3524

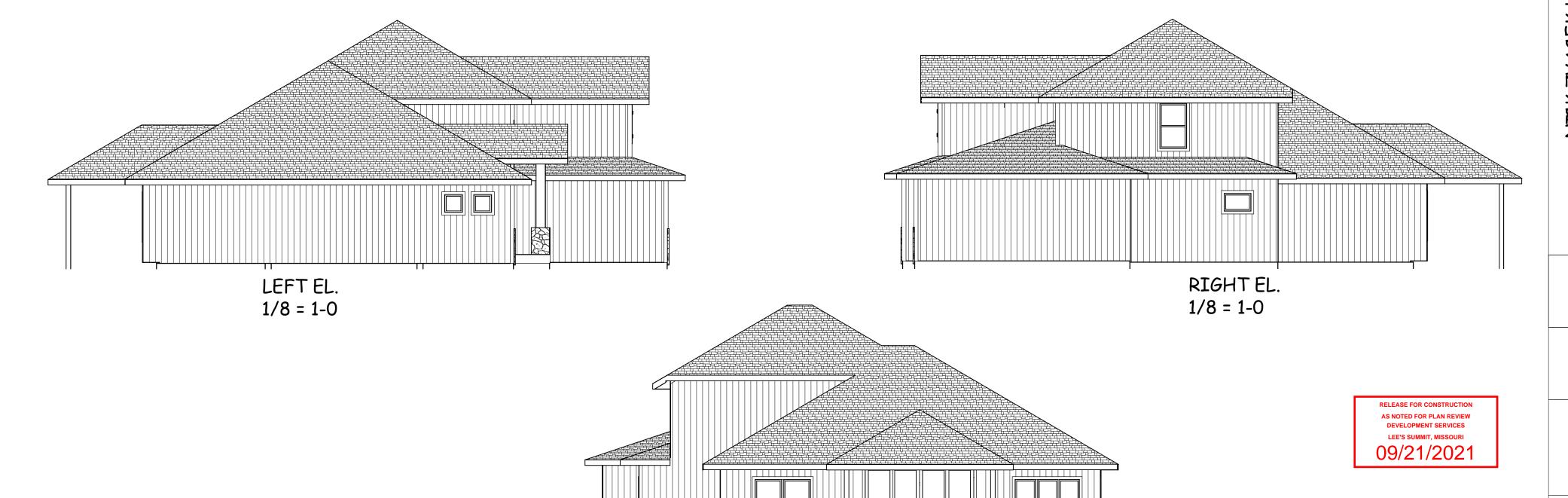
SHEET NO.

JOSEPH A. TOWNS P.E. MO. LIC E 22017 PROFESSIONAL SEAL APPLIES TO STRUCTURAL ELEMENTS ONLY

1 OF 6



FRONT EL.



REAR EL. 1/8 = 1-0

BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.

NICK ZVACEK HOMES ANDER SON III LOT 111 MONTICELLO 4713 NE FREEHOLD DR LEE SUMMIT MO

SCALE

1/4" = 1-0

DATE 9-21-21

PLAN NO.

3524

SHEET NO.

2 OF 6

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/21/2021

JOSEPH A. TOWNS P.E. MO. LIC E 22017 PROFESSIONAL SEAL APPLIES TO STRUCTURAL ELEMENTS ONLY

BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.

NICK ZVACEK HOMES ANDER SON III LOT 111 MONTICELLO 4713 NE FREEHOLD DR LEE SUMMIT MO

SCALE 1/4" = 1-0

DATE 9-21-21

PLAN NO.

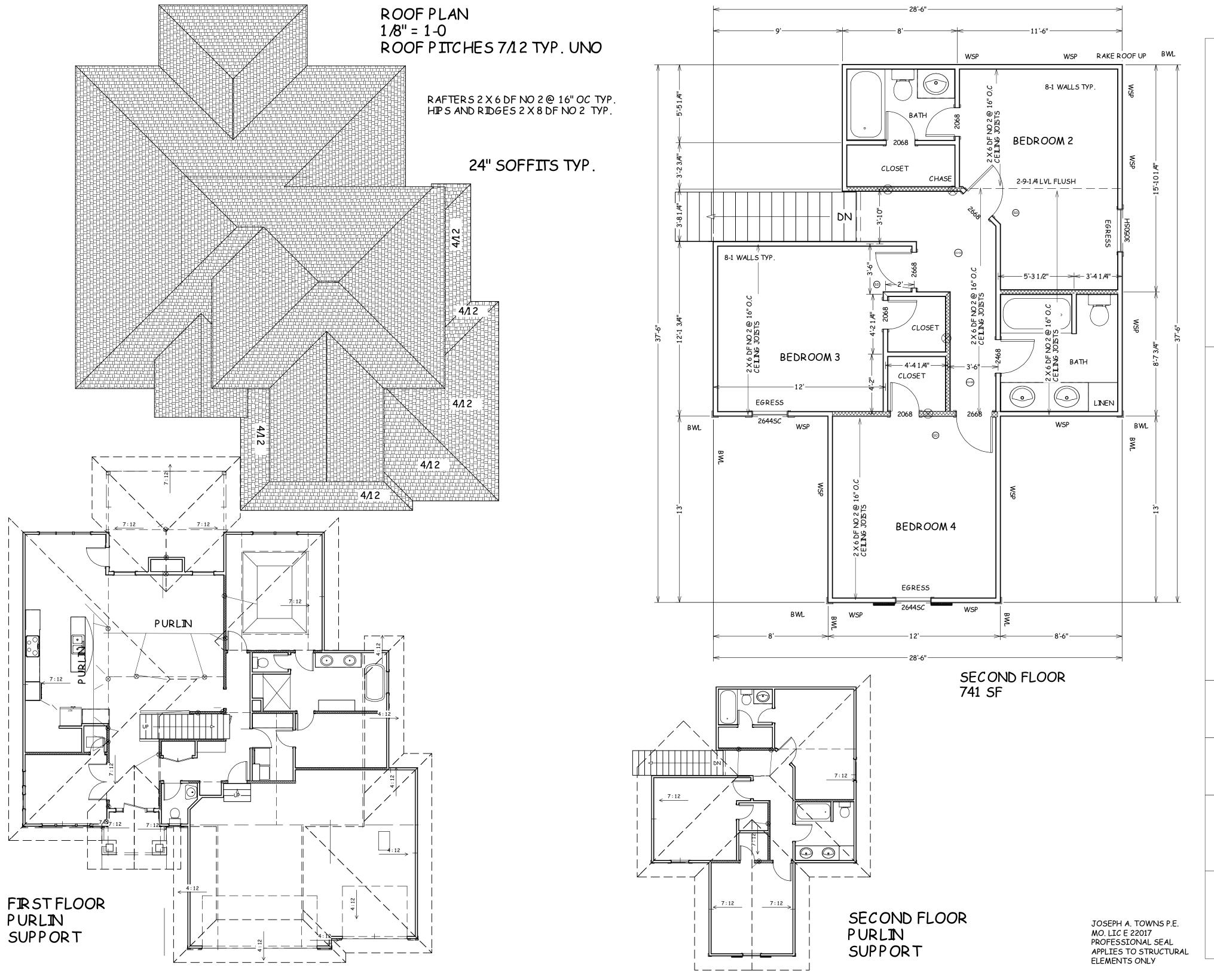
3524

SHEET NO.

3 OF 6

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/21/2021

JOSEPH A. TOWNS P.E. MO. LIC E 22017 PROFESSIONAL SEAL APPLIES TO STRUCTURAL ELEMENTS ONLY



BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.

NICK ZVACEK HOMES ANDER SON III LOT 111 MONTICELLO 4713 NE FREEHOLD DR LEE SUMMIT MO

SCALE 1/4" = 1-0

DATE 9-21-21

PLAN NO.

3524

SHEET NO.

4 OF 6

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
09/21/2021

MINIMUM 5.7 SQUARE FOOT OF OPENABLE AREA.

FROM THE FLOOR

OPENING OF EGRESS WINDOW NOT MORE THAN 42"

THE GLAZING IS WITHIN 24 INCHES OF EITHER VERTICAL EDGE OF

EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A

WALKING SURFACE, SAFETY OR TEMPERED GLAZING IS REQUIRED.

WINDOWS ARE TO HAVE FALL

PROTECTION PER IRC 312.2

THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM

ALL POINT LOADS SHALL HAVE A MINIMUM OF 2 STUDS UNLESS NOTED OTHERWISE

WITHLADDER

EGRESS WINDOW WELL AS NEEDED

PER SECTION 308 MIN 3-0 X 3-0

ANCE IONAL CODE CCORD TERNA. UILI 018 MVM

SCALE 1/4" = 1-0

DATE

9-21-21

PLAN NO.

3524

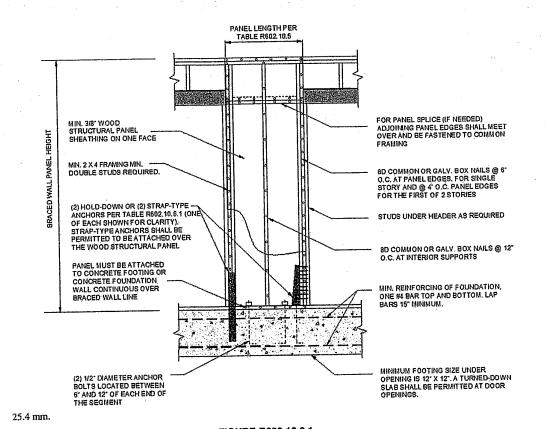
SHEET NO.

5 OF 6

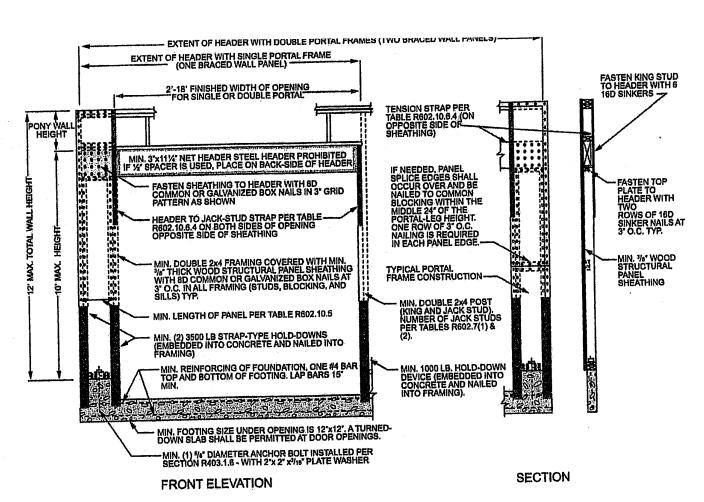
AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOUR 09/21/2021

JOSEPH A. TOWNS P.E. MO. LIC E 22017 PROFESSIONAL SEAL APPLIES TO STRUCTURAL **ELEMENTS ONLY**

		TA BRACING REQUIR	ABLE R602.10.3(1) EMENTS BASED C	N WIND SPEED				
EXPOSURE CA SD-FOOT MEA 10-FOOT WAL 2 BRACED WA	N ROOF HEIGHT L HEIGHT	·	MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE					
Ultimate Design Wind Speed (mph)	Story Location	Braced Wall Line Spacing* (feet)	Method LIB ^b	Method QB	Methods DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP, ABW, PFH, PFC, CS-SFB	Methods CS-WSP, CS-G, CS-PF		
		10	3.5	3.5	2.0	2.0		
		20	6.5	6.5	3.5	3.5		
		30	9.5	9.5	5.5	4.5		
		40	12.5	12.5 15.0 15.0	7.0	6.0		
		50	15.0		9.0	7.5		
		60	18.0	18.0	10.5	9.0		
		10	7.0	7.0	4.0	3.5		
•	_	20	12.5	12.5	7.5	6.5		
≤ 115		30	18.0	18.0	10.5	9.0		
		40	23.5	23.5	13.5	11.5		
		50	29.0	29.0	16.5	14.0		
		60	34.5	34.5	20.0	17.0		
		10	NP	10.0	6.0	5.0		
		20	NP	18.5	11.0	9.0		
	1 (1)	30	NP	27.0	15.5	13.0		
	1 -	40	NP	35.0	20.0	17.0		
		50	NP	43.0	24.5	21.0		
		60	NP	51.0	29.0	25.0		



METHOD ABW-ALTERNATE BRACED WALL PANEL



4 mm, 1 foot = 304.8 mm.

FIGURE R602.10.6.2 METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

			TABLE R602.10 BRACING METHO	DDS			
				CONNECTION CRITERIA*			
METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	Fasteners	Spacing		
	LIB	1 × 4 wood or approved metal straps		Wood: 2-8d common nails or 3-8d (2 ¹ / ₂ " long x 0.113" dia.) nails	Wood: per stud and top and bottom plates		
	Let-in-bracing	at 45° to 60° angles for maximum 16" stud spacing		Metal strap: per manufacturer	Metal: per manufacturer		
	DWB Diagonal wood boards	3/4" (1" nominal) for maximum 24" stud spacing		2-8d $(2^{1}/_{2}" long \times 0.113" dia.)$ nails or $2 - 1^{3}/_{4}" long staples$	Per stud		
	WSP Wood			Exterior sheathing per Table R602.3(3)	6" edges 12" field		
	structural panel (See Section R604)	³ / ₈ "		Interior sheathing per Table R602.3(1) or R602.3(2)	Varies by fastener		
ethods	BV-WSP Wood structural panels with stone or masonry veneer (See Section R602, 10.6.5)	7/ ₁₆ "	See Figure R602.10.6.5	8d common $(2^{1}l_{2}^{"} \times 0.131)$ nails	4" at panel edges 12" at intermediate supports 4" at braced wall panel end posts		
Intermittent Bracing Methods	SFB Structural fiberboard sheathing	1/2" or 25/32" for maximum 16" stud spacing		$1^{1}/_{2}$ " long × 0.12" dia. (for $^{1}/_{2}$ " thick sheathing) $1^{3}/_{4}$ " long × 0.12" dia. (for $^{25}/_{32}$ " thick sheathing) galvanized roofing nails	3" edges 6" field		
mitten				Nails or screws per Table R602.3(1) for exterior locations	For all braced wall panel locations: 7" edges (including top		
Inter	GB Gypsum board	1/2"		Nails or screws per Table R702.3.5 for interior locations	and bottom plates) 7"		
	PBS Particleboard sheathing (See Section R605)	3/8" or 1/2" for maximum 16" stud spacing		For ³ / ₈ ", 6d common (2" long × 0.113" dia.) nails For ¹ / ₂ ", 8d common (2'/ ₂ " long × 0.131" dia.) nails	3" edges 6" field		
	PCP Portland cement plaster	See Section R703.7 for maximum 16" stud spacing		1 ¹ / ₂ " long, 11 gage, ⁷ / ₁₆ " dia. head nails or ⁷ / ₈ " long, 16 gage staples	6" o.c. on all framing members		
	HPS Hardboard panel siding	7/16" for maximum 16" stud spacing		0.092" dia., 0.225" dia. head nails with length to accommodate 1 1/2" penetration into studs	4" edges 8" field		
	ABW Alternate braced wall	3/8"		See Section R602.10.6.1	See Section R602.10.6.1		

		TABLE R602.10.5 MINIMUM LENGTH OF BRACED WALL PANELS MINIMUM LENGTH* ((inches)					CONTRIBUTING LENGTH	
METHOD (See Table R602.10.4)			V	Vali Height		,	(inches)	
·	}	8 feet	9 feet	10 feet	11 feet	12 feet		
DWR WSP SER P	BS, PCP, HPS, BV-WSP	48	48	48	53	58	Actual ^b	
DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP GB LIB		48	48	48	53	58	Double sided = Actual Single sided = 0.5 × Actua	
		55	62	69	NP	NP	Actual ⁶	
	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42	48	
ABW	SDC D_0 , D_1 and D_2 , ultimate design wind speed < 140 mph	32	32	34	NP	NP		
	CS-G	24	27	30	33	36	Actual ^b	
	Adjacent clear opening height (inches)							
	≤ 64	24	27	30	. 33	36		
	68	26	27	30	33	36		
	72	27	27	30	33	36		
	76	30	29	30	33	36	_]	
	80	32	30	30	33	36		
	84	35	32	32	33	36		
	88	38	35	33	33	36		
	92	43	37	35	35	36	Actual ^b	
	96	48	41	38	36	36		
CS-WSP, CS-SFB	100	T -	44	40	38	38		
	104		49	43	40	39		
	108	_	54	46	43	41		
	112	T -	T -	50	45	43		
	116	T		55	48	45		
	120	_	T -	60	52	48	_	
	124	T -	Τ-	_	56	51	_	
	128	T-	Τ-	-	61	54		
	132		T-		66	58		
	136	_				62		
	140		—	<u> </u>		66	_	
	144	_				72		
	METHOD			rtal header		1 40 20-1	-	
(See T	able R602,10.4)	8 feet	9 feet	10 feet	11 feet	12 feet		
PFH	Supporting roof only	16	16	16	Note c		48	
rrn	Supporting one story and roo		24	24	Note c	Note o		
PFG		24	27	30	Note d			
CS-PF	SDC A, B and C	16	18	20	Note e	Note o		
SI: 1 inch = 25.4 mm,	SDC D ₀ , D ₁ and D ₂	16	18	20	MOIGE	14016.0	roun	

For St. 1 inch = 25.4 mm, 1 for = 304.8 inin, 7 time per float = 6.447 mm,

NP = Not Permitted.

a. Linear interpolation shall be permitted.

b. Use the actual length where it is greater than or equal to the minimum length.

c. Maximum header height for PFH is 10 feet in accordance with Figure R602.10.6.2, but wall height shall be permitted to be increased to 12 feet with pony wall.

d. Maximum header height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height shall be permitted to be increased to 12 feet with pony wall.

e. Maximum header height for CS-PF is 10 feet in accordance with Figure R602.10.6.4, but wall height shall be permitted to be increased to 12 feet with pony wall.

BRACE WALL DETAILS WIND SPEED 115 MPH WIND EXPOSURE A SEISMIC DESIGN CAEGORY A

			TABLE R602.10.4—con	linuea IS		
				CONNECTION CRITERIA		
METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	Fasteners	Specing	
, Methods	PFH Portal frame with hold-downs	³/ ₈ ″		See Section R602.10.6.2	See Section R602.10.6.2	
Intermittent Bracing Methods	PFG Portal frame at garage	⁷ / ₁₆ "		See Section R602.10.6.3	See Section R602.10.6.3	
	CS-WSP			Exterior sheathing per Table R602.3(3)	6" edges 12" field	
ya.	Continuously sheather wood structural pane	3/8"		Interior sheathing per Table R602.3(1) or R602.3(2)	Varies by fastener	
Sheathing Methods	CS-G ^{b,c} Continuously sheathed wood structural panel adjacent to garage openings	3/8″		See Method CS-WSP	See Method CS-WSP	
Continuous Sh	CS-PF Continuously sheathed portal frame	7/16"		See Section R602.10.6.4	See Section R602.10.6.4	
Conti	CS-SFB ^d Continuously sheathed	1/2" or ²⁵ / ₃₂ " for maximum 16" stud spacing		$1\frac{1}{2}$ " long × 0.12" dia. (for $\frac{1}{2}$ " thick sheathing) $1\frac{3}{4}$ " long × 0.12" dia. (for $\frac{25}{12}$ " thick sheathing)	3" edges 6" field	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.0175 rad, 1 pound per square foot = 47.8 N/m², 1 mile per hour = 0.447 m/s.

a. Adhesive attachment of wall sheathing, including Method GB, shall not be permitted in Seismic Design Categories C, D₀, D₁ and D₂.

b. Applies to panels next to garage door opening where supporting gable end wall or roof load only. Shall only be used on one wall of the garage. In Seismic Design Categories D₀, D₁ and D₂ toof covering dead load shall not exceed 3 psf.

c. Garage openings adjacent to a Method CS-O panel shall be provided with a header in accordance with Table R602.7(1). A full-height clear opening shall not be permitted adjacent to a Method CS-G panel.

d. Method CS-SFB does not apply in Seismic Design Categories D₀, D₁ and D₂.

e. Method applies to detached one- and two-family dwellings in Seismic Design Categories D₀ through D₂ only.

- EXTENT OF HEADER WITH DOUBLE FORTAL FRAMES (TWO BRACED WALL F EXTENT OF HEADER WITH SINGLE PORTAL FRAME (ONE BRACED WALL PANEL) 2'-18' FINISHED WIDTH OF OPENIN FOR SINGLE OR DOUBLE PORTAL MIN. 3'x11½' NET HEADER STEEL HEADER PROHIBITED 'X' SPACER IS USED, PLACE ON BACK-SIDE OF HEADE OVER CONCRETE OR MASONRY BLOCK FOUNDATION WOOD STRUCTURAL PANEL SHEATHING OVE.

OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION
(WHERE PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST) OVER RAISED WOOD FLOOR - OVERLAP OPTION (WHERE PORTAL SHEATHING LAPS OVER BAND OR RIM ROADIN) SECTION FRONT ELEVATION

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

Figure R602.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

JOSEPH A. TOWNS P.E. MO. LIC E 22017 PROFESSIONAL SEAL APPLIES TO STRUCTURAL **ELEMENTS ONLY**

ACCORDANCE WITH CODE AI BUILD IN ACCOR 2018 INTERNATI RESIDENTIAL CC LOCAL CODES.

VACEK HOMES

NDER SON III

1 MONTICELLO

FREEHOLD DR

SUMMIT MO

SCALE 1/4" = 1-0

> DATE 9-21-21

PLAN NO.

3524

SHEET NO.

6 OF 6

AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 09/21/2021