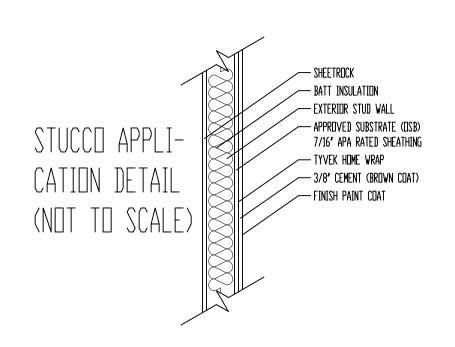


FRONT ELEVATION

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



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

n, LLC.
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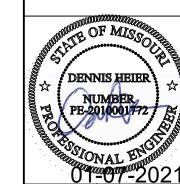
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RESIDENTIAL DESIGN LLC

M/T: (816)547-4437 E: Plans@ViewpointDesign.net

Designed for:
Thanh TRAN &
Thuyet "Julie" VO
Site Description:
Lot 81, Woodside
Ridge 1st Plat
Street Address:
338 NW
Ambersham Dr.,
Lee's Summit,
Missouri
General Contractor:
Pfeifer Homes, Inc.



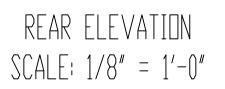
Date: 12 - 28 - AD 2020
Rev. 1: 1 - 7 - AD 2021
Rev. 2:
Rev. 3:

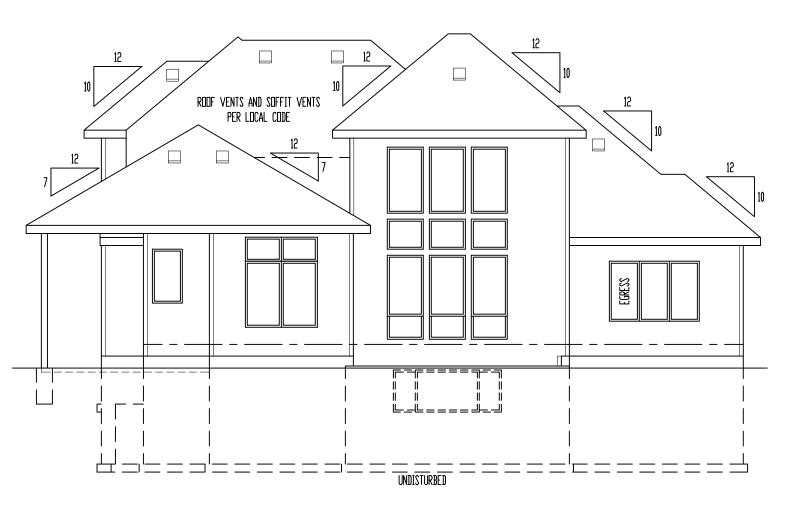
Sheet Title:
FRONT
ELEVATION

Sheet No.:

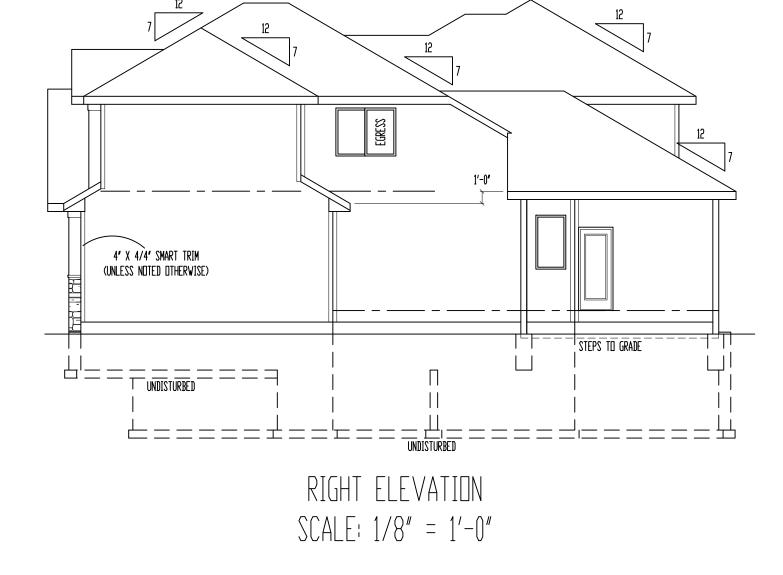
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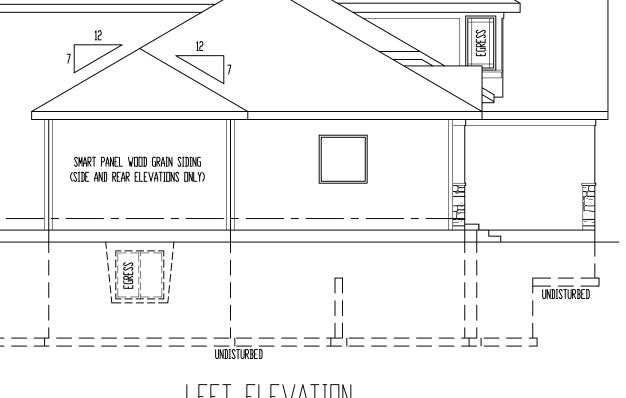
of 6





LEFT ELEVATION SCALE: 1/8'' = 1'-0''





SMART PANEL WOOD GRAIN SIDING ON SIDE AND REAR ELEVATIONS COMPOSITION ROOF SHINGLES
LOCATE ROOF AND STORY VENTS PER CODE ADJUST FOUNDATION TO GRADE

DECK CONSTRUCTION TO COMPLY WITH MUNICIPALITY'S

2' X 10' #2 TTD. @ 16' D.C. FLOOR JOISTS (MAX. SPAN: 14'-0')

2" X 6" CEDAR DECKING

6" X 6" CEDAR/TTD. POSTS

2" X 2" CEDAR SPINDLES

2" X 6" CEDAR TOP RAIL DETERMINE OPTIONAL STAIRS ON SITE

Pfeifer Homes, Inc. DENNIS HEIER

Designed for:

Thanh TRAN &

Thuyet "Julie" VO

Site Description:

Lot 81, Woodside

Ridge 1st Plat
Street Address:
338 NW

Ambersham Dr.,

Lee's Summit, Missouri

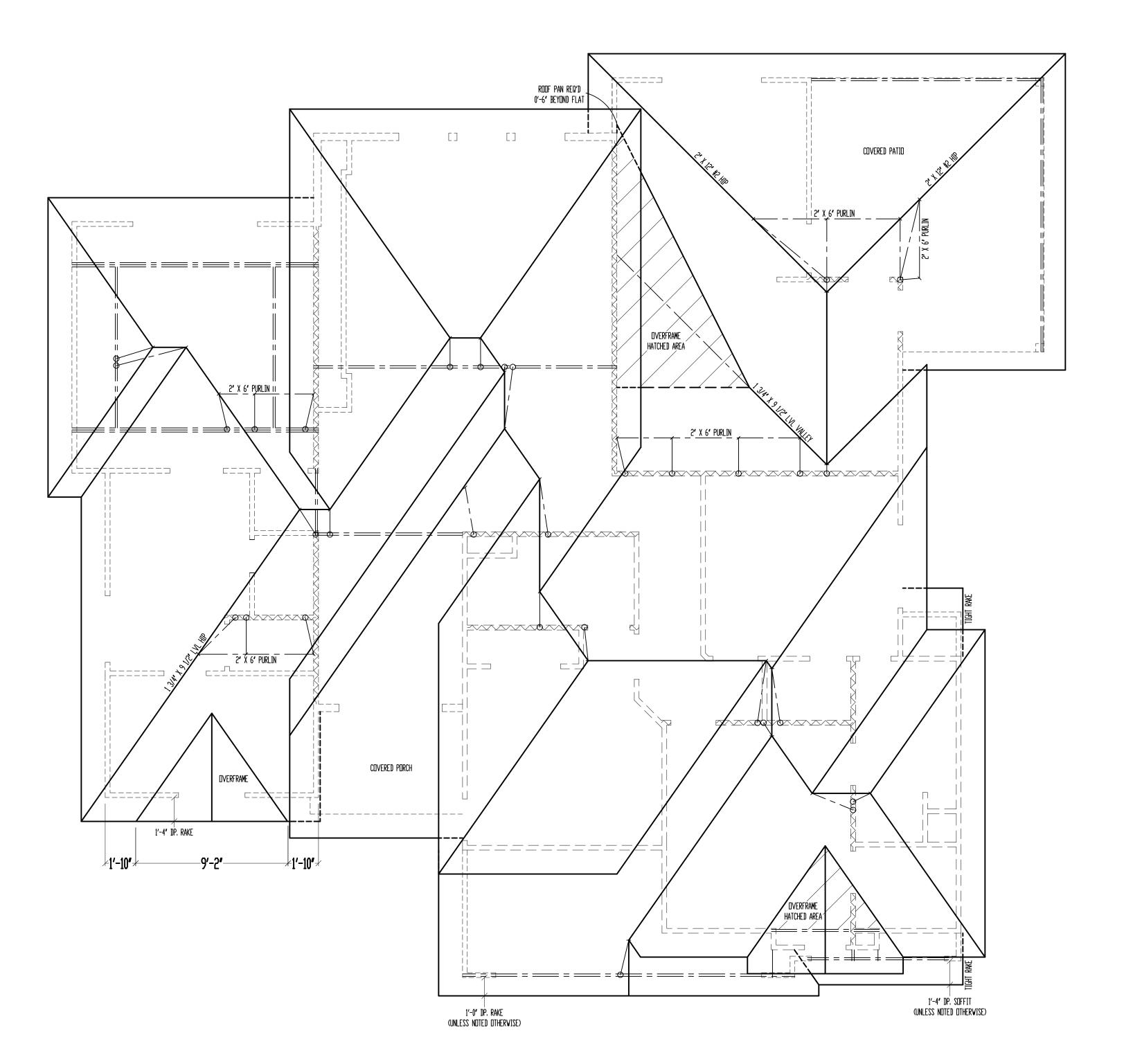
General Contractor:

Date: 12 - 28 - AD 2020 Rev. 1: 1 - 7 - AD 2021 Rev. 2:

Sheet Title: SIDES & REAR



Rev. 3: **ELEVATIONS**



<u>RDDF_AREA</u> 4/12 PITCH: 0.67 SQ.

*ALL RAFTERS SHALL BE 2' X 6' #2 @ 16' D.C., UNLESS NOTED OTHERWISE.

DRIP EDGE, VALLEYS AND FLASHINGS TO BE METAL CLAD.

ROOF NOTES: ROOF DESIGNED FOR LIGHT ROOF COVERING 30psf TOTAL LOAD [10psf DL, 20psf LL (SL)]

	CODE MINI	MUM		_
	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN	
	#2-2x6	@24″ □.C.	11'-7 '	
$\rangle\rangle\rangle$	#2-2x6	016 ′ □.C.	14'-2 '	/ ((
	#2-2x8	@24 ′ □.C.	14'-8 '	
	#2-2x8	016 ′ □.C.	17'-11 '	
	#2-2x10	@24″ □.C.	17'-10 "	
	#2-2x10	016 ′ □.C.	21′-11 ′	

HIGHER PERFORMANCE (RECOMMENDED)					
RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN			
#2-2x6	@24″ □.C.	8'-6 '			
#2-2x6	016 ′ □.C.	9'-9 '			
#2-2x8	@24″ □.C.	11'-3 '			
#2-2x8	016 ′ □.C.	12'-9 '			
#2-2x10	@24′ □.C.	14'-3 '			
#2-2x10	Р16" П.С.	16'-3"			

DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD

- #2- 2X8 UP TO 10/12 PITCH

- #2- 2X8 UP TO 10/12 PITCH

- PURLIN STRUTS ARE AT 4'-0' D.C.

PURLIN STRUT	MAX PURLIN STRUT LENGTH
(2) 2x4	8'-0 "
(1) 2x4 & (1) 2x6	12'-0 '
(1) 2x6 & (1) 2x8	20'-0 "
(2) 2x6 & (1) 2x8	30′-0 ″
CUNCIII T ABCH /ENGR >	30'-0 "

* VERTICAL BRACE IF DOT IS UNDER HIP OR VALLEY * SLASH IS TOP END OF BRACE (/), DOT IS BOTTOM OF BRACE (o). * ODENOTES BEARING WALL

*—— DENDTES BEARING STRUCTURE

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

7/12 PITCH: 20.46 SQ. 10/12 PITCH: 14.13 SQ.

* RAFTERS (HEM-FIR, DOUG-FIR, OR EQUAL): SEE SPAN CHARTS BELOW

	CODE MINII	MUM		_
	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN	
	#2-2x6	@24″ □.C.	11'-7 '	
>>>	#2-2x6	016 ′ □.C.	14'-2 '	 (((
	#2-2x8	@24 ′ □.C.	14'-8 '	
	#2-2x8	016 ′ □.C.	17'-11 '	
	#2-2x10	@24″ □.C.	17'-10 "	
	#2-2x10	016 ′ □.C.	21′-11 ′	
	NOTE: CODE	E MINIMUM ALL	DWS FOR A RAFTER DEFLECTION	OF L/180 TOTAL LOAD

HIGHER PERFORMANCE (RECOMMENDED)					
RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN			
#2-2x6	@24″ □.C.	8′-6 ′			
#2-2x6	016 ′ □.C.	9'-9 '			
#2-2x8	@24′ □.C.	11'-3'			
#2-2x8	016 ° □.C.	12'-9 '			
#2-2x10	@24″ □.C.	14′-3 ′			
#2-2x10	0 16 ′ □.C.	16′-3 ″			
DEEL COTTO	M = 1 /2/0 LT	TELLIAN I /240 TOTAL LOAD			

* VAULTS TO BE 2x10 DEPTH
* RIDGE BOARDS ARE: (UNLESS OTHERWISE NOTED)

- #2- 2X10 OVER 10/12 PITCH * ALL HIPS & VALLEYS ARE: (UNLESS DTHERWISE NOTED)

- #2- 2X10 DVER 10/12 PITCH * PURLINS ARE 2X6 MIN.

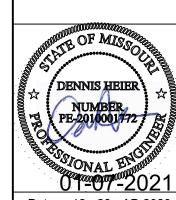
- PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL

- ALL PURLINS STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH OF 8'-0' - PURLINS STRUTS SHALL BE CONSTRUCTED IN A 'T' CONFIGURATION AND PER THE FOLLOWING CHART:

* RIDGE BRACES ARE SAME AS PURLIN BRACES-SPACING, SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE) * HIP & VALLEY BRACES ARE SAME AS PURLIN SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE)

*---- DENOTES ROOF BRACE *---- DENOTES PURLIN

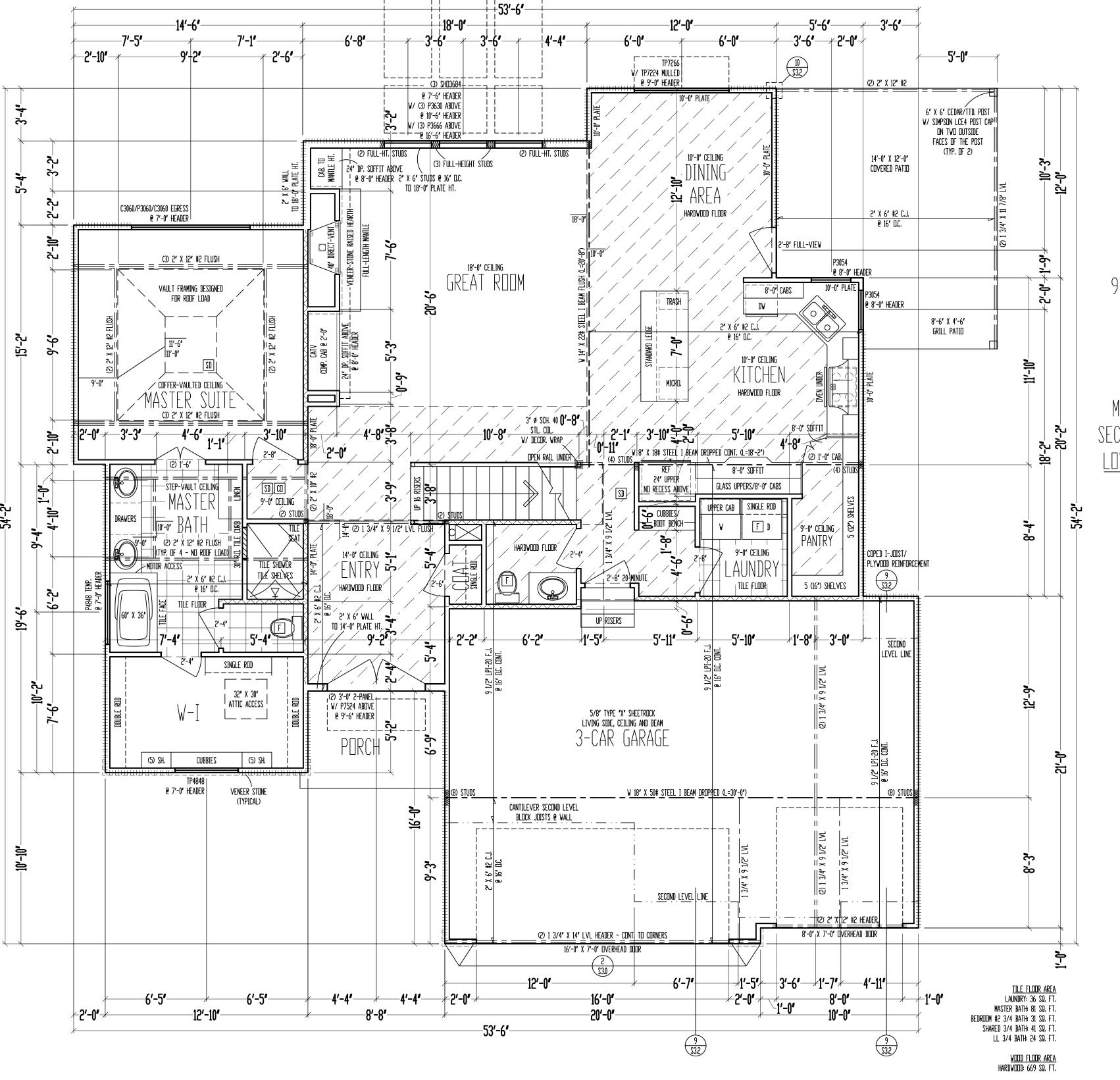
Designed for: Thanh TRAN & Thuyet "Julie" VO Site Description: Lot 81, Woodside Ridge 1st Plat
Street Address: 338 NW Ambersham Dr., Lee's Summit, Missouri General Contractor: Pfeifer Homes, Inc.



Date: <u>12 - 28 - AD 2020</u> Rev. 1: <u>1 - 7 - AD 2021</u> Rev. 2: Rev. 3:

Sheet Title: **ROOF PLAN**





9'-0" CEILING 9 1/2" I-JOIST FLOOR SYSTEM MAIN LEVEL SCALE: 1/4" = 1'-0"

MAIN LEVEL: 1607 SQ. FT TOTAL: 2751

> GARAGE: 637 SQ. FT. CDV. DUT/LIV: 207 SQ. FT UNFIN. BASEMENT: 750 SQ. FT

+++++++ = WALL BRACING PER Framing note #1 and per calculations on sheet \$1.1

7/16" D.S.B. A.P.A. PANELS W/ 8d COMMON NAILS @ 4" D.C. AT EDGES & @ 12' D.C. IN THE FIELD. SMART PANEL, DR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS BOARD OVER STUDS SPACED 24" MAX FASTENED W/ NO. 6

- 1 1/4" TYPE W DR S DRYWALL SCREWS @ 7" D.C. EDGES & FIELD, (MIN, 8'-0" SECTIONS ONE SIDE OF WALL (OR) MIN, 4'-0" SECTION FOR BOTH SIDES) 3. / / / / / / / / / / / = LOAD bearing interior

4. (2) 2" X 10" #2 HEADER AT ALL EXTERIOR AND LOAD BEARING VALLS, UNLESS NOTED OTHERWISE. 5. LOW TIES @ 4'-0" D.C. (TYPICAL)

7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED

6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE

VITH I-JOISTS). 8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS.

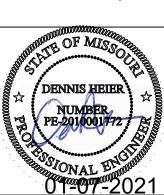
9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW OPENINGS.

10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE.

11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4'S @ 16' D.C., UNLESS NOTED OTHERWISE. 12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING BELOW WITH 16d COMMON NAILS @ 8' D.C. MAX. (WHERE APPLICABLE,)

13. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

Designed for: Thanh TRAN & Thuyet "Julie" VO Site Description: Lot 81, Woodside Ridge 1st Plat Street Address: 338 NW Ambersham Dr., Lee's Summit, Missouri General Contractor: Pfeifer Homes, Inc.

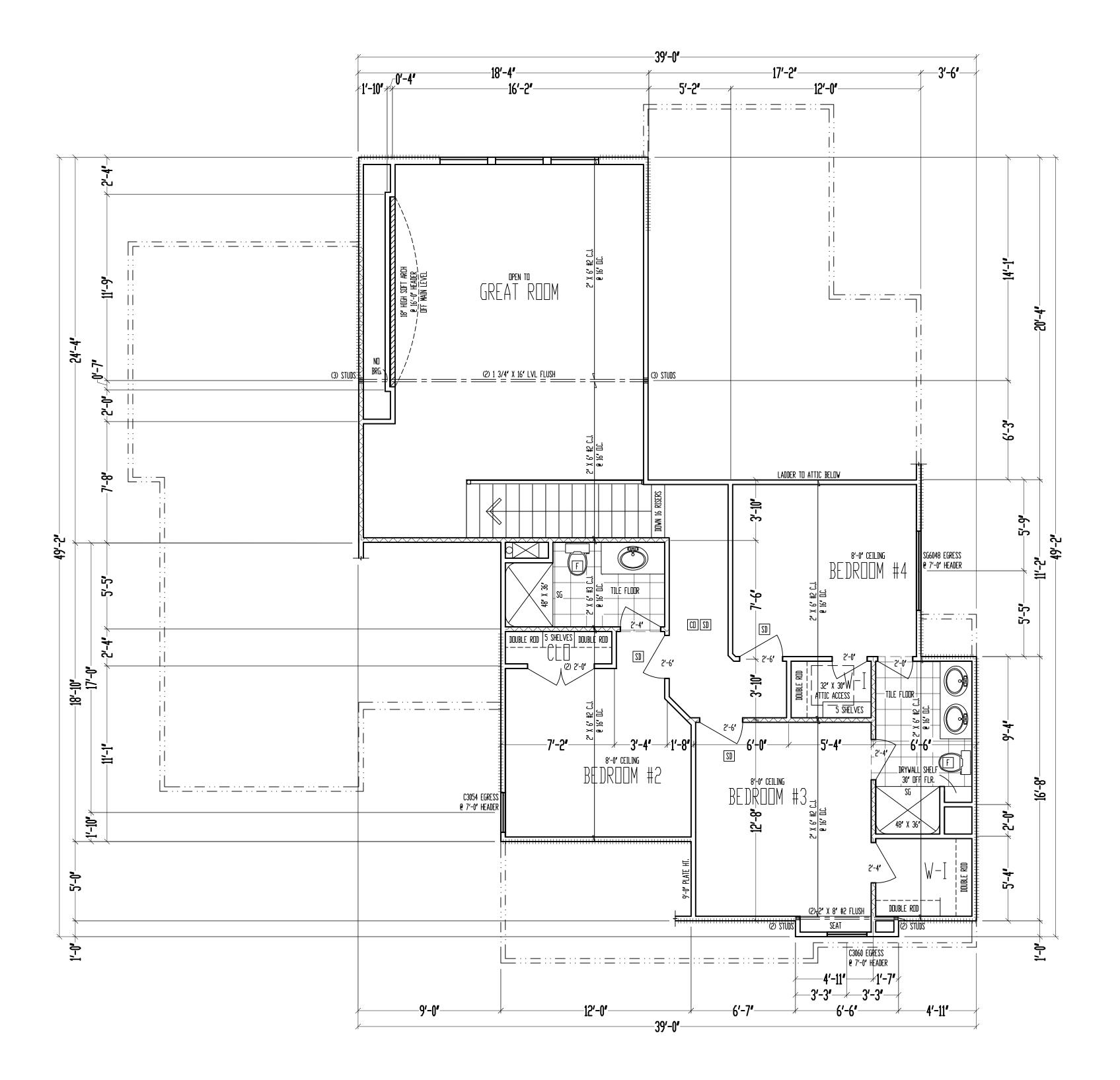


Date: <u>12 - 28 - AD 2020</u> Rev. 1: 1 - 7 - AD 2021 Rev. 2:

Sheet Title: MAIN LEVEL PLAN

Rev. 3:





8'-0" CEILING SECOND LEVEL SCALE: 1/4" = 1'-0"

PER CALCULATIONS ON SHEET S1.1.

<u>Framing Notes</u>

1. HOME IS SHEATHED W/ 7/16' D.S.B. A.P.A. PANELS W/ 8d COMMON NAILS @ 6' D.C. AT EDGES & @ 12' D.C. IN THE FIELD. SMART PANEL, DR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS. 2. \ \ \ \ \ \ \ \ \ \ = G.B.: 1/2' MIN. GYPSUM BDARD DVER

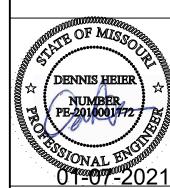
STUDS SPACED 24' MAX FASTENED W/ ND. 6 - 1 1/4' TYPE W DR S DRYWALL SCREWS @ 7' D.C. EDGES & FIELD. (MIN. 8'-0' SECTIONS DNE SIDE OF WALL (OR) MIN. 4'-0' SECTION FOR BOTH SIDES) 3. /\/\/\/\/\\ = LOAD BEARING INTERIOR WALL. 4. (2) 2' X 10' #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE. 5. LOW TIES @ 4'-0" D.C. (TYPICAL)

6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS. 7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JUIST MATERIAL (NOT REQUIRED WITH I-JUISTS). 8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS. 9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT

DOOR AND WINDOW OPENINGS. 10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE. 11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2' X 4'S @ 16' D.C.,

12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING BELOW WITH 16d COMMON NAILS @ 16' D.C. MAX. (WHERE APPLICABLE.)

Designed for: Thanh TRAN & Thuyet "Julie" VO Site Description: Lot 81, Woodside Ridge 1st Plat Street Address: 338 NW Ambersham Dr., Lee's Summit, Missouri General Contractor:

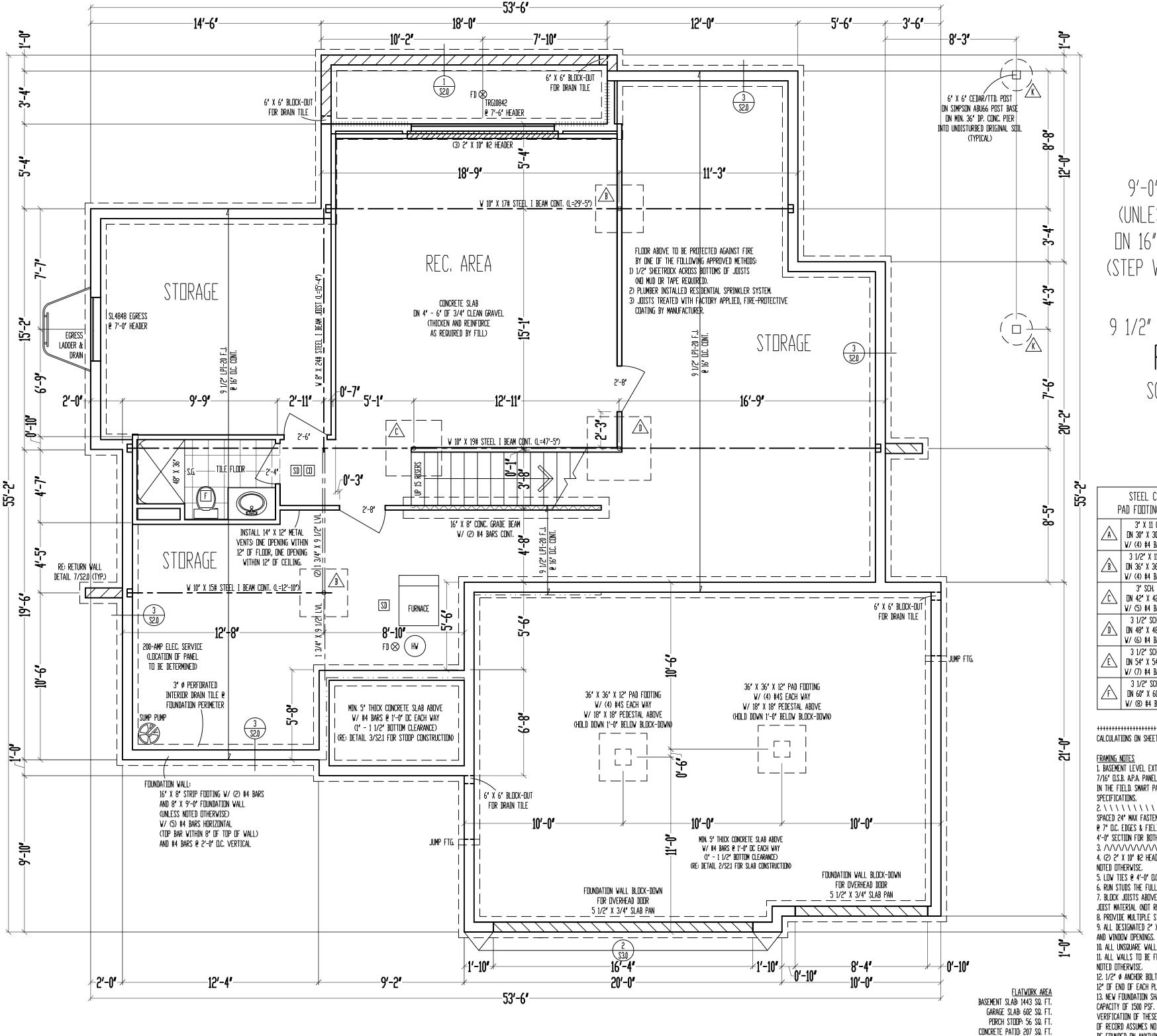


Pfeifer Homes, Inc.

Date: 12 - 28 - AD 2020 Rev. 1: 1 - 7 - AD 2021 Rev. 2: Rev. 3:

Sheet Title: **SECOND LEVEL PLAN**





9'-0" FOUNDATION WALLS (STEP WHERE GRADE REQUIRES)

9 1/2" I-JOIST FLOOR SYSTEM FOUNDATION SCALE: 1/4'' = 1'-0''

Р	STEEL COLUMN & PAD FOOTING SCHEDULE			
A	3" X 11 GA. STEEL COLUMN ON 30" X 30" X 10" PAD FOOTING W/ (4) #4 BARS EACH WAY (12.5k)			
B	3 1/2" X 11 GA. STEEL COLUMN DN 36" X 36" X 10" PAD FOOTING W/ (4) #4 BARS EACH WAY (18.0k)			
\triangle	3' SCH. 40 STEEL COLUMN ON 42' X 42" X 12" PAD FOOTING W/ (5) #4 BARS EACH WAY (24.5k)			
	3 1/2" SCH. 40 STEEL COLUMN DN 48" X 48" X 12" PAD FOOTING W/ (6) #4 BARS EACH WAY (32.0k)			
<u>E</u>	3 1/2" SCH. 40 STEEL COLUMN DN 54" X 54" X 14" PAD FOOTING W/ (7) #4 BARS EACH WAY (40.5k)			
3 1/2' SCH. 40 STEEL COLUM DN 60' X 60' X 14' PAD FOOT				

	PIER FOOTING SCHEDULE		
	<u>(</u>	12" Ø PIER FTG.	
		16" Ø PIER FTG.	
	\triangle	18" Ø PIER FTG.	
	K	24' Ø PIER FTG.	

CALCULATIONS ON SHEET S1.1.

1. BASEMENT LEVEL EXTERIOR WOOD-FRAMED WALLS SHALL BE SHEATHED W/ 7/16' D.S.B. A.P.A. PANELS W/ 8d COMMON NAILS @ 6' D.C. AT EDGES & @ 12' D.C. IN THE FIELD. SMART PANEL, OR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

2. \ \ \ \ \ \ \ \ = G.B.: 1/2" MIN. GYPSUM BOARD OVER STUDS SPACED 24" MAX FASTENED W/ ND. 6 - 1 1/4" TYPE W DR S DRYWALL SCREWS @ 7" D.C. EDGES & FIELD. (MIN. 8'-0" SECTIONS ONE SIDE OF WALL (OR) MIN. 4'-0" SECTION FOR BOTH SIDES)

- 3. /\/\/\/\/\/\\ = LOAD BEARING INTERIOR WALL. 4. (2) 2' X 10" #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
- 5. LOW TIES @ 4'-0" D.C. (TYPICAL)
- 6. RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.
- 7. BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).
- 8. PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS. 9. ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR
- 10. ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE. 11. ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4"S @ 16" D.C., UNLESS
- NOTED OTHERWISE. 12. 1/2' Ø ANCHOR BOLTS W/ MIN. 7' EMBEDMENT @ 48' D.C. MAX. & WITHIN 6' -
- 12' OF END OF EACH PLATE LENGTH. 13. NEW FOUNDATION SHALL BEAR ON ORIGINAL SOIL WITH MINIMUM BEARING
- CAPACITY OF 1500 PSF. A GEOTECHNICAL ENGINEER IS RECOMMENDED FOR VERIFICATION OF THESE CONDITIONS DURING THE EXCAVATION PHASE, ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANYTHING SHORT OF THE AFOREMENTIONED REQUIREMENTS. 14. CONTRACTOR SHALL NOTIFY ENGINEER OF RECORD BEFORE CONSTRUCTION OF ANY DEFLECTION LIMITATIONS MORE STRINGENT THAN CODE MINIMUMS ABOVE ANY OPENINGS.

Designed for: Thanh TRAN & Thuyet "Julie" VO Site Description: Lot 81, Woodside Ridge 1st Plat Street Address: 338 NW Ambersham Dr., Lee's Summit, Missouri General Contractor: Pfeifer Homes, Inc.



Date: <u>12 - 28 - AD 2020</u> Rev. 1: 1 - 7 - AD 2021 Rev. 2: Rev. 3:

Sheet Title: **FOUNDATION** PLAN

RELEASE POR

	FASTENER SCHEDULE FOR STRUCTURAL MEMBERS	
DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
	ROOF ¹	
BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOE NAIL	4-8d (2½" x 0.113")	TOENAIL
CEILING JOISTS TO PLATE, TOE NAIL	4-8d (2½" x 0.113")	PER JOIST, TOENAIL
CEILING JOISTS NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS, FACE NAIL	4-10d (3" x 0.128")	FACE NAIL
CEILING JOIST TO PARALLEL RAFTER (HEEL JOINT)	TBLE R802.5.2	FACE NAIL
COLLAR TIE TO RAFTER, FACE NAIL OR 1 ¼" x 20 GA. RIDGE STRAP TO RAFTER	4-10d (3" x 0.128")	FACE NAIL, EACH RAFTER
RAFTER OR ROOF TRUSS TO PLATE	3-16d BOX NAILS (3½" x 0.135") OR 3-10d COMMON NAILS (3" x 0.148")	2 TOE NAILS ON ONE SIDE AND 1 TOE NAIL ON OPPOSITE SIDE OF EACH RAFTER OR TRUSS
ROOF RAFTERS TO RIDGE, VALLEY, OR HIP RAFTERS OR ROOF RAFTER TO MINIMUM 2" RIDGE BEAM	4-16d (3 ½" x 0.135") - TOENAIL; 3-16d BOX (3 ½" x 0.135") - END NAIL	TOENAIL, END NAIL
	WALL	
STUD TO STUD (NOT AT BRACED WALL PANELS)	10d (3" x 0.128")	16" O.C. FACE NAIL
STUD TO STUD AND ABUTTING STUDS AT NTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d (3½" x 0.135")	12" O.C. FACE NAIL
BUILT-UP HEADER, TWO PIECES WITH ½" SPACER	16d (3½" x 0.135")	12" O.C. EACH EDGE FACE NAIL
CONTINUOUS HEADER TO STUD	4-8d (2½" x 0.131")	TOENAIL
TOP PLATE TO TOP PLATE	10d (3" x 0.128")	12" O.C. FACE NAIL
DOUBLE TOP PLATE SPLICE	8-16d COMMON (3 ½" x 0.162")	FACE NAIL ON EACH SIDE OF END JOINT (MIN. 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 ½" x 0.162")	16" O.C. FACE NAIL
BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (AT BRACED WALL PANEL)	3-16d BOX (3 ½" x 0.135")	3 EACH 16" O.C. FACE NAIL
TOP OR SOLE PLATE TO STUD, END NAIL	4-8d BOX (2 $\frac{1}{2}$ " x 0.113") - TOENAIL; 3-16d BOX (3 $\frac{1}{2}$ " x 0.135") - END NAIL	TOENAIL, END NAIL (SEE LEFT)
TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	3-10d BOX (3" x 0.128")	FACE NAIL
1" BRACE TO EACH STUD AND PLATE	3-8d BOX (2 ½" x 0.113")	FACE NAIL
1"x6" SHEATHING TO EACH BEARING	3-8d BOX (2 ½" x 0.113")	FACE NAIL
1"x8" SHEATHING TO EACH BEARING	3-8d BOX (2 ½" x 0.113") - FACE NAIL; WIDER THAN 1"x8" - 4-8d BOX (2 ½" x 0.113")	FACE NAIL
	FLOOR	
JOIST TO SILL, TOP PLATE, OR GIRDER	4-8d BOX (2 ½" x 0.113")	TOE NAIL
RIM JOIST, BAND JOIST, OR BLOCKING TO SILL OR TOP PLATE (ROOF APPLICATIONS ALSO)	8d BOX (2 ½" x 0.113")	4" O.C. TOE NAIL
1" x 6" SUBFLOOR OR LESS TO EACH JOIST	3-8d BOX (2 ½" x 0.113")	FACE NAIL
2" SUBFLOOR TO JOIST OR GIRDER	3-16d BOX (3 ½" x 0.135")	BLIND AND FACE NAIL
2" PLANKS (PLAN & BEAM - FLOOR AND ROOF)	3-16d BOX (3 ½" x 0.135")	AT EACH BEARING, FACE NAIL
BAND OR RIM JOIST TO JOIST	3-16d COMMON (3 ½" x 0.162")	END NAIL
BUILT-UP GIRDERS AND BEAMS, 2-INCH LUMBER LAYERS	10d BOX (3" x 0.128")	24" O.C. FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	4-16d BOX (3 ½" x 0.135")	AT EACH JOIST OR RAFTER, FACE NAIL
BRIDGING OR BLOCKING TO JOIST	2-10d BOX (3" x 0.128")	EACH END, TOENAIL

ESCRIPTION OF BUILDING MATERIAL	FASTNER SCHEDULE FOR S DESCRIPTION OF FASTENER	STRUCTURAL MEMBERS EDGE SPACING (INCHES)	INTERMEDIATE SUPPORTS (INCHES)
	JBFLOOR, ROOF AND INTERIOR WALL SHE	ATHING TO FRAMING AND PARTICLEBO	·
%" - ½"	6d COMMON (2" x 0.113") NAIL (SUBFLOOR, WALL) 8d COMMON NAIL (ROOF)	6	12
¹⁹ / ₃₂ " - 1"	8d COMMON NAIL (2½" x 0.131")	6	12
11%" - 11¼"	10d COMMON (3" x 0.148") NAIL OR 8d (2½" x 0.131") DEFORMED NAIL	6	12
	OTHER WALL	SHEATHING 1	•
½" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	$1\frac{1}{2}$ " GALVANIZED ROOFING NAIL, $\frac{7}{16}$ " HEAD DIAMETER, OR $1\frac{1}{4}$ " LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6
∰" STRUCTURAL CELLULOSIC FIBERBOARD SHEATHING	$1\frac{3}{4}$ " GALVANIZED ROOFING NAIL, $\frac{7}{16}$ " HEAD DIAMETER, OR $1\frac{1}{2}$ " LONG 16 GA. STAPLE WITH $\frac{7}{16}$ " OR 1" CROWN	3	6
½" GYPSUM SHEATHING	1½" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S	7	7
%" GYPSUM SHEATHING	1¾" GALVANIZED ROOFING NAIL; STAPLE GALVANIZED, 1½" LONG; 1½" SCREWS, TYPE W OR S	7	7
W	VOOD STRUCTURAL PANELS, COMBINATIO	N SUBFLOOR UNDERLAYMENT TO FRAM	MING
¾" AND LESS	6d DEFORMED (2" x 0.120") NAIL OR 8d COMMON (2½" x 0.131") NAIL	6	12
7∕8" - 1"	8d COMMON (2½" x 0.131") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12
1½" - 1½"	10d COMMON (3" x 0.148") NAIL OR 8d DEFORMED (2½" x 0.120") NAIL	6	12

1. IF INFORMATION LISTED ON PLAN SHEETS CONTRADICTS INFORMATION IN THIS TABLE, INFORMATION ON PLANS TAKES PRECEDENCE OVER INFORMATION LISTED IN THIS TABLE

FOUNDATION NOTES

- CONCRETE SHALL BE AIR-ENTRAINED BETWEEN 5%-7% WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2500 PSI FOR BASEMENT AND INTERIOR FLOOR SLABS-ON-GRADE, 3000 PSI FOR FOUNDATION WALLS, AND 3500 PSI FOR PORCHES AND GARAGE FLOOR SLARS
- THE FOUNDATION DESIGN SHALL COMPLY WITH THE ENFORCING JURISDICTION'S RESIDENTIAL FOUNDATION STANDARDS
- PROVIDE A MINIMUM 4"-DIAMETER PERFORATED DRAIN PIPE ALONG PERIMETER OF USABLE SPACE AT FOOTING LEVEL OR OTHER EQUIVALENT MATERIALS PER IRC SECTION R405.1. THE PIPE SHALL BE COVERED WITH A MINIMUM OF 6" OF GRAVEL OR CRUSHED ROCK. THE DRAIN SHALL DAYLIGHT BELOW FOOTING LEVEL OR TERMINATE IN A
- MINIMUM 20 GALLON SUMP PIT FOUNDATION SHALL BE DESIGNED FOR A BEARING CAPACITY OF 1500 PSF AND FOUNDED ON COMPETENT ORIGINAL SOIL AS DETERMINED AND CONFIRMED BY A LICENSED GEOTECHNICAL ENGINEER OR ENGINEERING GEOLOGIST. ENGINEER OF RECORD ASSUMES NO RESPONSIBILITY FOR CONSTRUCTION NOT VERIFIED TO BE FOUNDED ON ANY SOIL WITH THE AFOREMENTIONED MINIMUM PROPERTIES.
- 5. FOOTINGS SHALL BE A MINIMUM OF 16" WIDE x 8" DEEP AND SHALL HAVE A MINIMUM OF (2) CONTINUOUS GRADE 40 #4 BARS WITH 3" BOTTOM CLERANCE. BOTTOM OF FOOTING SHALL BE LOCATED A MINIMUM OF 3'-0" BELOW GRADE FOR FROST PROTECTION.
- CONCRETE PADS SUP0PORTING COLUMN LOADS SHALL BE NO SMALLER THAN 2'-0" x 2'-0" x 1'-0" DEEP WITH A MINIMUM OF (4) GRADE 40 #4 BARS EACH WAY WITH 3" BOTTOM CLEARANCE
- FOUNDATION WALLS SHALL BE A MINIMUM OF 8" NOMINAL WIDTH AND SHALL HAVE HOIZONTAL GRADE 40 #4 BARS AT 2'-0" O.C. MAX. WITH VERTICAL #4 BARS AS REQUIRED ON FOUNDATION CROSS SECTION ON SHEET S2.0
- REINFORCEMENT SHALL LAP A MINIMUM OF 2'-0" (CLASS B SPLICE)

VAPOR RETARDER WITH MINIMUM OVERLAP OF 6" AT DISCONTINUITIES

- INTERIOR BEARING WALLS AND COLUMNS SHALL BE ISOLATED FROM THE BASEMENT FLOOR SLAB BASEMENT FLOOR SLAB SHALL BE A MINIMUM OF 4" THICK ON A MINIMUM BASE COURSE OF 4" TO 6" OF SAND, GRAVEL OR CRUSHED ROCK. BETWEEN THE BASE COURSE AND FLOOR SLAB SHALL BE PLACED A 6-MIL POLY
- 11. IF A FLOOR IS TO BE SUPPORTED BY A MINIMUM OF 2'-0" OF GRANULAR FILL OR 8" OF EARTH, BASEMENT SLAB
- SHALL BE DESIGNED BY A LICENSED ENGINEER SILL PLATES SHALL BE ANCHORED TO THE FOUNDATION WALL WITH ½" Ø ANCHOR BOLTS EMBEDDED A MINIMUM OF 7" INTO CENTER OF WALL STEM AND SHALL BE INSTALLED AT A MAXIMUM OF 6'-0" O.C. (OR AS NOTED ON PLANS) AND SHALL BE INSTALLED WITHIN 6" TO 12" OF EACH END OF EACH SILL PLATE LENGTH, PER IRC SECTION R403.1.6
- 13. FOUNDATION WINDOW WELLS SHALL BE PROVIDED WITH MINIMUM DIMENSIONS AS SHOWN IN DETAIL ON SHEET
- 14. THE GARAGE FLOOR SHALL SLOPE TOWARD THE VEHICLE DOORS OR TO A TRENCH OR UNTRAPPED DRAIN THAT DISCHARGES TO THE EXTERIOR. ABOVE GRADE

- 15. ALL DIMENSIONAL LUMBER SHALL BE DOUGLAS-FIR-LARCH GRADE #2, UNLESS NOTED OTHERWISE ON PLANS ALL INTERIOR LOAD-BEARING AND EXTERIOR WALL HEADERS SHALL BE (2) #2 - 2x10's, UNLESS NOTED OTHERWISE
- BLOCK OVER BEAMS AND AT CANTILEVERS AND DOOR JAMBS INTERIOR NON-BEARING WALLS RESTING ON BASEMENT SLAB SHALL BE ISOLATED FROM ABOVE FRAMING BY A
- MINIMUM OF 1/2 ALL HEADERS/BEAMS SHALL BEAR ON A MINIMUM OF (2) 2x4 POSTS (KING AND JACK STUDS), UNLESS NOTED
- OTHERWISE
- WHERE JOISTS SPAN PARALLEL TO FOUNDATION, BLOCKING SHALL BE PROVIDED IN THE TWO SPACES MOST ADJACENT TO THE FOUNDATION WALL AT 4'-0" O.C. FOR THE PURPOSE OF TRANSFERRING LATERAL FOUNDATION WALL LOAD TO THE FLOOR DIAPHRAGM. FASTEN JOISTS AND BLOCKING TO SILL PLATE WITH (4) 10d NAILS. IF MECHANICAL DUCTWORK IS INSTALLED IN ONE OF THESE FIRST TWO BAYS, FASTEN 2x4's FLAT AT 4'-0" O.C. BETWEEN JOIST(S) AND/OR SILL AND PROVIDE BLOCKING AS PRESCRIBED ABOVE IN THE NEXT TWO JOIST BAYS. SECURE 2x4's TO JOIST(S)/SILL PLATE WITH (4) 10d NAILS
- ALL WOOD MATERIAL SUPPORTED ON CONCRETE OR MASONRY SHALL BE TREATED OR OF DECAY-RESISTANT
- 22. JOISTS UNDER BEARING PARTITIONS ON PLANS HAVE BEEN SIZED TO SUPPORT THE DESIGN LOAD. JOISTS FRAMING INTO THE FACE OF A STEEL OR WOOD BEAM SHALL BE SUPPORTED WITH APPROPRIATE **COLD-FORMED STEEL JOIST HANGERS**
- JOISTS FRAMED ON TOP OF STRUCTURAL MEMBER SHALL BE SUPPORTED AT EN DS BY FULL-DEPTH SOLID BLOCKING MIN. 1/4" IN THICKNESS OR BY FASTENING RIM TO JOISTS PER FASTENING TABLE TO LEFT
- ALL WALL COVERINGS SHALL COMPLY WITH IRC SECTION R702.3
- ALL RAFTERS AND COLLAR TIES SHALL COMPLY WITH IRC SECTION R802.3.
- ALL RAFTERS SHALL HAVE 2x4 COLLAR TIES @ 4'-0" O.C. IN UPPER ⅓ OF VERTICAL DISTANCE BETWEEN CEILING AND
- BLOCKING BETWEEN JOISTS UNDER A LOAD-BEARING WALL IS NOT REQUIRED
- PER IRC SECTION 501.3, BOTTOM OF ALL FLOOR ASSEMBLIES ABOVE UNFINISHED AREAS SHALL BE PROVIDED WITH A 1/2" GYPSUM BOARD MEMBRANE OR RESIDENTIAL FIRE SPRINKLER SYSTEM WHEN FLOOR SYSTEM IS CONSTRUCTED OF OTHER THAN DIMENSION LUMBER OR STRUCTURAL COMPOSITE LUMBER EQUAL TO OR GREATER THAN 2x10 NOMINAL DIMENSION(WHERE REQUIRED BY ENFORCING JURISDICTION)
- ENGINEERED LVL's SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E=1900 ksi, AND Fv=285 psi ENGINEERED PARALLAMS SHALL HAVE MINIMUM PROPERTIES OF Fb = 2600 psi, E = 2000 ksi, AND Fv = 290 psi
- COLUMN CONNECTION TO STEEL BEAMS SHALL BE WITH A CLIP POST CAP WITH ALL FOUR TAB EARS BENT AROUND THE BOTTOM FLANGE OF THE BEAM. FOR A BEARING PLATE, FOUR HOLES SHALL BE DRILLED IN THE BOTTOM FLANGE OF THE STEEL BEAM TO MATCH THE HOLE PATTERN OF THE PLATE. $\frac{1}{2}$ " x 2" BOLTS SHALL THEN BE INSTALLED WITH A FLAT WASHER, LOCK WASHER, AND A NUT IN EACH OF THE HOLES. THE POST CAP MAY BE
- WELDED TO THE STEEL BEAM IN ACCORDANCE WITH AWS D1.1-92 AS AN ALTERNATIVE, AND WOULD NEED TO BE INSPECTED BY AN AWS-CERTIFIED INSPECTOR. 33. WHEN MECHANICAL EQUIPMENT IS LOCATED IN AN ENCLOSED ROOM, THERE SHALL BE (2) 14"x12" VENTS LOCATED
- IN A WALL COMMON WITH ADDITIONAL LIVING AREA. ONE VENT SHALL BE LOCATED SUCH THAT THE BOTTOM OF THE VENT BEGINS 12" FROM THE FLOOR AND THE OTHER VENT SHALL BE LOCATED SUCH THAT THE TOP OF THE VENT BEGINS 12" FROM THE CEILING.
- 34. ALL ROOF SHEATHING SHALL BE $\frac{7}{16}$ " OSB WITH 8d COMMON NAILS @ 6" O.C. AT PANEL EDGES AND @ 12" O.C. IN FIELD

- 35. GLAZING IN HAZARDOUS LOCATIONS AS IDENTIFIED IN IRC SECTION R308.4 SHALL BE OF APPROVED SAFETY GLAZING MATERIALS. GLASS IN STORM DOORS, INDIVIDUAL FIXED OR OPENABLE PANELS ADJACENT TO A DOOR WHERE THE NEAREST VERTICAL EDGE IS WITHIN A 2'-0" ARC OF THE DOOR IN A CLOSED POSITION AND FOR WHICH THE BOTTOM EDGE IS WITHIN 5'-0" OF THE FLOOR, WALLS ENCLOSING STAIRWAYS AND LANDINGS WHERE THE GLAZING IS WITHIN 5'-0" OF THE TOP OR BOTTOM OF THE STAIR, ENCLOSURES FOR SPAS, TUBS, SHOWERS, AND WHIRLPOOLS, GLAZING IN FIXED OR OPENABLE PANELS EXCEEDING NINE SQUARE FEET AND FOR WHICH THE BOTTOM EDGE IS LESS THAN 1'-6" ABOVE THE FLOOR OR WALKING SURFACE WITHIN 3'-0"
- 36. ALL OPERABLE WINDOWS SHALL HAVE FALL PROTECTION PER IRC SECTION R612.2

37. ENCLOSED ATTICS SHALL HAVE CROSS VENTILATION FOR EACH SEPARATE SPACE BY VENTILATING OPENINGS PROTECTED AGAINST THE ENTRANCE OF RAIN OR SNOW. VENTILATING OPENINGS SHALL BE PROVIDED WITH CORROSION-RESISTANT WIRE MESH, WITH 1/2" TO 1/2" OPENINGS. THE TOTAL FREE VENTILATING AREA SHALL NOT BE LESS THAN χ_{50} OF THE AREA OF SPACE VENTILATED, EXCEPT WHERE THE VENTILATORS ARE LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED - THE REQUIRED AREA MAY BE REDUCED TO 1/300.

EMERGENCY EGRESS

- 38. PROVIDE A MINIMUM OF ONE WINDOW FOR EACH BEDROOM THAT HAS A MINIMUM OPENABLE AREA OF 5.7 SQUARE FEET WITH A MINIMUM OPENABLE HEIGHT OF 2'-0" AND A MINIMUM WIDTH OF 1'-9". IN ADDITION, THE OPENABLE PORTION OF EGRESS WINDOWS SHALL NOT EXCEED 3'-8" ABOVE THE ADJOINING FLOOR OR PERMANENT STEP.
- 39. PROVIDE SMOKE ALARMS IN EACH SLEEPING ROOM, OUTSIDE OF EACH SLEEPING AREA AND ON EACH FLOOR, INCLUDING BASEMENT (IF APPLICABLE). ALARMS SHALL BE HARDWIRED TOGETHER SO THAT THE ACTIVATION OF ONE SMOKE ALARM WILL ACTIVATE ALL SMOKE ALARMS IN THE DWELLING. PROVIDE CARBON MONOXIDE DETECTORS OUTSIDE EACH SLEEPING AREA.

MASONRY VENEER

- 40. MASONRY VENEER SHALL BE ANCHORED TO THE SUPPORTING WALL STUDS WITH CORROSION-RESISTANT METAL TIES EMBEDDED IN MORTAR OR GROUT AND EXTENDING INTO THE VENEER A MINIMUM OF 1½", WITH NOT LESS THAN 5/8" MORTAR OR GROUT COVER TO OUTSIDE FACE
- 41. VENEER TIES, IF STRAND WIRE, SHALL NOT BE LESS IN THICKNESS THAN NO. 9 U.S. GAGE WIRE AND SHALL HAVE A HOOK EMBEDDED IN THE MORTAR JOINT, OR IF SHEET METAL, SHALL BE NOT LESS THAN NO. 22 U.S. GAGE BY 1/8"
- EACH TIE SHALL SUPPORT NOT MORE THAN 2.67 SQUARE FEET OF WALL AREA AND SHALL BE SPACED NOT MORE THAN 32 INCHES ON CENTER HORIZONTALLY AND 24 INCHES ON CENTER VERTICALLY.
- VENEER TIES AROUND WALL OPENINGS: ADDITIONAL METAL TIES SHALL BE PROVIDED AROUND ALL WALL OPENINGS GREATER THAN 16 INCHES IN EITHER DIMENSION. METAL TIES AROUND THE PERIMETER OF OPENINGS SHALL BE SPACED NOT MORE THAN 3 FEET ON CENTER AND PLACED WITHIN 12 INCHES OF THE WALL OPENING.

- 44. DOOR(S) BETWEEN THE GARAGE AND DWELLING SHALL BE MINIMUM 1%" SOLID CORE OR HONEY-COMBED STEEL DOOR WITH 20-MINUTE FIRE RATING EQUIPPED WITH A SELF-CLOSING DEVICE
- 45. VEHICLE DOORS AND FRAMES SHALL BE DESIGNED AND INSTALLED TO MEET THE 115-MPH 3-SECOND GUST

LOADING PER DASMA 108 AND ASTM E 330-96 PER IRC 2018

GARAGE NOTES (CONTINUED)

- THE GARAGE SHALL BE SEPARATED FROM THE DWELLING AND ITS ATTIC AREAS BY MINIMUM 5/4" GYP. BOARD APPLIED TO THE GARAGE SIDE OF FRAMING. WHERE HABITABLE SPACE OCCURS ABOVE THE GARAGE. THE GARAGE CEILING ASSEMBLY SHALL BE PROTECTED WITH A MINIMUM 3/8" TYPE X GYP. BOARD. WHERE A FLOOR/CEILING SPACE IS PROVIDED ABOVE THE GARAGE COLUMNS AND BEAMS
- SUPPORTING THE SEPARATION SHALL ALSO BE PROTECTED WITH %" GYP. BOARD. GARAGE DOOR H-FRAME FOR THE ATTACHMENT OF THE TRACK AND COUNTER BALANCE SHALL CONSIST OF THE FOLLOWING: 2x6 VERTICAL JAMBS RUNNING FROM FLOOR TO CEILING AND SHALL BE FASTENED WITH 2½"" x 0.120" NAILS AT 7" O.C. STAGGERED WITH (7) 31/4" x 0.120" NAILS THROUGH THE JAMB INTO THE HEADER. MINIMUM 2x8 HEADER FOR ATTACHMENT OF COUNTER BALANCE SYSTEM.

DESIGN LOADING (PER TABLE R301.5)

MINIMUM UNIFORMLY DISTRIB				
USE	LIVE LOAD	DEAD LOAD		
UNINHABITABLE ATTICS WITHOUT STORAGE	10	10		
UNINHABITABLE ATTICS WITH LIMITED STORAGE	20	10		
HABITABLE ATTICS AND ATTICS SERVED WITH FIXED STAIRS	30	10		
BALCONIES (EXTERIOR) AND DECKS	40	10 ^d		
FIRE ESCAPES	40	10		
GUARDRAILS AND HANDRAILS ^a	200 ^c	-		
GUARDRAIL IN-FILL COMPONENTS ^b	50 ^c	-		
PASSENGER VEHICLE GARAGES	50	DEPENDENT UPON SLAB CONSTRUCTION		
ROOMS OTHER THAN SLEEPING ROOM	40	10 ^d		
SLEEPING ROOM	30	10 ^d		
STAIRS	40	10 ^d		

- a. A single concentrated load applied in any direction at any point along the top.
- b. Guard in-fill components (all those except the handrail), ballusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to one square foot. This load need not be assumed to act concurrently with any other live load requirement.
- c. Glazing used in handrail assemblies and guards shall be designed with a safety factor of 4. The safety factor shall be applied to each of the concentrated loads applied to the top of the rail, and to the load on the infill components. These loads shall be determined independently of one another, and loads are assumed not to occur with any other live load.
- d. An additional dead loading of 10 psf shall be applied where thinset tile floor is to be installed. An additional dead loading of 50 psf shall be applied where mudset tile floor is to be installed

INSULATION/EFFICIENCY

- BUILDING ENVELOPE INSULATION SHALL COMPLY WITH IRC TABLE N1102 1 1 OR THE 2012 IECC (SEE SHEET S3.1 FOR FRAMING DETAILS AND TABLES ON THIS SHEET FOR MORE INFORMATION)
- CATHEDRAL -VAULTED CEILING FRAMING SHALL BE FRAMED WITH A MINIMUM INSULATION VALUE OF R-38. IF VAULTED RAFTERS DO NOT PROVIDE REQUIRED DEPTH TO ACHIEVE R-38 INSULATION BUILDER SHALL FUR DOWN RAFTERS PER DETAILS PROVIDED ON

INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT (TABLE N1102.1.1)			
CLIMATE ZONE	4-A		
FENESTRATION U-FACTOR	0.35		
SKYLIGHT U-FACTOR	0.55		
GLAZED FENSTRATION SHGC	0.40		
CEILING R-VALUE	49		
WOOD FRAME WALL R-VALUE	15		
MASS WALL R-VALUE	8 / 13		
FLOOR R-VALUE	19		
BASEMENT WALL R-VALUE	10-CONTINUOUS OR 13-CAVITY		
SLAB R-VALUE AND DEPTH	10 AT 2'-0"		
CRAWL SPACE WALL R-VALUE	10-CONTINUOUS OR 13-CAVITY		
DUCTWORK EXPOSED TO OUTSIDE AIR R-VALUE	8		
DUCTWORK NOT EXPOSED TO OUTSIDE AIR R-VALUE	6		
CATHEDRAL VAULTED CEILING R-VALUE	38		

N1103.2.2 (R403.2.2) SEALING (MANDATORY). DUCTS, AIR HANDLERS, AND FILTER BOXES SHALL BE SEALED. JOINTS AND SEAMS SHALL COMPLY WITH SECTION M1601.4.1 OF 2018 IRC **EXCEPTIONS:**

- AIR-IMPERMEABLE SPRAY FOAM PRODUCTS SHALL BE PERMITTED TO BE APPLIED WITHOUT ADDITIONAL JOINT SEALS
- WHERE A DUCT CONNECTION IS MADE THAT IS PARTIALLY INACCESSIBLE, THREE SCREWS OR RIVETS SHALL BE EQUALLY SPACED ON THE EXPOSED PORTION OF THE JOINT SO AS TO PREVENT A HINGE EFFECT.
- CONTINUOUSLY WELDED AND LOCKING-TYPE LONGITUDINAL JOINTS AND SEAMS IN DUCTS OPERATING AT STATIC PRESSURES LESS THAN 2 INCHES OF WATER COLUMN PRESSURE CLASSIFICATION SHALL NOT REQUIRE ADDITIONAL CLOSURE SYSTEMS.

DUCT TIGHTNESS SHALL BE VERIFIED BY EITHER OF THE FOLLOWING:

- POST-CONSTRUCTION TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE ENTIRE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTER BOOTS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST.
- ROUGH-IN TEST: TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 4 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA WHEN TESTED AT A PRESSURE DIFFERENTIAL OF 0.1 INCHES W.G. ACROSS THE SYSTEM, INCLUDING THE MANUFACTURER'S AIR HANDLER ENCLOSURE. ALL REGISTERS SHALL BE TAPED OR OTHERWISE SEALED DURING THE TEST. IF THE AIR HANDLER IS NOT INSTALLED AT THE TIME OF THE TEST, TOTAL LEAKAGE SHALL BE LESS THAN OR EQUAL TO 3 CFM PER 100 SQUARE FEET OF CONDITIONED FLOOR AREA

EXCEPTION: THE TOTAL LEAKAGE TEST IS NOT REQUIRED FOR DUCTS AND AIR HANDLERS LOCATED ENTIRELY WITHIN THE BUILDING THERMAL ENVELOPE.

MECHANICAL VENTILATION SYSTEM FAN EFFICACY				
FAN LOCATION	AIR FLOW RATE MINIMUM (CFM)	MINIMUM EFFICACY (CFM/WATT)	AIR FLOW RATE MAXIMUM (CFM)	
RANGE HOODS	ANY	2.8	ANY	
IN-LINE FAN	ANY	2.8	ANY	
BATHROOM, UTILITY ROOM	10	1.4	90	
BATHROOM, UTILITY ROOM	90	2.8	ANY	



MISSOURI 1 TRAN-VO WOODSIDE SUMMIT, RWR081 LOT 81, V Š LEE Ë В



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RESIDENTIAL SEISMIC & WIND ANALYSIS

				INPUT
DETERMINE WEIGHT OF HOUSE:				CALCULATED VALUE
LOCATION		DEAD LOAD (psf)	AREA (ft ²)	WEIGHT (lbs.)
ROOF		10	2503	25030
CEILING		10	2503	25030
SECOND FLOOR		10	694	6940
FIRST FLOOR		10	2503	25030
	WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)	WEIGHT (lbs)
SECOND FLOOR EXT. WALL DL	175.68	9	9	14230.08
FIRST FLOOR EXT. WALL DL	215.34	10	10	21534
		DEAD LOAD (psf)	AREA (ft2)	WEIGHT (lbs)
SECOND FLOOR INT. PARTITION WALL DL		6	694	4164
FIRST FLOOR INT. PARTITION WALL DL		6	2503	15018

PROJECTED AREAS (WIND DESIGN PER 115 MPH 3-SECOND GUST, EXPOSURE C AND MEAN ROOF HEIGHT <= 30 FT ASSUMED)										
	FRONT	-TO-BACK			SIDE-TO-SIDE					
	AREA	LOAD			AREA	LOAD				
SLOPED ROOF	284	2416		SLOPED ROOF	320	2720				
VERT. ROOF	34	423	CUMULATIVE	VERT. ROOF	0	0	CUMULATIVE			
2ND	386.7	4978	7817	2ND	491.7	6163	8882			
1ST	588.5	7316	15133	1ST	595.87	7399	16282			
			PRESSURE (PSI	F) - PER ASCE CH. 6						
SLOPED ROOF ZONE B			9.7	ZONE C	11.3	2a (FIG. 28.6-1, ASCE7)				
WALL/VERT. ROOF ZONE A 14		14.2	ZONE D	7.7	10.7					
MEAN ROOF HT., h 24										

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area.

 $\label{eq:qz10_ASD} \textbf{q}_{z10_ASD} = 0.6 \\ \textbf{q}_{z10} \quad \text{(Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)}$ q_{z10} =0.00256 $K_zK_{zt}K_dV^2$ (ASCE7-10 Velocity Pressure)

2ND FLOOR TRIBUTARY WEIGHT 1ST FLOOR TRIBUTARY WEIGHT

 S_S (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP)

F_a (from ASCE7 Table 11.4-1)

EXTERIOR SHEATHING OPTION FOR SECOND FLOOR

EXTERIOR SHEATHING OPTION FOR FIRST FLOOR

 $S_{DS} (= 2/3 * S_S * F_a)$

R (from ASCE7 Table 12.2-1)

ATION		From	n ASCE7 (Eq. 12.8-1):	V (= 1.2	*S _{DS} * W / R) (lbs.)
FLOOR FLOOR					1351 2036
Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowal	ole Shear (#/LF)	Code Reference
Exterior (Ootton #1)	7/16" APA Rated Plywood/CSB	1-1/2" 16gs. Staples w/ 1" penetration@ 6" OC Edges, 6" OC Field For 24" stud specing, 12" OC Field For 16" stud specing		155	par IBC, Table 2305.3(1)
Exterior (Option #2)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration@ 4" OC Edges, 6" OC Field For 24" stud spacing, 12" OC Field For 16" stud spacing		230	par IBC, Table 2308.3(1)
Exterior (Option #3)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration@ 3" OC Edges, 6" OC Field For 24" stud specing, 12" OC Field For 16" stud specing		310	par IBC, Table 2308.3(1)
Exterior (Option #4)	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 6" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shiplap panel sheathing OR @ 4" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing		220	AF&PA SDPWS Table 4.3A
Exterior (<i>Option #5</i>)	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing	8d Common Nails w/ 1-3/8" penetration @ 4" O.C. Edges, 12" O.C. Field for 7/16" APA-rated plywood/OSB or shiplap panel sheathing OR @ 3" O.C. Edges, 12" O.C. Field for 3/8" shiplap panel sheathing		320	AF&PA SDPWS Table 4.3A
Exterior <u>(Option #6)</u>	7/16" APA Rated Plywood/OSB or shiplap panel sheathing, or 3/8" shiplap panel sheathing with tighter nail spacing and double studs at each panel edge	8d Common Nails w/ 1-3/8" penetration @ 3" O.C. Edges, 12" O.C. Field		410	AF&PA SDPWS Table 4.3A
Interior	1/2" Gypsum Board	No. 6- 1 ¹ / ₄ " Type W or S Screws @ 8" O.C. Edges, 12" O.C. Field		60	per IBC, Table 2306.4.4
Interior	16 Ga. Simpson/USP Type WB Steel X-Brace (or equal)	(3) 16d @ end studs & (1) 8d @ intermediate studs (per manufacturer specifications - see detail on sheet S3)		325	

57175.04

86161.08

12.0%

1.6

0.128

6.5

WIDTH OF 2ND STORY (FT.)

DEPTH OF 2ND STORY (FT.)

1st Floor S-S

54.17

			EXTER	IOR STRUCTURAL WALL	LENGTHS (ft.) & RESISTANCES			
		SE	ISMIC			WIND		
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)
2ND FLOOR	49	13720	62	17360	49	19208	62	24304
1ST FLOOR	70	26600	33.5	12730	70	37240	33.5	17822
		ADDITIONAL RESIS	TANCE REQUIRED		Anchor Bolt Spacing	(in.)	16d Nail Spacing req'd at	oottom plate (in.)
SEISMIC WIND diameter (in.) 0.5 2nd Floor F-B							38	
2ND FLOOR FRONT-TO-BACK 0 0				Shear value (per NDS)	944	2nd Floor S-S	33	
2ND FLOOR SIDE-TO)-SIDE	0	0		Spacing F-B (inches)	129.8	1st Floor F-B	19

WIDTH OF 1ST STORY (FT.)

DEPTH OF 1ST STORY (FT.)

BACK WALL OF GARAGE (FT.)

GAR. WALL: 1=F-B. 2=S-S

	RESISTANCE REQUIRED IN ADDITION TO RESISTANCE PROVIDED BY EXTERIOR WALLS**								
	ADDITIONAL RESISTANCE REQUIRED (POUNDS)	PORTAL FRAMES OR PERF. SHEAR WALL RESISTANCE	INTERIOR X-BRACES (325#/BRACE)	INTERIOR WALL LENGTH W/ 1/2" GYPSUM BOARD PER TABLE (FT.)	INT. WALL LENGTH SHEATHED W/ OSB (TOTAL LENGTH, ONE SIDE, FT.)	RESISTANCE PROVIDED BY ADDITIONAL METHODS (POUNDS)	OK?		
2ND FLOOR FRONT-TO-BACK	0					0	YES		
2ND FLOOR SIDE-TO-SIDE	0					0	YES		
1ST FLOOR FRONT-TO-BACK	0					0	YES		
1ST FLOOR SIDE-TO-SIDE	0					0	YES		

**NOTES: 1) SEE ATTACHED CALCULATIONS FOR PORTAL FRAME OR PERFORATED SHEAR WALL RESISTANCE CAPACITIES (IF APPLICABLE),
2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION, 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING

PATTERN AS EXTERIOR OSB ON SAME FLOOR (SEE TABLE ABOVE) AND ARE ONLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2'-8" OR LONGER

PATTERN AS EXTERI	FAITERN AS EXTERIOR USB ON SAME FLOOR (SEE TABLE ABOVE) AND ARE UNLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2-8 OR LONGER										
ALL LATERAL BRAC	ALL LATERAL BRACING ACHIEVED AT EXTERIOR WALLS AND WALLS DIRECTLY ON FOUNDATIONS; THEREFORE, NO INTERIOR BRACING PER 2012 IRC SECTION R502.2.1 IS REQUIRED										
	WIND UPLIFT ANALYSIS										
	X/12 DEGREES										
ROOF PITCH (MAX)	10	39.8	PITCH OF 6 OR LESS:	EOH -13.3, E -7.2, G -5.2							
		ASCE 7			_						
	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIFT PER FT* (LBS)							
OVERHANG	1	-1.08	217.34	-1.08							
	TOTAL AREA (FT ²)	ZONE E AREA (FT ²)	ZONE G AREA (FT ²)	PRESSURE ZN. E (PSF)	PRESSURE ZN. G (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT @ PERIMETER (LBS)				
MAIN ROOF**	2898.095	1421.816	1476.279	-1.08	-0.36	-2067	-9.6				
*ALONG PERIMETER	*ALONG PERIMETER TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS) -10.7 UPLIFT OK										
**INSIDE EXTERIOR \	INSIDE EXTERIOR WALLS RESISTANCE DUE TO DEAD WEIGHT & (3) 10d TOENAILS 251.6										

1ST FLOOR FRONT-TO-BACK

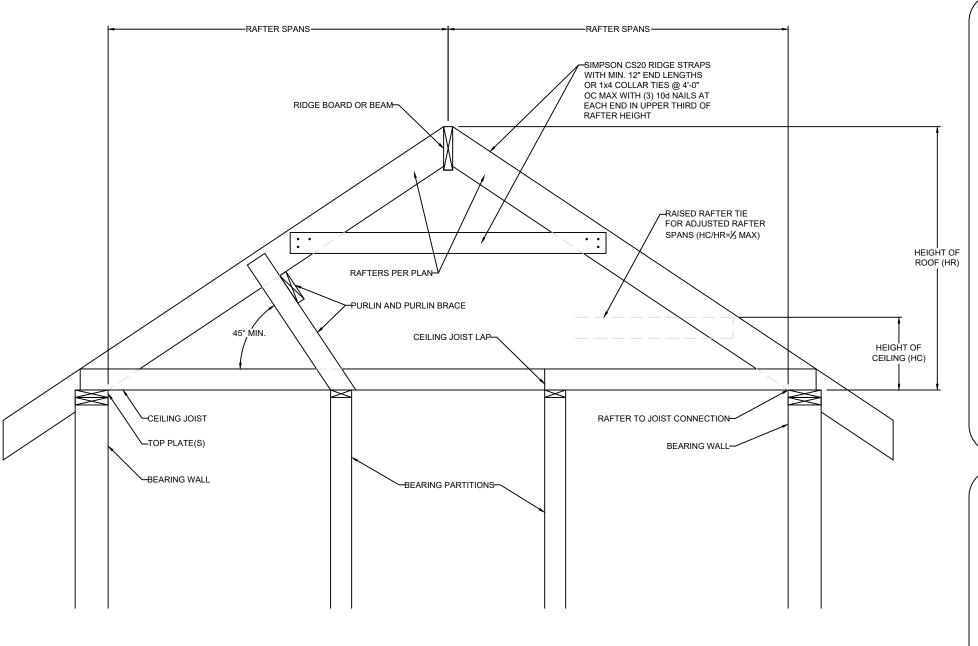
1ST FLOOR SIDE-TO-SIDE

THE CONTINUOUS STRUCTURAL PANEL SHEATHING BRACING METHOD REQUIRES USE OF THE ABOVE TABLE FOR SHEATHING OF THE ENTIRE STRUCTURE. IN ADDITION, FRAMING MEMBERS SHALL BE @ 16" O.C. MAX., UNBLOCKED, AND W/ SHEATHING APPLIED DIRECTLY TO FRAMING MEMBERS

NOTE FOR DESIGN:

ALL WALLS USED IN THE CALCULATION OF THE RESISTANCE FOR THIS STRUCTURE SHALL HAVE A MINIMUM UNINTERRUPTED HEIGHT OF 8'-0" AND LENGTH OF 2'-8". ALLOWABLE RESISTANCES HAVE BEEN #/FT AND INCREASED BY 40% FOR WIND LOADS, PER VALUES IN 2012 IBC SECTION 2306 AND AF&PA SDPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 6" & 12" HAS A SEISMIC SHEAR VALUE OF 240 A WIND SHEAR VALUE OF 335#/FT - 40% GREATER THAN THAT OF SEISMIC)

NOTE: SOIL SITE CLASS ASSUMED TO BE CLASS D. IF SITE CONDITIONS ARE DETERMINED TO BE CLASS E OR F, CONSULT ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION



BRACED RAFTER CONSTRUCTION S1.1 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

Combustion Air Calculation Per 2012 IRC Section G2407.5

Appliance #1 100000 BTU/h Furnace Appliance #2 BTU/h Appliance #3 50000 BTU/h Water Heater

150000 BTU/h Total BTU/hr

Area of Combined Space (floor where appliances are located) 1179 ft² Ceiling Height in Usable Space 8.5 ft

Note: Per 2012 IRC Section G2407.5.3.2, The volumes of spaces in different stories shall be considered as communicating spaces where such spaces are connected by one or more openings in doors or floors having a total minimum free area of 2 square inches per 1,000 BTU/h of total input rating of all appliances

Is floor where appliances are located open to adjacent level? If Yes, what is the area of open space adjacent to appliance area? Yes

OK

Per 2012 IRC Section G2407.5.1 (Standard Method), the minimum required volume shall be 50 cubic feet per 1,000 BTU/hr

(Total BTU/hr / 1,000 BTU/hr x 50 ft³)

7500 ft³ Required air space in combined areas:

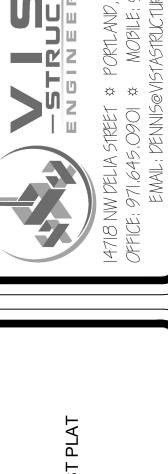
882 ft² Required combined area:

Area of Combined Space > Required combined area?

Per Section G2407.5.3.1, each opening shall have a minimum free area of 1 square inch per 1,000 BTU/hr of the total input rating of all appliances in the space, but not less than 100 square inches. One opening shall commence within 12 inches of the top and one opening shall commence within 12 inches of the bottom of the enclosure. The minimum dimension of air openings shall be not less than 3 inches.

150 in² Minmum required opening area: 14 x 11 Minimum grill size: (inches)

Note: two grills required - one within 12" of floor, one within 12" of clg.

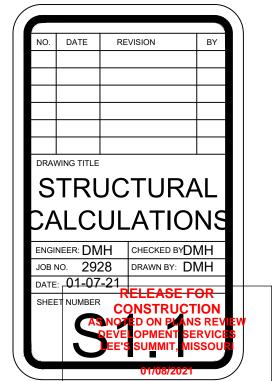


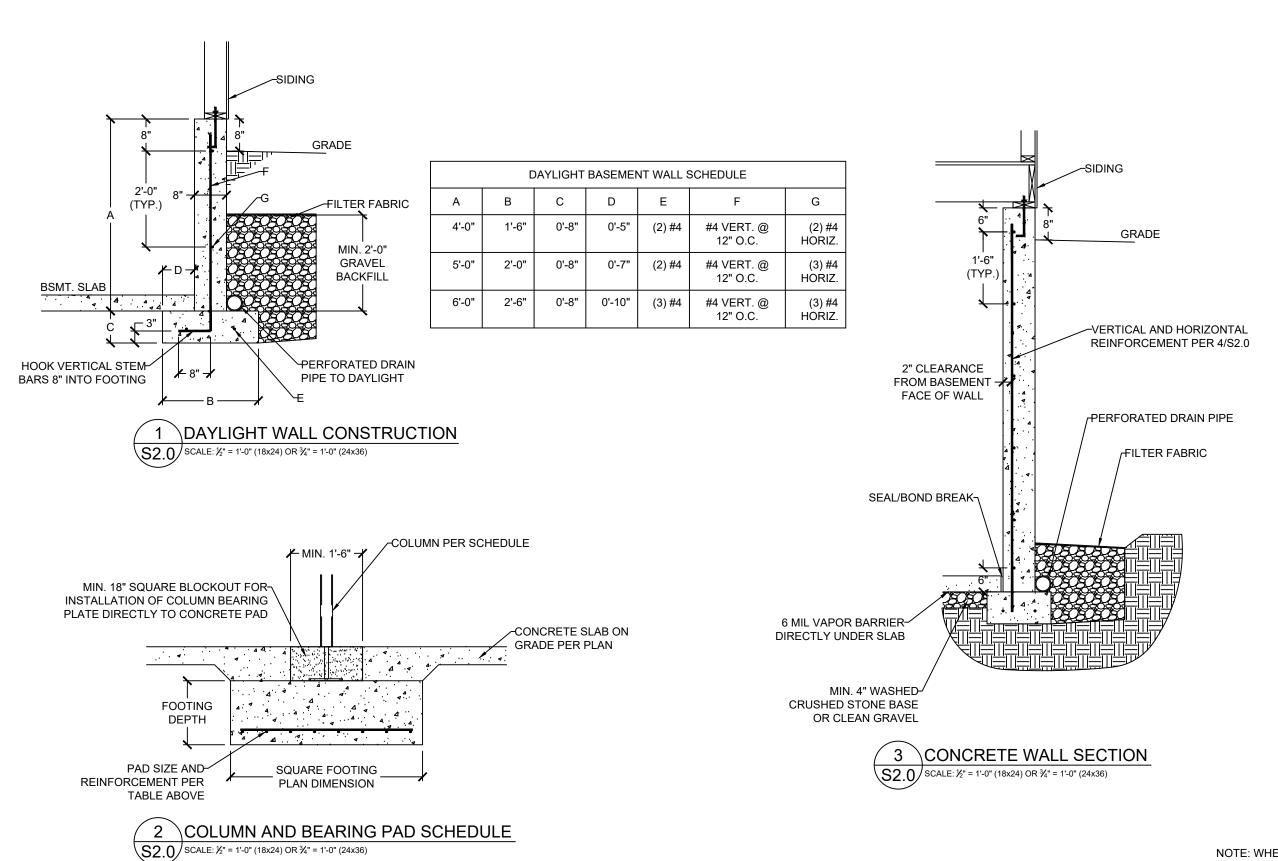
1ST RWR081 TRAN-VO LOT 81, WOODSIDE RIDGE MISSOURI SUMMIT, TITLE: JOB

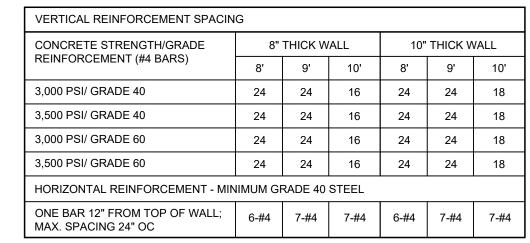
PFEIFER HOMES, INC

CLIENT:









FOOTNOTES:

1) WALL HEIGHT IS MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE FLOOR SLAB 2) VERTICAL REINFORCEMENT FOR CONCRETE WALLS THAT ARE NOT FULL HEIGHT, AND FOR REINFORCEMENT SPACING 24" OC, REINFORCEMENT MAY BE PLACED IN THE MIDDLE OF THE WALL. OTHER WALLS SHALL HAVE VERTICAL REINFORCEMENT AS FOLLOWS:

A) 8" WALL - MINIMUM 5" FROM THE OUTSIDE FACE

B) 10" WALL - MINIMUM 63/4" FROM THE OUTSIDE FACE C) EXTEND BARS TO WITHIN 8" OF THE TOP OF THE WALL

3) REINFORCEMENT CLEARANCES:

A) CONCRETE EXPOSED TO EARTH - MINIMUM 11/2"

B) NOT EXPOSED TO WEATHER (INTERIOR SIDE OF WALLS) -3/4" C) CONCRETE EXPOSED TO WEATHER (TOP CLEARANCE IN GARAGE AND DRIVEWAY

SLABS) - 1½" 4) HORIZONTAL REINFORCEMENT:

A) ONE BAR SHALL BE PLACED WITHIN 12" OF THE TOP OF THE WALL

B) OTHER BARS SHALL BE EQUALLY SPACED WITH SPACING NOT TO EXCEED 24" OC C) HORIZONTAL BARS SHOULD BE AS CLOSE TO THE TENSION FACE AS POSSIBLE (INTERIOR) AND BEHIND THE VERTICAL REINFORCEMENT (I.E. 2" TOWARD THE

D) SUPPLEMENTAL REINFORCEMENT AT CORNERS - PLACE (1) #4 BAR 48" LONG AT 45 DEGREE ANGLE AT CORNERS OF OPENINGS. PLACE REINFORCEMENT WITHIN 6" OF THE EDGE OF INSIDE CORNERS.

5) REINFORCEMENT SHALL BE LAPPED A MINIMUM 24" AT ENDS, SPLICES, AND AROUND CORNERS.

6) AT MASONRY LEDGES THE MINIMUM WALL THICKNESS SHALL BE 31/8". LEDGES SHALL NOT EXCEED A DEPTH OF MORE THAN 24" BELOW THE TOP OF THE WALL. FOR WALL THICKNESSES LESS THAN 4" PROVIDE #4 BARS AT MAX. 24" OC TO WITHIN 8" OF THE TOP

7) STRAIGHT WALLS MORE THAN 5' TALL AND MORE THAN 16 FEET LONG SHALL BE PROVIDED WITH EXTERIOR BRACED RETURN WALLS. WALL LENGTH SHALL BE MEASURED USING INSIDE THE SHORTEST DIMENSION BETWEEN INTERSECTING WALLS 8) WALL SHALL NOT BE BACKFILLED UNTIL FLOOR SYSTEM AND DIAPHRAGM ARE IN PLACE

\FOUNDATION WALL REINFORCEMENT TABLE



RIDGE MISSOURI 1 TRAN-VO WOODSIDE SUMMIT, EIFER HOMES, RWR081 ⁻ LOT 81, W S LEE TITLE: JOB

DENNIS HEIER NUMBER PE-2010001772 DATE REVISION

-SLAB PER PLAN, IF APPLICABLE

PER PLAN

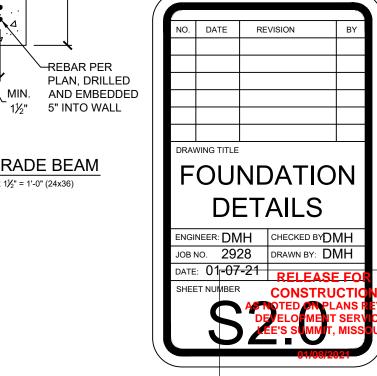
-REBAR PER

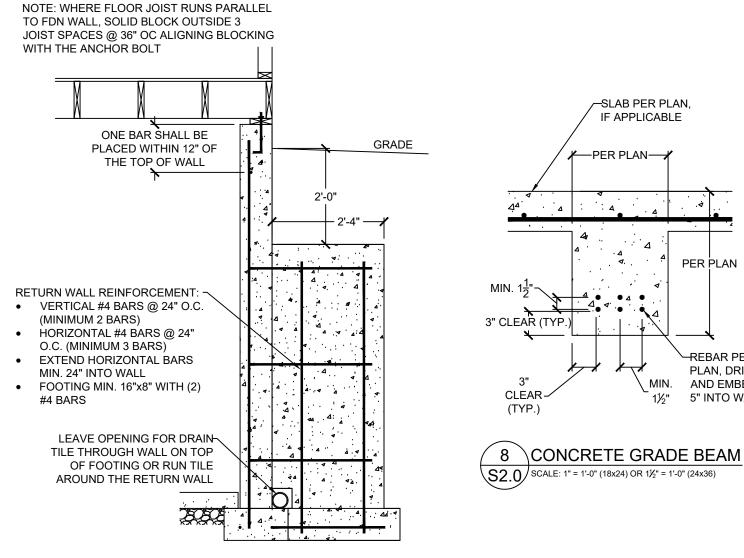
PLAN, DRILLED

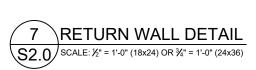
5" INTO WALL

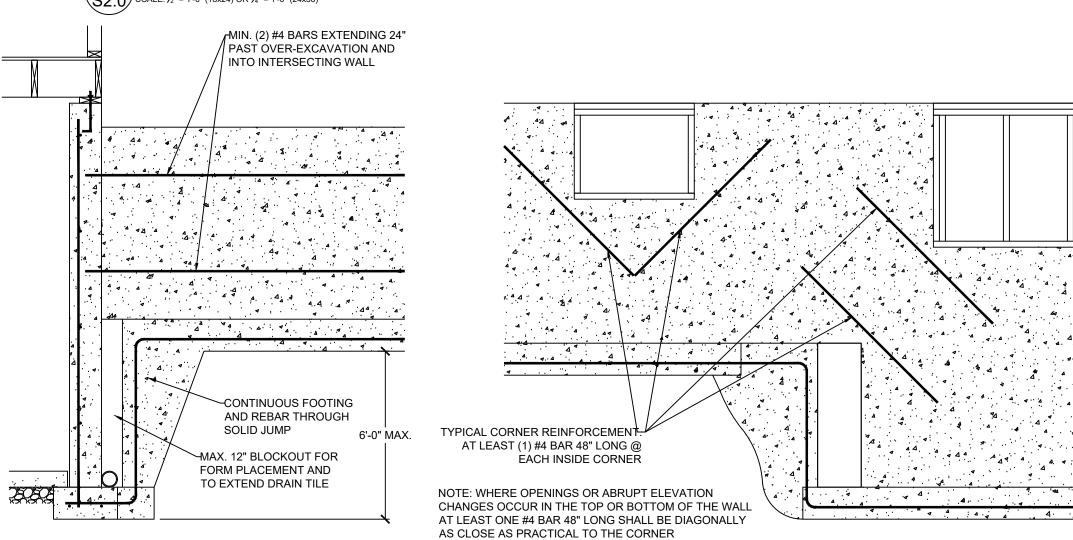
✓ PER PLAN

✓







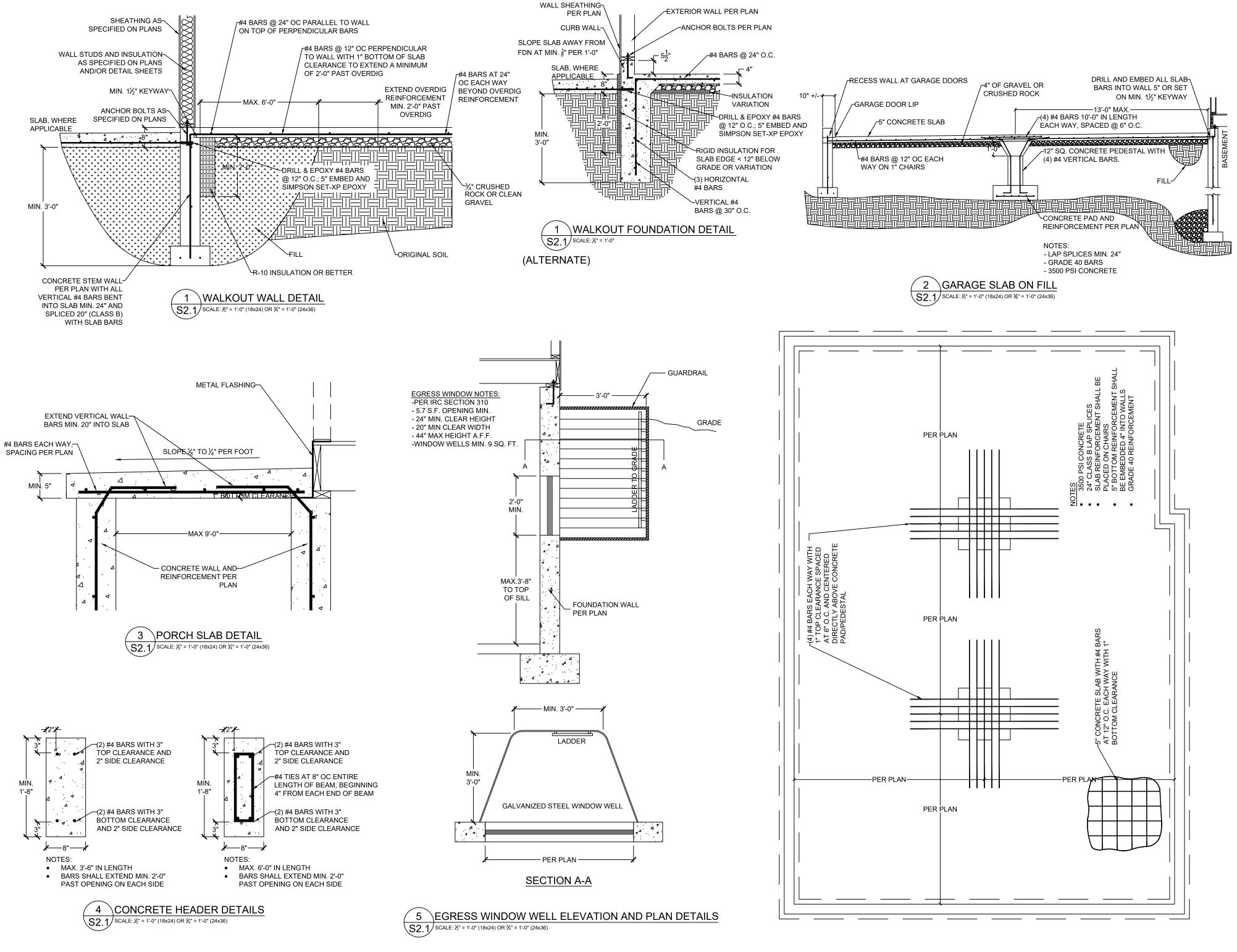


5 \SOLID JUMP

S2.0/SCALE: $\frac{1}{2}$ " = 1'-0" (18x24) OR $\frac{3}{4}$ " = 1'-0" (24x36)

6 \REINFORCEMENT AT OPENING CORNERS \S2.0/AND STEP CORNERS @ INSIDE CORNERS

SCALE: ½" = 1'-0" (18x24) OR ¾" = 1'-0" (24x36)

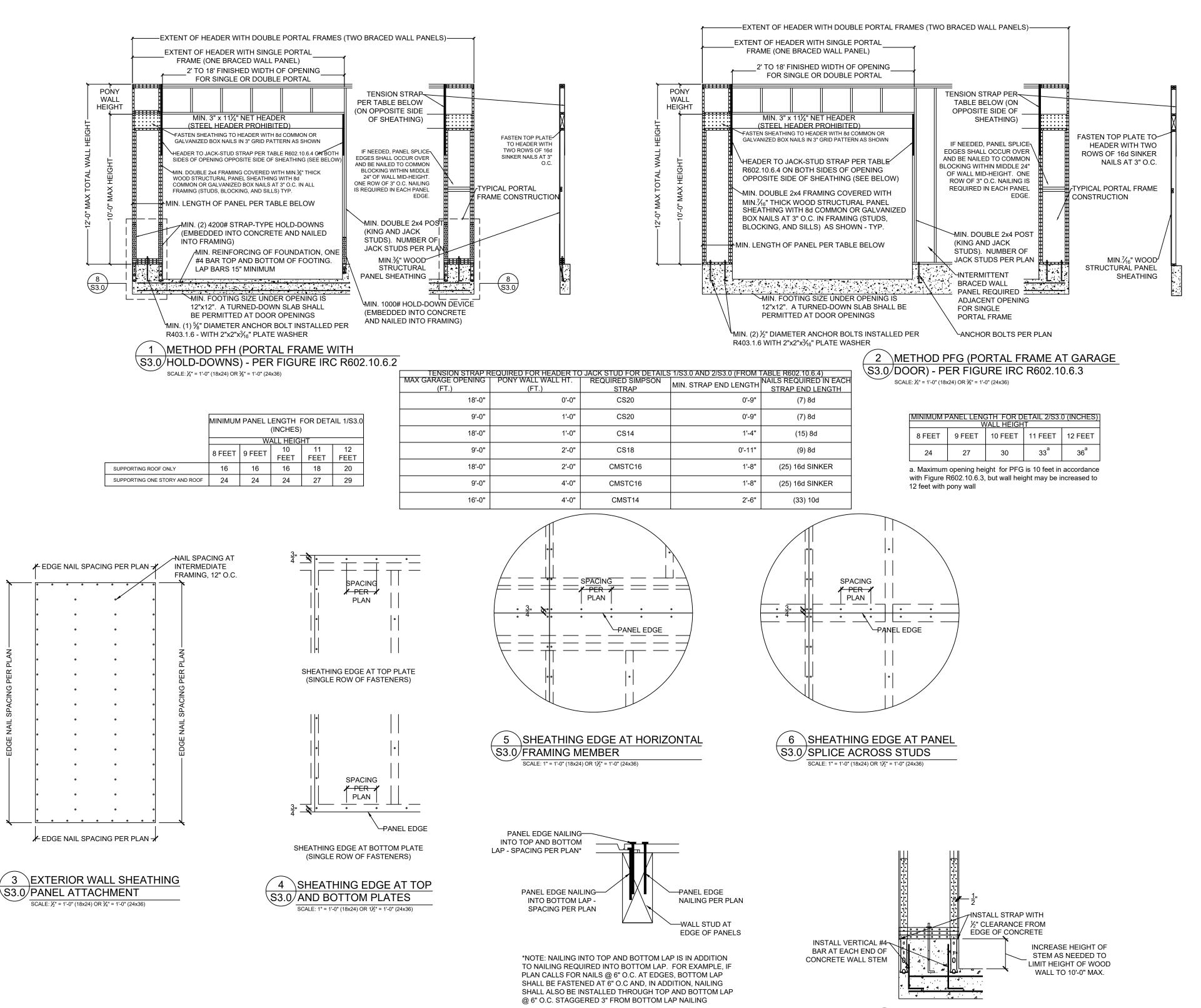




CLIENT: PFEIFER HOMES, INC
JOB TITLE: RWR081 TRAN-VO
LOT 81, WOODSIDE RIDGE 1ST PLAT
LOCATION: LEE'S SUMMIT, MISSOURI



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\FASTENING INSTRUCTIONS FOR

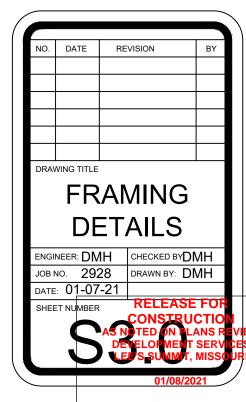
S3.0/SHIPLAP PANEL SHEATHING SCALE: 4" = 1'-0" (18x24) OR 6" = 1'-0" (24x36)



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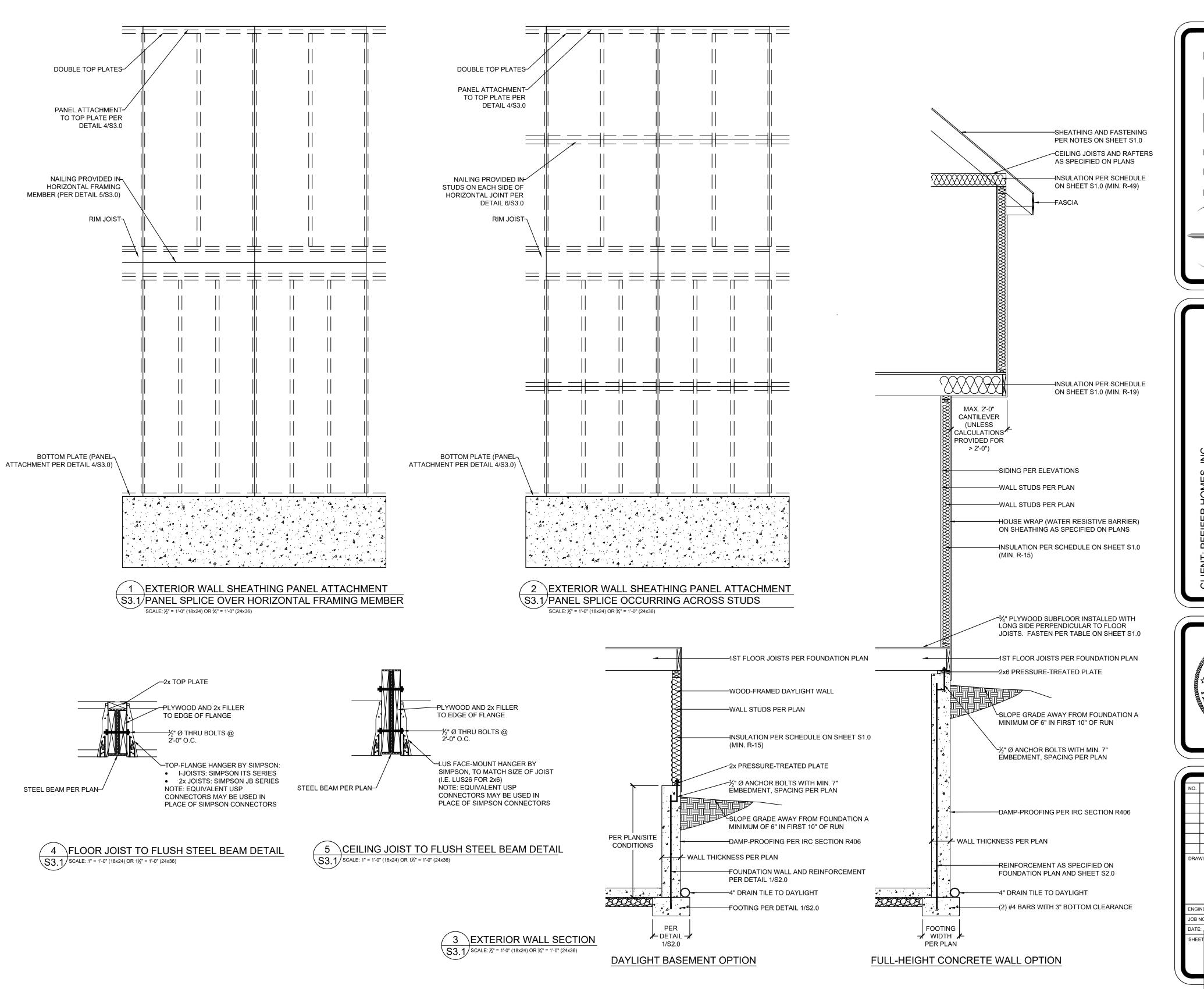
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GARAGE HOLD-DOWN

SCALE: ½" = 1'-0" (18x24) OR ¾" = 1'-0" (24x36)

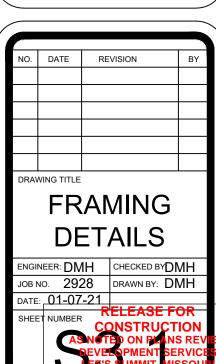
S3.0/STRAP INSTALLATION

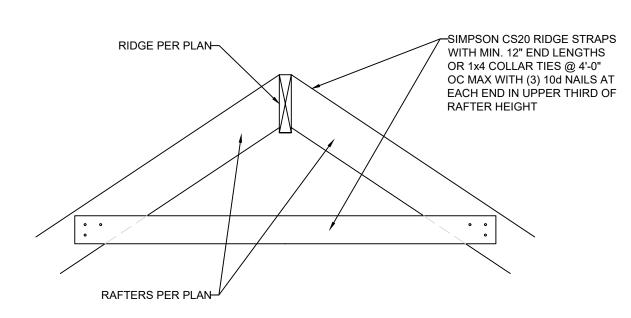


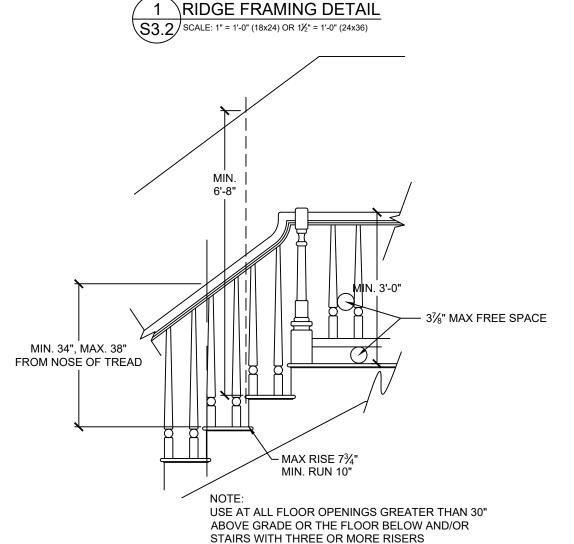


CLIENT: PFEIFER HOMES, INC
JOB TITLE: RWR081 TRAN-VO
LOT 81, WOODSIDE RIDGE 1ST PLAT
LOCATION: LEE'S SUMMIT, MISSOURI



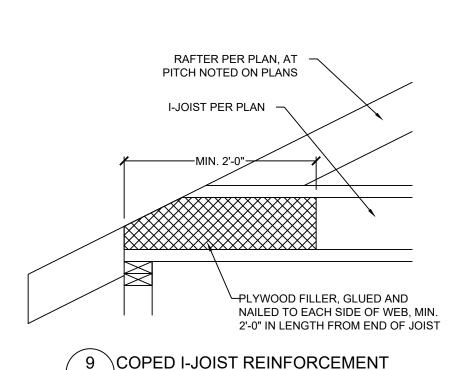




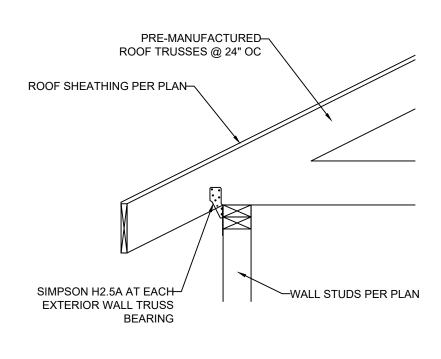


4 \STAIR AND HANDRAIL/GUARDRAIL DETAIL

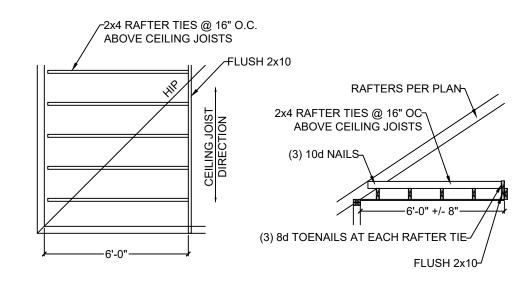
S3.2/SCALE: $\frac{1}{2}$ " = 1'-0" (18x24) OR $\frac{3}{4}$ " = 1'-0" (24x36)



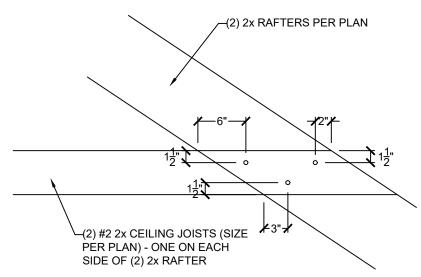
\$3.2\scale: 1" = 1'-0" (18x24) OR 1\(\frac{1}{2}\)" = 1'-0" (24x36)



2 TRUSS CONNECTION TO EXT. WALL BEARING S3.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



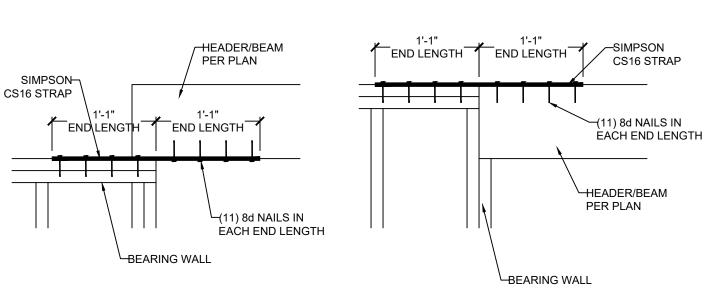
5 RAFTER TIES AT CEILING JOISTS PERP. TO RAFTERS S3.2 SCALE: ¼" = 1'-0" (18x24) OR ¾" = 1'-0" (24x36)

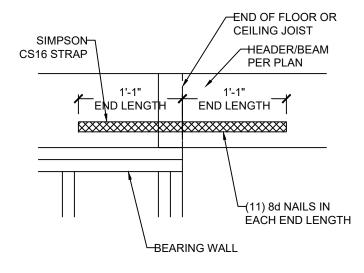


6 FIELD-CONSTRUCTED A-FRAME DETAIL S3.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

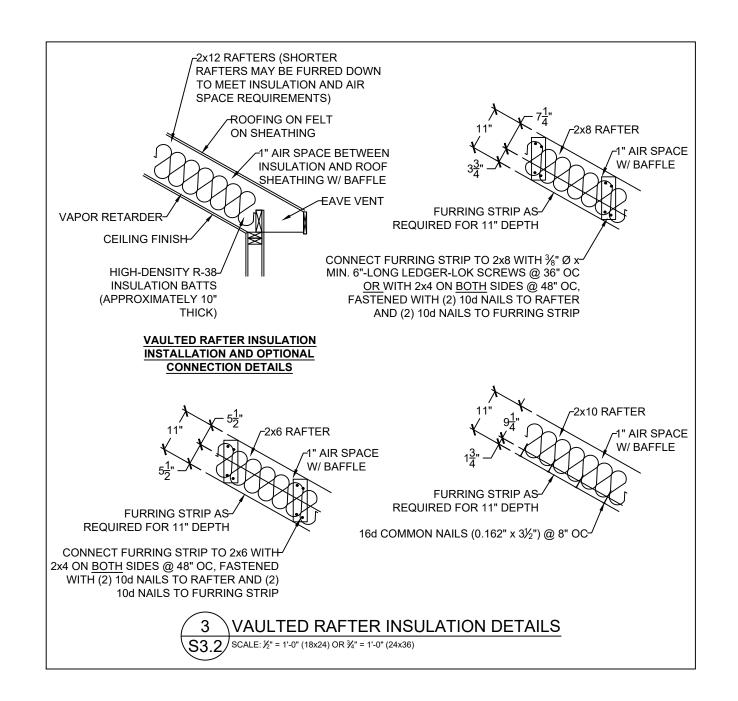
7 DETAIL S3.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

NOT USED





10 HEADER/BEAM CONNECTION OPTIONS AT OUTDOOR/OPEN SPACE \$3.2 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)



HEICHT (ET.)		SPACING (I	NCHES O.C	.)
HEIGHT (FT.)	24	16	12	8
	SUPPORT	ING A ROOF	ONLY	
10 OR LESS	2x4	2x4	2x4	2x4
12	2x6	2x4	2x4	2x4
14	2x6	2x6	2x6	2x4
16	2x6	2x6	2x6	2x4
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUP	PORTING O	NE FLOOR	AND A ROO	F
10 OR LESS	2x6	2x4	2x4	2x4
12	2x6	2x6	2x6	2x4
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	2x6	2x6	2x6
20	DR	DR	2x6	2x6
SUPF	ORTING TV	VO FLOORS	AND A ROC)F
10 OR LESS	2x6	2x6	2x4	2x4
12	2x6	2x6	2x6	2x6
14	2x6	2x6	2x6	2x6
16	DR	2x6	2x6	2x6
18	DR	DR	2x6	2x6
20	DR	DR	DR	2x6

NOTES:
1) DR = DESIGN REQUIRED
2) UTILITY, STANDARD, STUD AND #3 GRADE LUMBER OF ANY SPECIES ARE NOT PERMITTED
3) THIS TABLE DOES NOT APPLY FOR STUDS
SUPPORTING MEMBERS WITH A TRIB. LENGTH GREATER THAN 6'-0"

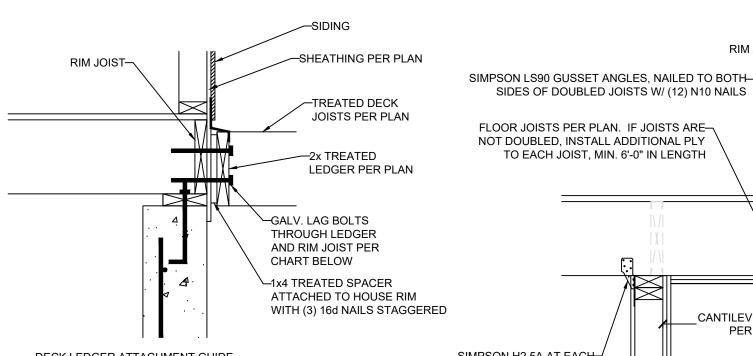
8 MAXIMUM ALLOWABLE LENGTH OF S3.2/WOOD WALL STUDS (IRC TABLE 602.3.1)



CLIENT: PFEIFER HOMES, INC
JOB TITLE: RWR081 TRAN-VO
LOT 81, WOODSIDE RIDGE 1ST PI
LOCATION: LEE'S SUMMIT, MISSOURI

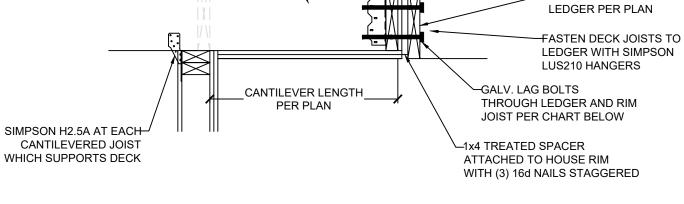


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DECK LEDGER ATTACHMENT GUIDE

ECK JOIST SPAN	½" Ø GALV. LAG OR ¾" Ø LEDGER-LOK SPACING
0" OR LESS	16" OC
-0" - 13'-11"	12" OC OR @ 16" OC DOUBLED EVERY OTHER
'-0" - 18'-0"	8" OC OR @ 16" OC DOUBLED
	SPAN 0" OR LESS -0" - 13'-11"



S3.3/SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

CANTILEVER WITH DECK ATTACHMENT

RIM JOIST-

-SIDING

-SHEATHING PER PLAN

-TREATED DECK JOISTS PER

-2x TREATED

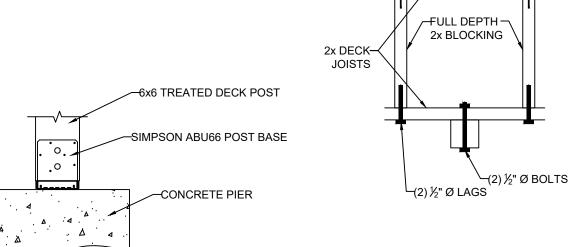
PLAN (MAX. SPAN = 16'-0")

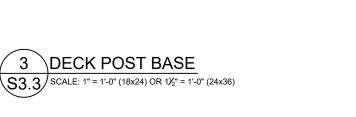
SIDES OF DOUBLED JOISTS W/ (12) N10 NAILS

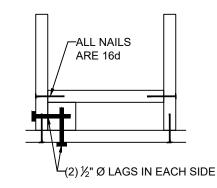
FLOOR JOISTS PER PLAN. IF JOISTS ARE-

NOT DOUBLED, INSTALL ADDITIONAL PLY

TO EACH JOIST, MIN. 6'-0" IN LENGTH

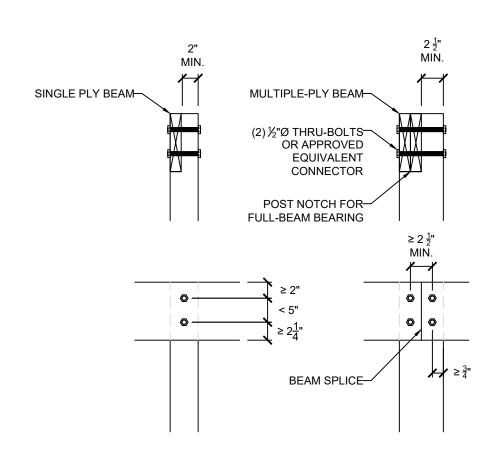




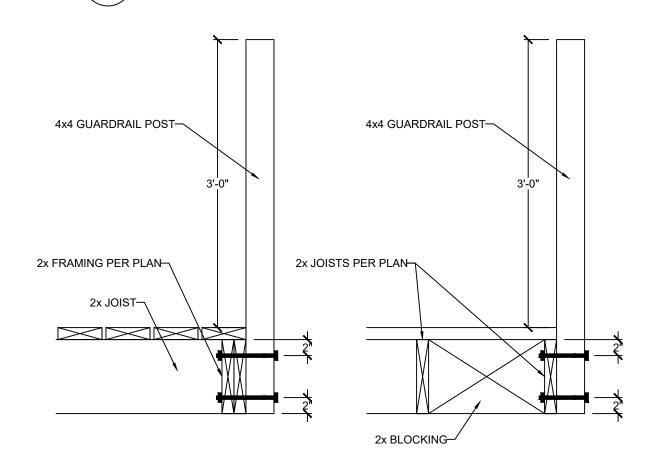


REINF. POST CONNECTIONS \$3.3 SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

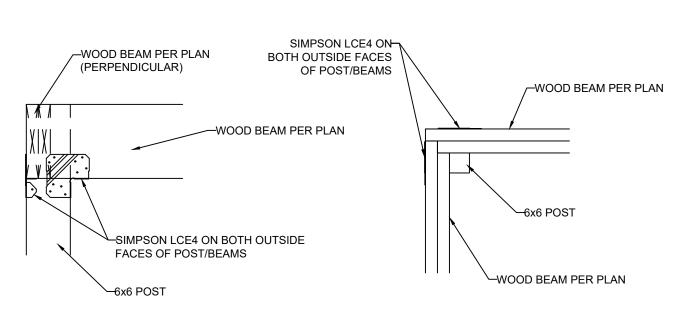
LEDGER ATTACHMENT \$3.3\rightarrow\$SCALE: 1" = 1'-0" (18x24) OR 1\frac{1}{2}" = 1'-0" (24x36)



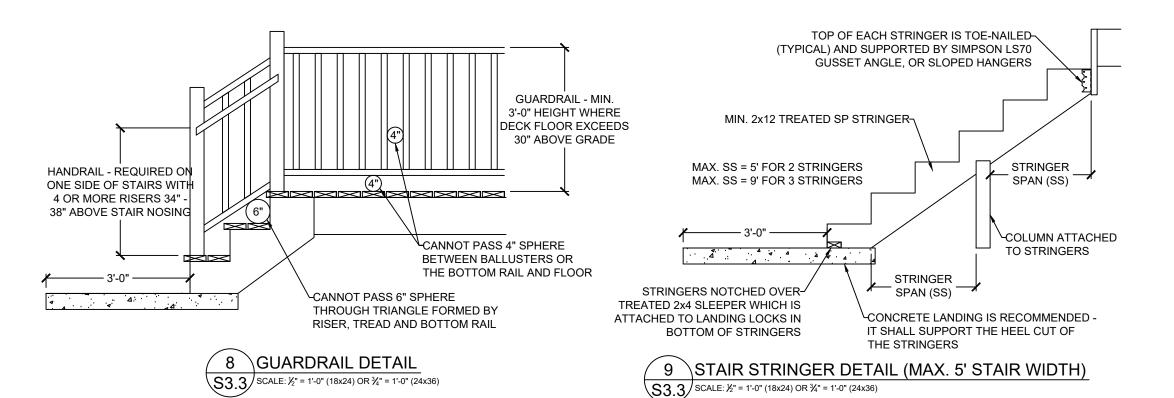








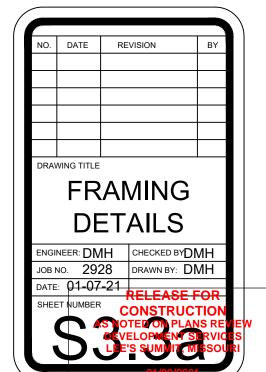
ALTERNATE COVERED DECK/PORCH INTERSECTION S3.3/CORNER BEAM CONNECTION SCALE: 1" = 1'-0" (18x24) OR 1½" = 1'-0" (24x36)

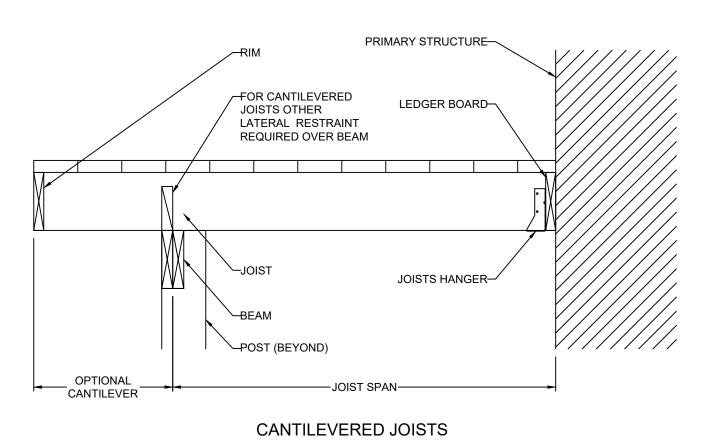


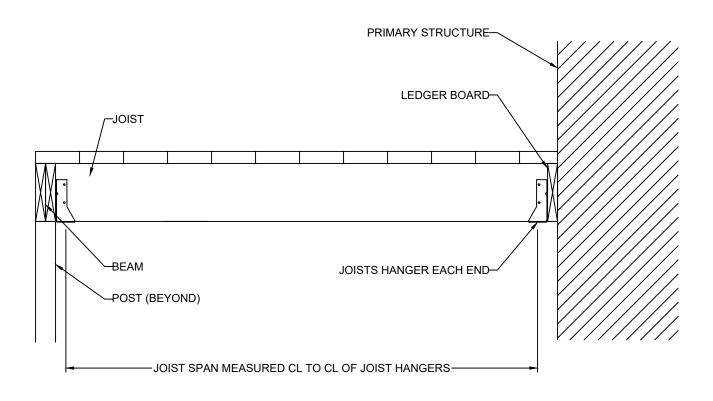


RIDGE SUMMIT, MISSOURI RWR081 TRAN-VO LOT 81, WOODSIDE CLIENT: PFEIFER HOMES, INC LEE'S LOCATION: JOB

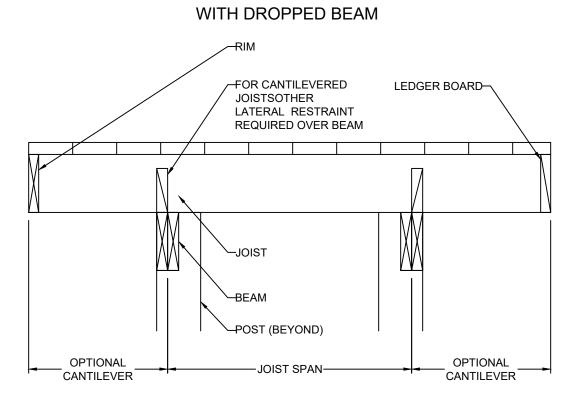


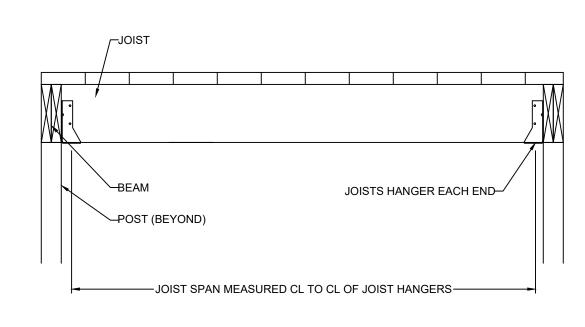






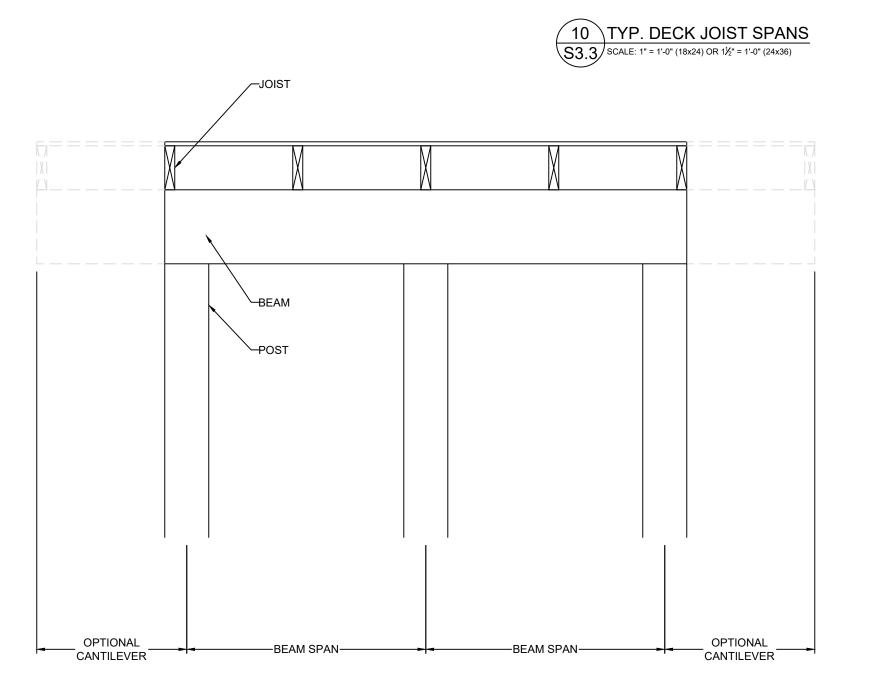
JOISTS WITH FLUSH BEAM

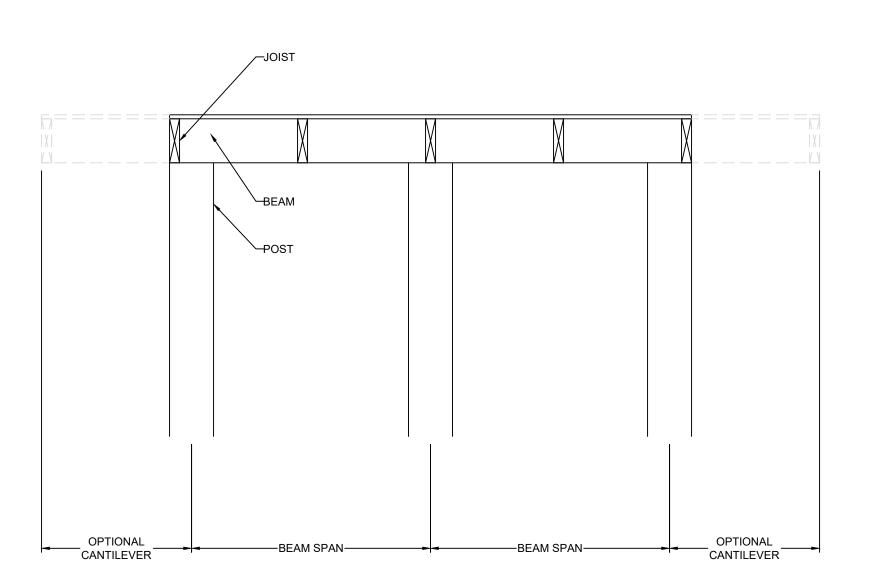




JOISTS WITH FLUSH BEAM

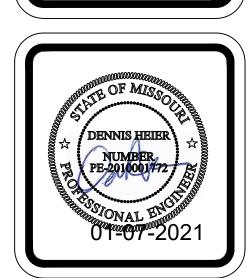






-STRUCTURAL-ENGINEERING, LLC
ENGINEERING, LLC
14718 NW PELIA STREET * PORTLAND, OREGON 97229
OFFICE: 971.645.0901 * MOBILE: 971.645.0901 * EMAIL: PENNIS@VISTASTRUCTURAL.COM

CLIENT: PFEIFER HOMES, INC
JOB TITLE: RWR081 TRAN-VO
LOT 81, WOODSIDE RIDGE 1ST PLAT
LOCATION: LEE'S SUMMIT, MISSOURI



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DROPPED BEAM FLUSH BEAM