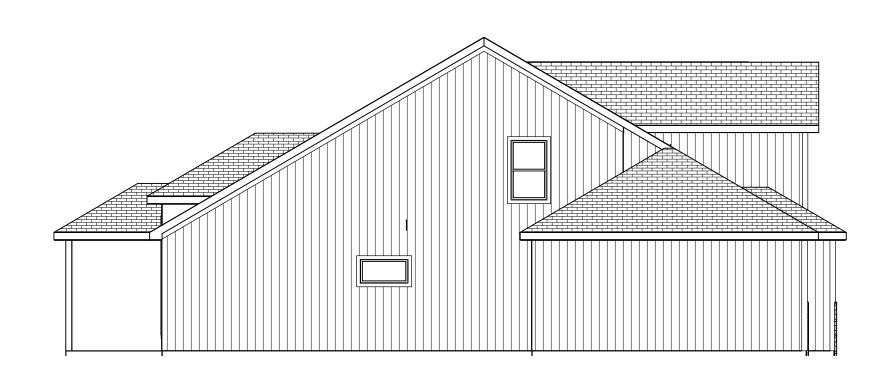


ROOF PLAN 1/8 = 1-0 ROOF PITCHES 7/12 U.N.O. RAFTERS 2 X 6 DF NO 2 @ 16" OC TYP. U.N.O. HIPS AND RIDGES 2 X 8 DF NO 2 TYP. U.N.O.

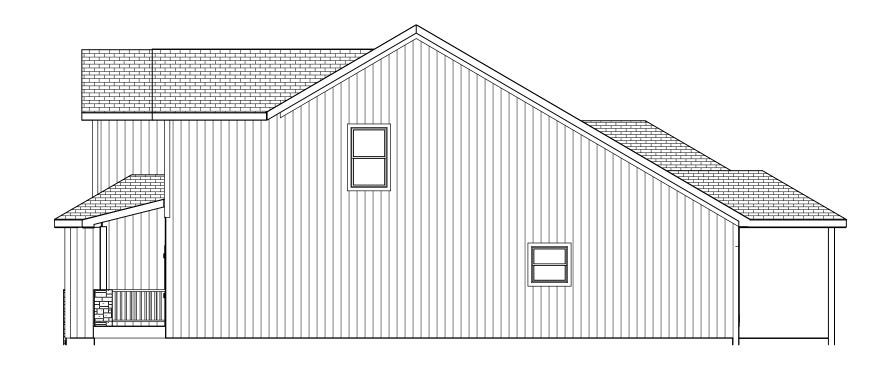


LEFT EL. 1/8 = 1-0

3 SIDES LP PANEL SIDING



FRONT EL. BOARD & BATT, LAP AND STONE



RIGHT EL. 1/8 = 1-0

3 SIDES LP PANEL SIDING



REAR EL. 1/8 = 1-0

1/4" = 1-0 DATE

2-4-21

PLAN NO.

3356

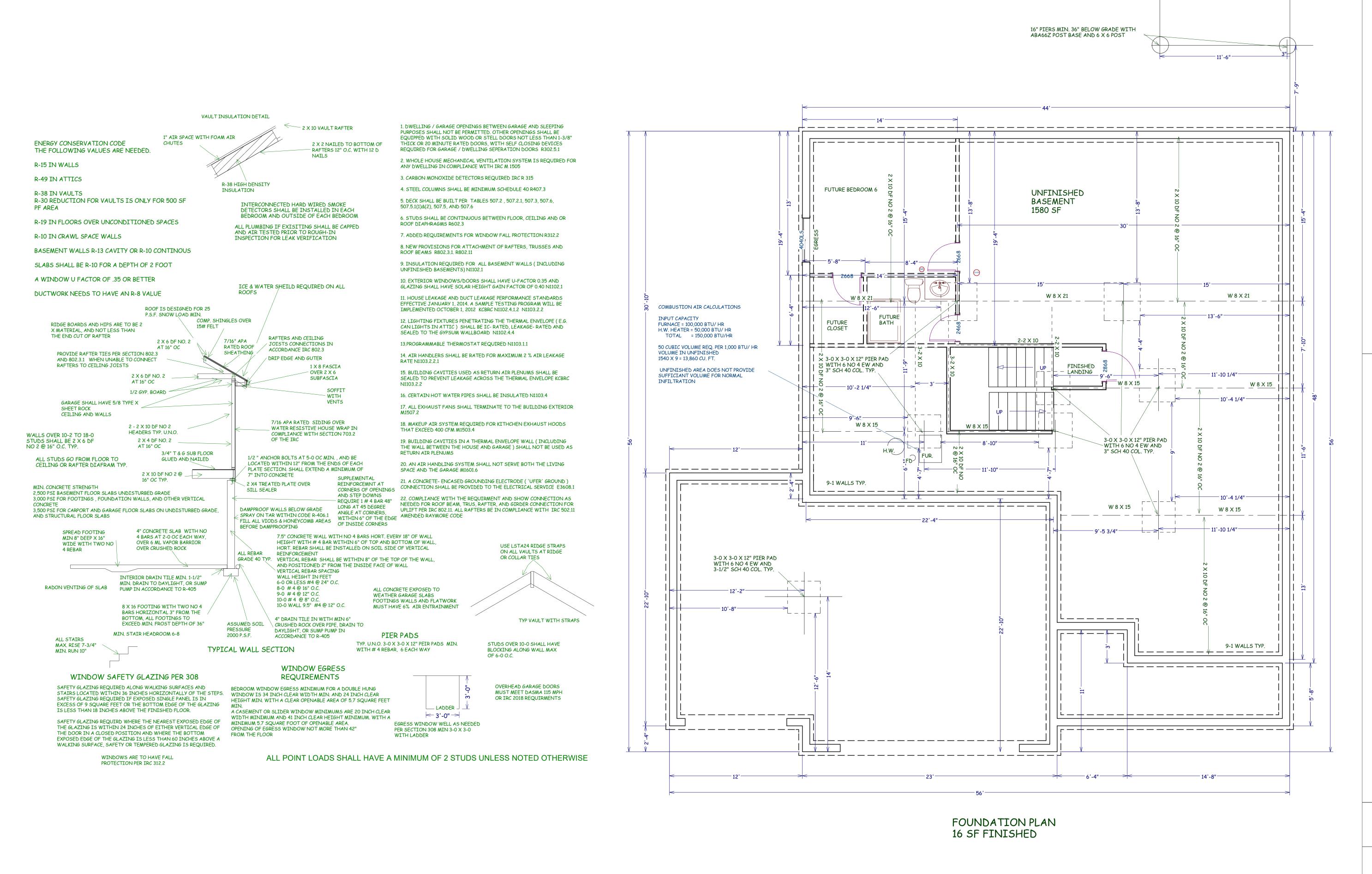
SHEET NO.

1 OF 5

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.

SCALE



BEHOME LLC LOT 74 MONTICELLO 1221 NE GOSHEN DR

SCALE 1/4" = 1-0

> DATE 2-4-21

PLAN NO.

3356

SHEET NO.

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

2 OF 5

BACK OF HOUSE

38'-1 3/4"

2-11-7/8 LVL FLUSH

CLOSET

WSP

BWL

5'-2 1/2"

ANGLE HATCHED WALLS ARE INTERIOR LOAD BEARING TYP.

BEDROOM 4

EGRESS

3050SH

WSP

2 X 6 DF NO 2 @ 16" OC CEILING JOISTS 2-16" LVL FLUSH

8-1 CEILING

10-0 CEILING

RAILING

OPEN BELOW

2856MU *CS-WSP*

10-0 PLATE LINE OFF SECOND FLOOR

2-11-7/8 LVL FLUSH

⁻⁻ 10'-4" ⁻⁻

2-16" LVL FLUSH

BEDROOM 5

7'-10 1/4" 2468

BWL

DATE 2-4-21

PLAN NO.

3356

SHEET NO.

3 OF 5

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

5'-10 1/4"

WSP

CLOSET

WSP

2-11-7/8 LVL FLUSH BEDROOM 3

EGRESS

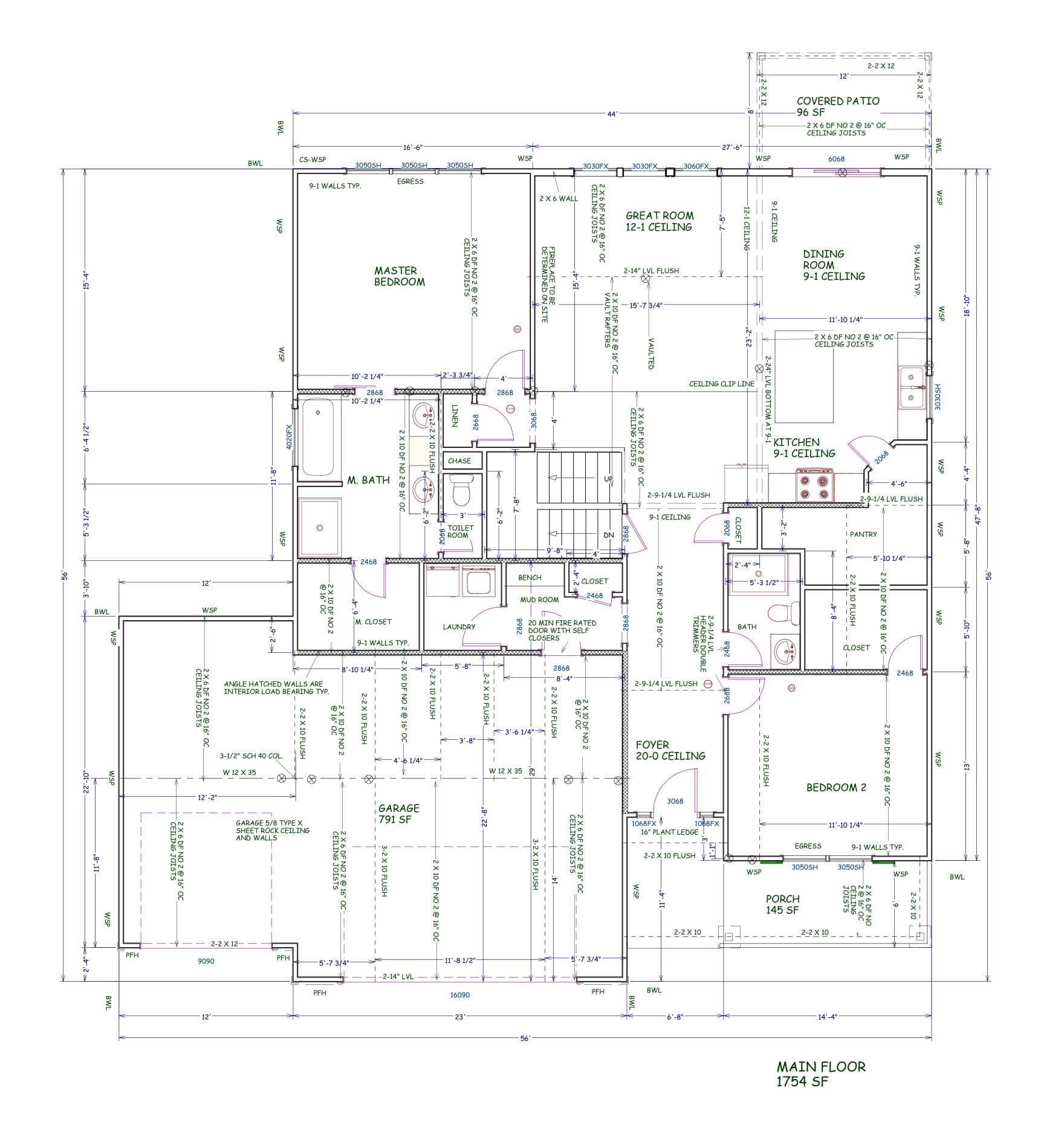
WSP

3050SH

SECOND FLOOR

935 SF

WSP



<−9:12<u></u>

__9:12_>

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

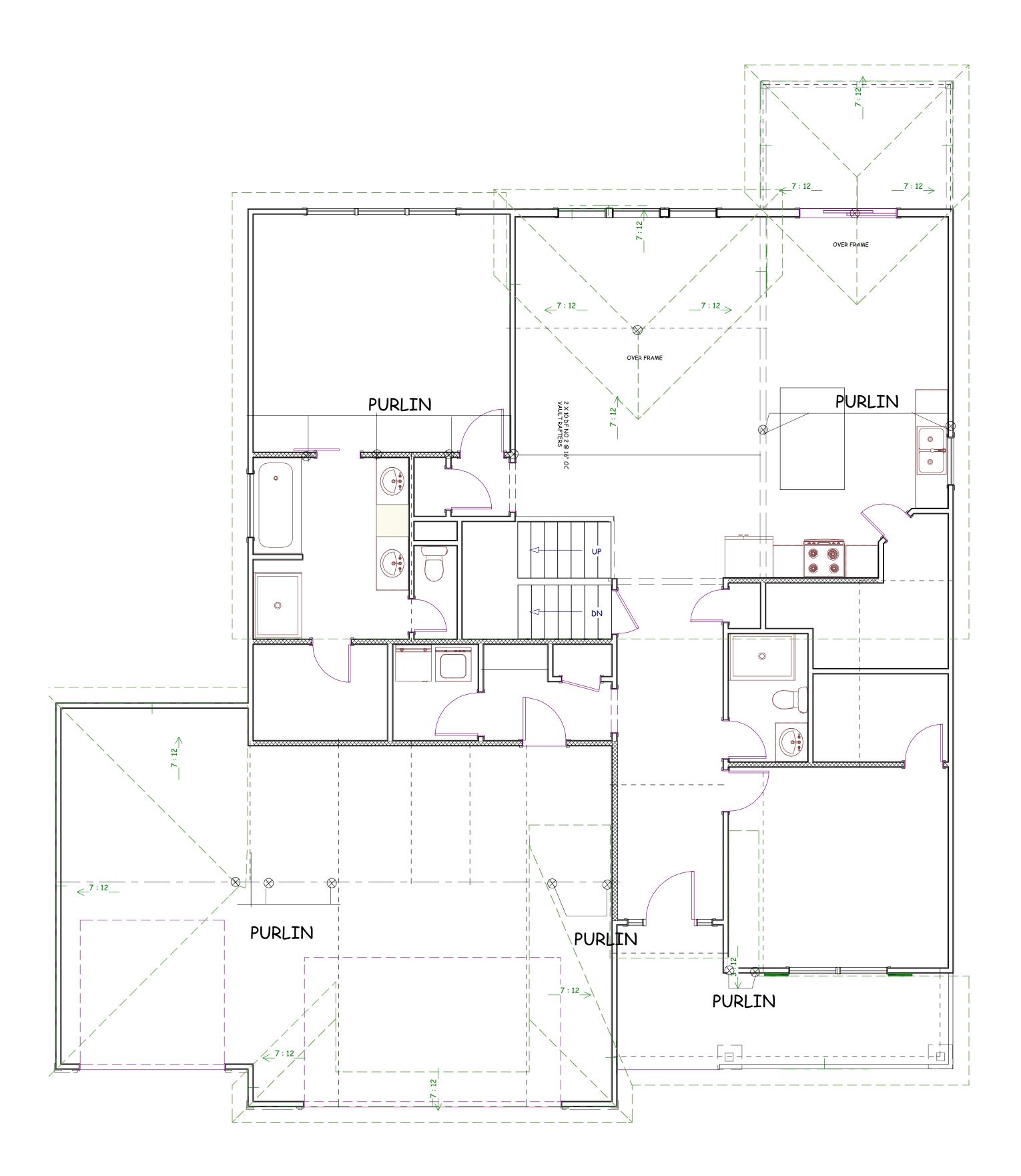
PLAN NO.

3356

SHEET NO.

4 OF 5

SECOND FLOOR PURLIN PLAN



MAIN FLOOR PURLIN PLAN

PLAN NO.

SHEET NO.

3356

5 OF 5

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

TABLE R602.1 BRACING METH											
D				Γ			T	CONNECTION CRITERIA"			
(FEET) OF BRACED WALL PANELS				MET	THODS, MATERIAL	MINIMUM THICKNESS	FIGURE	Fasteners	Spacing		
EACH BRACED WALL LINE						1 × 4 wood or approved metal straps		or t	Wood: per stud and top and bottom plates		
3	DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP, ABW, PFH, PFC, CS-SFB	Methods CS-WEP, CS-G, CS-PF	·		LIB Let-in-bracing	at 45° to 60° angles for maximum 16" stud spacing		3-8d (2 ¹ / ₂ " long x 0.113" dia.) nails Metal strap: per manufacturer	Metal: per manufacturer		
	2.0	2.0			DWB	³ / ₄ " (1" nominal) for	THE TOTAL PROPERTY.	$2-8d (2^{1}l_{2}" long \times 0.113" dia.) nails$	Per stud		
	3,5	3.5			Diagonal	maximum 24"		or 2 - 1 ³ / ₄ " long staples			
	5.5	4.5		'	wood boards	stud spacing		Exterior sheathing per	6" edges 12" field		
	7.0	6.0			WSP Wood			Table R602.3(3)	0 edges 12 field		
	9.0	7.5			structural panel	³/ ₈ "		Interior sheathing per	Varies by fastener		
	10.5	9.0		1	(See Section R604)			Table R602.3(1) or R602.3(2)	<u> </u>		
	4.0	3.5		BV-WSP°		·		4" at panel edges			
	7.5	6.5			Wood structural panels with stone	7	D. Firms D602 10 6 5	8d common (2 ¹ / ₂ " × 0.131) nails	12" at intermediate supports 4" at braced wall panel end posts		
	10.5	9.0		2	or masonry veneer	7/ ₁₆ "	See Figure R602.10.6.5	• -			
	13.5	11.5		I POC	(See Section						
	16.5	14.0	,	Me	R602.10.6.5)			$1^{1}/_{2}^{"}$ long × 0.12" dia. (for $\frac{1}{2}$ " thick	3" edges 6" field		
	20.0	17.0		iig	SFB Structural	¹ / ₂ " or ²⁵ / ₃₂ " for maximum 16"		sheathing) $1^3/_4$ " long $\times 0.12$ " dia.			
	6.0	5.0		Bra	fiberboard	stud spacing		(for ²⁵ / ₃₂ " thick sheathing) galvanized roofing nails			
	11.0	9.0		en en	sheathing			Nails or screws per Table R602.3(1) for	For all braced wall		
	15.5	13.0		Intermittent Bracing Methods				exterior locations	panel locations: 7"		
	20.0	17.0		nter	GB Gypsum board	1/2"			Nails or screws per Table R702.3.5 for	edges (including top and bottom plates) 7"	
	24.5	21.0			Gypsum board			interior locations	field		
	29.0	25.0	<u> </u>		PBS	3/ ₈ " or 1/ ₂ " for		For ³ / ₈ ", 6d common			
				,	Particleboard sheathing (See Section R605	maximum 16"		(2" long × 0.113" dia.) nails For ½", 8d common (2½" long × 0.131" dia.) nails	3" edges 6" field		
	A		•	- 1		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7		11/ "long 11 gage 7/" dia head nails	11.64		

Portland cement plaster

Hardboard

panel siding

Alternate braced wall See Section R703.7 for maximum 16"

stud spacing

	MINIMUM LEN	TABLE I					
			MINI	NUM LENGT (Inches)	TH°		CONTRIBUTING LENGTH
METHOD (See Table R602.10.4)			'	(inches)			
		8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, P	BS, PCP, HPS, BV-WSP	48	48	48	53	58	Actual ^b
	GB	48	48	48	53	58	Double sided = Actual Single sided = 0.5 × Actua
	LIB	55	62	69	NP	NP	Actual ⁶
ATVVI	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	Actual ^b
	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	
	96	48	41	38	36 38	36 38	
CS-WSP, CS-SFB	100		44	40	40	39	
	104		49	43	43	41	
	108		54	46 50	45	43	
	112			55	43	45	
	116		ļ	60	52	48	
	120		 	00	56	51	
	124			<u> </u>	61	54	
	128	<u> </u>	 		66	58	
	132					62	
	136			 		66	-
	140	-	 	 		72	-
	144		Po	rtal header	l helaht	<u> </u>	
	METHOD able R602,10.4)	8 feet	9 feet	10 feet	11 feet	12 feet	1
(386)	Supporting roof only	16	16	16	Note c	Note c	48
PFH	Supporting one story and roof		24	24	Note c	Note c	
	PFG	24	27	30	Note d	Note d	
	SDC A, B and C	16	18	20	Note e	Note e	
CS-PF r SI: 1 inch = 25.4 mm,	SDC D ₀ , D ₁ and D ₂	16	18	20	Note e	Note e	Actual ^b

4" edges 8" field

Section R602.10.6.1

1¹/₂" long, 11 gage, ⁷/₁₆" dia. head nails 6" o.c. on all framing

0,092" dia., 0.225" dia. head nails with

length to accommodate 11/2"

penetration into studs

See Section R602.10.6.1

METHODS, MATERIAL

PFH

PFG

Continuously sheathed wood structural panel adjacent to garage

openings CS-PF

portal frame

1/2" or ²⁵/₃₂" for maximum 16" stud spacing

MIN. 3"X111" NET HEADER STEEL HEADER PROHISITED FW SPACER IS USED, PLACE ON BACK-SIDE OF HEADER

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 BOARD)

FRONT ELEVATION

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

TABLE R602.10.4—continued BRACING METHODS

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, roof covering dead load shall not exceed 3 psf.

c. Garage openings adjacent to a Method CS-G 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 PORTAL FRAMES (TWO BRACED WALL PANE

See Section R602.10.6.2

See Section R602.10.6.3

Interior sheathing per Table R602.3(1) or R602.3(2)

See Method CS-WSP

See Section R602.10.6.4

 $1^{1}/_{2}$ " long × 0.12" dia. (for $1^{1}/_{2}$ " thick sheathing) $1^{3}/_{4}$ " long × 0.12" dia. (for $2^{3}/_{22}$ " thick sheathing)

-MIN, DOUBLE 2x4 POST (KING AND JACK STUD) NUMBER OF JACK STUDS PER TABLES

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

See Section R602.10.6.2

See Section R602.10.6.3

6" edges 12" field

Varies by fastener

See Method CS-WSP

See Section R602.10.6.4

3" edges 6" field

DWD WED SED DRS DCD HDS BV-WSP			48	48	53	58	Actual [®]	
DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP GB			48	48	53	58	Double sided = Actual Single sided = 0.5 × Actual	
	55	62	69	NP	NP	Actual ⁶		
LIB 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		
	S-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	<u>_</u>	
	76	30	29	30	33	36	Ţ	
	80	32	30	30	33	36	<u>.</u>	
	84	35	32	32	33	36		
	88	38	35	33	33	36		
	92	43	37	35	35	36		
	96	48	41	38	36	36		
CS-WSP, CS-SFB	100		44	40	38	38		
	104		49	43	40	39	Actual ^b	
	108		54	46	43	41	_	
	112		-	50	45	43	_]	
	116			55	48	45		
	120		_	60	52	48		
	124		_		56	51		
	128			_	61	54		
	132				66	58		
	136					62		
	140		_			66		
,	144					72		
METHOD			Po	_				
(See Ta	ble R602,10.4)	8 feet	9 feet	10 feet	11 feet	12 feet		
	Supporting roof only	16	16	16	Note c	Note c	40	
PFH	Supporting one story and roof	24	24	24	Note c	Note c		
	24	27	30	Note d	Note d			
	SDC A, B and C	16	18	20	Note e	Note e		
CS-PF	SDC D ₀ , D ₁ and D ₂	16	18	20	Note e	Note e	Actual ^b	

	120	- 1	— I	60	54	40	
	124				56	51	
	128				61	54	
	132				66	58	
	136					62	
	140					66	
•	144				_	72	
MI	METHOD		Por				
	le R602,10.4)	8 feet	9 feet	10 feet	11 feet	12 feet	
(200 200	Supporting roof only	16	16	16	Note c	Note c	48
PFH	Supporting one story and roof	24	24	24	Note c	Note c	
PFG		24	27	30	Note d	Note d	1.5 × Actual ^b
	SDC A, B and C		18	20	Note e	Note e	1.5 × Actual ^b
CS-PF	SDC D ₀ , D ₁ and D ₂	16	18	20	Note e	Note e	Actual ^b
SI: 1 inch = 25.4 mm, 1 for a Not Permitted.	oot = 304.8 mm, 1 mile per hour = 0), 44 / NV8.					

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

	PANEL LENGTH PER TABLE R602 10.5	
BRACED WALL PANEL HEIGHT	MIN. 3/8' WOOD STRUCTURAL PANEL SHEATHING ON ONE FACE MIN. 2 X 4 FRAMING MIN. DOUBLE STUDS REQUIRED. (2) HOLD-DOWN OR (2) STRAP-TYPE ANCHORS PER TABLE R602.10.6.1 (ONE) OF EACH SHOWN FOR CLARITY). STRAP-TYPE ANCHORS SHALL BE PERMITTED TO BE ATTACHED OVER THE WOOD STRUCTURAL PANEL PANEL MUST BE ATTACHED TO CONCRETE FOOTING OR CONCRETE FOOTING OR CONCRETE FOUNDATION WALL CONTINUOUS OVER BRACED WALL LINE	FOR PANEL SPLICE (IF NEEDED) ADJOINING PANEL EDGES SHALL MEET OVER AND BE FASTENED TO COMMON FRAMING 8D COMMON OR GALV. BOX NAILS @ 6* O.C. AT PANEL EDGES. FOR SINGLE STORY AND @ 4* O.C. PANEL EDGES FOR THE FIRST OF 2 STORIES STUDS UNDER HEADER AS REQUIRED 8D COMMON OR GALV. BOX NAILS @ 12* O.C. AT INTERIOR SUPPORTS MIN. REINFORCING OF FOUNDATION, ONE #4 BAR TOP AND BOTTOM. LAP BARS 15* MINIMUM.
25.4 mm.	(2) 1/2" DIAMETER ANCHOR BOLT'S LOCATED BETWEEN 6" AND 12" OF EACH END OF THE SEGMENT	MINIMUM FOOTING SIZE UNDER OPENING IS 12" X 12". A TURNED-DOWN SLAB SHALL BE PERMITTED AT DOOR OPENINGS.

Method LIBb

15.0

18.0

12.5

23.5

29.0

34.5

40

50

20

≤ 115

6.5

12.5

15.0

18.0

23.5

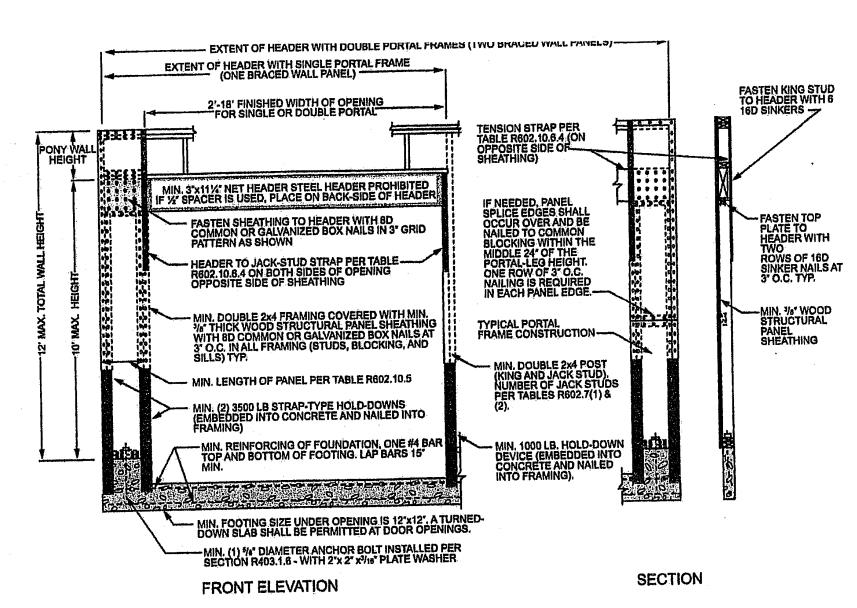
29.0

34.5

27.0

35.0 43.0 51.0

FIGURE R602.10.6.1 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