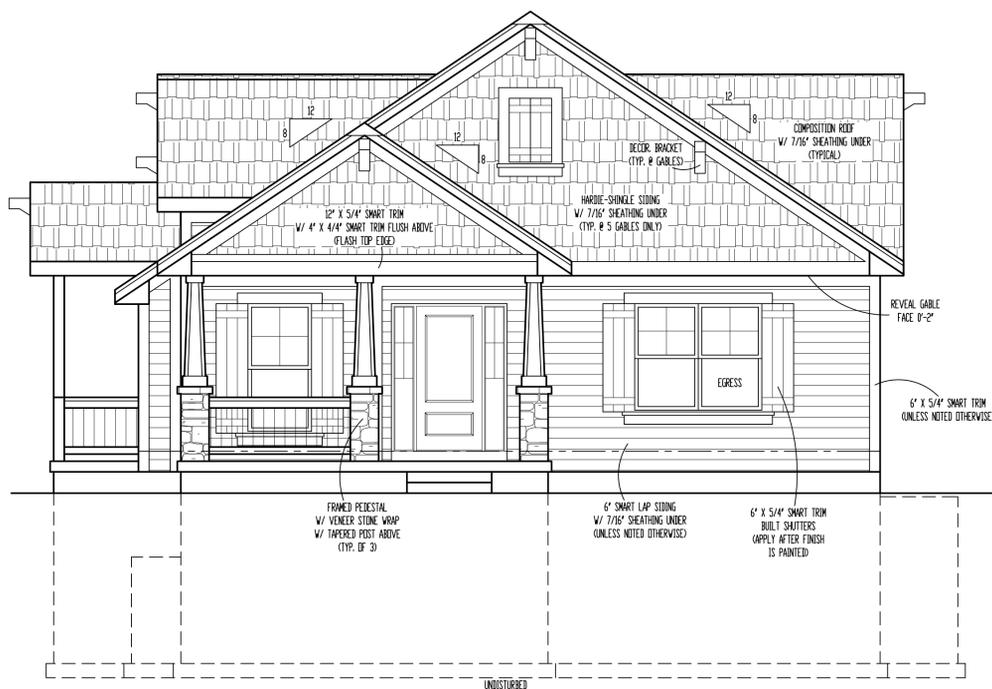
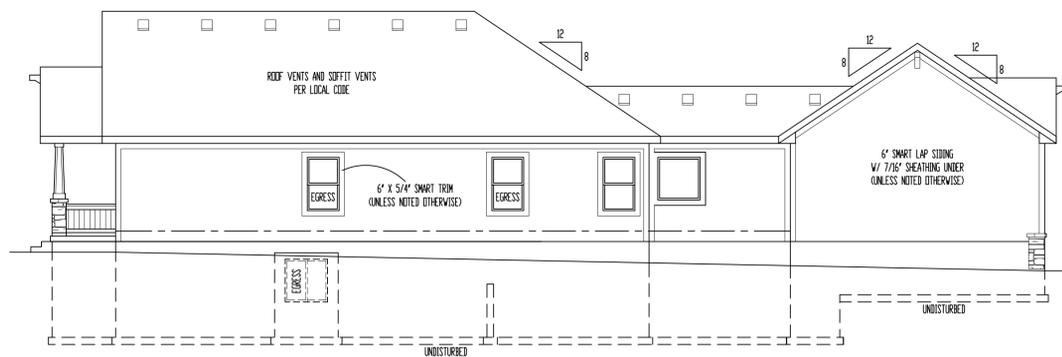


NOTE: GOVERNING CODES &  
GENERAL CONTRACTOR'S WRITTEN SPECIFICATIONS  
TAKE PRECEDENCE OVER THESE PLANS.



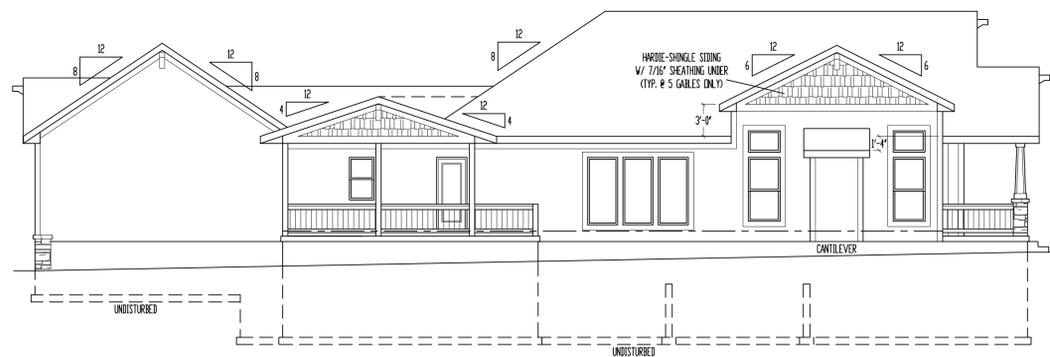
FRONT ELEVATION

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



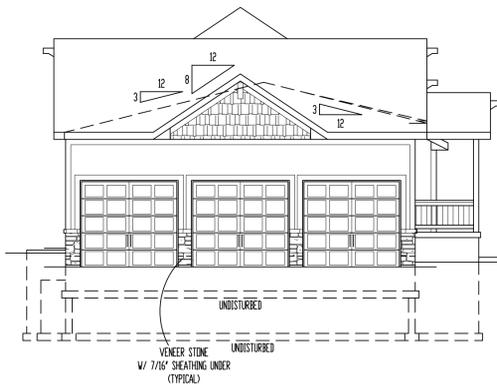
RIGHT ELEVATION

SCALE: 1/8" = 1'-0"



LEFT ELEVATION

SCALE: 1/8" = 1'-0"



REAR ELEVATION

SCALE: 1/8" = 1'-0"

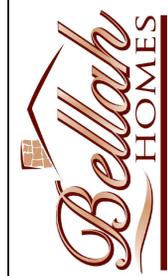
ELEVATIONS:  
SMART-LAP SIDING AND HARDIE-SHAKE SIDING ON ALL ELEVATIONS  
COMPOSITION ROOF SHINGLES  
LOCATE ROOF AND SOFFIT VENTS PER CODE  
ADJUST FOUNDATION TO GRADE

OPTIONAL DECK:  
DECK CONSTRUCTION TO COMPLY WITH MUNICIPALITY'S  
RESIDENTIAL DECK STANDARDS  
2" X 10" @ 12" O.C. FLOOR JOISTS (MAX. SPAN 14'-0")  
2" X 6" CEDAR/TTD. DECKING  
6" X 6" CEDAR/TTD. POSTS  
ALUMINUM SPINDLES  
2" X 6" CEDAR TOP RAIL  
DETERMINE OPTIONAL STAIRS ON SITE

These plans and specifications are protected under federal copyright laws.  
Copyright A.D. 2020 Bellah Homes.

Care and effort have gone into the creation and design of this plan. However, the designer is not an architect or engineer and construction from these plans should not be undertaken without the supervision of a professional engineer or architect. The designer assumes no responsibility of any on site consultation and supervision. Viewpoint Residential Design, LLC and Designer assume no responsibility for any damages, including structural failures, due to any deficiencies, omissions or error in the design or blueprints. Also, site conditions may vary from those illustrated on this plan. Designer does not warrant the suitability of these plans for use on your specific site. Consult your architect to determine the suitability of these plans for your specific site and application.

"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life." (John 3:16)



Site Description:  
**Lot 107, Pergola Park,  
New Longview**

Property Address:  
**3205 SW Mary St.,  
Lee's Summit, Missouri**

Designed for:  
**Paul & Susan  
LILJEGREN**

Plan No:  
**NLV-107**



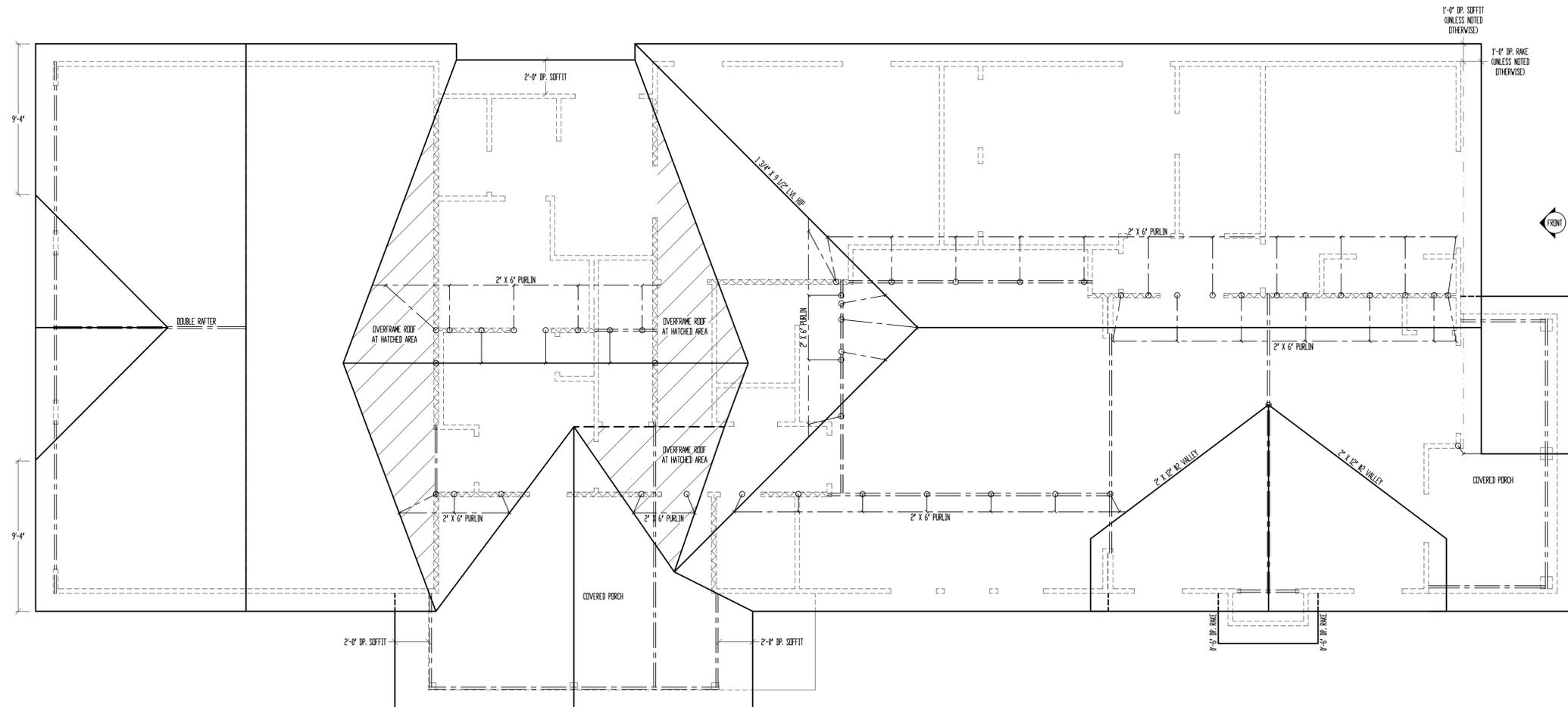
Date: 2-12-2020  
Rev. 1:  
Rev. 2:  
Rev. 3:

Sheet Title:  
**ELEVATIONS**

Sheet No.:  
**A-1** of 4

RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
Victoria Nelson  
03/27/2020

RELEASE FOR  
CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
DEVELOPMENT SERVICES  
LEE'S SUMMIT, MISSOURI  
03/26/2020



# ROOF

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

ROOF AREA	
PITCH	Sq. Ft.
3/12	569
4/12	248
6/12	235
8/12	29.70

ALL RAFTERS SHALL BE 2" X 6" R2 @ 16" O.C., UNLESS NOTED OTHERWISE.  
 FLASHING NOTES:  
 DRIP EDGE, VALLEYS AND FLASHINGS TO BE METAL CLAD.

ROOF NOTES:  
 ROOF DESIGNED FOR LIGHT ROOF COVERING  
 30psf TOTAL LOAD (10psf DL, 20psf LL (S))  
 \* RAFTERS (OEM-FIR, DOUG-FIR, OR EQUAL)  
 SEE SPAN CHARTS BELOW

CODE MINIMUM	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
R2-2x6	R24" O.C.	11'-7"	
R2-2x6	R16" O.C.	14'-2"	
R2-2x8	R16" O.C.	14'-8"	
R2-2x10	R16" O.C.	17'-11"	
R2-2x10	R12" O.C.	17'-11"	
R2-2x10	R8" O.C.	23'-11"	

NOTE: CODE MINIMUM ALLOWS FOR A RAFTER DEFLECTION OF L/180 TOTAL LOAD

HIGHER PERFORMANCE (RECOMMENDED)	RAFTERS	SPACING	MAX HORIZONTAL CLEARSPAN
R2-2x6	R24" O.C.	8'-4"	
R2-2x6	R16" O.C.	9'-3"	
R2-2x8	R16" O.C.	11'-7"	
R2-2x8	R12" O.C.	12'-9"	
R2-2x10	R12" O.C.	14'-3"	
R2-2x10	R8" O.C.	16'-3"	

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

- VALLEYS TO BE 2x10 DEPTH
- ROOF BEARING ARE: UNLESS OTHERWISE NOTED
  - R2- 2x8 UP TO 10/12 PITCH
  - R2- 2x10 OVER 10/12 PITCH
- ALL HIP & VALLEYS ARE: UNLESS OTHERWISE NOTED
  - R2- 2x8 UP TO 10/12 PITCH
  - R2- 2x10 OVER 10/12 PITCH
- PURLINS ARE 2x6 MIN.
  - PURLIN STRUTS ARE AT 4'-0" O.C.
  - PURLIN STRUTS SHALL BE INSTALLED AT NOT LESS THAN A 45 DEGREE ANGLE WITH THE HORIZONTAL.
  - ALL PURLIN STRUTS SHALL HAVE A MAXIMUM UNBRACED LENGTH OF 8'-0"
  - PURLIN STRUTS SHALL BE CONSTRUCTED IN A "T" CONFIGURATION AND PER THE FOLLOWING CHART:

PURLIN STRUT	MAX PURLIN STRUT LENGTH
(T) 2x4	8'-0"
(T) 2x4 & (T) 2x6	12'-0"
(T) 2x6 & (T) 2x8	20'-0"
(T) 2x6 & (T) 2x8	30'-0"
CONSULT ARCHITECT	30'-0"

- ROOF BRACES ARE SAME AS PURLIN BRACES - SPACING, SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE)
- HIP & VALLEY BRACES ARE SAME AS PURLIN BRACES - SPACING, SIZE, CONFIGURATION, & INSTALLATION (SEE PURLIN BRACE NOTES ABOVE)
- VERTICAL BRACE IF NOT IS UNDER HIP OR VALLEY
- SLASH IS TOP END OF BRACE ( / )
- DOT IS BOTTOM OF BRACE ( o )
- DENOTES BEARING WALL
- DENOTES ROOF BRACE
- DENOTES PURLIN
- DENOTES BEARING STRUCTURE

These plans and specifications are protected under federal copyright laws.  
 Copyright A.D. 2020 Bellah Homes.  
 Care and effort have gone into the creation and design of this plan. However, the designer is not an architect or engineer and construction from these plans should not be undertaken without the professional consultation and supervision of a licensed professional architect and Designer. The Designer assumes no responsibility for any damages, including structural failures, due to any deficiencies, omissions or error in the design or blueprints. Also, site conditions may vary from those illustrated on this plan. Designer does not warrant the suitability of these plans for use on your specific site. Consult your architect to determine the suitability of these plans for your specific site and application.

"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life." (John 3:16)



Site Description:  
**Lot 107, Pergola Park, New Longview**  
 Property Address:  
**3205 SW Mary St., Lee's Summit, Missouri**

Designed for:  
**Paul & Susan LILJEGREN**  
 Plan No.:  
**NLV-107**



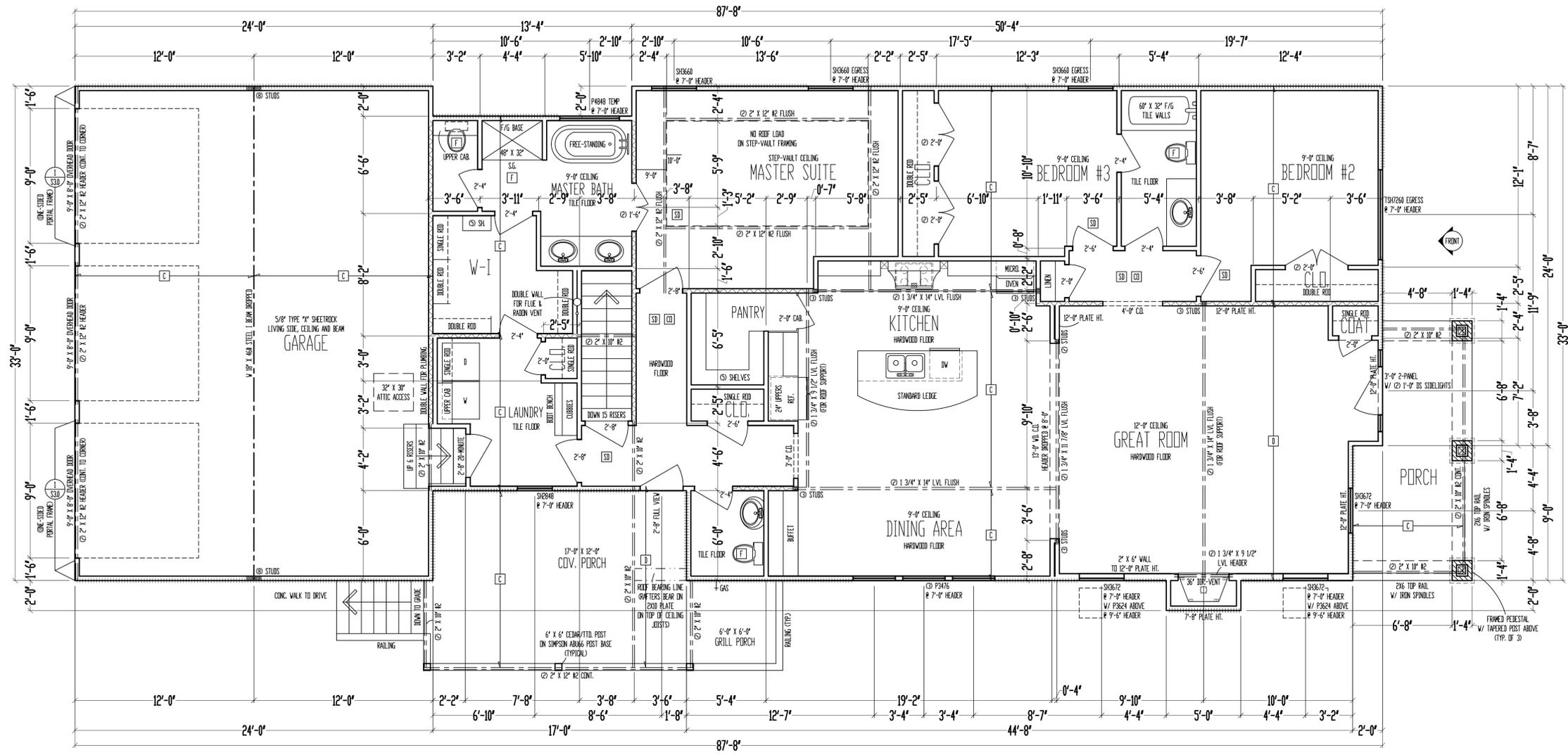
Date: 2-12-2020  
 Rev. 1:  
 Rev. 2:  
 Rev. 3:

Sheet Title:  
**ROOF PLAN**

Sheet No.:  
**A-2** of 4

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI Victoria Nelson 03/27/2020

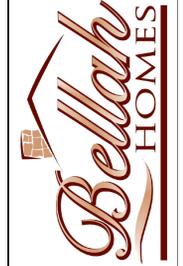
RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/26/2020



These plans and specifications are protected under federal copyright laws.  
Copyright A.D. 2020 Bellah Homes.

Care and effort have gone into the creation and design of this plan. However, the designer is not an architect or engineer and construction from these plans should not be undertaken without the supervision of a professional architect or engineer. Viewpoint Residential Design, LLC, and Designer assume no responsibility for any damages, including structural failures, due to any deficiencies, omissions or error in the design or blueprints. Also, site conditions may vary from those illustrated on this plan. Designer does not warrant the suitability of these plans for use on your specific site. Consult your architect to determine the suitability of these plans for your specific site and application.

"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life." (John 3:16)



Site Description:  
**Lot 107, Pergola Park,  
New Longview**

Property Address:  
**3205 SW Mary St.,  
Lee's Summit, Missouri**

Designed for:  
**Paul & Susan  
LILJEGREN**

Plan Title:  
**NLV-107**



Date: 2-12-2020  
Rev. 1:  
Rev. 2:  
Rev. 3:

Sheet Title:  
**MAIN LEVEL PLAN**

Sheet No.:  
**A-3** of 4

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI Victoria Nelson 03/27/2020

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/26/2020





RESIDENTIAL SEISMIC & WIND ANALYSIS

DETERMINE WEIGHT OF HOUSE:		INPUT		CALCULATED VALUE	
LOCATION		DEAD LOAD (psf)	AREA (ft <sup>2</sup> )	WEIGHT (lbs.)	
ROOF		10	3089	30890	
CEILING		10	3089	30890	
FIRST FLOOR		10	3089	30890	
FIRST FLOOR EXT. WALL DL	WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)	WEIGHT (lbs)	
	245.34	9	9	19872.54	
FIRST FLOOR INT. PARTITION WALL DL		DEAD LOAD (psf)	AREA (ft <sup>2</sup> )	WEIGHT (lbs)	
		6	3089	18534	

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			
SLOPED ROOF	AREA	LOAD	SLOPED ROOF	AREA	LOAD	
	141	1200		476	3830	
VERT. ROOF	207	2573	CUMULATIVE	VERT. ROOF	278	CUMULATIVE
1ST	350	4351	8176	1ST	876.7	10292
			9.7			11.3
			14.2			7.7
			21			7

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area.  
 $q_{t10} = 0.00256K_dK_eK_zV^2$  (ASCE7-10 Velocity Pressure)       $q_{t10, ASD} = 0.6q_{t10}$  (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)

1ST FLOOR TRIBUTARY WEIGHT	71716.27
S <sub>s</sub> (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP)	12.0%
F <sub>a</sub> (from ASCE7 Table 11.4-1)	1.6
S <sub>ps</sub> (= 2/3 * S <sub>s</sub> * F <sub>a</sub> )	0.128
R (from ASCE7 Table 12.2-1)	6.5

SEISMIC SHEAR		From ASCE7 (Eq. 12.8-1):	V (= 1.2 * S <sub>ps</sub> * W / R) (lbs.)
LOCATION			1695
1ST FLOOR			

Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Shear (#/LF)	Code Reference
Exterior (Option #1)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration @ 8" O.C. Edges, 6" O.C. Field For 24" stud spacing, 12" O.C. Field For 16" stud spacing	155	per IBC, Table 2306.3(1)
Exterior (Option #2)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration @ 4" O.C. Edges, 6" O.C. Field For 24" stud spacing, 12" O.C. Field For 16" stud spacing	230	per IBC, Table 2306.3(1)
Exterior (Option #3)	7/16" APA Rated Plywood/OSB	1-1/2" 16ga. Staples w/ 1" penetration @ 3" O.C. Edges, 6" O.C. Field For 24" stud spacing, 12" O.C. Field For 16" stud spacing	310	per IBC, Table 2306.3(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 (Option #5)	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 (Option #6)	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	

EXTERIOR SHEATHING OPTION FOR FIRST FLOOR	6	WIDTH OF 1ST STORY (FT.)	35	WIDTH OF 2ND STORY (FT.)	
EXTERIOR SHEATHING OPTION FOR BASEMENT WALLS	6	DEPTH OF 1ST STORY (FT.)	87.67	DEPTH OF 2ND STORY (FT.)	
		BACK WALL OF GARAGE (FT.)	0		
		GAR. WALL: 1=F-B, 2=S-S	2		

	SEISMIC				WIND			
	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)	FRONT-TO-BACK	RESISTANCE (lbs.)	SIDE-TO-SIDE	RESISTANCE (lbs.)
1ST FLOOR	80	37600	32.5	15275	80	52640	32.5	21385

	ADDITIONAL RESISTANCE REQUIRED		Anchor Bolt Spacing (in.)		16d Nail Spacing req'd at bottom plate (in.)	
	SEISMIC	WIND	diameter (in.)	Shear value (per NDS)	1st Floor F-B	1st Floor S-S
1ST FLOOR FRONT-TO-BACK	0	0	0.5	944	58	11
1ST FLOOR SIDE-TO-SIDE	0	0	388.7	72.8		
BASEMENT FRONT-TO-BACK	0	0				
BASEMENT SIDE-TO-SIDE	0	0				

	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?
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

**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							
ROOF PITCH (MAX)	X/12	DEGREES	PITCH OF 6 OR LESS: EOH-13.3, E-7.2, G-5.2				
	8	33.7	ASCE 7				
	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIFT PER FT* (LBS)			
OVERHANG	1	-1.08	247.34	-1.08			
	TOTAL AREA (FT <sup>2</sup> )	ZONE E AREA (FT <sup>2</sup> )	ZONE G AREA (FT <sup>2</sup> )	PRESSURE ZN. E (PSF)	PRESSURE ZN. G (PSF)	TOTAL FORCE (LBS)	FORCE PER LINEAL FT @ PERIMETER (LBS)
MAIN ROOF**	3068.45	-168	3236.45	-1.08	-0.36	-984	-4.0
*ALONG PERIMETER	TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)				-5.1	UPLIFT OK	
**INSIDE EXTERIOR WALLS	RESISTANCE DUE TO DEAD WEIGHT & (3) 16d TOENAILS				251.6		

**NOTE FOR CONSTRUCTION:**  
 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**

**VISTA ENGINEERING, LLC**  
 14718 NW DELIA STREET \* PORTLAND, OREGON 97229  
 OFFICE: 971.645.0901 \* MOBILE: 971.645.0901 \*  
 \* DENNIS@VISTASTRUCTURAL.COM \* VISTASTRUCTURAL.COM

CLIENT: BELLA HOMES  
 JOB TITLE: NLY107 LILJEGREN  
 LOT 107, PERGOLA PARK, NEW LONGVIEW  
 LOCATION: LEE'S SUMMIT, MISSOURI

NO.	DATE	REVISION	BY

DRAWING TITLE  
**STRUCTURAL CALCULATIONS**

ENGINEER: DMH      CHECKED BY: DMH  
 JOB NO. 2453      DRAWN BY: DMH  
 DATE: 2-12-2020  
 SHEET NUMBER

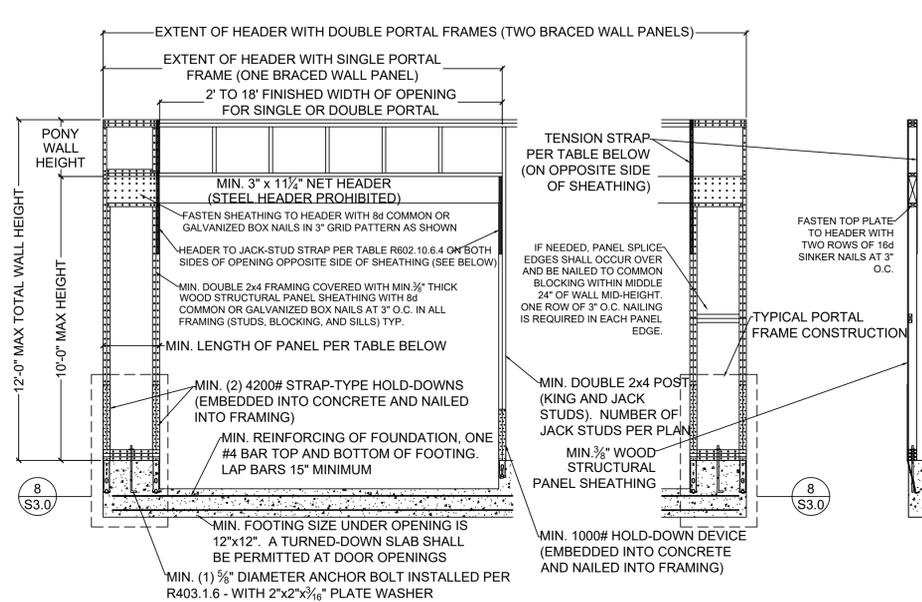
# S1.1

RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 03/26/2020

RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 Victoria Nelson  
 03/27/2020





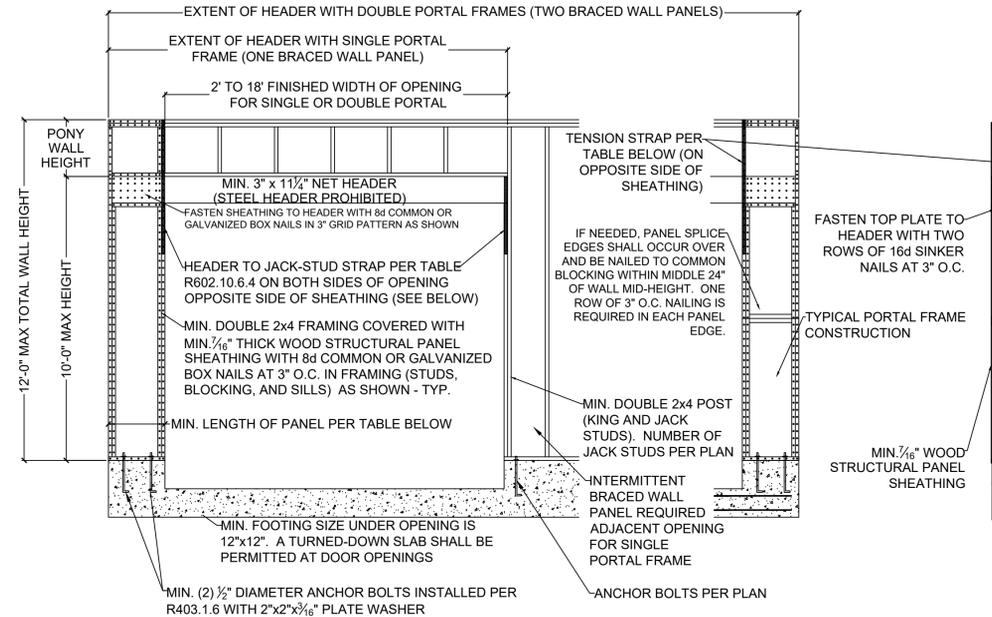


**1 METHOD PFH (PORTAL FRAME WITH S3.0 HOLD-DOWNS) - PER FIGURE IRC R602.10.6.2**

SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)

**MINIMUM PANEL LENGTH FOR DETAIL 1/S3.0 (INCHES)**

	WALL HEIGHT				
	8 FEET	9 FEET	10 FEET	11 FEET	12 FEET
SUPPORTING ROOF ONLY	16	16	16	18	20
SUPPORTING ONE STORY AND ROOF	24	24	24	27	29



**2 METHOD PFG (PORTAL FRAME AT GARAGE S3.0 DOOR) - PER FIGURE IRC R602.10.6.3**

SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)

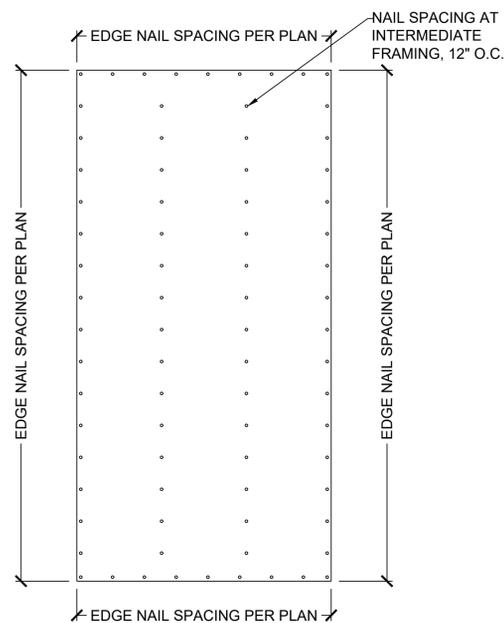
**MINIMUM PANEL LENGTH FOR DETAIL 2/S3.0 (INCHES)**

WALL HEIGHT				
8 FEET	9 FEET	10 FEET	11 FEET	12 FEET
24	27	30	33 <sup>a</sup>	36 <sup>a</sup>

a. Maximum opening height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height may be increased to 12 feet with pony wall

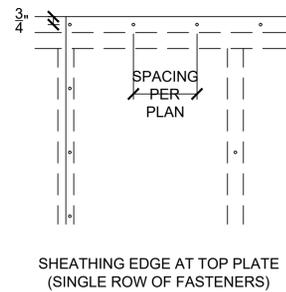
TENSION STRAP REQUIRED FOR HEADER TO JACK STUD FOR DETAILS 1/S3.0 AND 2/S3.0 (FROM TABLE R602.10.6.4)

MAX GARAGE OPENING (FT.)	PONY WALL WALL HT. (FT.)	REQUIRED SIMPSON STRAP	MIN. STRAP END LENGTH	NAILS REQUIRED IN EACH STRAP END LENGTH
18'-0"	0'-0"	CS20	0'-9"	(7) 8d
9'-0"	1'-0"	CS20	0'-9"	(7) 8d
18'-0"	1'-0"	CS14	1'-4"	(15) 8d
9'-0"	2'-0"	CS18	0'-11"	(9) 8d
18'-0"	2'-0"	CMSTC16	1'-8"	(25) 16d SINKER
9'-0"	4'-0"	CMSTC16	1'-8"	(25) 16d SINKER
16'-0"	4'-0"	CMST14	2'-6"	(33) 10d



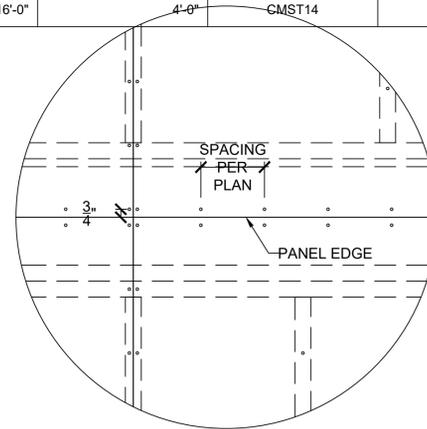
**3 EXTERIOR WALL SHEATHING S3.0 PANEL ATTACHMENT**

SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



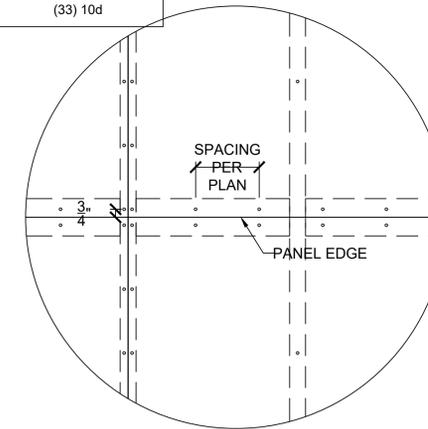
**4 SHEATHING EDGE AT TOP AND BOTTOM PLATES S3.0**

SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



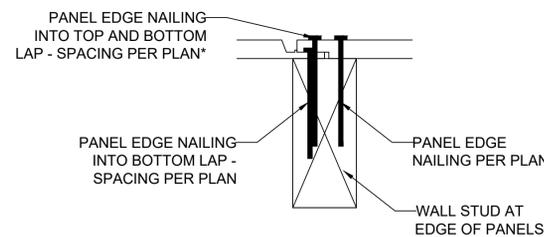
**5 SHEATHING EDGE AT HORIZONTAL FRAMING MEMBER S3.0**

SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



**6 SHEATHING EDGE AT PANEL SPLICE ACROSS STUDS S3.0**

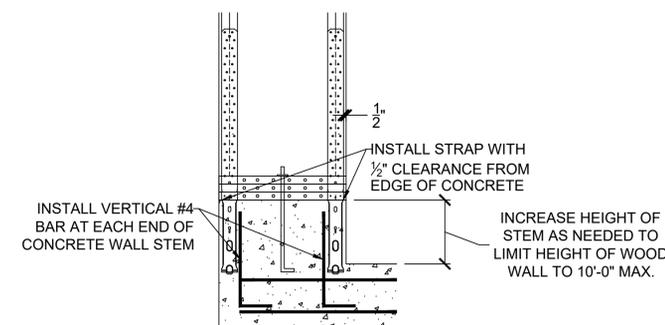
SCALE: 1" = 1'-0" (18x24) OR 1 1/2" = 1'-0" (24x36)



\*NOTE: NAILING INTO TOP AND BOTTOM LAP IS IN ADDITION TO NAILING REQUIRED INTO BOTTOM LAP. FOR EXAMPLE, IF PLAN CALLS FOR NAILS @ 6" O.C. AT EDGES, BOTTOM LAP SHALL BE FASTENED AT 6" O.C. AND, IN ADDITION, NAILING SHALL ALSO BE INSTALLED THROUGH TOP AND BOTTOM LAP @ 6" O.C. STAGGERED 3" FROM BOTTOM LAP NAILING

**7 FASTENING INSTRUCTIONS FOR S3.0 SHIPLAP PANEL SHEATHING**

SCALE: 4" = 1'-0" (18x24) OR 6" = 1'-0" (24x36)



**8 GARAGE HOLD-DOWN S3.0 STRAP INSTALLATION**

SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/26/2020



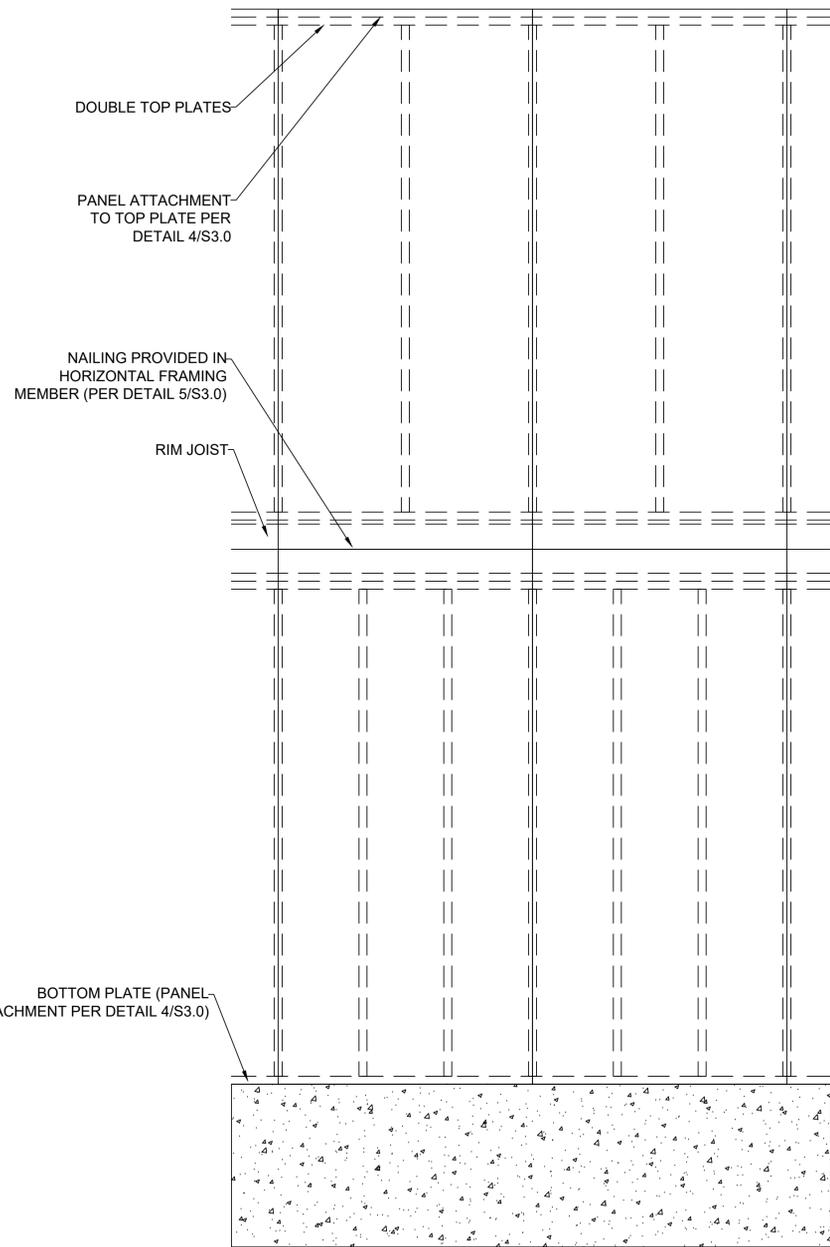
CLIENT: BELLA HOMES  
 JOB TITLE: NLV107 LILJEGREN  
 LOT 107, PERGOLA PARK, NEW LONGVIEW  
 LOCATION: LEE'S SUMMIT, MISSOURI



NO.	DATE	REVISION	BY

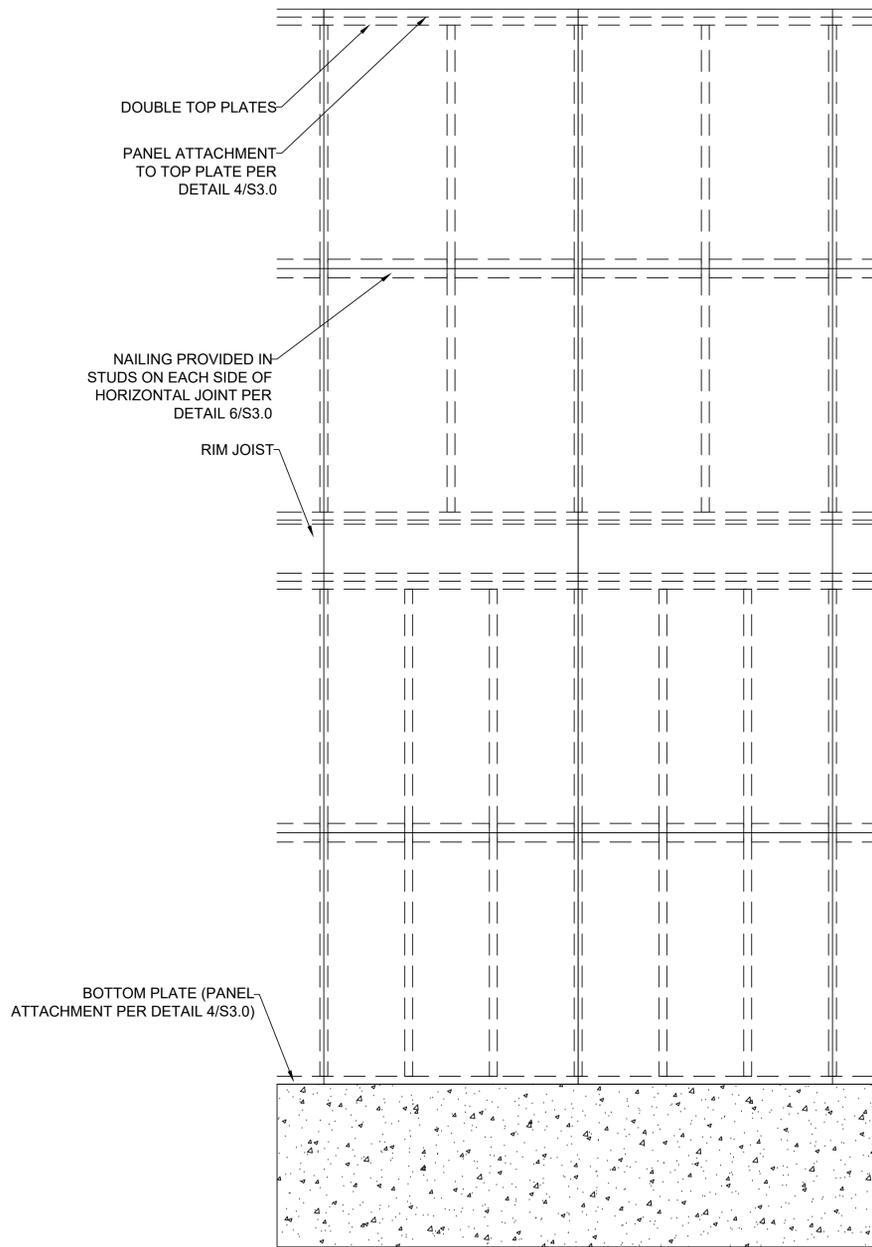
DRAWING TITLE  
**FRAMING DETAILS**

ENGINEER: DMH CHECKED BY: DMH  
 JOB NO. 2453 DRAWN BY: DMH  
 DATE: 2-12-2020  
 SHEET NUMBER  
**S3.0**



**1** EXTERIOR WALL SHEATHING PANEL ATTACHMENT  
**S3.1** PANEL SPLICE OVER HORIZONTAL FRAMING MEMBER

SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



**2** EXTERIOR WALL SHEATHING PANEL ATTACHMENT  
**S3.1** PANEL SPLICE OCCURRING ACROSS STUDS

SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)

**3** EXTERIOR WALL SECTION  
**S3.1** SCALE: 3/4" = 1'-0"

**VISTA**  
 STRUCTURAL  
 ENGINEERING, LLC

14718 NW DELIA STREET \* PORTLAND, OREGON 97229  
 OFFICE: 971.645.0901 \* MOBILE: 971.645.0901 \*  
 \* DENNIS@VISTASTRUCTURAL.COM \* VISTASTRUCTURAL.COM

CLIENT: BELLA HOMES  
 JOB TITLE: NLV107 LILJEGREN  
 LOT 107, PERGOLA PARK, NEW LONGVIEW  
 LOCATION: LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI  
 DENNIS HEIER  
 NUMBER: PE-201801772  
 PROFESSIONAL ENGINEER  
 2-12-2020

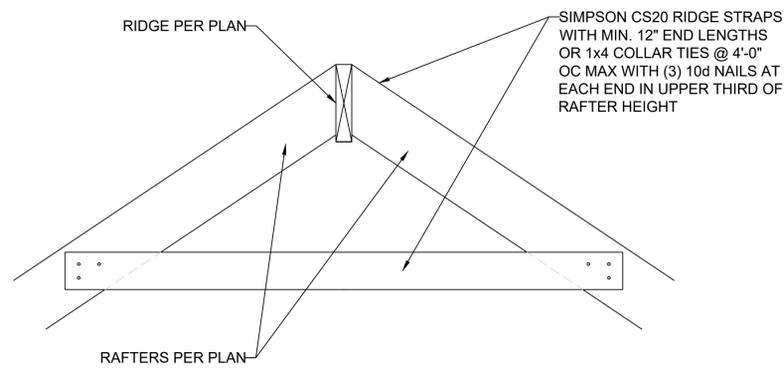
NO.	DATE	REVISION	BY

DRAWING TITLE  
**FRAMING  
 DETAILS**

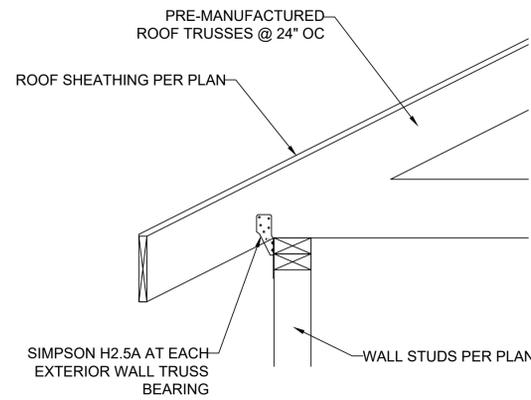
ENGINEER: DMH CHECKED BY: DMH  
 JOB NO: 2453 DRAWN BY: DMH  
 DATE: 2-12-2020  
 SHEET NUMBER  
**S3.1**

RELEASE FOR  
 CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 Victoria Nelson  
 03/27/2020

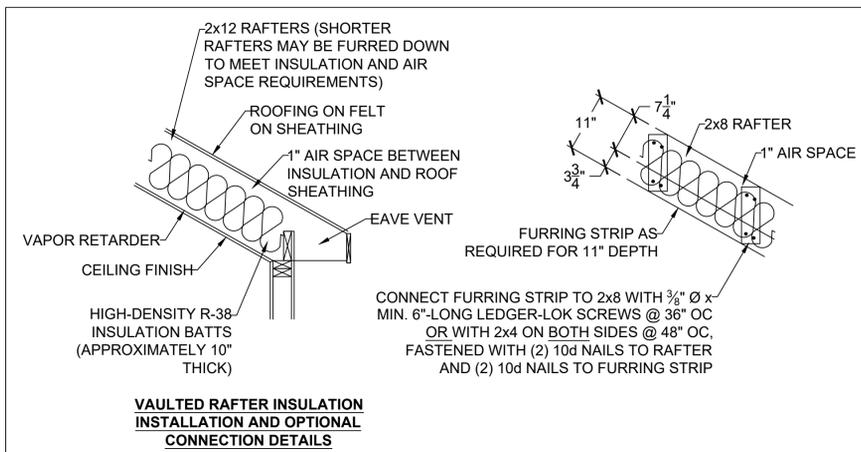
RELEASE FOR  
 CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 03/26/2020



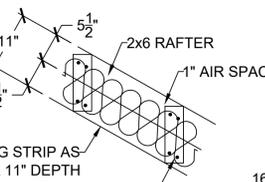
**1 RIDGE FRAMING DETAIL**  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



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

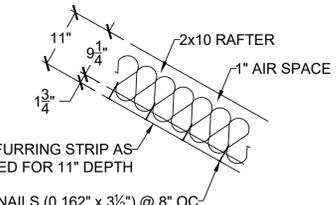


**VAULTED RAFTER INSULATION INSTALLATION AND OPTIONAL CONNECTION DETAILS**

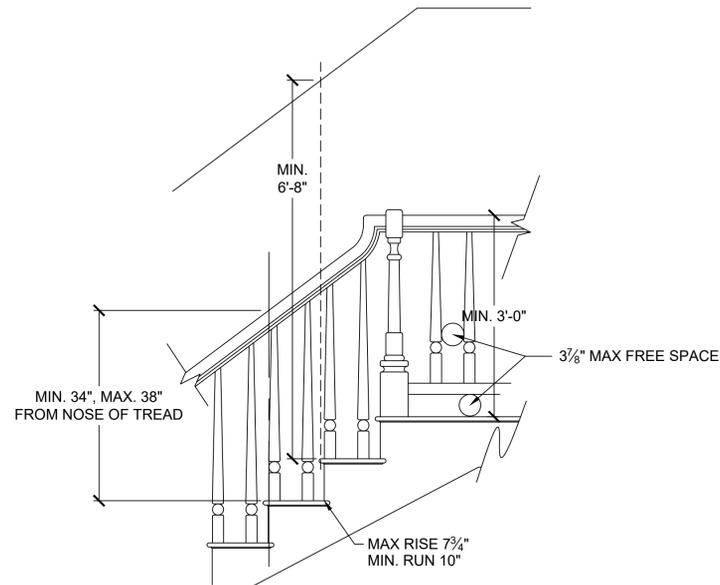


CONNECT FURRING STRIP TO 2x6 WITH 2x4 ON BOTH SIDES @ 48" OC. FASTENED WITH (2) 10d NAILS TO RAFTER AND (2) 10d NAILS TO FURRING STRIP

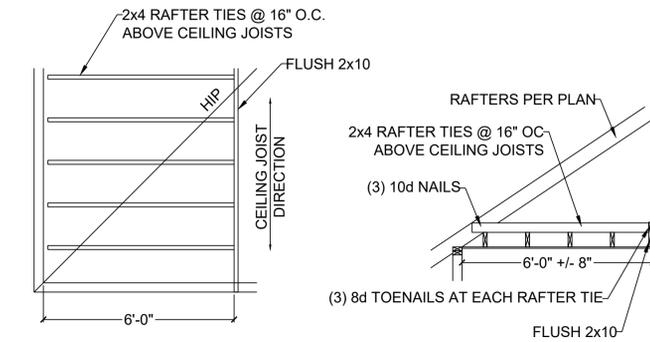
**3 VAULTED RAFTER INSULATION DETAILS**  
S3.2 SCALE: 3/4" = 1'-0"



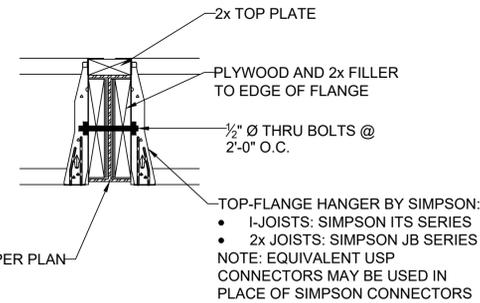
CONNECT FURRING STRIP TO 2x10 WITH 2x4 ON BOTH SIDES @ 48" OC. FASTENED WITH (2) 10d NAILS TO RAFTER AND (2) 10d NAILS TO FURRING STRIP



**4 STAIR AND HANDRAIL/GUARDRAIL DETAIL**  
S3.2 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



**5 RAFTER TIES AT CEILING JOISTS PERP. TO RAFTERS**  
S3.2 SCALE: 1/2" = 1'-0" (18x24) OR 3/4" = 1'-0" (24x36)



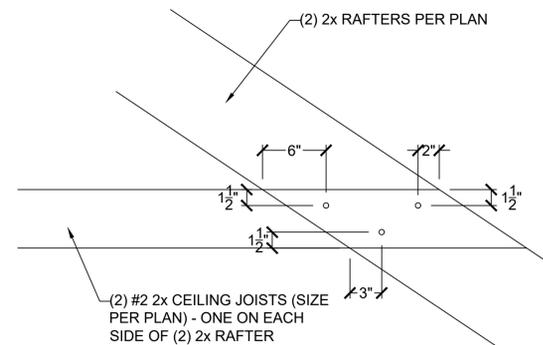
**7 FLOOR JOIST TO FLUSH STEEL BEAM DETAIL**  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)

HEIGHT (FT.)	SPACING (INCHES O.C.)			
	24	16	12	8
SUPPORTING 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
SUPPORTING ONE FLOOR AND A ROOF				
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
SUPPORTING TWO FLOORS AND A ROOF				
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

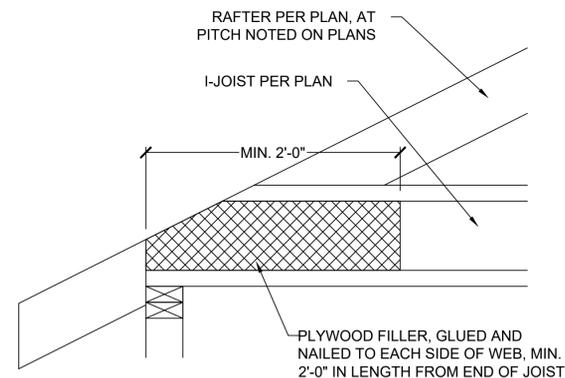
NOTES:  
1) DR = DESIGN REQUIRED  
2) UTILITY, STANDARD, STUD AND #3 GRADE LUMBER OF ANY SPECIES ARE NOT PERMITTED  
3) THIS TABLE DOES NOT APPLY FOR STUDS SUPPORTING MEMBERS WITH A TRIB. LENGTH GREATER THAN 6'-0"

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

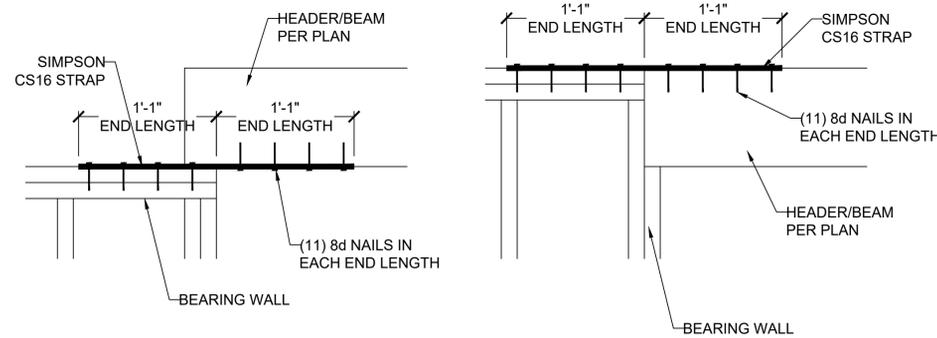
NOTE: USE AT ALL FLOOR OPENINGS GREATER THAN 30" ABOVE GRADE OR THE FLOOR BELOW AND/OR STAIRS WITH THREE OR MORE RISERS



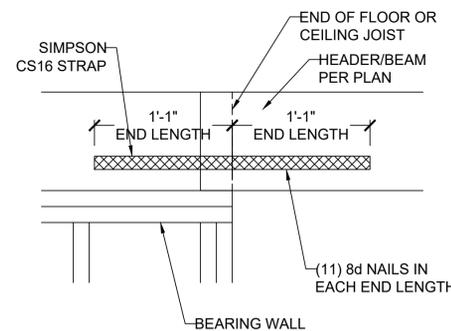
**6 FIELD-CONSTRUCTED A-FRAME DETAIL**  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



**9 COPED I-JOIST REINFORCEMENT**  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



**10 HEADER/BEAM CONNECTION OPTIONS AT OUTDOOR/OPEN SPACE**  
S3.2 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



**VISTA ENGINEERING, LLC**  
14718 NW DELIA STREET \* PORTLAND, OREGON 97229  
OFFICE: 971.645.0901 \* MOBILE: 971.645.0901 \*  
DENNIS@VISTASTRUCTURAL.COM \* VISTASTRUCTURAL.COM

CLIENT: BELLA HOMES  
JOB TITLE: NLY107 LILJEGREN LOT 107, PERGOLA PARK, NEW LONGVIEW  
LOCATION: LEE'S SUMMIT, MISSOURI

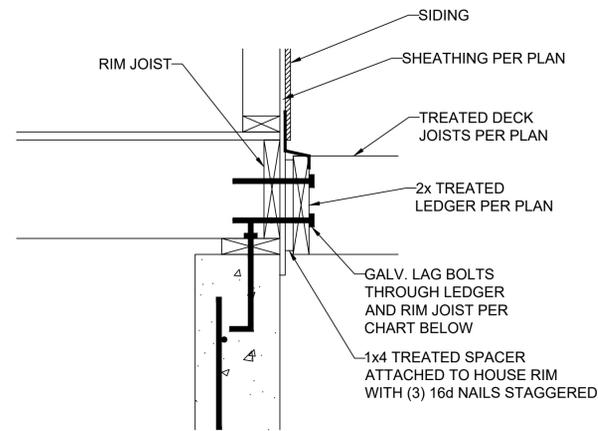
STATE OF MISSOURI  
DENNIS HEIER  
NUMBER: PE-2018001772  
PROFESSIONAL ENGINEER  
2-12-2020

NO.	DATE	REVISION	BY

DRAWING TITLE  
**FRAMING DETAILS**

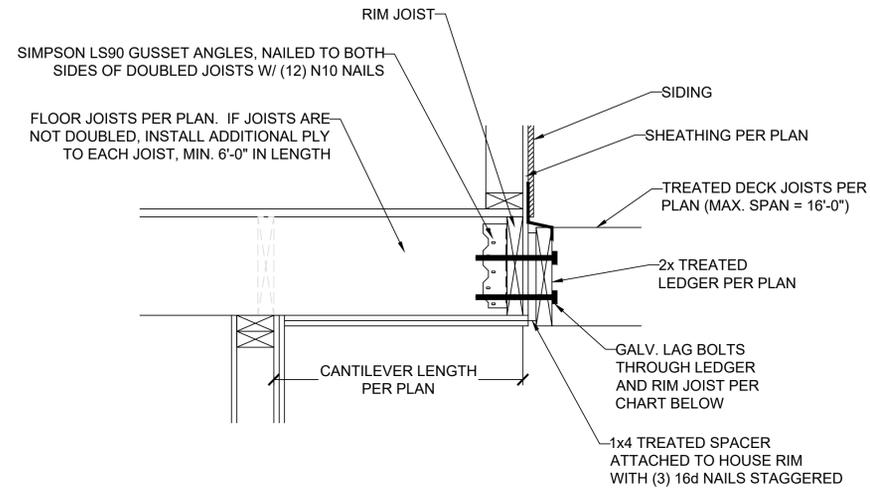
ENGINEER: DMH CHECKED BY: DMH  
JOB NO.: 2453 DRAWN BY: DMH  
DATE: 2-12-2020  
SHEET NUMBER

**S3.2**



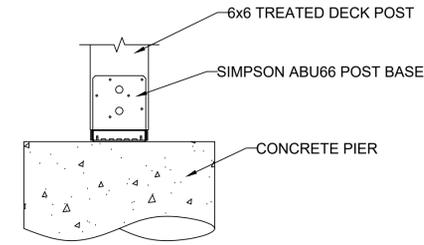
DECK LEDGER ATTACHMENT GUIDE

DECK JOIST SPAN	1/2" Ø GALV. LAG OR 3/8" Ø LEDGER-LOK SPACING
10'-0" OR LESS	16" OC
10'-0" - 13'-11"	12" OC OR @ 16" OC DOUBLED EVERY OTHER
14'-0" - 18'-0"	8" OC OR @ 16" OC DOUBLED



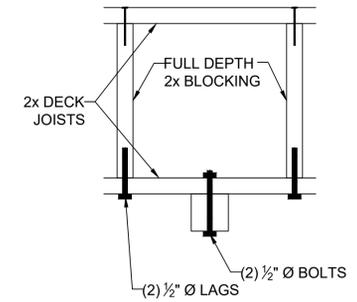
2 CANTILEVER WITH DECK ATTACHMENT

S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



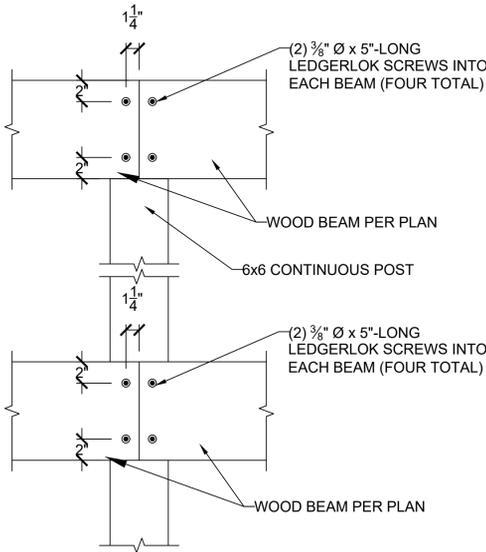
3 DECK POST BASE

S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



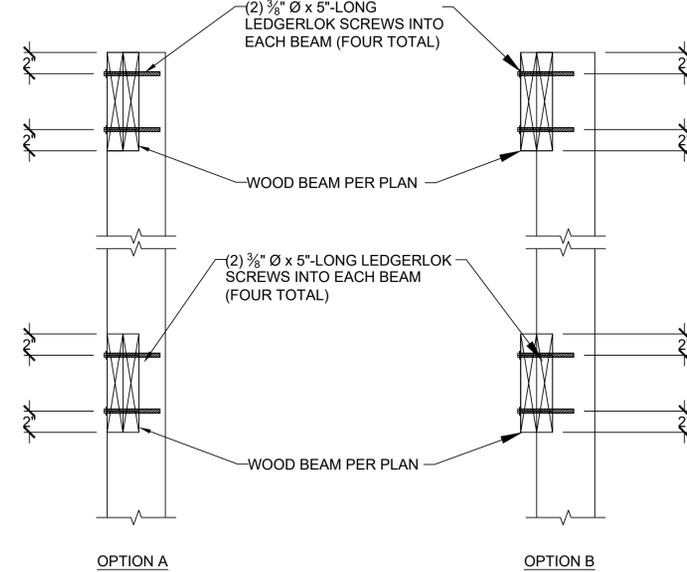
4 REINF. POST CONNECTIONS

S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



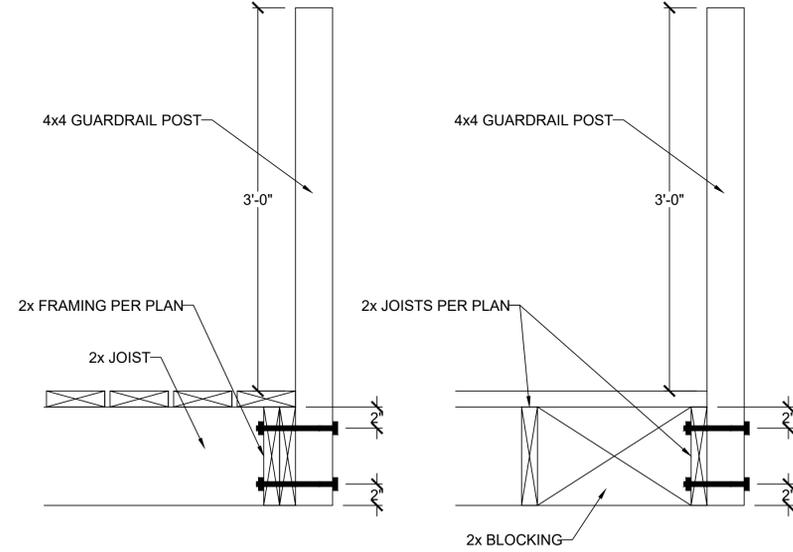
1 LEDGER ATTACHMENT

S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



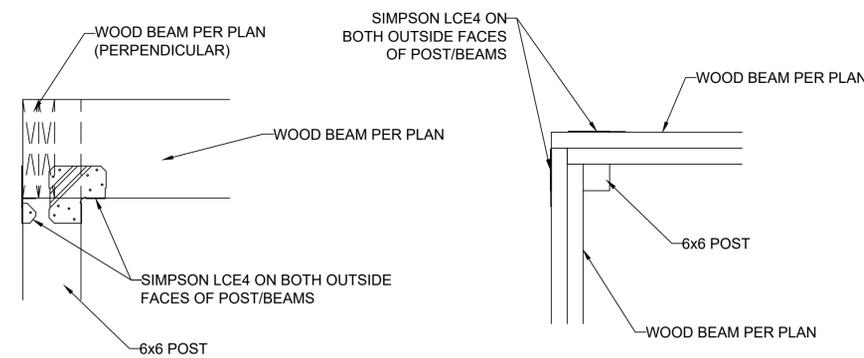
6 GUARDRAIL CONNECTION

S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



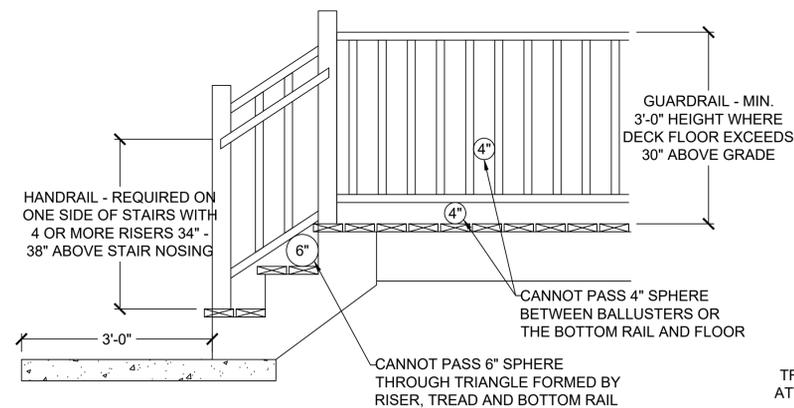
5 LET-IN (COVERED) DECK BEAM CONNECTION

S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



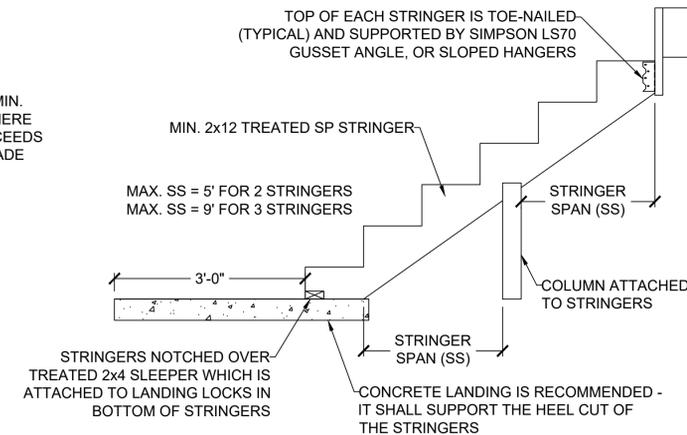
7 ALTERNATE COVERED DECK/PORCH INTERSECTION CORNER BEAM CONNECTION

S3.3 SCALE: 1" = 1'-0" (18x24) OR 1/2" = 1'-0" (24x36)



8 GUARDRAIL DETAIL

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



9 STAIR STRINGER DETAIL (MAX. 5' STAIR WIDTH)

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

**VISTA**  
ENGINEERING, LLC

14718 NW DELIA STREET \* PORTLAND, OREGON 97229  
OFFICE: 971.645.0901 \* MOBILE: 971.645.0901 \*  
DENNIS@VISTASTRUCTURAL.COM \* VISTASTRUCTURAL.COM

CLIENT: BELLA HOMES  
JOB TITLE: NLV107 LILJEGREN LOT 107, PERGOLA PARK, NEW LONGVIEW  
LOCATION: LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI  
DENNIS HEIER  
NUMBER: PE-2018001772  
PROFESSIONAL ENGINEER  
2-12-2020

NO.	DATE	REVISION	BY

DRAWING TITLE  
**FRAMING DETAILS**

ENGINEER: DMH CHECKED BY: DMH  
JOB NO.: 2453 DRAWN BY: DMH  
DATE: 2-12-2020  
SHEET NUMBER

**S3.3**

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI Victoria Nelson 03/27/2020

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/26/2020