



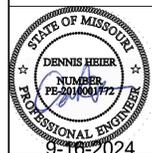
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"For God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life" (John 3:16).



Site Description:  
**Lot 88, Pergola Park,  
 New Longview**  
 Street Address:  
**1025 SW Armie St.,  
 Lee's Summit, Missouri**

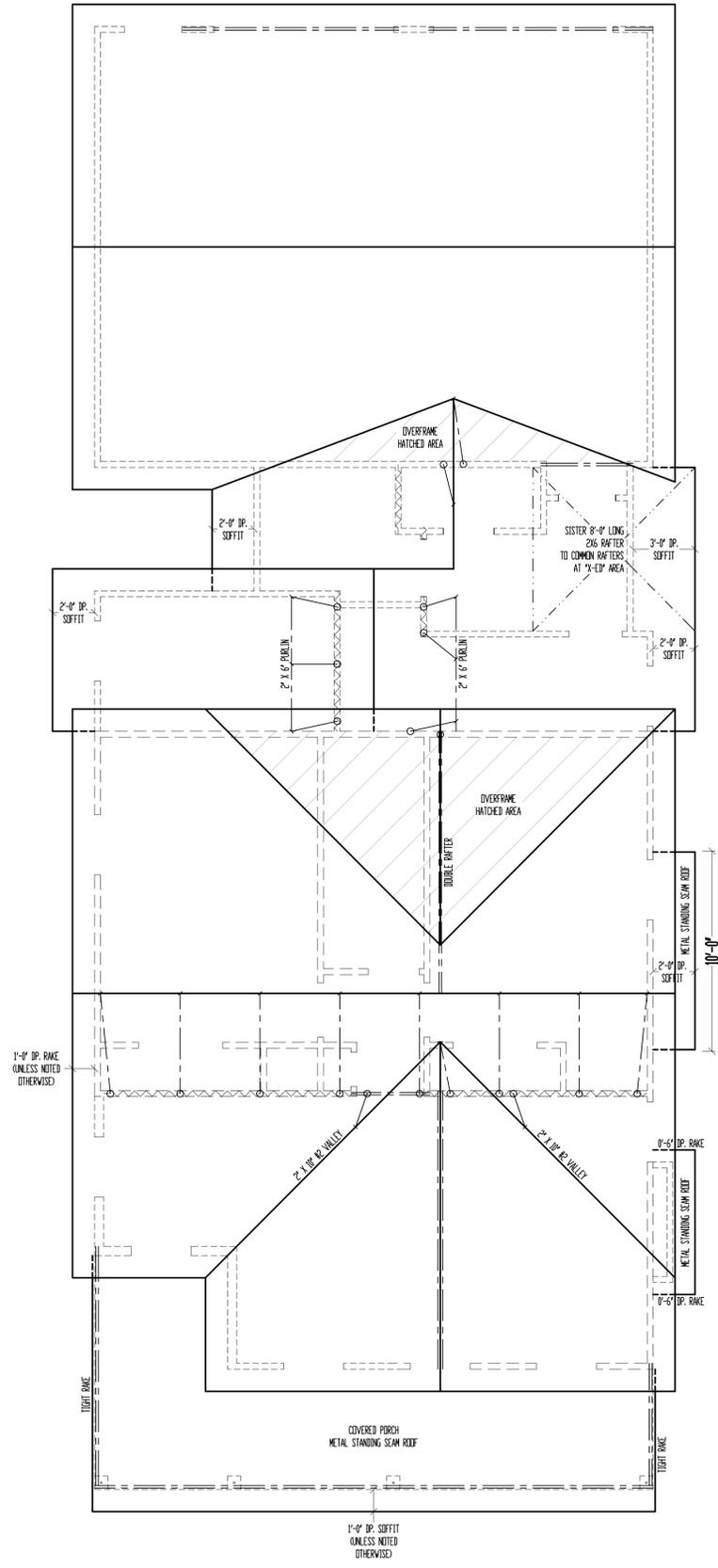
Drawing Title:  
**PGP088 Spec**  
 The NORTHAMPTON (Revised)



Date: 10 - 14 - AD 2022  
 Rev. 1: 9 - 16 - AD 2024  
 Rev. 2:  
 Rev. 3:

Sheet Title:  
**ROOF PLAN**

Sheet No.:  
**A-2** of 5



# ROOF

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

■ ALL RAFTERS SHALL BE 2" X 6" @ 16" O.C., UNLESS NOTED OTHERWISE.

FLASHING NOTE:  
 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))

■ RAFTERS (OEM-FIR, DOUG-FIR, OR EQUAL)  
 SEE SPAN CHARTS BELOW

CODE MINIMUM

RAFTERS	SPACING	MAX. HORIZONTAL CLEARSPAN
R2-2x6	@24" O.C.	11'-7"
R2-2x6	@16" O.C.	14'-2"
R2-2x8	@24" O.C.	14'-8"
R2-2x8	@16" O.C.	17'-11"
R2-2x10	@24" O.C.	17'-10"
R2-2x10	@16" O.C.	21'-11"

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

HIGHER PERFORMANCE (RECOMMENDED)

RAFTERS	SPACING	MAX. HORIZONTAL CLEARSPAN
R2-2x6	@24" O.C.	8'-4"
R2-2x6	@16" O.C.	9'-9"
R2-2x8	@24" O.C.	11'-3"
R2-2x8	@16" O.C.	12'-9"
R2-2x10	@24" O.C.	14'-3"
R2-2x10	@16" O.C.	16'-3"

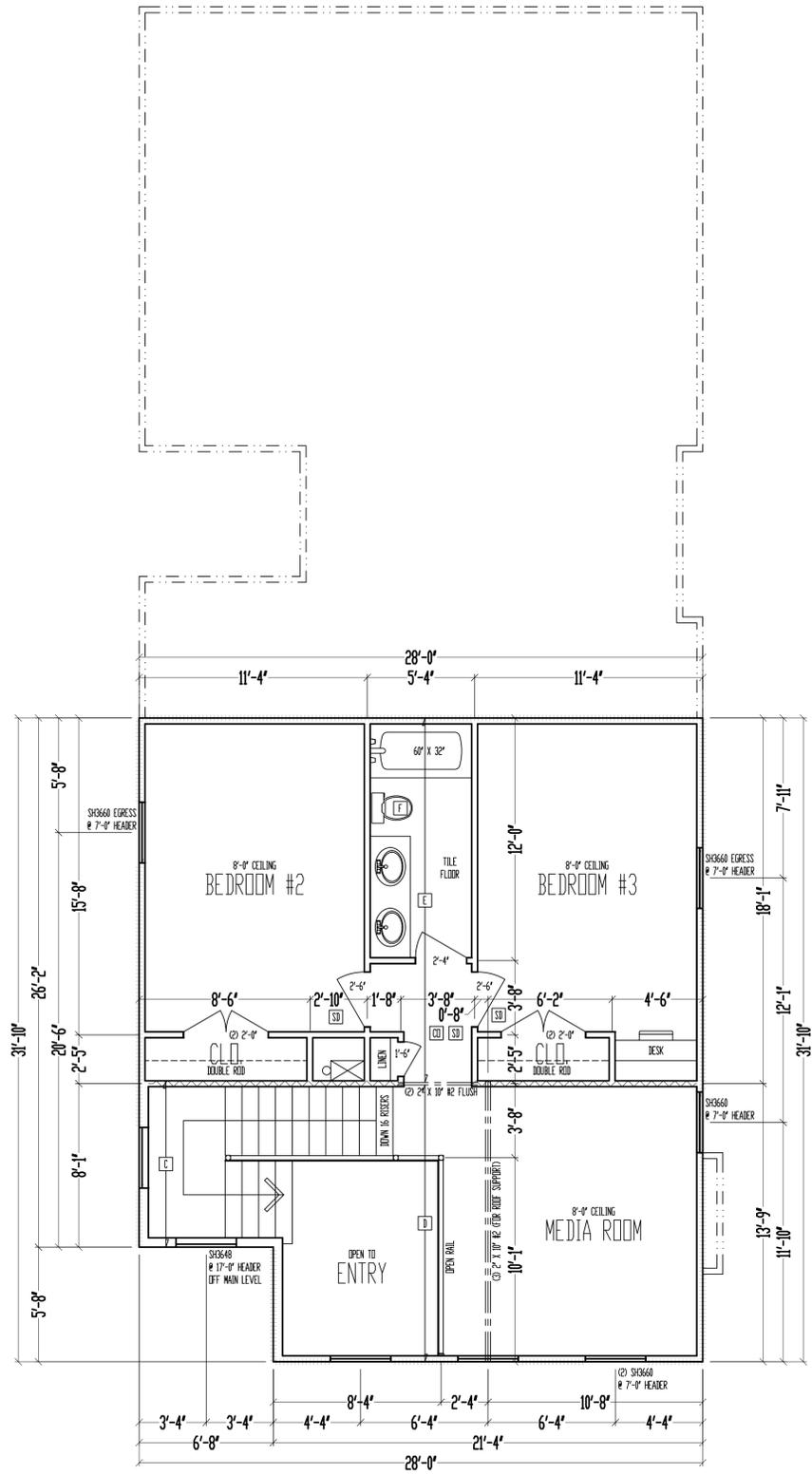
DEFLECTION = L/360 LIVE LOAD, L/240 TOTAL LOAD

- VALUITS TO BE 2x8 DEPTH
- RIDGE BOARDS ARE (UNLESS OTHERWISE NOTED)
  - R2-2x8 OVER 10/12 PITCH
  - R2-2x8 OVER 12/12 PITCH
- ALL HIP & VALLEY'S ARE (UNLESS OTHERWISE NOTED)
  - R2-2x6 UP TO 10/12 PITCH
  - R2-2x8 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 UNBRAZED LENGTH OF 8'-0"
  - PURLINS STRUTS SHALL BE CONSTRUCTED IN A "I" CONFIGURATION AND PER THE FOLLOWING CHART:

PURLIN STRUT	MAX PURLIN STRUT LENGTH
① 2x4	8'-0"
② 2x6 & ③ 2x6	12'-0"
④ 2x6 & ⑤ 2x8	20'-0"
⑥ 2x6 & ⑦ 2x8	30'-0"
CONSULT ARCHITECT	30'-0"

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





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

\*\*\*\*\* WALL BRACING PER FRAMING NOTE #1 AND PER CALCULATIONS ON SHEET S11.

**FRAMING NOTES**

1. MAIN LEVEL EXTERIOR WALLS SHALL BE SHEATHED W/ 7/16" OSB. APA PANELS W/ 8@ COMMON NAILS @ 16" O.C. AT EDGES & @ 12" O.C. IN THE FIELD. SMART PANELS, OR EQUAL, INSTALLED PER MANUFACTURERS' SPECIFICATIONS.
2. ===== = 6@ 1/2" MIN. EXPOSURE OVER STUDS SPACED 24" MAX FASTENED W/ NO. 6 - 1 1/4" TYPE W OR S DRYWALL SCREWS @ 7" O.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" X 10" #2 HEADER AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
5. LOW TIES @ 4'-0" O.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, AND 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 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" O.C., UNLESS NOTED OTHERWISE.
12. EXTERIOR WALL BOTTOM PLATES SHALL BE NAILED TO FRAMING BELOW WITH 16@ COMMON NAILS @ 8" O.C. MAX. (WHERE APPLICABLE).

JOIST SCHEDULE	
D	2" X 6" #2 CEILING JOIST @ 16" O.C.
E	2" X 8" #2 CEILING JOIST @ 16" O.C.

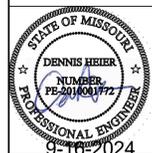
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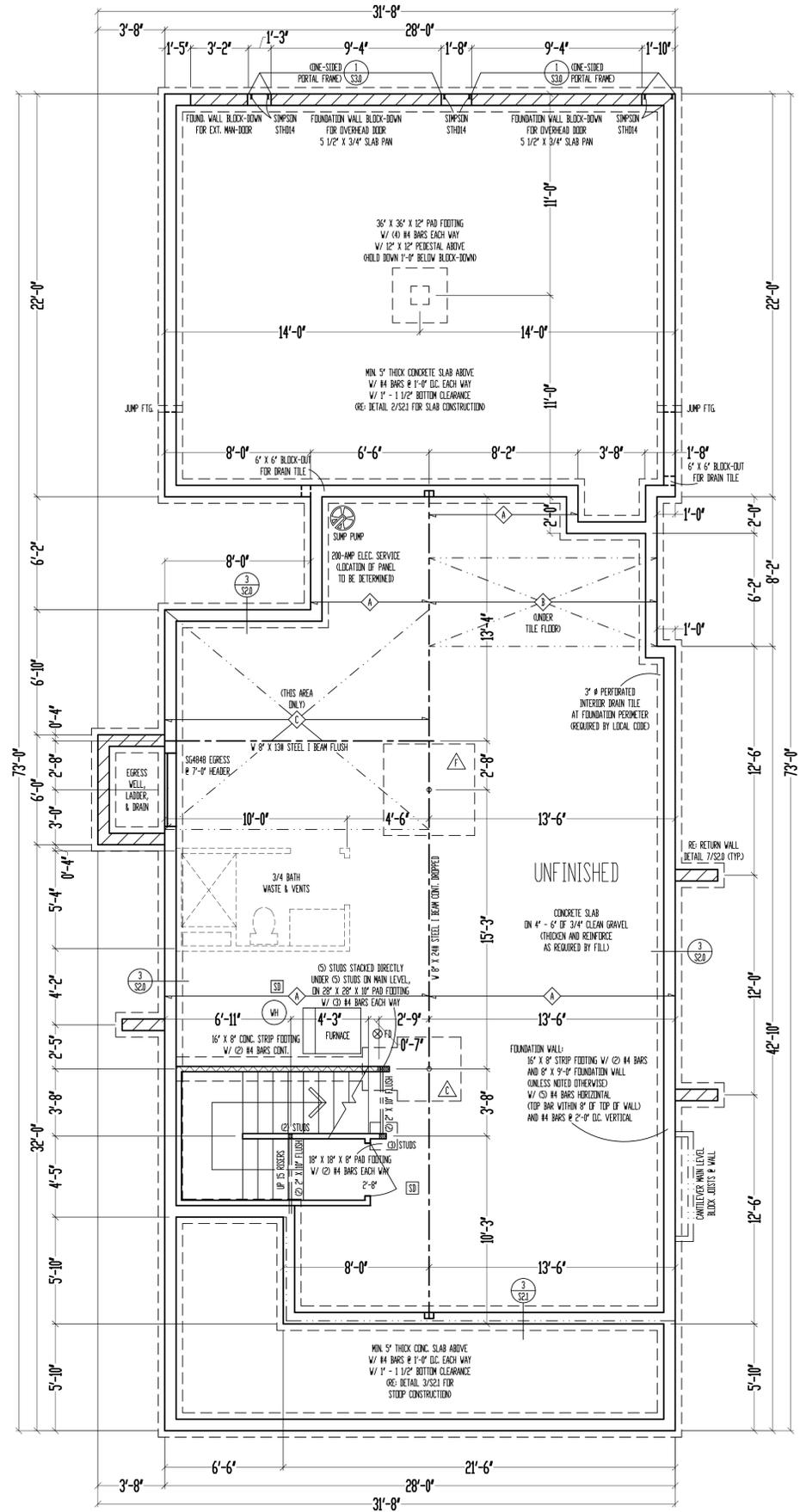
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Date: 10 - 14 - AD 2022  
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Sheet Title:  
**SECOND LEVEL  
 PLAN**

Sheet No.:  
**A-4** of 5



9'-0" FOUNDATION WALLS  
(UNLESS NOTED OTHERWISE)  
ON 16" X 8" STRIP FOOTINGS  
(STEP WHERE GRADE REQUIRES)

2" X 10" FLOOR SYSTEM ABOVE  
FOUNDATION  
SCALE: 1/4" = 1'-0"

\*\*\*\*\* = WALL BRACING PER FRAMING NOTE #1 AND PER CALCULATIONS ON SHEET S11

- FRAMING NOTES**
- BASEMENT LEVEL EXTERIOR WOOD-FRAMED WALLS SHALL BE SHEATHED W/ 7/16" OSB APA PANELS W/ 8@ COMMON WALLS & 6" DC. AT EDGES & @ 12" DC. IN THE FIELD. SMART PANEL, OR EQUAL, INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
  - 1" X 10" MIN. GYPSUM BOARD OVER STUDS SPACED 24" MAX FASTENED W/ #6 @ 12" TYPE W OR S DRYWALL SCREWS @ 7" DC. EDGES & FIELD. MIN. 8'-0" SECTIONS ONE SIDE OF WALL. (ORD. MIN. 4'-0" SECTION FOR BOTH SIDES)
  - LOAD BEARING INTERIOR WALL.
  - 2" X 10" HEAVY JOIST AT ALL EXTERIOR AND LOAD BEARING WALLS, UNLESS NOTED OTHERWISE.
  - LOW TIES @ 4'-0" DC. (TYPICAL)
  - RUN STUDS THE FULL HEIGHT OF RAISED PLATE WALLS.
  - BLOCK JOISTS ABOVE BEAMS, CANTILEVERS AND LOAD BEARING WALLS WITH JOIST MATERIAL (NOT REQUIRED WITH I-JOISTS).
  - PROVIDE MULTIPLE STUDS FOR SOLID BEARING BELOW ALL BEAMS.
  - ALL DESIGNATED 2" X 6" WALLS SHALL HAVE DOUBLE KING STUDS AT DOOR AND WINDOW OPENINGS.
  - ALL UNSQUARE WALLS SHALL BE 45°, UNLESS NOTED OTHERWISE.
  - ALL WALLS TO BE FRAMED W/ MIN. STUD GRADE 2" X 4" @ 16" DC., UNLESS NOTED OTHERWISE.
  - 12" X 12" MIN. BEAMS W/ MIN. 2" EMBEDMENT @ 48" DC. MAX. & WITHIN 6" - 12" OF END OF EACH PLATE LENGTH.
  - 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 FOUND ON ANYTHING SHORT OF THE AFORESAID REQUIREMENTS.

STEEL COLUMN & PAD FOOTING SCHEDULE		JOIST SCHEDULE	
▲	2" X 11 GA. STEEL COLUMN ON 36" X 36" X 18" PAD FOOTING W/ (4) #4 BARS EACH WAY (2.5@)	◆	2" X 10" R2 FLOOR JOIST @ 16" DC.
▲	3 1/2" X 11 GA. STEEL COLUMN ON 36" X 36" X 18" PAD FOOTING W/ (4) #4 BARS EACH WAY (2.0@)	◆	2" X 10" R2 FLOOR JOIST @ 16" DC. - DOUBLE EVERY OTHER
▲	3" SCH. 40 STEEL COLUMN ON 42" X 42" X 12" PAD FOOTING W/ (4) #4 BARS EACH WAY (2.5@)	◆	2" X 10" R2 FLOOR JOIST @ 16" DC. - DOUBLED
▲	3 1/2" SCH. 40 STEEL COLUMN ON 48" X 48" X 12" PAD FOOTING W/ (6) #4 BARS EACH WAY (2.0@)		
▲	3 1/2" SCH. 40 STEEL COLUMN ON 54" X 54" X 14" PAD FOOTING W/ (7) #4 BARS EACH WAY (4.0@)		
▲	3 1/2" SCH. 40 STEEL COLUMN ON 60" X 60" X 14" PAD FOOTING W/ (8) #4 BARS EACH WAY (5.0@)		

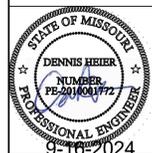
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Sheet Title:  
**FOUNDATION PLAN**

Sheet No.:  
**A-5** of 5



RESIDENTIAL SEISMIC & WIND ANALYSIS

DETERMINE WEIGHT OF HOUSE:					INPUT	
					CALCULATED VALUE	
LOCATION		DEAD LOAD (psf)	AREA (ft <sup>2</sup> )	WEIGHT (lbs.)		
ROOF		10	2073	20730		
CEILING		10	2073	20730		
SECOND FLOOR		10	698	6980		
FIRST FLOOR		10	2073	20730		
SECOND FLOOR EXT. WALL DL	WALL LENGTH (ft)	WALL HEIGHT (ft)	WALL UNIT WT. (psf)	WEIGHT (lbs)		
	119.66	8	8	7658.24		
FIRST FLOOR EXT. WALL DL	190	10	10	19000		
SECOND FLOOR INT. PARTITION WALL DL		DEAD LOAD (psf)	AREA (ft <sup>2</sup> )	WEIGHT (lbs)		
FIRST FLOOR INT. PARTITION WALL DL		6	698	4188		
		6	2073	12438		

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	
	193	1642			192	1548	
VERT. ROOF	92	1144	CUMULATIVE	VERT. ROOF	246	2317	CUMULATIVE
2ND	252	3133	5919	2ND	286.47	3522	7986
1ST	308	3829	9748	1ST	737	8668	16654
PRESSURE (PSF) - 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	14.2		ZONE D	7.7		5.6
MEAN ROOF HT. (ft)	7		26				

a) If there is a walkout wall to be sheathed, determine tributary wind area and enter here. If no walkout, enter 0 for area.  
 $q_{w0} = 0.00256 K_z K_d K_e V^2$  (ASCE7-10 Velocity Pressure)       $q_{w1, ASD} = 0.6 q_{w0}$  (Design Velocity Pressure for ASD analysis under ASCE7-10 and IRC/IBC 2012)

2ND FLOOR TRIBUTARY WEIGHT	45289.12
1ST FLOOR TRIBUTARY WEIGHT	69786.24
S <sub>g</sub> (SITE GROUND MOTION - %g - FROM ASCE7 SEISMIC MAP)	12.0%
F <sub>s</sub> (from ASCE7 Table 11.4-1)	1.6
S <sub>ps</sub> (= 2/3 * S <sub>g</sub> * F <sub>s</sub> )	0.128
R (from ASCE7 Table 12.2-1)	6.5

SEISMIC SHEAR		
LOCATION	From ASCE7 (Eq. 12.8-1):	V (= 1.2 * S <sub>ps</sub> * W / R) (lbs.)
2ND FLOOR		1070
1ST FLOOR		1649

Sheathing Location	Min. Sheathing Schedule	Fastening Schedule	Allowable Shear (#/LF)	Code Reference
Exterior (Option #1)	7/16" APA Rated Plywood/OSB	1-1/2" 18ga. Staples w/ 1" penetration @ 4" O.C. Edges, 8" O.C. Field. For 24" stud spacing, 12" O.C. Field for 16" stud spacing	155	per IRC, Table 2305.3(1)
Exterior (Option #2)	7/16" APA Rated Plywood/OSB	1-1/2" 18ga. Staples w/ 1" penetration @ 4" O.C. Edges, 8" O.C. Field. For 24" stud spacing, 12" O.C. Field for 16" stud spacing	230	per IRC, Table 2305.3(1)
Exterior (Option #3)	7/16" APA Rated Plywood/OSB	1-1/2" 18ga. Staples w/ 1" penetration @ 3" O.C. Edges, 8" O.C. Field. For 24" stud spacing, 12" O.C. Field for 16" stud spacing	310	per IRC, Table 2305.3(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 @ 8" 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 1/2" Type W or S Screws @ 8" O.C. Edges, 12" O.C. Field	60	per IRC, 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 SECOND FLOOR	4
EXTERIOR SHEATHING OPTION FOR FIRST FLOOR	4

EXTERIOR SHEATHING OPTION FOR BASEMENT WALLS

WIDTH OF 1ST STORY (FT.)	28	WIDTH OF 2ND STORY (FT.)	28
DEPTH OF 1ST STORY (FT.)	67	DEPTH OF 2ND STORY (FT.)	31.83
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.)
2ND FLOOR	42	11760	34	9520	42	16464	34	13328
1ST FLOOR	77	21560	43.5	12180	77	30184	43.5	17052

	ADDITIONAL RESISTANCE REQUIRED		Anchor Bolt Spacing (in.)		16d Nail Spacing req'd at bottom plate (in.)	
	SEISMIC	WIND	diameter (in.)	spacing (inches)	2nd Floor F-B	1st Floor S-S
2ND FLOOR FRONT-TO-BACK	0	0	0.5	944	61	19
2ND FLOOR SIDE-TO-SIDE	0	0	249.2	60.5	37	37
1ST FLOOR FRONT-TO-BACK	0	0				
1ST FLOOR 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?
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

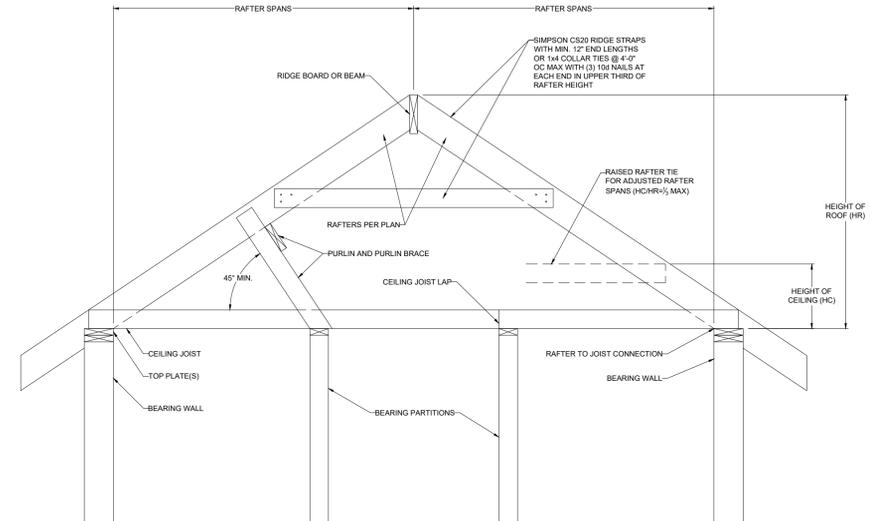
\*\*NOTES: 1) SEE ATTACHED CALCULATIONS FOR PORTAL FRAME OR PERFORATED SHEAR WALL RESISTANCE CAPACITIES (IF APPLICABLE).  
 2) SEE SHEET S1 FOR INTERIOR STEEL X-BRACE INSTALLATION, 3) INTERIOR WALLS SHEATHED WITH OSB SHALL BE ATTACHED WITH SAME STAPLE/NAILING PATTERN AS EXTERIOR OSB ON SAME FLOOR (SEE TABLE ABOVE) AND ARE ONLY APPLICABLE FOR FULL-HEIGHT SECTIONS OF 2'-8" OR LONGER  
 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: ECH-13.3, E-7.2, G-5.2				
	6	33.7	ASCE 7				
OVERHANG	LENGTH (FT.)	PRESSURE (PSF)	LINEAL FT. OF OH	UPLIFT PER FT* (LBS)			
	1	-1.08	182	-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)
	1876	544.656	1331.344	-1.08	-0.36	-1066	-5.6
*ALONG PERIMETER	TOTAL UPLIFT PER LINEAL FOOT ALONG EXTERIOR (POUNDS)				-6.7	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 IRC SECTION 2306 AND AF&PA SDPWS TABLE 4.3A. FOR EXAMPLE, 7/16" APA-RATED SHEATHING WITH 8d @ 8" & 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



1 BRACED RAFTER CONSTRUCTION  
 S1.1 SCALE: 1/4" = 1'-0" (1/8x20 OR 1/2" x 1/2" GRADE)

**VISTA**  
 ENGINEERING, LLC  
 14718 NW DELIA STREET \* PORTLAND, OREGON 97229  
 OFFICE: 971.255.6099 \* MOBILE: 971.255.6099 \*  
 DENNIS@VISTASTRUCTURAL.COM \* VISTASTRUCTURAL.COM

CLIENT: BELLAH HOMES  
 JOB TITLE: PGP088 SPEC (THE NORTHAMPTON REVISED)  
 LOT 88, PERGOLA PARK, NEW LONGVIEW  
 LOCATION: 1025 SW ARMIE ST.  
 LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI  
 DENNIS HEIER  
 NUMBER: PE-201001772  
 PROFESSIONAL ENGINEER  
 9-16-2024

NO.	DATE	REVISION	BY

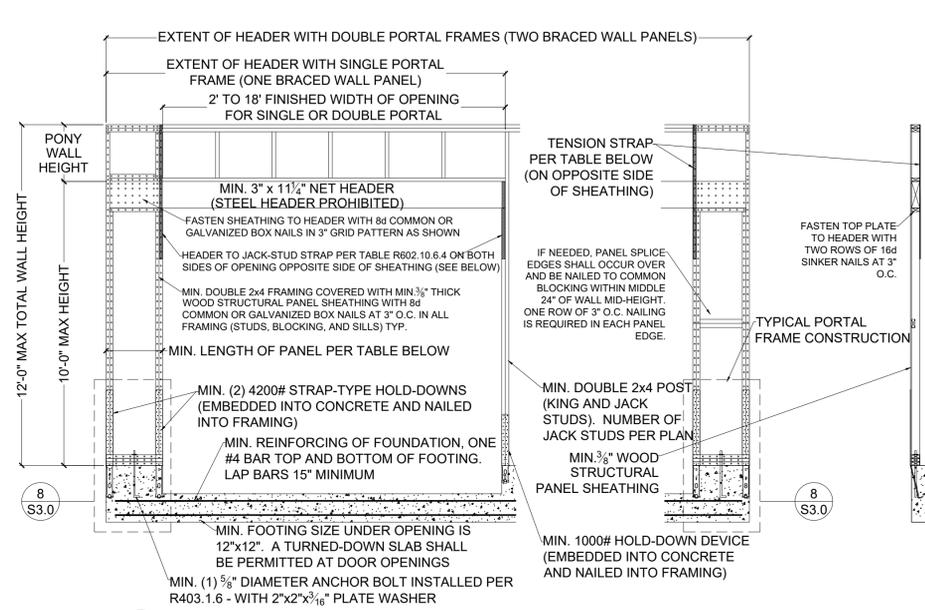
DRAWING TITLE  
**STRUCTURAL CALCULATIONS**

ENGINEER: DMH      CHECKED BY: DMH  
 JOB NO.              DRAWN BY: DMH  
 DATE: 09-16-24  
 SHEET NUMBER  
**S1.1**

RELEASE FOR CONSTRUCTION  
 AS NOTED ONLY. REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 09/17/2024 8:44:50





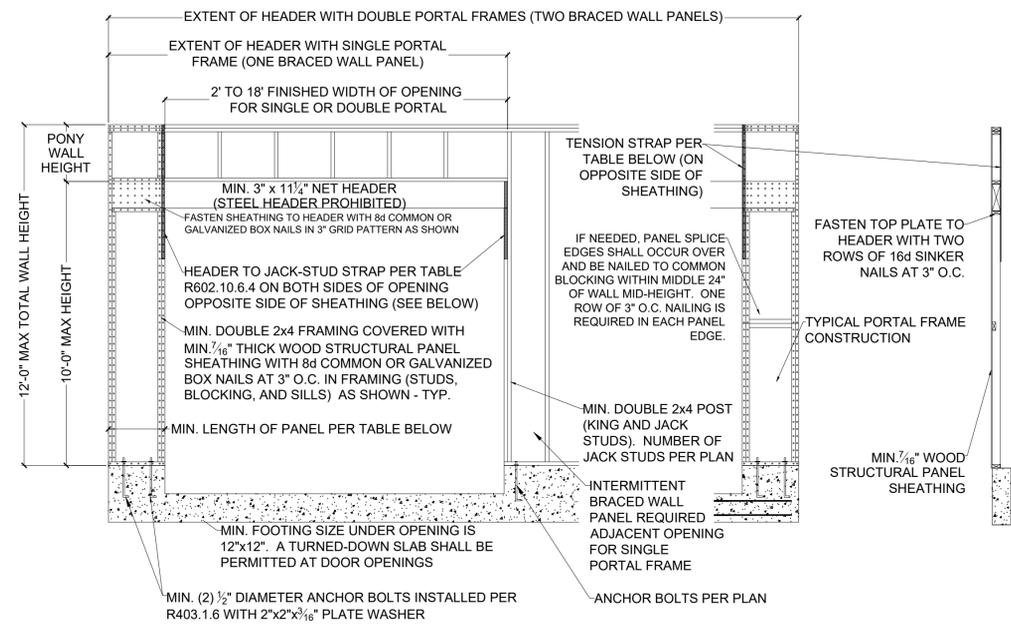


**1 METHOD PFH (PORTAL FRAME WITH S3.0 HOLD-DOWNS) - PER FIGURE IRC R602.10.6.2**

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

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	

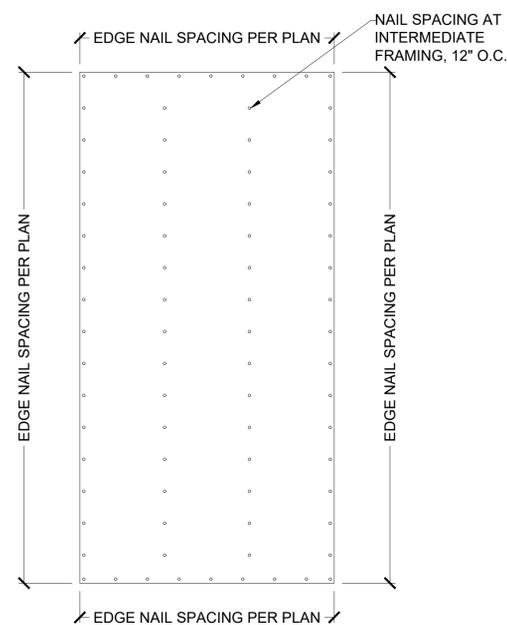


**2 METHOD PFG (PORTAL FRAME AT GARAGE S3.0 DOOR) - PER FIGURE IRC R602.10.6.3**

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

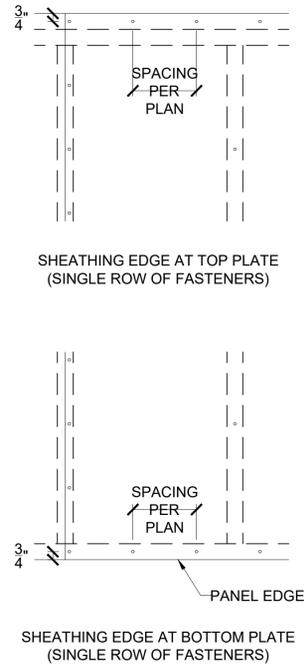
MINIMUM PANEL LENGTH FOR DETAIL 2/S3.0 (INCHES)				
WALL HEIGHT				
8 FEET	9 FEET	10 FEET	11 FEET	12 FEET
24	27	30	33 <sup>a</sup>	36 <sup>a</sup>

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



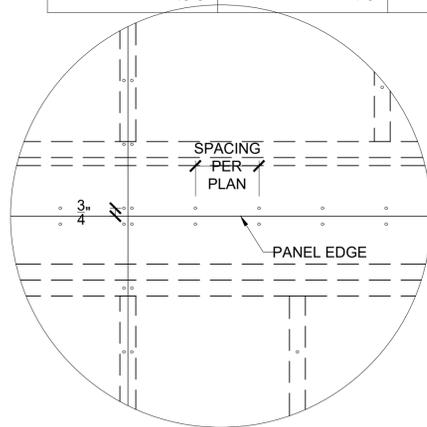
**3 EXTERIOR WALL SHEATHING S3.0 PANEL ATTACHMENT**

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



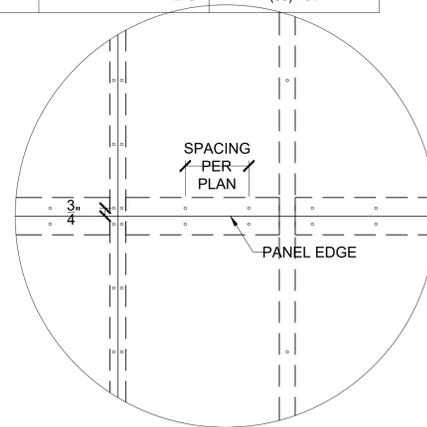
**4 SHEATHING EDGE AT TOP AND BOTTOM PLATES S3.0**

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



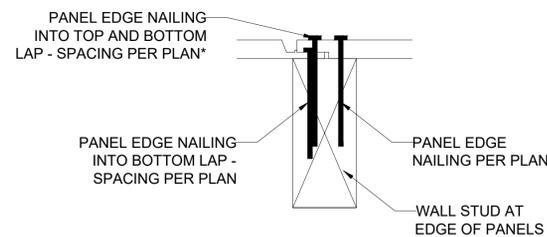
**5 SHEATHING EDGE AT HORIZONTAL S3.0 FRAMING MEMBER**

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



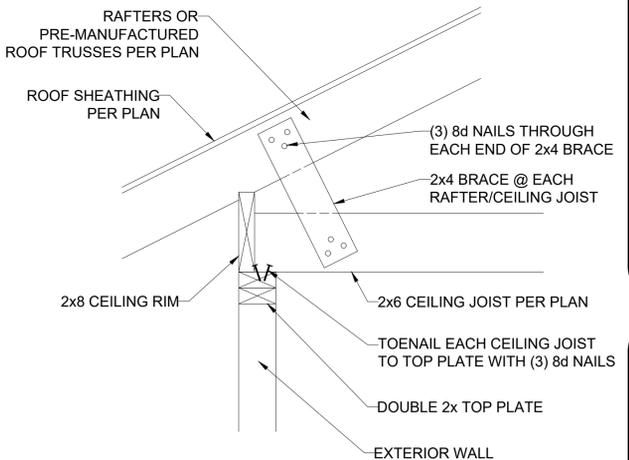
**6 SHEATHING EDGE AT PANEL S3.0 SPLICE ACROSS STUDS**

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



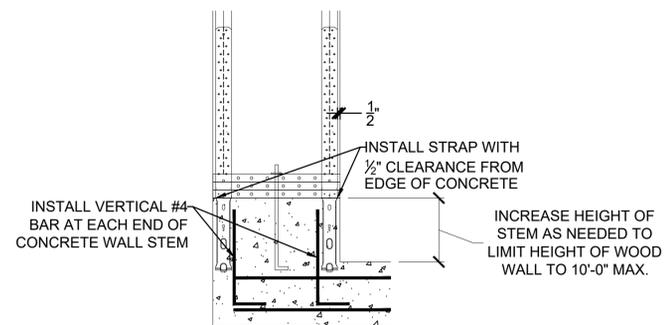
**8 FASTENING INSTRUCTIONS FOR S3.0 SHIPLAP PANEL SHEATHING**

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



**7 RAFTER BEARING OPTION DETAIL S3.0**

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



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

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

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CLIENT: BELLAH HOMES  
 JOB TITLE: PGP088 SPEC (THE NORTHAMPTON REVISED)  
 LOT 88, PERGOLA PARK, NEW LONGVIEW  
 LOCATION: 1025 SW ARMIE ST.  
 LEE'S SUMMIT, MISSOURI

STATE OF MISSOURI  
 DENNIS HEIER  
 NUMBER: PE-2018001772  
 PROFESSIONAL ENGINEER  
 9-16-2024

NO.	DATE	REVISION	BY

DRAWING TITLE  
**FRAMING DETAILS**

ENGINEER: DMH CHECKED BY: DMH  
 JOB NO. DRAWN BY: DMH  
 DATE: 09-16-24  
 SHEET NUMBER

**S3.0**



