE R2.2.3. ROOF HEADERS DO NOT HAVE NOTABLE UPLIFT TO BE RESISTED DOWN TO THE FOUNDATION. SEE STRUCTURAL DETAIL SHEET S1 CONNECTION TABLE FOR FASTENERS
9. INSTALL 2x4 COLLAR TIES @ 45° IN UPR 1/6d of ROOF RAFTER.
10. ALL FLOOR, CEILING AND ROOF JOISTS SHALL BE FULLY BRACED TO ROOF AND SOFFIT VENTING BY PLAN LOCUS CODES, WHERE POSSIBLE, PROVIDE ROOF VENTING ON BACK SIDE OF ROOF. BATH VENTS TO VENT DIRECTLY TO THE OUTSIDE.
11. ALL ROOF AND DOOR/POUT LOCATION BY GUTTER INSTALLER PER IRC SECTION R802.3 - FOR ROOF PITCHES 3/12 OR GREATER, STRUCTURAL MEMBERS THAT SUPPORT RAFTERS AND CEILING JOISTS SUCH AS RIDGE BEAMS, HIPPS AND VALLEYS THAT ARE SUPPORTED BY FRAMING OR FLOORING SHALL BE FULLY BRACED TO THE WALLS. THEY BE DESIGNED AS BEAMS AND ARE TO BE FRAMED USING LUMBER THAT IS NOMINALLY 2" WIDE BY ONE SIZE GREATER THAN ATTACHING FRAMING MEMBER.
12. NOTE: THERE IS NO STRUCTURAL LINE LOADS ON THE ROOF.

1. ROOF PURLINS TO BE PLACED APPROXIMATELY WHERE SHOWN ON PLANS, USE 2x6 STUD GRADE PURLIN PLACED PERPENDICULAR TO RAFTERS (UNLESS NOTED OTHERWISE ON PLANS)
2. RIDGE, HIP, VALLEY, AND PURLIN 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)
3. BRACES LONGER THAN 8'-0" SHALL BE 2x4 STRONG BACK BRACES

-



SCALE: $3/4" = 1'-0"$

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

STRUCTURAL GENERAL NOTES

DIVISION 1 - GENERAL REQUIREMENTS

- 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.
- Furnish all labor, materials and equipment necessary to complete the work as shown or inferred by the drawings.
- Design Loads:
 - Elevated Floor:
 - Residential (Live Loads) 40 PSF
 - Sleeping rooms (Live Loads) 30 PSF
 - Floor Dead Load 10 PSF
 - Floor Joist Deflection (Total) L/240
 - Floor Joist Deflection (Live) L/360
 - Attic Storage (Live Loads) 10 PSF
 - Ceiling Dead Load 5 PSF
 - Ceiling Joist Deflection L/240
 - Roof Live Load 20 PSF
 - 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
- Wind Load:
 - Basic Wind Speed (Vult) 115 MPH
 - Risk Category II
 - Exposure B
 - Internal Pressure Coefficient ±0.18

- 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.
- 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

- 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 subsurface conditions are compatible with those used in the design.
- 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. If suitable bearing capacity is not encountered at the elevation indicated on the drawing, contractor shall notify the architect immediately.
- All topsoil, organic material and existing structures shall be removed from building area and from areas to be paved. Stockpile all topsoil for reuse.
- Controlled Fill Materials:
 - 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.
 - 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.
 - Controlled Fill - Controlled fill shall be either granular or shrinkage-swell controlled fill as specified above and as approved by the geotechnical engineer.
- 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.
- Foundation Preparation:
 - Profile 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.
 - 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 COMPARISON

- All controlled fill and backfill shall be placed in lifts having maximum loose lift thickness of 9 inches.
- Granular Fill - Compact granular fill below footing bearing elevation to a minimum of 95 percent of material's maximum dry density as determined by ASTM D 698 and to a minimum of 85 percent of material's maximum dry density above footing bearing elevation.
- Shrinkage-swell control fill - Compact shrinkage-swell controlled fill below footing bearing elevation to a minimum of 95 percent of the material's maximum dry density as determined by ASTM D 698 and to a minimum of 85 percent of material's maximum dry density above footing bearing elevation.
- Controlled Fill - Compact controlled fill at a moisture content within a range of 0 to 4 percent above optimum moisture content.

DIVISION 3 - CONCRETE

- 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".
- Concrete materials shall comply with:
 - Cement - ASTM C 150 Type I
 - Aggregate - ASTM C 33, maximum aggregate size 3/4 inch
 - Water - Potable
 - Air-entraining admixture - ASTM C 260
 - Water-reducing admixture - ASTM C 494, including superplasticizers
 - Fly ash - ASTM C 618, Class C
- Concrete shall develop the following minimum 28 day design compressive strength (f_c):

Type of Construction	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
- Proportion and design mixes to result in concrete slump at point of placement of not more than 4 inches, except girth for masonry of not more than 6 inches.
- 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.
- Reinforcing Steel:
 - Reinforcing bars - ASTM A 615, grade 40, deformed
 - Welded wire fabric - ASTM A 1084, lap at least one full mesh and lace spikes with wire
 - Supports for reinforcement - comply with CRSI recommendations
- Concrete Work Execution:
 - Minimum concrete cover for reinforcement shall be, unless noted otherwise on the drawings:

Location	Minimum Cover
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
 - All concrete is reinforced, reinforce concrete not otherwise indicated with same reinforcement as similar sections.
 - Protect concrete work from physical damage or reduced strength due to weather extremes:

Weather Condition	Protection
In cold weather comply with ACI 308	
In hot weather comply with ACI 305	
 - 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.
 - Provide construction joints in footings, grade beams and walls at not greater than 80 feet in any direction, key and dowel construction joints.
 - 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 desloughing aggregate.
- Coordinate concrete work with architectural and mechanical drawings for concrete finishes, recessed areas, embedded items and other conditions.

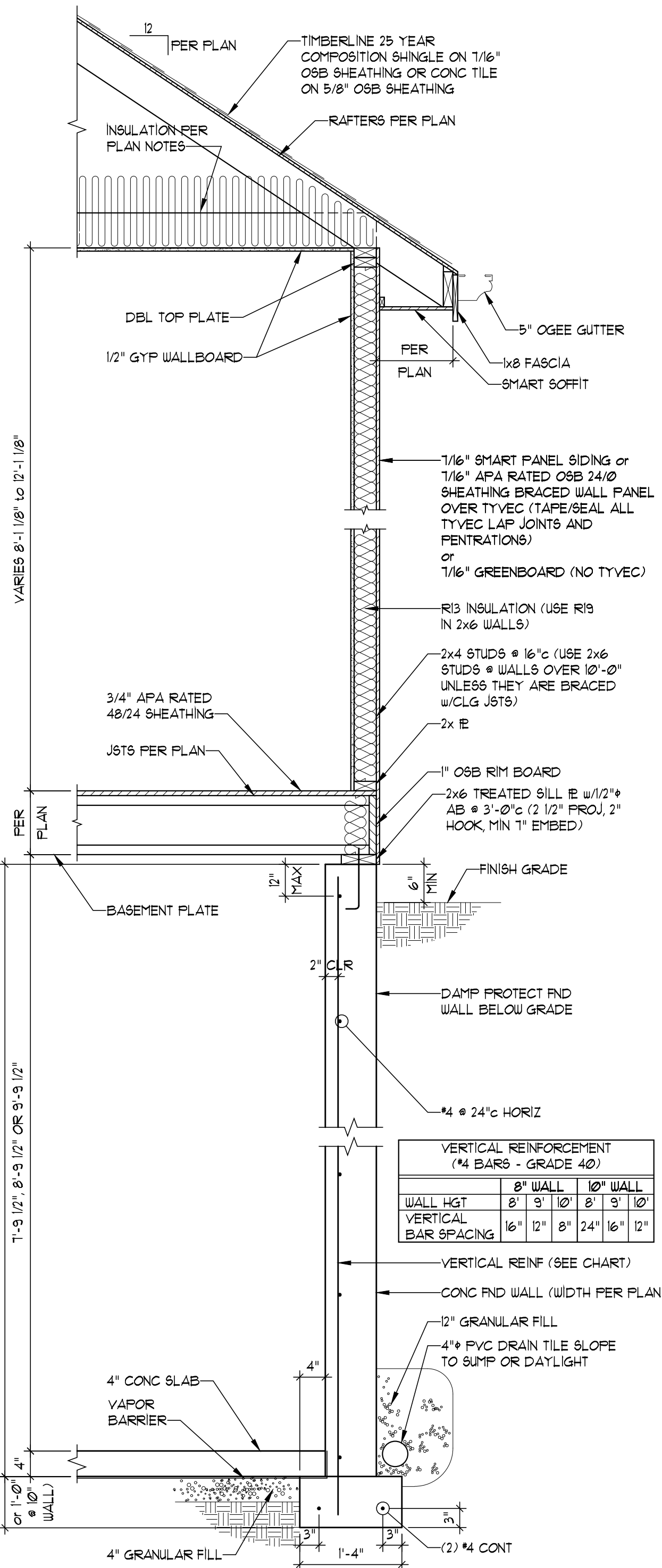
DIVISION 5.5 - MISCELLANEOUS STRUCTURAL STEEL

- All miscellaneous structural steel work shall conform to the requirements of AISC "Specifications for Design, Fabrication and Erection of Structural Steel for Buildings".
- Miscellaneous structural steel material shall comply with:
 - Structural Steel - ASTM A 36
 - Cold-formed Steel Tubing - ASTM A 500 Grade B
 - Anchor Rods - ASTM F-1554, non-headed type unless otherwise noted.

DIVISION 6 - ROUGH CARPENTRY

- All rough carpentry work shall conform to the requirements of NFPA "National Design Specification of Wood Construction", TP "Design Specifications for Light Metal Connected Wood Trusses", APA Plywood Design Specification, DGC PS 1 "Product Standard for Construction and Industrial Plywood", DGC PS 56 "Structural Glued Laminated Timber" and Chapter 23 of the International Building Code.
- Rough carpentry materials shall comply with:
 - Lumber - S4S, surface dry, grade marked, complying with PS 20; graded under WPPA or SPIB rules:

Joist	Stud	Header	Rafter	Plates	Blocking
No. 2 Douglas Fir	No. 2 Spruce-Pine-Fir	No. 2 Douglas Fir	No. 3 Douglas Fir	No. 3 Spruce-Pine-Fir	No. 3 Spruce-Pine-Fir
 - Metal framing fasteners - ASTM A 153, hot-dip galvanized fasteners; equal to Simpson strong-tie connectors complying with CBO No. 1258
 - Plywood - APA rated sheathing, complying to PS 1
 - LVL - Laminated veneer lumber shall be grade 2800 F-2 OE and shall meet the requirements of NER-442, NER-472 or ER-421
 - Laid - Laid joist shall be fabricated from APA rated sheathing board webs, LVL flanges, utilizing waterproof type glue and shall meet requirements of NER-450, NER-446 or IBCO PFC-3754
 - Glulam Beams - Combination 20F-V3 in accordance with Table No. 25-C-1 Part A of Chapter 23 of the International Building Code
 - Fiberboard Sheathing - DGC Standard PS 57-73
 - Gypsum Sheathing Board - ASTM C 78 and UBC Standard No. 47-10
 - Gypsum Wallboard - ASTM C 36 and UBC Standard No. 47-11
 - 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.
 - 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.
 - 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.
 - 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.
 - Provide full depth solid blocking, 1 X 4 cross bracing, or 16 gage metal cross bracing bridging at ends of members and at 8'-0" intervals along members.



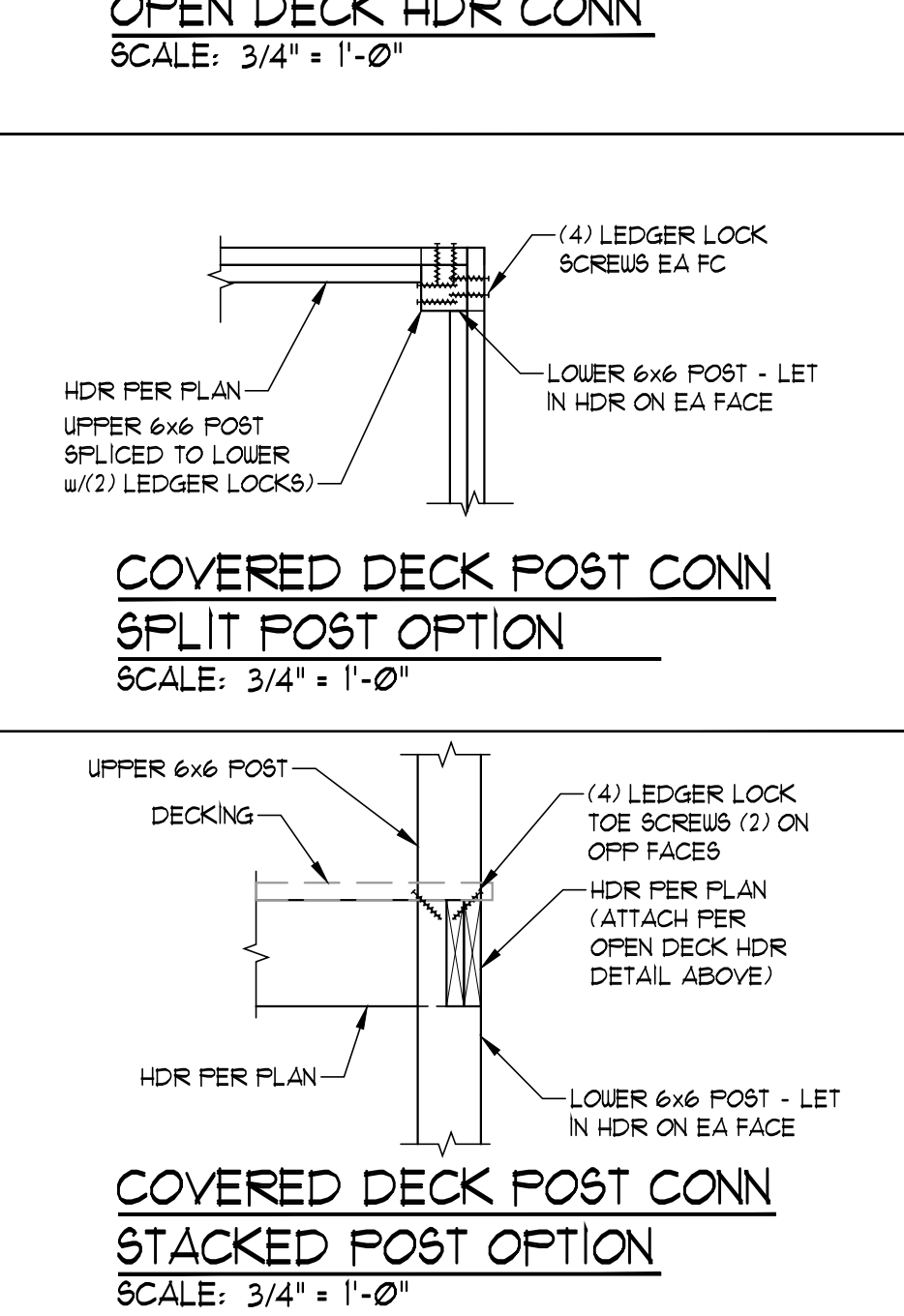
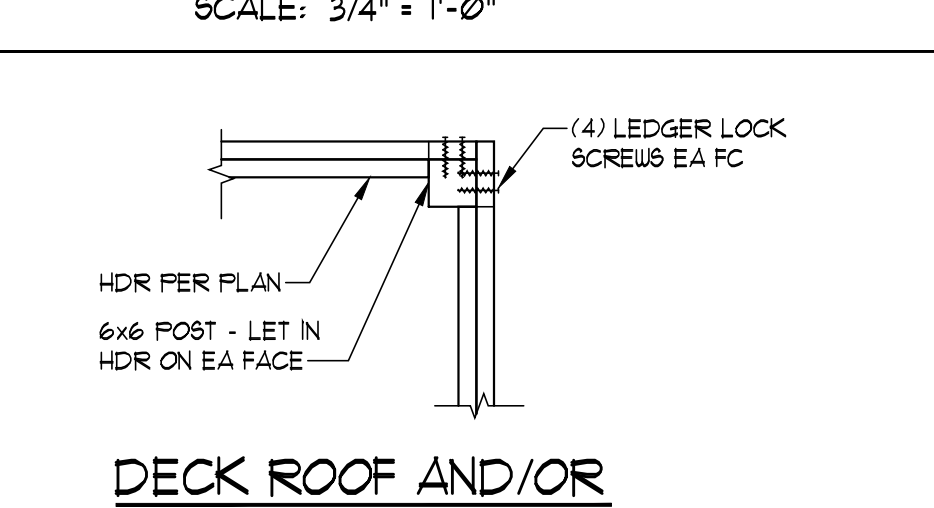
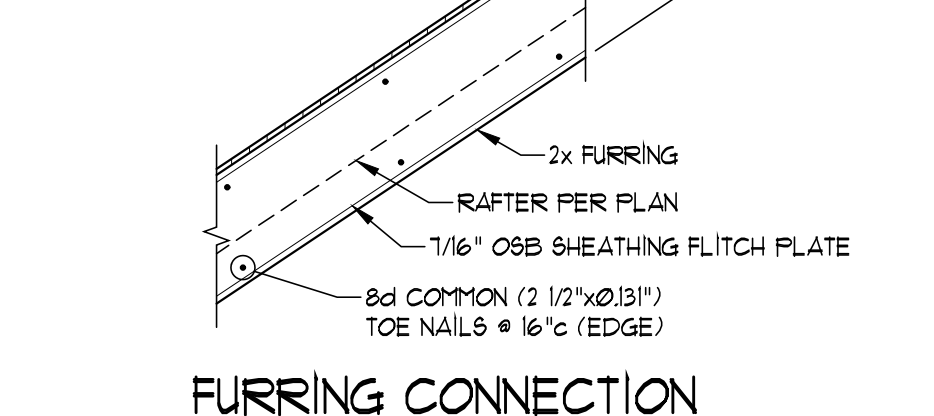
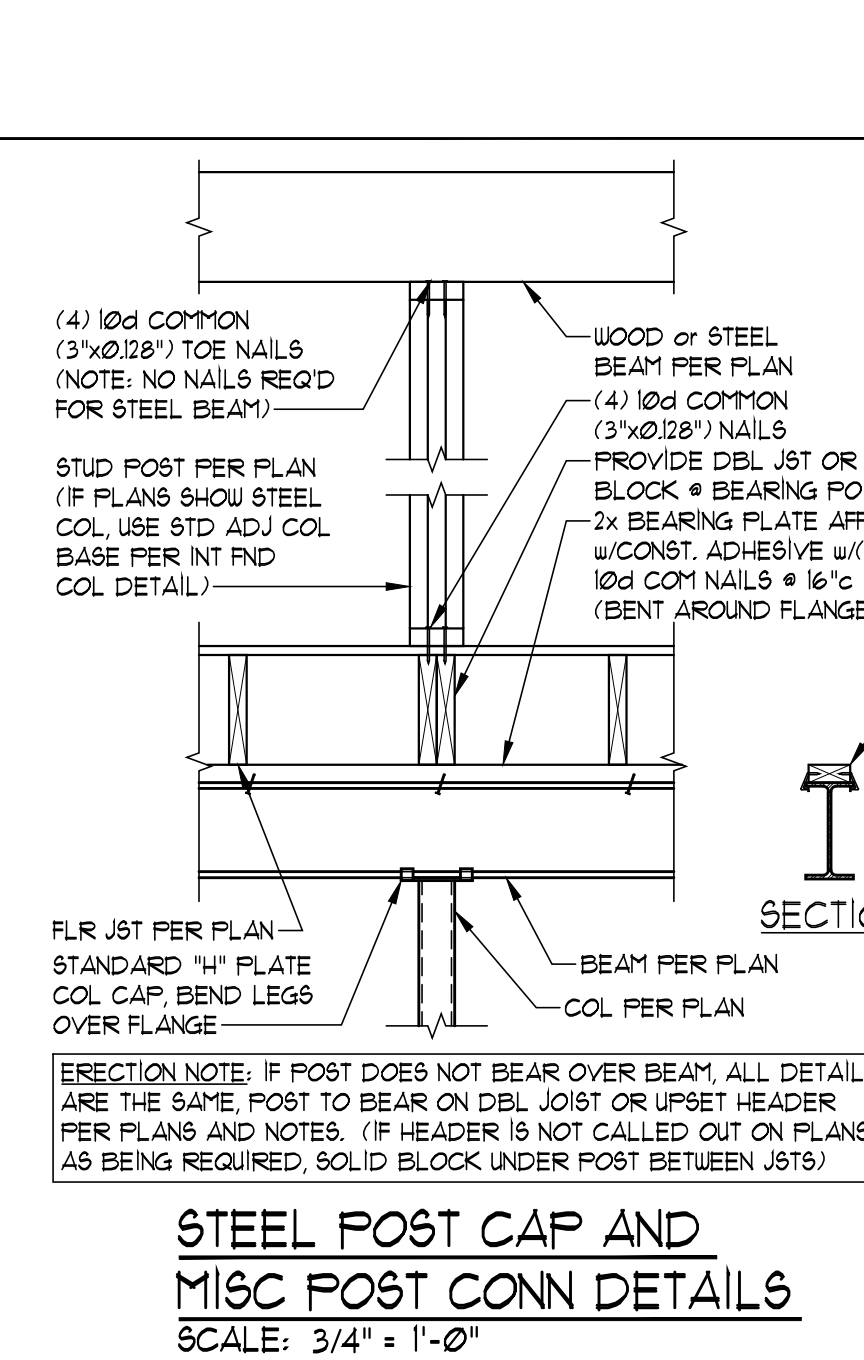
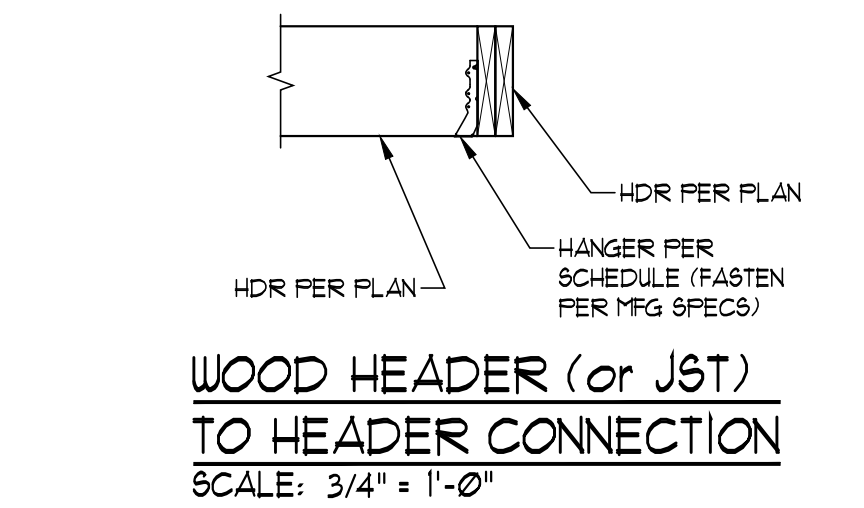
TYPICAL WALL SECTION
SCALE: 3/4" = 1'-0"

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER ^{a, b, c}		SPACING AND LOCATION
		COMMON NAIL	PNEUMATIC NAIL	
ROOF				
1	Blocking between ceiling joists or rafters to top plate	(4) 8d box (3) 8d common (3) 10d box	(4) 2 1/2" × 0.113" (3) 2 1/2" × 0.131" (3) 3" × 0.128" (3) 3" × 0.131"	Toe nail
2	Ceiling joists to top plate	(4) 8d box (3) 8d common (3) 10d box	(4) 2 1/2" × 0.113" (3) 2 1/2" × 0.131" (3) 3" × 0.128" (3) 3" × 0.131"	Per joist, toe nail
3	Ceiling joist not attached to parallel rafter, laps over partitions	(4) 10d box (3) 16d common	(4) 3 1/2" × 0.162" (4) 3" × 0.131"	Face nail
4	Ceiling joist attached to parallel rafter (heel joint) Note: Fasteners listed IRC Table R602.5.2 assuming 10% Rafter Joists & spans less than 12'-0"	(3) 16d common @ slopes greater than 4:12 (5) 16d common @ slopes 4:12 or less	(3) 3 1/2" × 0.162" @ slope > 4:12 (5) 3 1/2" × 0.162" @ slope 4:12 or less	Face nail
5	Collar tie to rafter, face nail or 11/4" × 20ga. ridge strap to rafter	(4) 10d box (3) 10d common	(4) 3" × 0.128" (4) 3" × 0.131"	Face nail each rafter
6	Rafter or roof truss to plate	(3) 16d box (3) 10d common (4) 10d box	(3) 3 1/2" × 0.135" (3) 3" × 0.148" (4) 3" × 0.128" (4) 3" × 0.131"	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
7	Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam	(4) 16d (3) 10d common (4) 10d box	(4) 3 1/2" × 0.135" (3) 3 1/2" × 0.148" (4) 3" × 0.128" (4) 3" × 0.131"	Toe nail
		(3) 16d box (2) 16d common (3) 10d box	(3) 3 1/2" × 0.135" (2) 3 1/2" × 0.162" (3) 3" × 0.128" (3) 3" × 0.131"	End nail
WALL				
8	Stud to stud (not at braced wall panels)	16d common 10d box	3 1/2" × 0.162" 3" × 0.128" 3" × 0.131"	24" face nail 16" face nail
9	Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box 16d common	3 1/2" × 0.135" 3" × 0.131"	16" face nail
10	Build-up header (2" to 2" header with 1/2" spacer)	16d common 16d box	3 1/2" × 0.162" 3 1/2" × 0.135"	16" each edge face nail 12" each edge face nail
11	Continuous header to stud	(5) 8d box (4) 8d common (4) 10d box	(5) 2 1/2" × 0.113" (4) 2 1/2" × 0.131" (4) 3" × 0.128"	Toe nail
12	Top plate to top plate	16d common 10d box	3 1/2" × 0.162" 3" × 0.128" 3" × 0.131"	16" face nail 12" face nail
13	Double top plate splice for SDCs A-D2 with seismic braced wall line spacing < 25'	(8) 16d common (12) 16d box (12) 10d box	(8) 3 1/2" × 0.162" (12) 3 1/2" × 0.135" (12) 3" × 0.128" (12) 3" × 0.131"	Face nail on each side of end joint (minimum 24" lap splice length each side of end joint)
	Double top plate splice SDCs DO, D1, or D2 and braced wall line spacing ≥ 25'	(12) 16d	(12) 3 1/2" × 0.135"	
14	Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common 16d box	3 1/2" × 0.162" 3 1/2" × 0.135" 3" × 0.131"	16" face nail 12" face nail
15	Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	(3) 16d box (2) 16d common	(3) 3 1/2" × 0.135" (2) 3 1/2" × 0.162" (3) 3" × 0.131"	3 each 16" face nail 2 each 16" face nail 4 each 16" face nail
16	Top or bottom plate to stud	(4) 8d box (3) 16d box (4) 8d common (4) 10d box	(4) 2 1/2" × 0.113" (3) 3 1/2" × 0.135" (4) 2 1/2" × 0.131" (4) 3" × 0.128" (4) 3" × 0.131"	Toe nail
		(3) 16d box (2) 16d common (3) 10d box	(3) 3 1/2" × 0.135" (2) 3 1/2" × 0.162" (3) 3" × 0.131"	End nail
17	Top plates, laps at corners and intersections	(3) 10d box (2) 16d common	(3) 3" × 0.128" (2) 3 1/2" × 0.162" (3) 3" × 0.131"	Face nail
18	1" brace to each stud and plate	(3) 8d box (2) 8d common (2) 10d box (2) Staples ^d	(3) 2 1/2" × 0.113" (2) 2 1/2" × 0.131" (2) 3" × 0.128"	Face nail
19	1" × 6" sheathing to each bearing	(3) 8d box (2) 8d common (2) 10d box (2) Staples ^d	(3) 2 1/2" × 0.113" (2) 2 1/2" × 0.131" (2) 3" × 0.128"	Face nail
20	1" × 8" and wider sheathing to each bearing	(3) 8d box (2) 8d common (2) 10d box (2) Staples ^d	(3) 2 1/2" × 0.113" (2) 2 1/2" × 0.131" (2) 3" × 0.128"	Face nail
	Wider than 1" × 8"	(4) 8d box (3) 8d common (3) 10d box (4) Staples ^d	(4) 2 1/2" × 0.113" (3) 2 1/2" × 0.131" (3) 3" × 0.128"	Face nail

ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER ^{a, b, c}		SPACING AND LOCATION
		COMMON NAIL	PNEUMATIC NAIL	
FLOOR				
21	Joist to sill, top plate or girder	(4) 8d box (3) 8d common (3) 10d box	(4) 2 1/2" x 0.113" (3) 2 1/2" x 0.131" (3) 3" x 0.128" (3) 3" x 0.131"	Toe nail
22	Rim joist, band joist or blocking to sill or top plate (roof applications also)	8d box 8d common 10d box	2 1/2" x 0.113" 2 1/2" x 0.131" 3" x 0.128"	4" toe nail 6" toe nail
23	1" x 6" subfloor or less to each joist	(8) 8d box (2) 8d common (3) 10d box (2) Staples ^d	(3) 2 1/2" x 0.113" (2) 2 1/2" x 0.131" (3) 3" x 0.128"	Face nail
24	2" subfloor to joist or girder	(3) 16d box (2) 16d common	(3) 3 1/2" x 0.135" (2) 3 1/2" x 0.162"	Blind and face nail
25	2" planks (plank & beam-floor & roof)	(3) 16d box (2) 16d common	(3) 3 1/2" x 0.135" (2) 3 1/2" x 0.162"	At each bearing, face nail
26	Band or rim joist to joist	(3) 16d common (4) 10 box (4) 3" x 14 ga staples, 7/16" crown	(3) 3 1/2" x 0.162" (4) 3" x 0.128" (4) 3" x 0.131"	End nail
27	Build-up girders and beams, 20 inch lumber layers	20d common	4" x 0.192"	Nail each layer as follows: 32" at top and bottom and staggered
		10d box	3" x 0.128" 3" x 0.131"	24" face nail at top and bottom staggered on opposite sides
		(2) 20d common (3) 10d box	(2) 4" x 0.192" (3) 3" x 0.128" (4) 3 1/2" x 0.135"	Face nail at ends and at each splice
28	Ledger strip supporting joists or rafters	(4) 16d box (3) 16d common (4) 10d box	(4) 3 1/2" x 0.135" (3) 3 1/2" x 0.162" (4) 3" x 0.128" (4) 3" x 0.131"	At each joist or rafter, face nail
29	Bridging to joist	(2) 10d	(2) 3" x 0.128"	Ea end, toe nail
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING				
ITEM	DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER ^{a, b, c}		SPACING AND LOCATION
		COMMON NAIL	PNEUMATIC NAIL	Edges (inches) ^e Intermediate (inches) ^f
WOOD STRUCTURAL PANELS, SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING				
30	3/8" - 1/2"	6D common 8d common (roof)	2" x 0.113" 2 1/2" x 0.131"	6 12 ^g
31	19/32" - 1"	8d common	2 1/2" x 0.131"	6 12 ^g
32	1 1/8" - 1 1/4"	10d common 8d deformed nail	3" x 0.148" 2 1/2" x 0.131"	6 12
OTHER WALL SHEATHING				
33	1/2" structural cellulose fiberboard sheathing	1 1/2" galv. roofing nail, 7/16" head, or 1" crown staple 16 ga., 1 1/4" long		3 6
34	25/32" structural cellulose fiberboard sheathing	1 3/4" galv. roofing nail, 7/16" head, or 1" crown staple 16 ga., 1 1/4" long		3 6
35	1/2" gypsum sheathing ^d	1 1/2" galv. roofing nail, staple galv., 1 1/2" long, 1 1/4" screws, Type W or S		7 7
36	5/8" gypsum sheathing ^d	1 3/4" galv. roofing nail, staple galv., 1 5/8" long, 1 5/8" screws, Type W or S		7 7
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING				
37	3/4" and less	6d deformed 8d common	2" x 0.120" 2 1/2" x 0.131"	6 12
38	7/8" - 1"	8d common 8d deformed	2 1/2" x 0.131" 2 1/2" x 0.120"	6 12
39	1 1/8" - 1 1/4"	10d common 8d deformed	3" x 0.148" 2 1/2" x 0.120"	6 12
a. Nails are smooth-common box or deformed-shank except where otherwise stated. Nails used for framing and sheathing connections that have minimum average bearing edge strengths as shown: 80 ksi for shank diameter of 0.102 inch (20d common nail), 50 ksi for shank diameter of 0.082 inch but not larger than 0.127 inch, and 100 ksi for shank diameter of 0.142 inch or less. b. Staples are 16 gage wire and have a minimum 75-ksi on diameter corners only. c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 48 inches or greater. d. Four foot by 8 foot or 4 foot by 16 foot panels shall be applied vertically. e. Spacing of fasteners not indicated in this table shall be in accordance with Table B602.2(a). f. Where the ultimate design load is equal to 320 psf or less, nails for attaching wood structural panel roof sheathing to gable and wall framing shall be spaced 6 inches on center for minimum 48-inch diameter rim studs, edges and gable and walls, and 6 inches on center for all other framing members. g. Where the ultimate design load is equal to 320 psf or less, nails for attaching wood structural panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch diameter rim studs, edges and gable and walls, and 6 inches on center for all other framing members. h. Spacing of fasteners not indicated in this table shall be in accordance with Table B602.2(a). i. Spacing of fasteners for interior sheathing panel edges applies to panel edges supported by framing members and required blocking and all floor perimeter only. Spacing of fasteners in end sheathing panel edges applies to panel edges supported by framing members and required blocking and all floor perimeter only. Spacing of fasteners in end sheathing panel edges applies to panel edges supported by framing members and required blocking and all floor perimeter only. Spacing of fasteners perpendicular to the framing member shall not be provided except as required by other provisions of this code. Floor perimeter shall be supported by framing members or solid blocking. j. Where a rafter is framed in accordance with an approved parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to toe plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required. k. Staples to be 16 gage, 16ga., 1 3/4" long.				

- a. Nails are smooth-common, box or deformed shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 8d box for sheath diameter of 0.142 inch or less; 10d box for sheath diameter of 0.162 inch (20d common nail, 30 gal for sheath diameter larger than 0.142 inch but not larger than 0.177 inch, and 40 gal for sheath diameter larger than 0.177 inch).
- b. Staples are 16 gauge wire-nail with a minimum 7/16 inch on diameter crown width.
- c. Nails shall be spaced at not more than 6 inches on center at all supports where spans are 4 inches or greater.
- d. Four by four or 4 inch by 4 inch stud panels shall be applied vertically.
- e. Blocking of fasteners not included in this table shall be based on Table R602.3(2).
- f. Where the ultimate design wind speed is 130 mph or less, nails for attaching wood structural panel roof sheathing to gable end wall framing shall be spaced 6 inches on center. Where the ultimate design wind speed is greater than 130 mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for maximum 48 inch distance from ridge, eaves and gable ends, and 6 inches on center for gable and wall framing.
- g. Gypsum sheathing shall conform to ASTM C 1396 and shall be installed in accordance with GA 253. Fiberboard sheathing shall conform to ASTM C 208.
- h. Spacing of fasteners on floor sheathing panel edges applied to panel edges supported by framing members and required blocking and all floor perimeter only. Spacing of fasteners on roof sheathing panel edges applied to panel edges supported by framing members and required blocking. Blocking of roof or floor sheathing panel edges perpendicular to the framing members need not be provided except as required by the provisions of this code. Floor perimeter shall be supported by framing members or solid blocking.
- i. Where a rafter is fastened to an adjacent parallel ceiling joist in accordance with this schedule, provide two toe nails on one side of the rafter and toe nails from the ceiling joist to top plate in accordance with this schedule. The toe nail on the opposite side of the rafter shall not be required.
- j. Staples to be 1" crown, 16 ga., 1 3/4" long.

HANGER SCHEDULE			
SOLID SAUN LUMBER	HANGER	ENGINEERED LUMBER	HANGER
HDR SIZE		HDR SIZE	
2x6	LU524	1 3/4x1 1/4	HU1
2x8	LU526	1 3/4x3 1/4	HU3
2x10	LU528	1 3/4x5 1/2	HU3
2x12	LU510	1 3/4x11 7/8	HU11
(2) 2x6	LU524-2	(2) 1 3/4x1 1/4	HU48
(2) 2x8	LU526-2	(2) 1 3/4x3 1/4	HU410
(2) 2x10	LU528-2	(2) 1 3/4x5 1/2	HU410
(2) 2x12	LU510-2	(2) 1 3/4x11 7/8	HU5412



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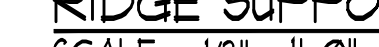
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CHAD M. STREETER
REGISTERED PROFESSIONAL ENGINEER
1/1/2022

THE MAPLEWOOD III
Spec Residence
370 NW Patch Court, Lee's Summit, MO
Lot 161 - Woodside Ridge Subdivision

Project #: 8083-XXXX
DATE: 7/1/2022
Permit: _____

Framing Notes and Details
S100



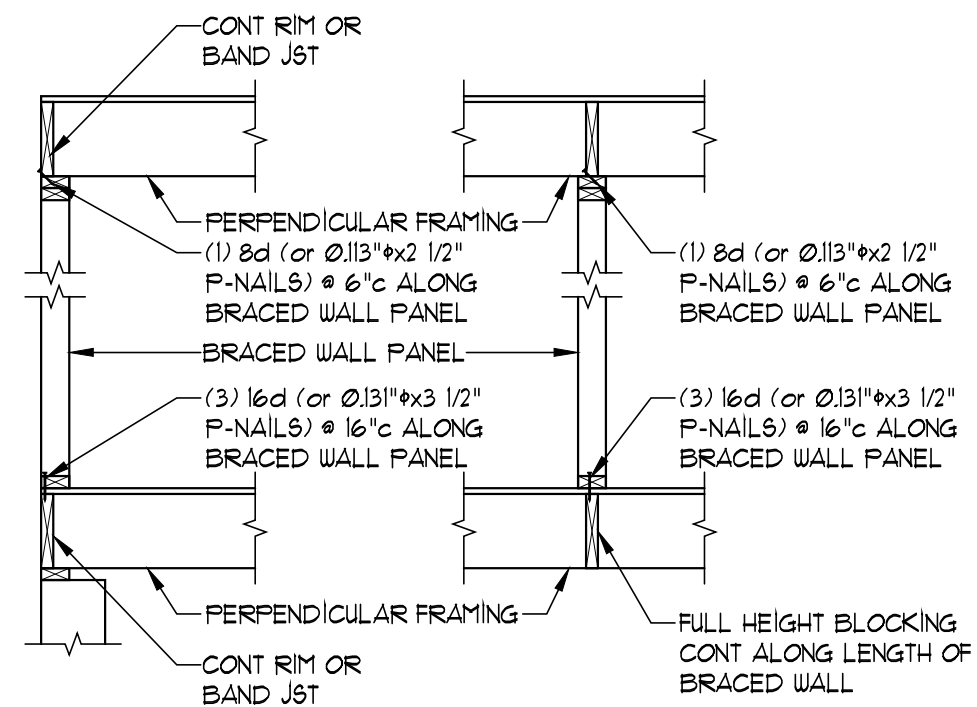


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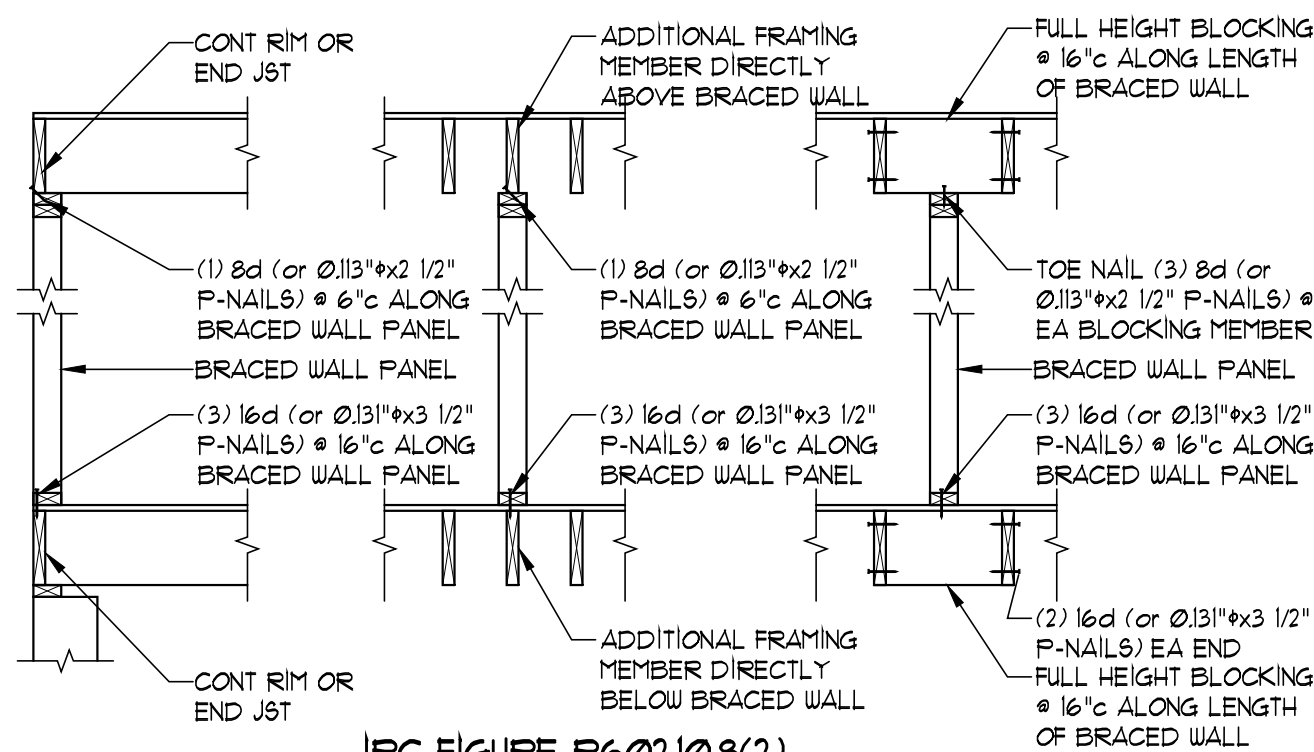
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IRC FIGURE R602.10.8(1)
BRACED WALL PANEL CONNECTION WHEN
PERPENDICULAR TO FLOOR/CEILING FRAMING



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

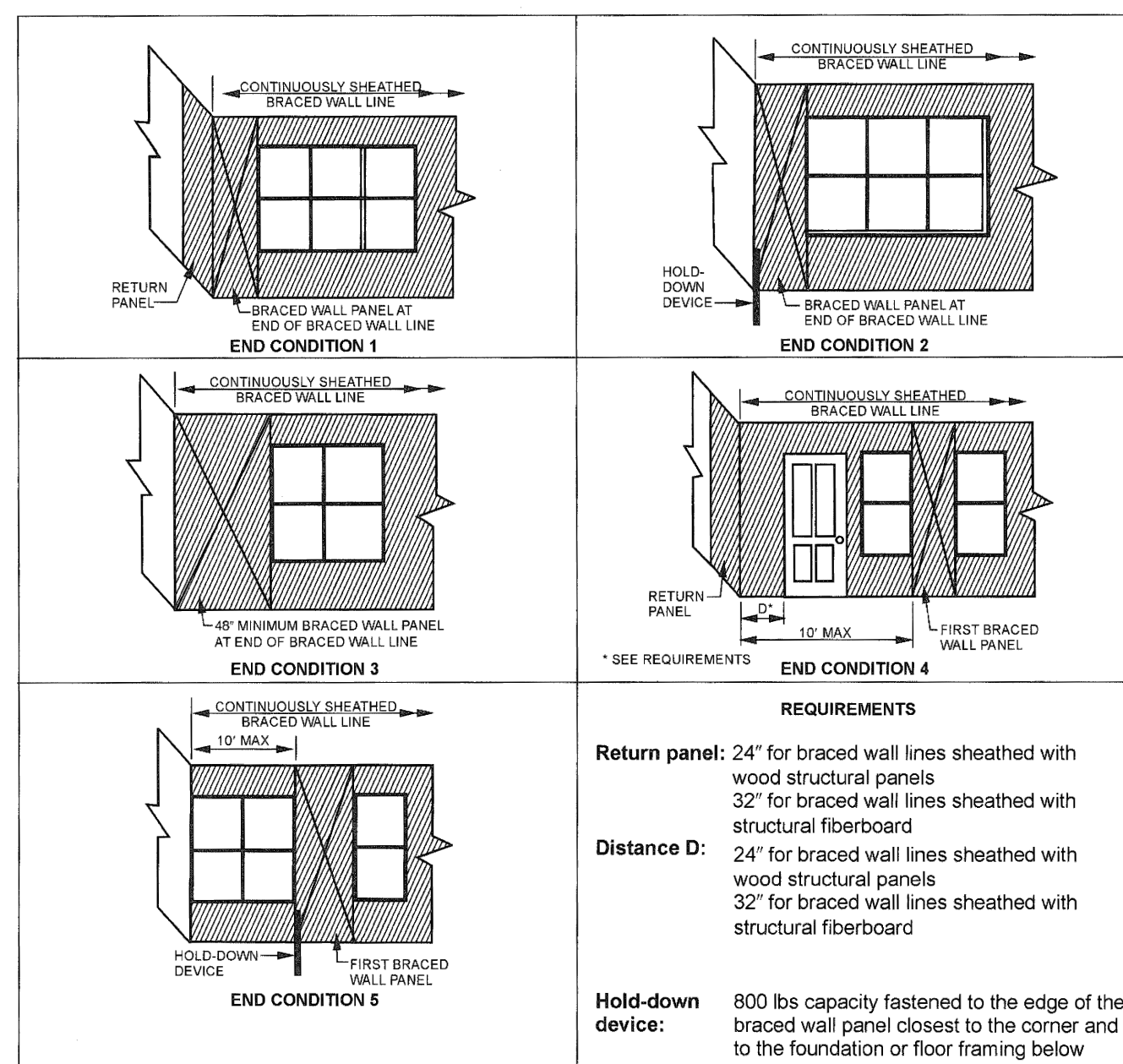
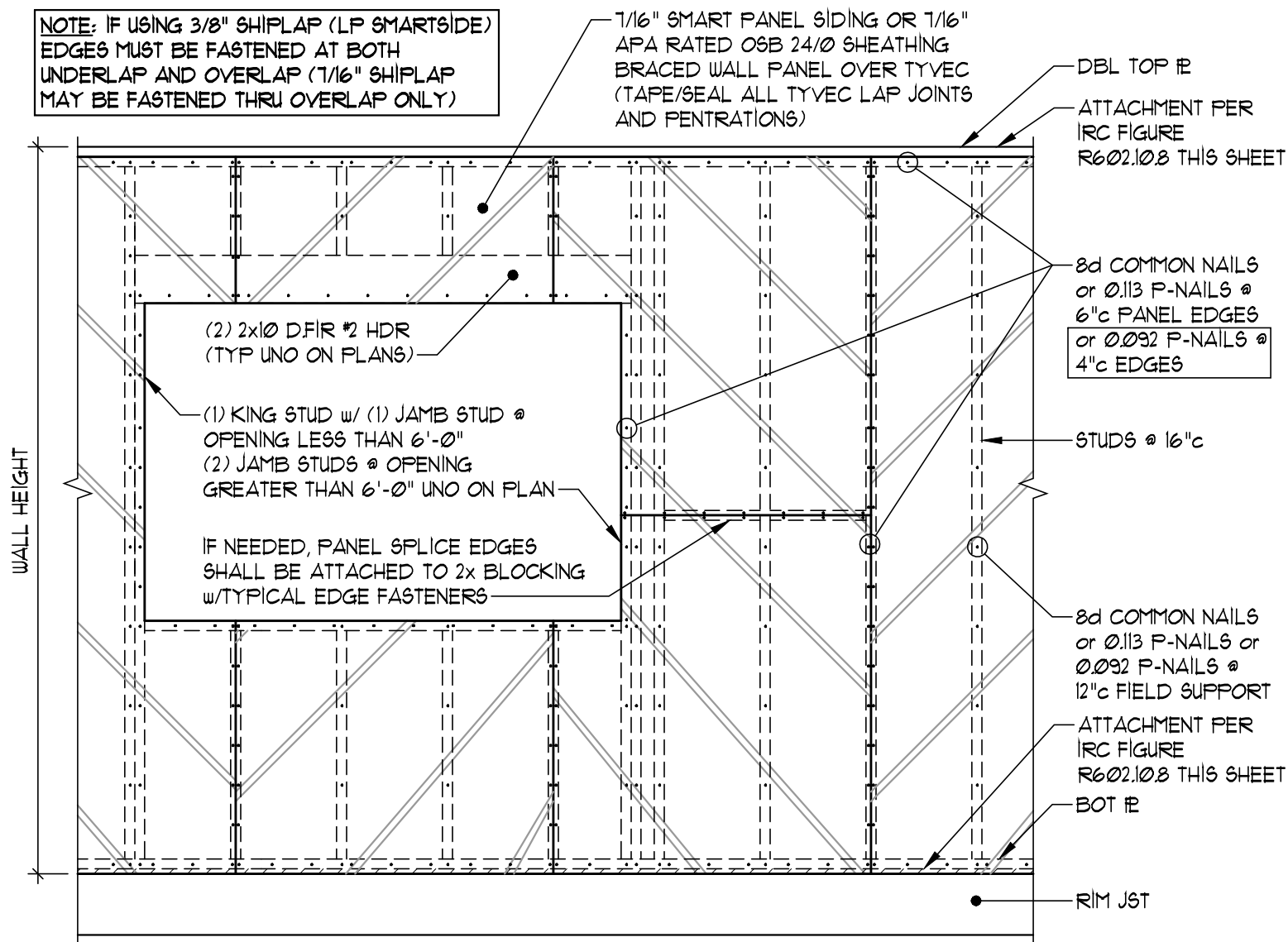
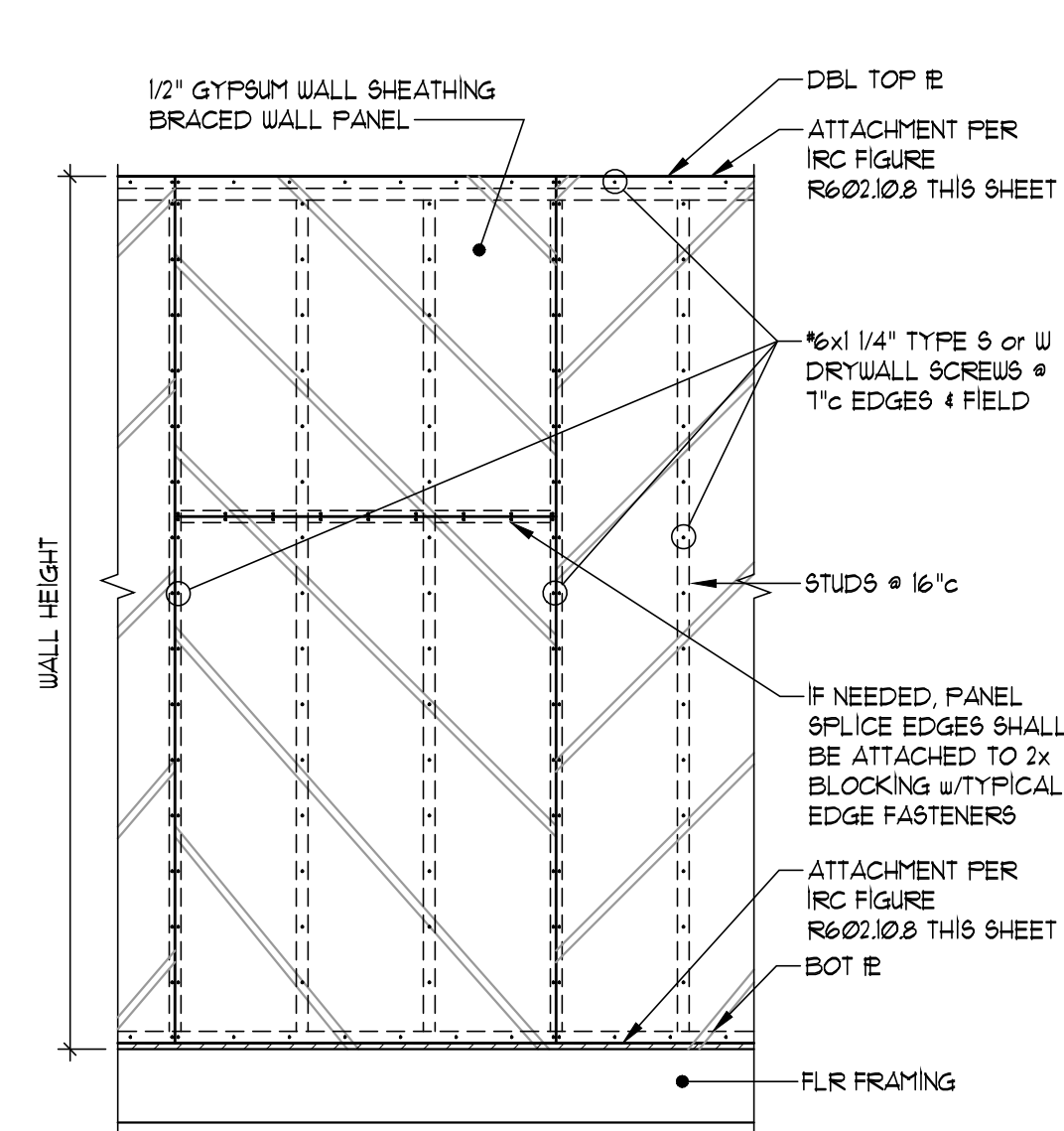


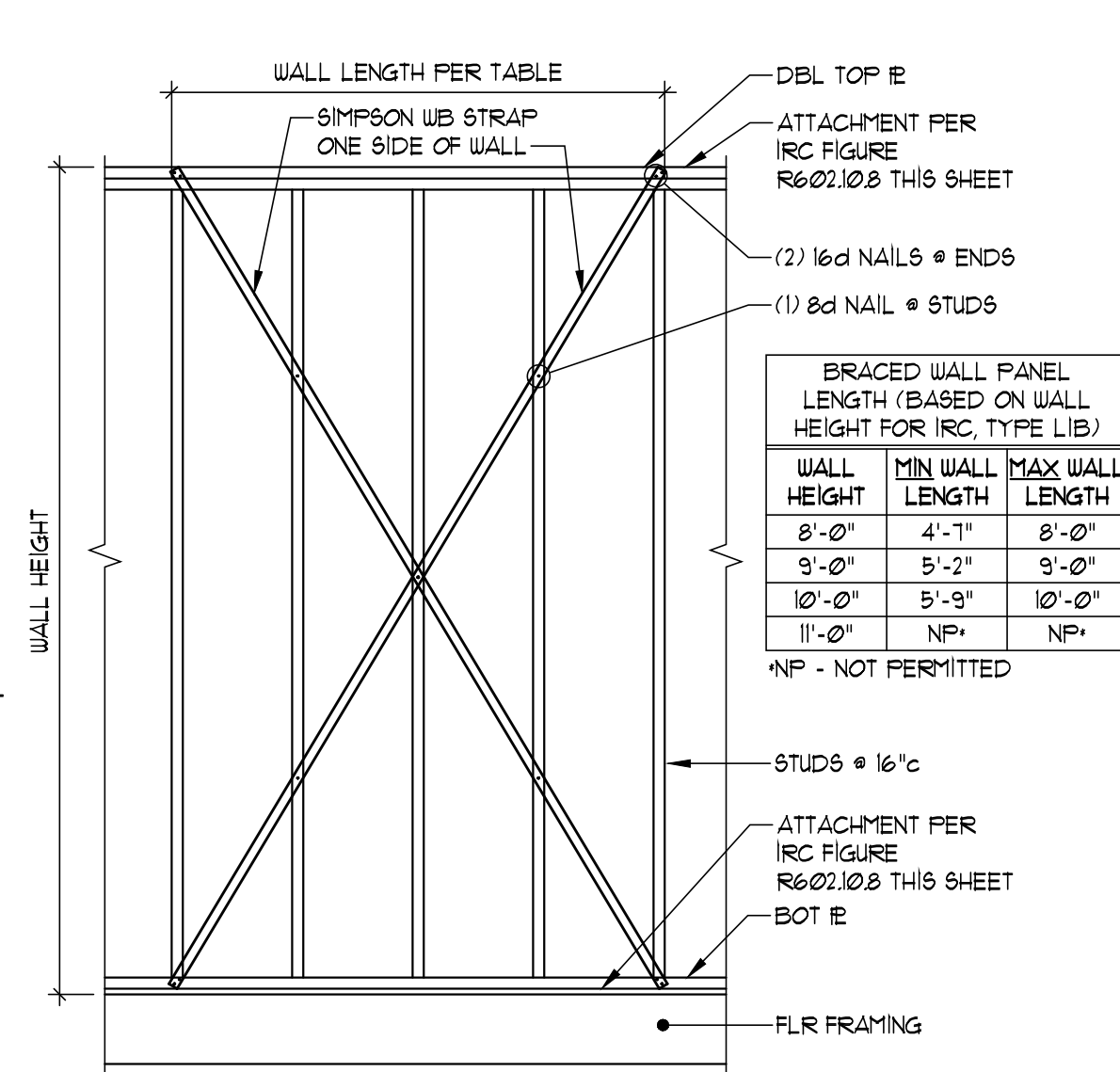
FIGURE R602.10.7
END CONDITIONS FOR BRACED WALL LINES WITH CONTINUOUS SHEATHING



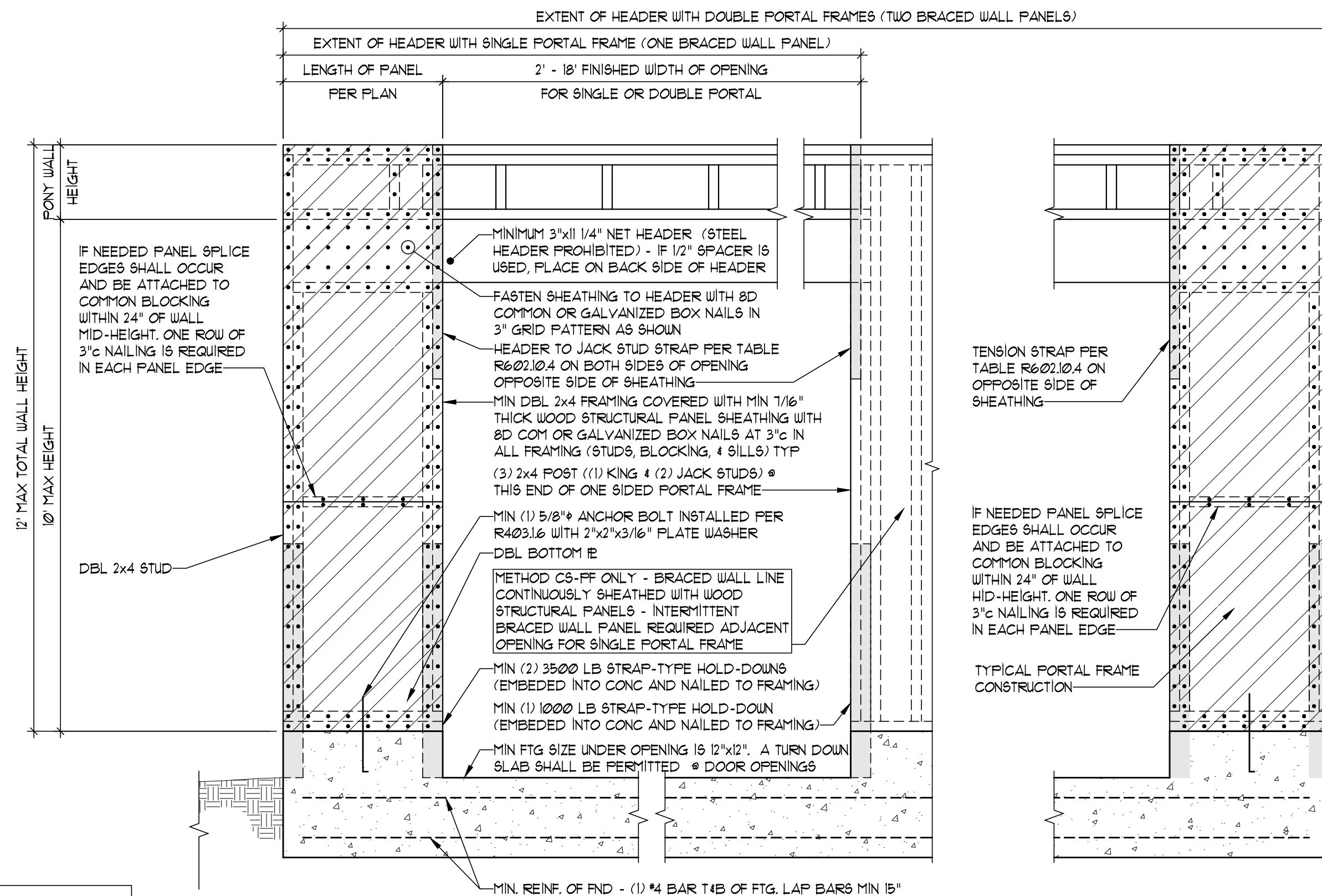
TYPICAL EXTERIOR SHEATHING
INSTALLATION (METHOD WSP & CS-WSP)
SCALE: 1/2" = 1'-0"



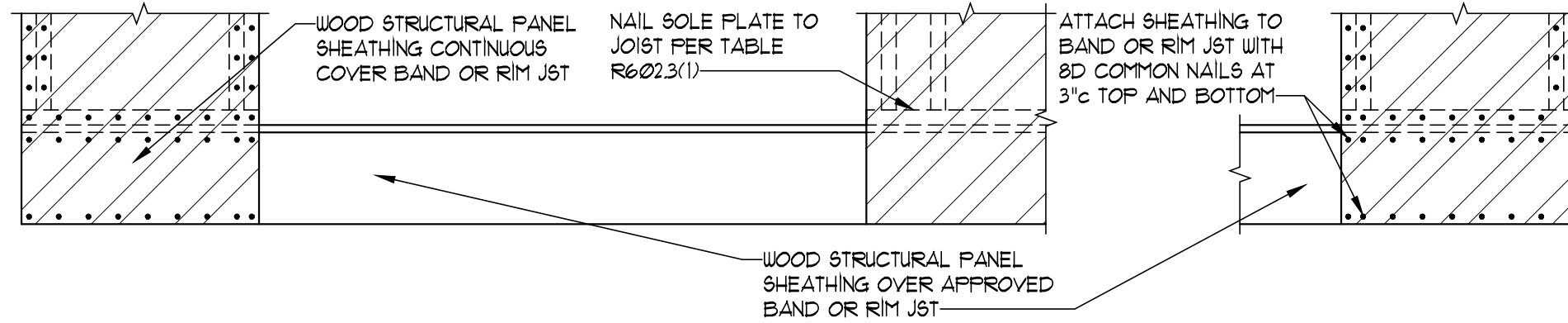
TYPICAL INTERIOR SHEATHING
INSTALLATION (METHOD GB)
SCALE: 1/2" = 1'-0"



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

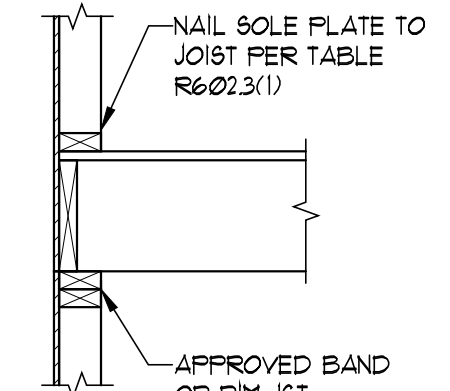


BRACED WALL METHOD "PFH" (also HEADER ATTACHMENT FOR CS-PF)
SCALE: 3/4" = 1'-0"



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 R602.10.4 TENSION STRAP CAPACITY REQUIRE FOR RESISTING WIND PRESSURES PERPENDICULAR TO METHOD PFH, PFH, 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 _{dh} = 15mph	
				EXPOSURE B	EXPOSURE C
2x4 #2 GRADE	0	10	0	1000	1000
			9	1000	1000
			16	1275	2500
	2	10	0	1275	2500
			9	1000	1875
			16	2175	4125
	4	12	0	2500	DESIGN
			9	1500	3175
			16	3375	DESIGN
	6	12	0	3375	DESIGN
			9	2175	DESIGN
			16	3175	DESIGN
2x6 STUD GRADE	2	12	0	1000	2075
			9	2150	3675
			16	2500	DESIGN
	4	12	0	1150	DESIGN
			16	2400	DESIGN
			18	3800	DESIGN

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