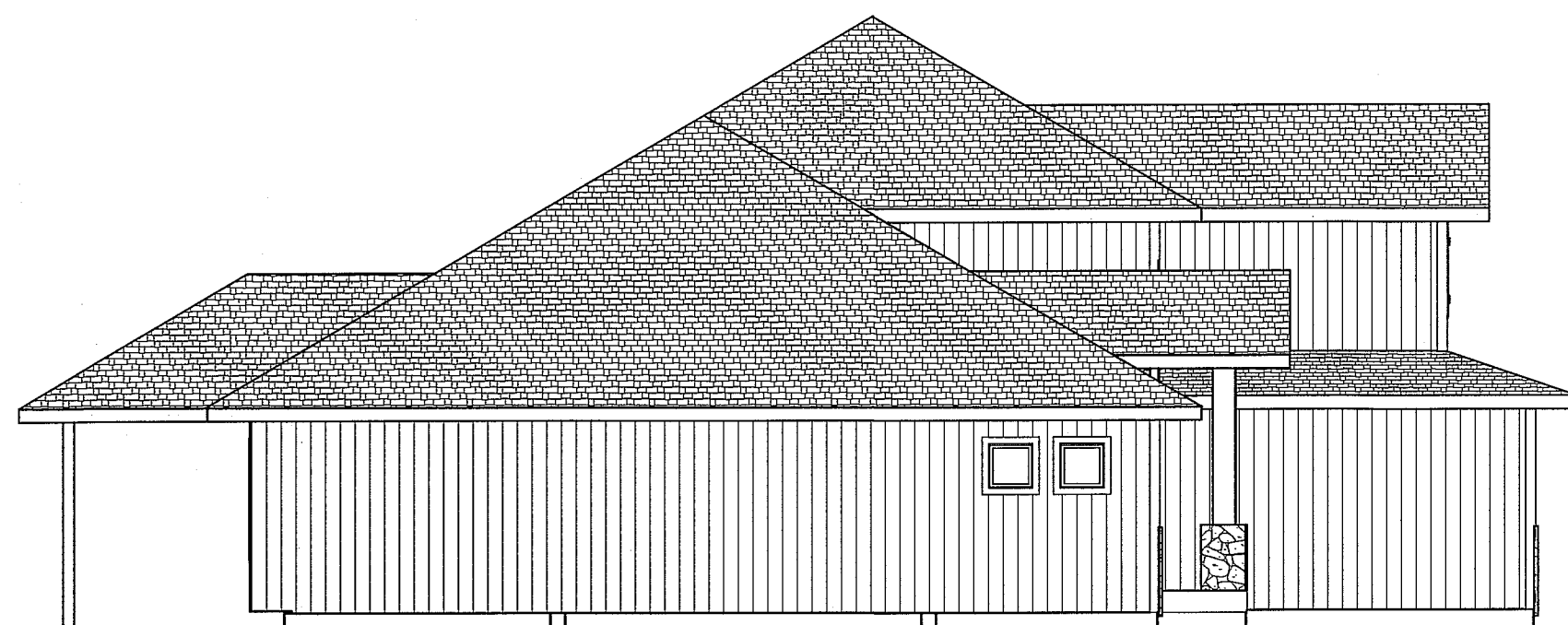


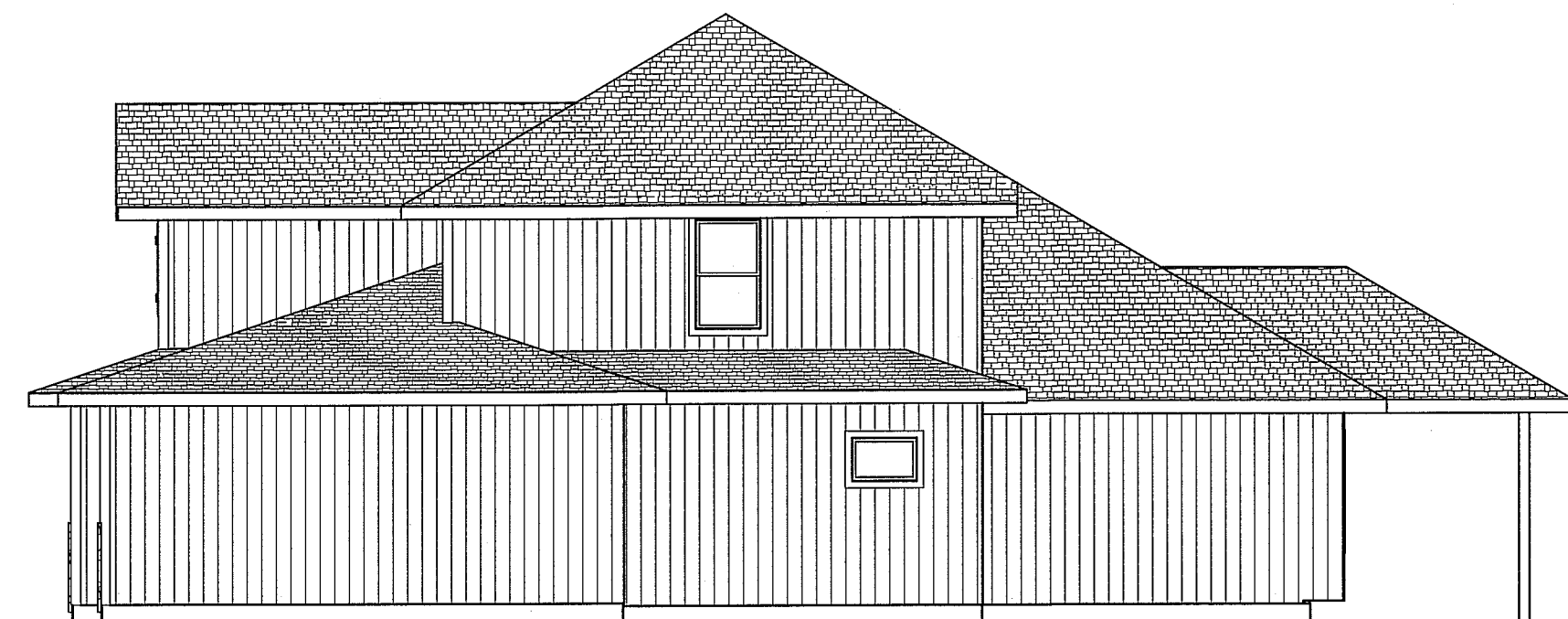


RELEASE FOR CONSTRUCTION  
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LEE'S SUMMIT, MISSOURI  
07/24/2020

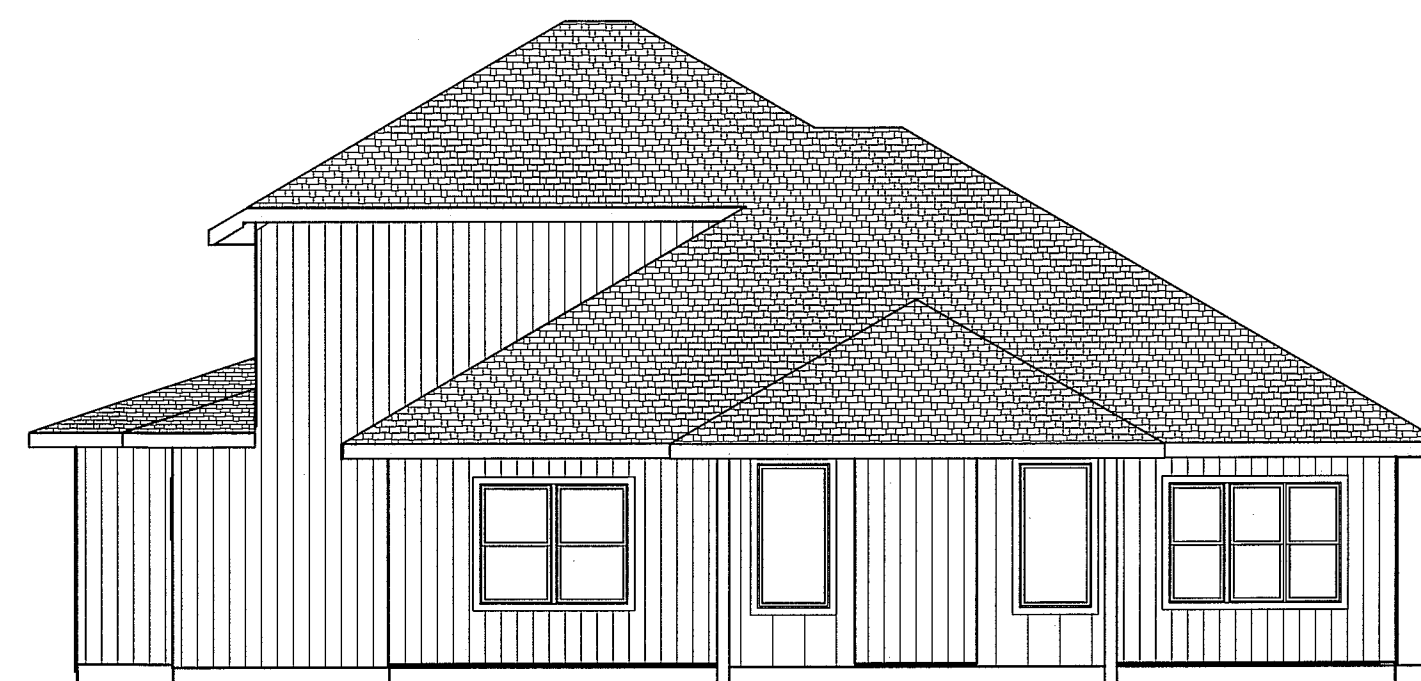
FRONT EL.



LEFT EL.  
1/8" = 1'-0"



RIGHT EL.  
1/8" = 1'-0"



REAR EL.  
1/8" = 1'-0"

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  
ANDERSON III  
LOT 68 MONTICELLO  
1245 NE GOSHEN DRIVE  
LEE SUMMIT MO

SCALE  
1/4" = 1'-0"

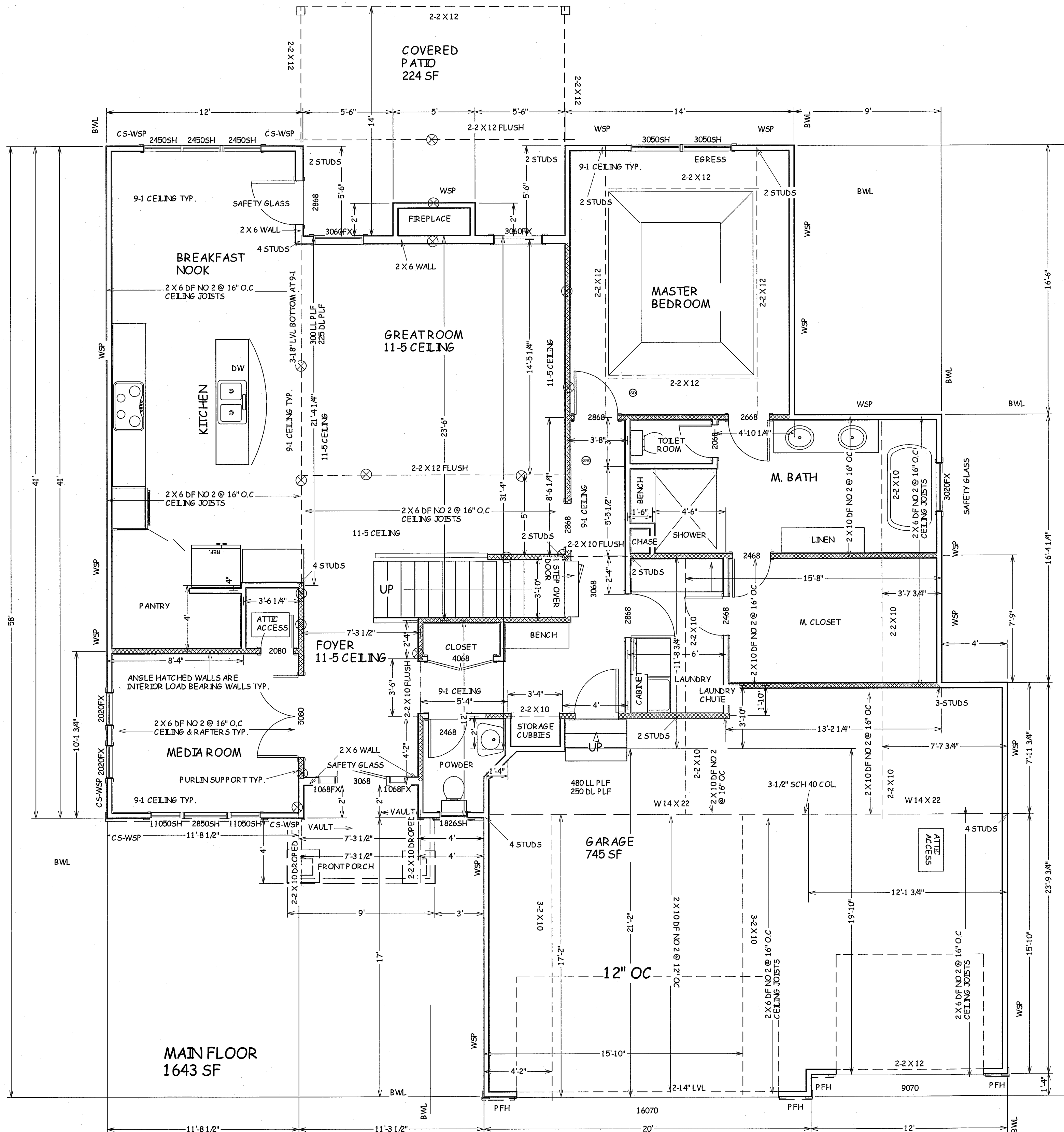
DATE  
7-10-20

PLAN NO.  
3157

SHEET NO.  
1 OF 6







RELEASE FOR CONSTRUCTION  
AS NOTED ON PLANS REVIEW  
CODES ADMINISTRATION  
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07/24/2020

STATE OF MISSOURI  
REGISTERED PROFESSIONAL ENGINEER  
JOSEPH A. TOWNS P.E.  
MO. LIC # 22017  
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NICK ZVACEK HOMES  
ANDERSON III  
LOT 68 MONTICELLO  
1245 NE GOSHEN DRIVE  
LEE SUMMIT MO

SCALE  
1/4" = 1'-0"

DATE  
7-10-20

PLAN NO.

3157

SHEET NO.

3 OF 6



ROOF PLAN  
1/8" = 1'-0"  
ROOF PITCHES

RAFTERS 2 X 6  
HIP S AND RIDGE

24" S

4/12

4/12

4/12

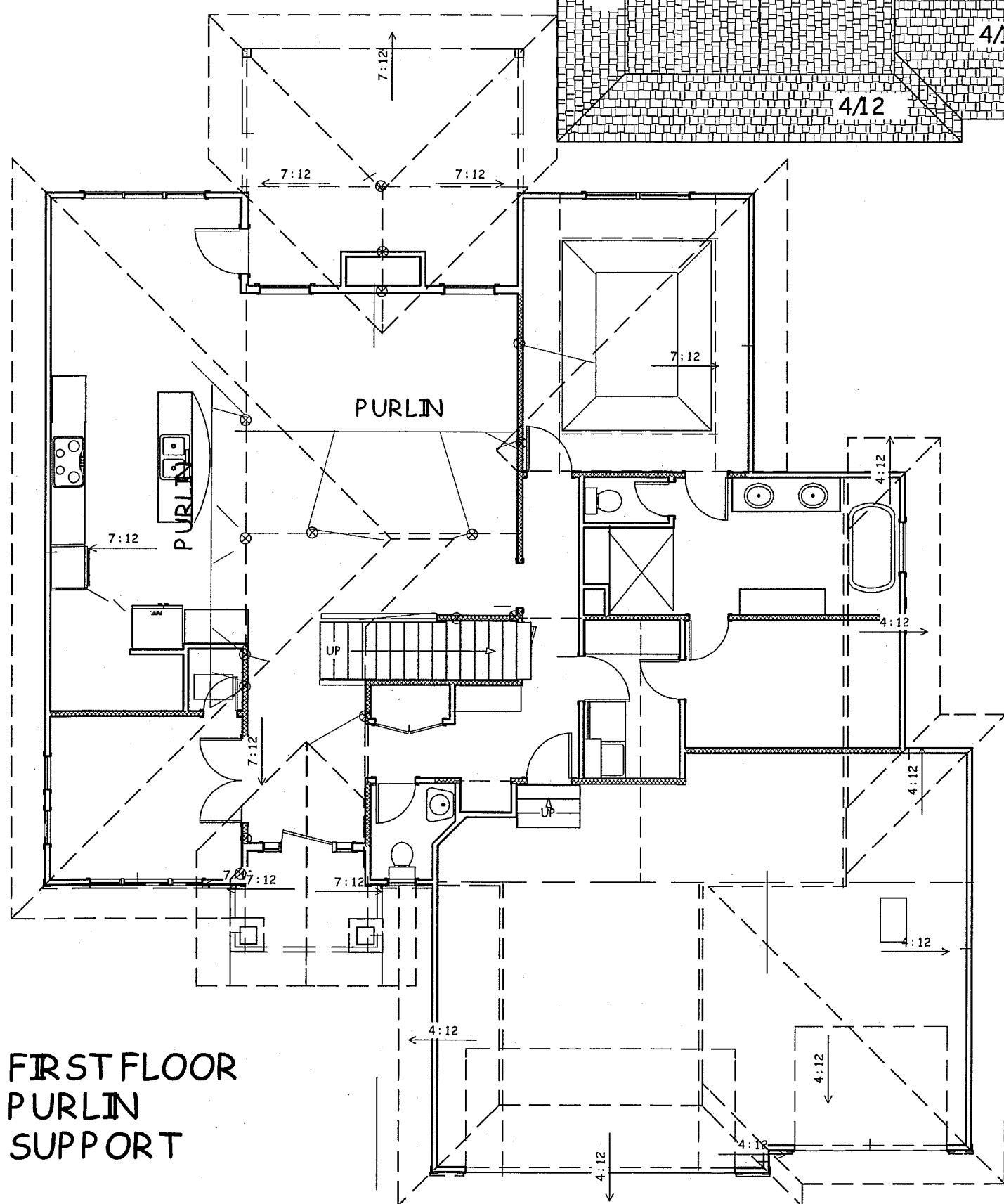
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4/12

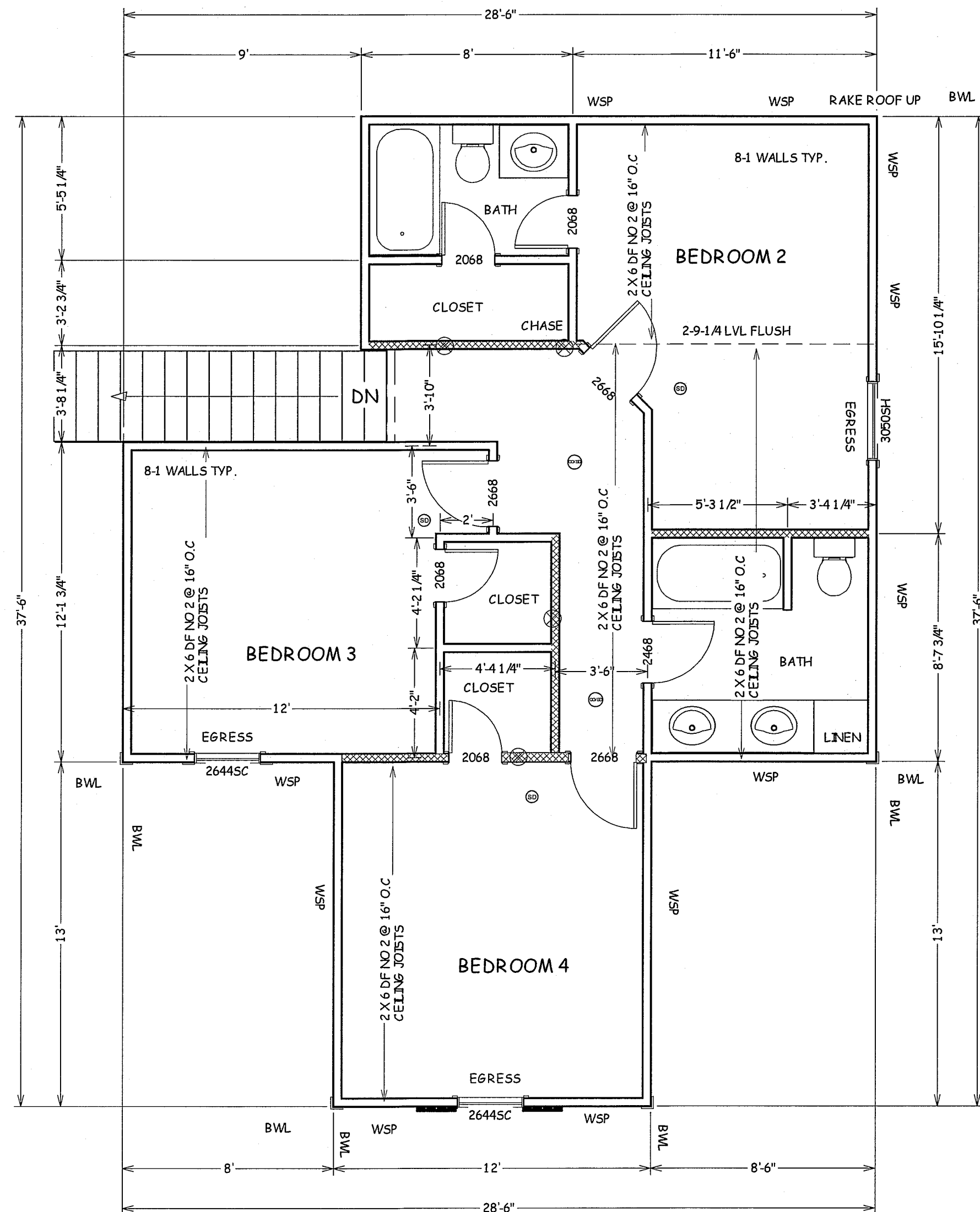
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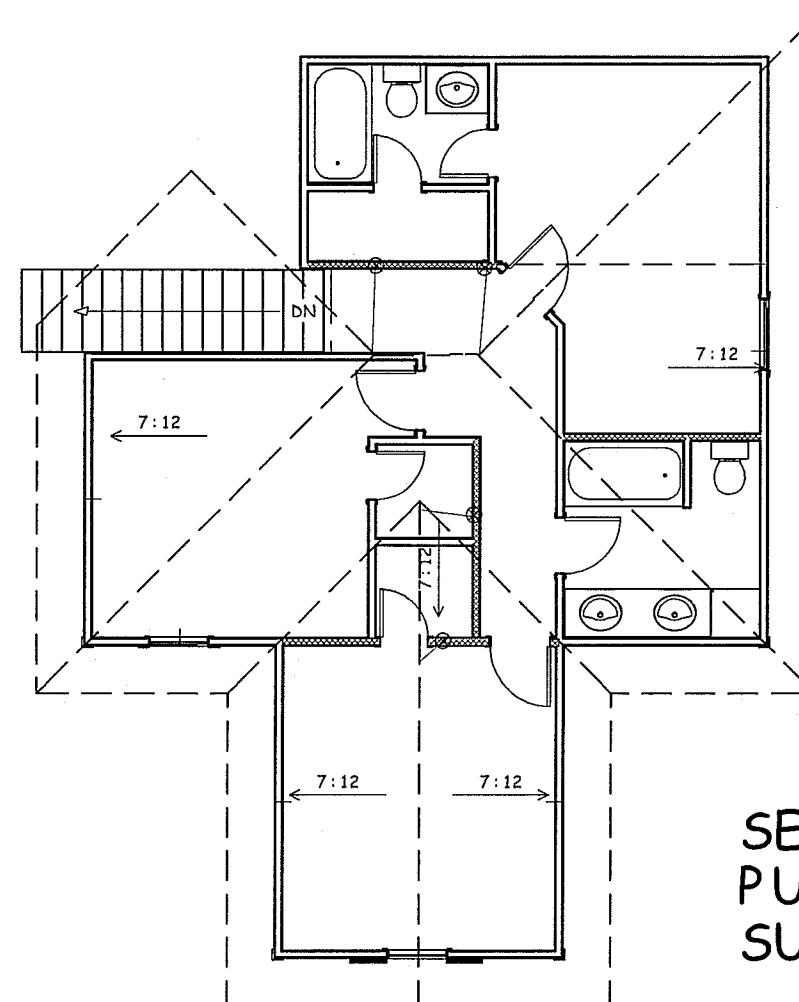
24" SOFFITS TYP.



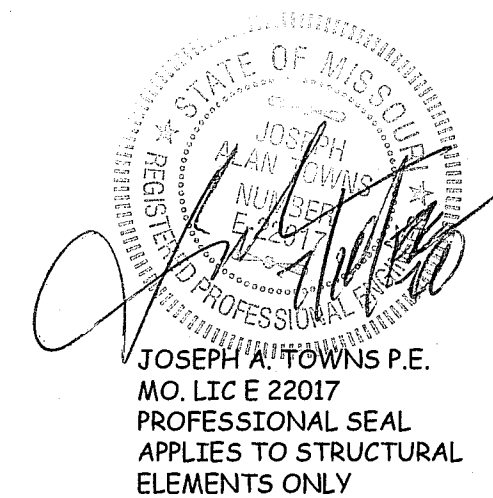
FIRST FLOOR  
PURLIN  
SUPPORT



SECOND FLOOR  
741 SF



SECOND FLOOR  
PURLIN  
SUPPORT



BUILD IN ACCORDANCE WITH  
2018 INTERNATIONAL  
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LOCAL CODES.

NICK ZVACEK HOMES  
ANDERSON III  
LOT 68 MONTICELLO  
1245 NE GOSHEN DRIVE  
LEE SUMMIT MO

SCALE  
1/4" = 1'-0"

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4 OF 6  
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07/24/2020



ENERGY CONSERVATION CODE  
THE FOLLOWING VALUES ARE NEEDED.

R-15 IN WALLS

R-49 IN ATTICS

R-38 IN VAULTS

R-30 REDUCTION FOR VAULTS IS ONLY FOR 500 SF  
PF AREA

R-19 IN FLOORS OVER UNCONDITIONED SPACES

R-10 IN CRAWL SPACE WALLS

BASEMENT WALLS R-13 CAVITY OR R-10 CONTINUOUS

SLABS SHALL BE R-10 FOR A DEPTH OF 2 FOOT

A WINDOW U FACTOR OF .35 OR BETTER

DUCTWORK NEEDS TO HAVE AN R-8 VALUE

VAULT INSULATION DETAIL

1" AIR SPACE WITH FOAM AIR  
CHUTES

2 X 10 VAULT RAFTER

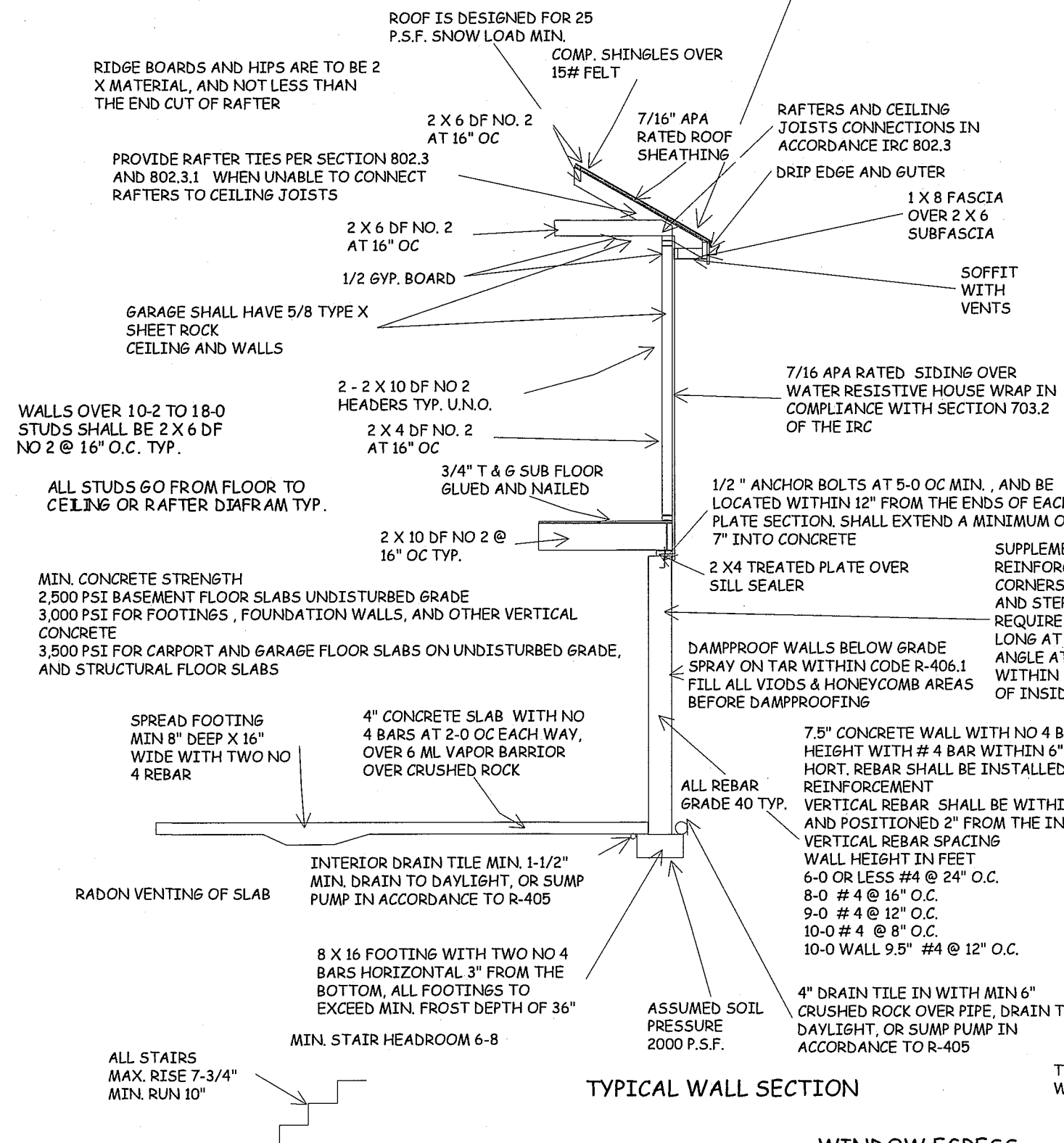
2 X 2 NAILED TO BOTTOM OF  
RAFTERS 12" O.C. WITH 12 D  
NAILS

R-38 HIGH DENSITY  
INSULATION

INTERCONNECTED HARD WIRE SMOKE  
DETECTORS SHALL BE INSTALLED IN EACH  
BEDROOM AND OUTSIDE OF EACH BEDROOM

ALL PLUMBING IF EXISTING SHALL BE CAPPED  
AND AIR TESTED PRIOR TO ROUGH-IN INSPECTION  
FOR LEAK VERIFICATION

1. DWELLING / GARAGE OPENINGS BETWEEN GARAGE AND SLEEPING  
PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS SHALL BE  
EQUIPPED WITH SOLID WOOD OR STEEL DOORS NOT LESS THAN 1-3/8"  
THICK OR 20 MINUTE RATED DOORS, WITH SELF CLOSING DEVICES  
REQUIRED FOR GARAGE / DWELLING SEPERATION DOORS R302.5.1
2. WHOLE HOUSE MECHANICAL VENTILATION SYSTEM IS REQUIRED FOR  
ANY DWELLING IN COMPLIANCE WITH IRC M 1505
3. CARBON MONOXIDE DETECTORS REQUIRED IRC R 315
4. STEEL COLUMNS SHALL BE MINIMUM SCHEDULE 40 R407.3
5. DECK SHALL BE BUILT PER TABLES 507.2 , 507.2.1, 507.3, 507.6,  
507.5.1(1)&(2), 507.5, AND 507.6
6. STUDS SHALL BE CONTINUOUS BETWEEN FLOOR, CEILING AND OR  
ROOF DIAPHRAGMS R602.3
7. ADDED REQUIREMENTS FOR WINDOW FALL PROTECTION R312.2
8. NEW PROVISIONS FOR ATTACHMENT OF RAFTERS, TRUSSES AND  
ROOF BEAMS R802.3.1, R802.11
9. INSULATION REQUIRED FOR ALL BASEMENT WALLS ( INCLUDING  
UNFINISHED BASEMENTS) N1102.1
10. EXTERIOR WINDOWS/DOORS SHALL HAVE U-FACTOR 0.35 AND  
GLAZING SHALL HAVE SOLAR HEIGHT GAIN FACTOR OF 0.40 N1102.1
11. HOUSE LEAKAGE AND DUCT LEAKAGE PERFORMANCE STANDARDS  
EFFECTIVE JANUARY 1, 2014. A SAMPLE TESTING PROGRAM WILL BE  
IMPLEMENTED OCTOBER 1, 2012 KCBRC N1102.4.1.2 N1103.2.2
12. LIGHTING FIXTURES PENETRATING THE THERMAL ENVELOPE ( E.G.  
CAN LIGHTS IN ATTIC ) SHALL BE IC- RATED, LEAKAGE- RATED AND  
SEALED TO THE GYPSUM WALLBOARD N1102.4.4
13. PROGRAMMABLE THERMOSTAT REQUIRED N1103.1.1
14. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2 % AIR LEAKAGE  
RATE N1103.2.2.1
15. BUILDING CAVITIES USED AS RETURN AIR PLENUMS SHALL BE  
SEALED TO PREVENT LEAKAGE ACROSS THE THERMAL ENVELOPE KCBRC  
N1103.2.2
16. CERTAIN HOT WATER PIPES SHALL BE INSULATED N1103.4
17. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR  
M1507.2
18. MAKEUP AIR SYSTEM REQUIRED FOR KITCHEN EXHAUST HOODS  
THAT EXCEED 400 CFM M1503.4
19. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL ( INCLUDING  
THE WALL BETWEEN THE HOUSE AND GARAGE ) SHALL NOT BE USED AS  
RETURN AIR PLENUMS
20. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING  
SPACE AND THE GARAGE M1601.6
21. A CONCRETE- ENCASED GROUNDING ELECTRODE ( 'UFER' GROUND )  
CONNECTION SHALL BE PROVIDED TO THE ELECTRICAL SERVICE E3608.1
22. COMPLIANCE WITH THE REQUIREMENT AND SHOW CONNECTION AS  
NEEDED FOR ROOF BEAM, TRUS, RAFTER, AND GIRDER CONNECTION FOR  
UPLIFT PER IRC 802.11. ALL RAFTERS BE IN COMPLIANCE WITH IRC 502.11  
AMENDED RAYMORE CODE



TYPICAL WALL SECTION

WINDOW EGRESS  
REQUIREMENTS

WINDOW SAFETY GLAZING PER 308

SAFETY GLAZING REQUIRED ALONG WALKING SURFACES AND  
STAIRS LOCATED WITHIN 36 INCHES HORIZONTALLY OF THE STEPS.  
SAFETY GLAZING REQUIRED IF EXPOSED SINGLE PANEL IS IN  
EXCESS OF 9 SQUARE FEET OR THE BOTTOM EDGE OF THE GLAZING  
IS LESS THAN 18 INCHES ABOVE THE FINISHED FLOOR.

SAFETY GLAZING REQUIRED WHERE THE NEAREST EXPOSED EDGE OF  
THE GLAZING IS WITHIN 24 INCHES OF EITHER VERTICAL EDGE OF  
THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM  
EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A  
WALKING SURFACE, SAFETY OR TEMPERED GLAZING IS REQUIRED.

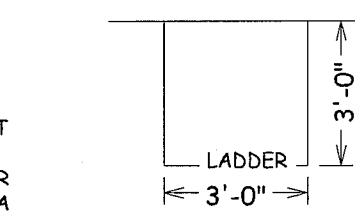
WINDOWS ARE TO HAVE FALL  
PROTECTION PER IRC 312.2

BEDROOM WINDOW EGRESS MINIMUM FOR A DOUBLE HUNG  
WINDOW IS 34 INCH CLEAR WIDTH MIN. AND 24 INCH CLEAR  
HEIGHT MIN. WITH A CLEAR OPENABLE AREA OF 5.7 SQUARE FEET  
MIN.  
A CASEMENT OR SLIDER WINDOW MINIMUMS ARE 20 INCH CLEAR  
WIDTH MINIMUM AND 41 INCH CLEAR HEIGHT MINIMUM. WITH A  
MINIMUM 5.7 SQUARE FOOT OF OPENABLE AREA.  
OPENING OF EGRESS WINDOW NOT MORE THAN 42"  
FROM THE FLOOR

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

PIER PADS

TYP. U.N.O. 3-0 X 3-0 X 12" PEIR PADS MIN.  
WITH # 4 REBAR, 6 EACH WAY



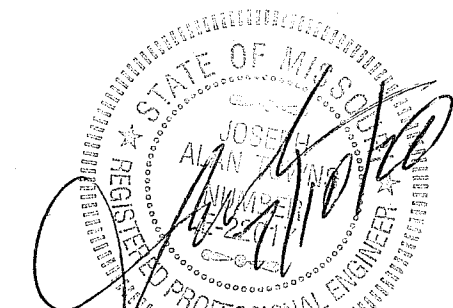
EGRESS WINDOW WELL AS NEEDED  
PER SECTION 308 MIN 3-0 X 3-0  
WITH LADDER

USE LSTA24 RIDGE STRAPS  
ON ALL VAULTS AT RIDGE  
OR COLLAR TIES

TYP VAULT WITH STRAPS

STUDS OVER 10-0 SHALL HAVE  
BLOCKING ALONG WALL MAX  
OF 6-0 O.C.

OVERHEAD GARAGE DOORS  
MUST MEET DASHA 115 MPH  
OR IRC 2018 REQUIREMENTS



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NICK ZVACEK HOMES  
ANDERSON III  
LOT 68 MONTICELLO  
1245 NE GOSHEN DRIVE  
LEE SUMMIT MO

SCALE  
1/4" = 1-0

DATE  
7-10-20

PLAN NO.

3157

SHEET NO.

5 OF 6  
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07/24/2020



BUILD IN ACCORDANCE WITH  
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RESIDENTIAL CODE AND  
LOCAL CODES.

NICK ZVACEK HOMES  
ANDERSON III  
LOT 68 MONTECELLO  
1245 NE GOSHEN DRIVE  
OP TEE SUMMIT AVE

SCALE  
1/4" = 1'-0"

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7-10-20

PLAN NO.

3157

SHEET NO.

6 OF 6

RELEASE FOR CONSTRUCTION  
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TABLE R602.10.3(1) BRACING REQUIREMENTS BASED ON WIND SPEED						
EXPOSURE CATEGORY 3 30-FOOT MEAN ROOF HEIGHT 10-FOOT WALL HEIGHT 2 BRACED WALL LINES		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*	Method GB	Methods DWB, WSP, SFB, PBS, FCP, HPS, BV-WSP, ABW, PFH, FCP, CS-SFB	Methods CS-WSP, CS-G, CS-PF
≤ 115		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	7.0	6.0
		50	15.0	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
		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
		30	NP	27.0	15.5	13.0
		40	NP	35.0	20.0	17.0
		50	NP	43.0	24.5	21.0
		60	NP	51.0	29.0	25.0

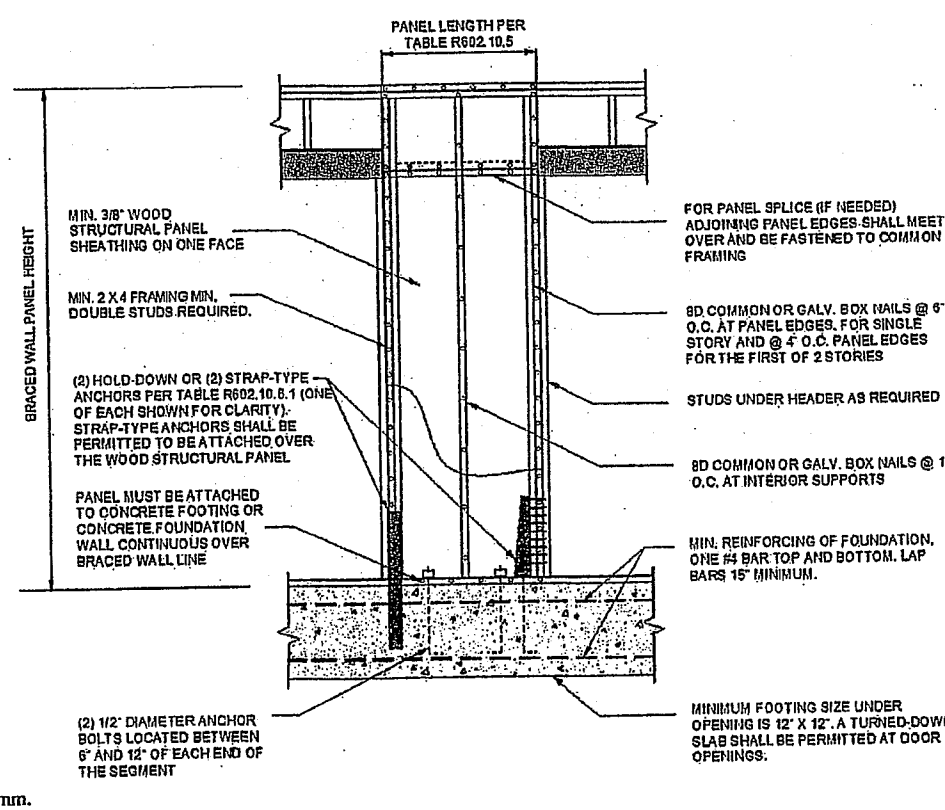


FIGURE R602.10.6.1  
METHOD ABW—ALTERNATE BRACED WALL PANEL

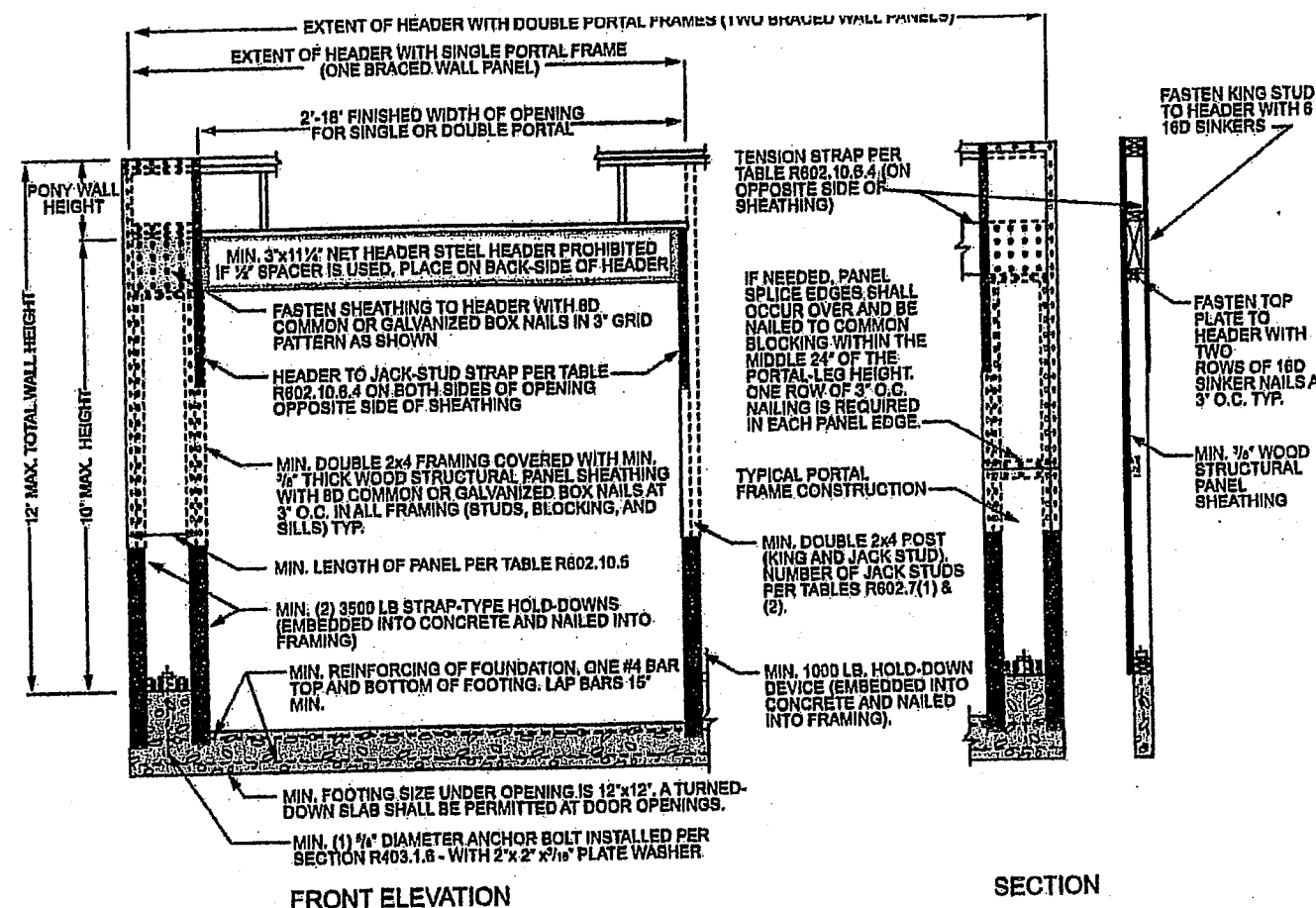


FIGURE R602.10.6.2  
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

TABLE R602.10.4 BRACING METHODS					
METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA*	
				Fasteners	Spacing
Intermittent Bracing Methods	LIB Let-in-bracing	1 × 4 wood or approved metal straps at 45° to 60° angles for maximum 16" stud spacing		Wood: 2-8d common nails or 3-8d (2 1/2" long x 0.113" dia.) nails  Metal strap: per manufacturer	Wood: per stud and top and bottom plates  Metal: per manufacturer
	DWB Diagonal wood boards	3/4" (1" nominal) for maximum 24" stud spacing		2-8d (2 1/2" long x 0.113" dia.) nails or 2 - 1 1/4" long staples	Per stud
	WSP Wood structural panel (See Section R604)	3/8"		Exterior sheathing per Table R602.3(3)  Interior sheathing per Table R602.3(1) or R602.3(2)	6" edges 12" field  Varies by fastener
	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 1/2" x 0.131) nails	4" at panel edges 12" at intermediate supports 4" at braced wall panel end posts
	SFB Structural fiberboard sheathing	1/2" or 5/8" for maximum 16" stud spacing		1 1/2" long x 0.12" dia. (for 1/2" thick sheathing) 1 1/2" long x 0.12" dia. (for 5/8" thick sheathing) galvanized roofing nails	3" edges 6" field
	GB Gypsum board	1/2"		Nails or screws per Table R602.3(1) for exterior locations  Nails or screws per Table R702.3.5 for interior locations	For all braced wall panel locations: 7" edges (including top and bottom plates) 7" field
	PBS Particleboard sheathing (See Section R605)	3/8" or 1/2" for maximum 16" stud spacing		For 3/8", 6d common (2" long x 0.113" dia.) nails For 1/2", 8d common (2 1/2" long x 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							
METHOD (See Table R602.10.4)		MINIMUM LENGTH* (inches)					CONTRIBUTING LENGTH (inches)
		Wall Height					
		8 feet	9 feet	10 feet	11 feet	12 feet	Actual <sup>b</sup>
DWB, WSP, SFB, PBS, FCP, HPS, BV-WSP		48	48	48	53	58	Actual <sup>b</sup>
GB		48	48	48	53	58	Double sided = Actual Single sided = 0.5 x Actual
LIB		55	62	69	NP	NP	Actual <sup>b</sup>
ABW	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42	48
	SDC D <sub>1</sub> , D <sub>2</sub> and D <sub>3</sub> , ultimate design wind speed < 140 mph	32	32	34	NP	NP	
CS-G		24	27	30	33	36	Actual <sup>b</sup>
CS-WSP, CS-SFB	Adjacent clear opening height (inches)						Actual <sup>b</sup>
	≤ 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	
	96	48	41	38	36	36	
	100	—	44	40	38	38	
	104	—	49	43	40	39	
	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 (See Table R602.10.4)		Portal header height					
PFH	Supporting roof only	16	16	16	Note c	Note c	48
	Supporting one story and roof	24	24	24	Note c	Note c	
PFG		24	27	30	Note d	Note d	1.5 x Actual <sup>b</sup>
CS-PF	SDC A, B and C	16	18	20	Note c	Note c	1.5 x Actual <sup>b</sup>
	SDC D <sub>1</sub> , D <sub>2</sub> and D <sub>3</sub>	16	18	20	Note c	Note c	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.  
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.

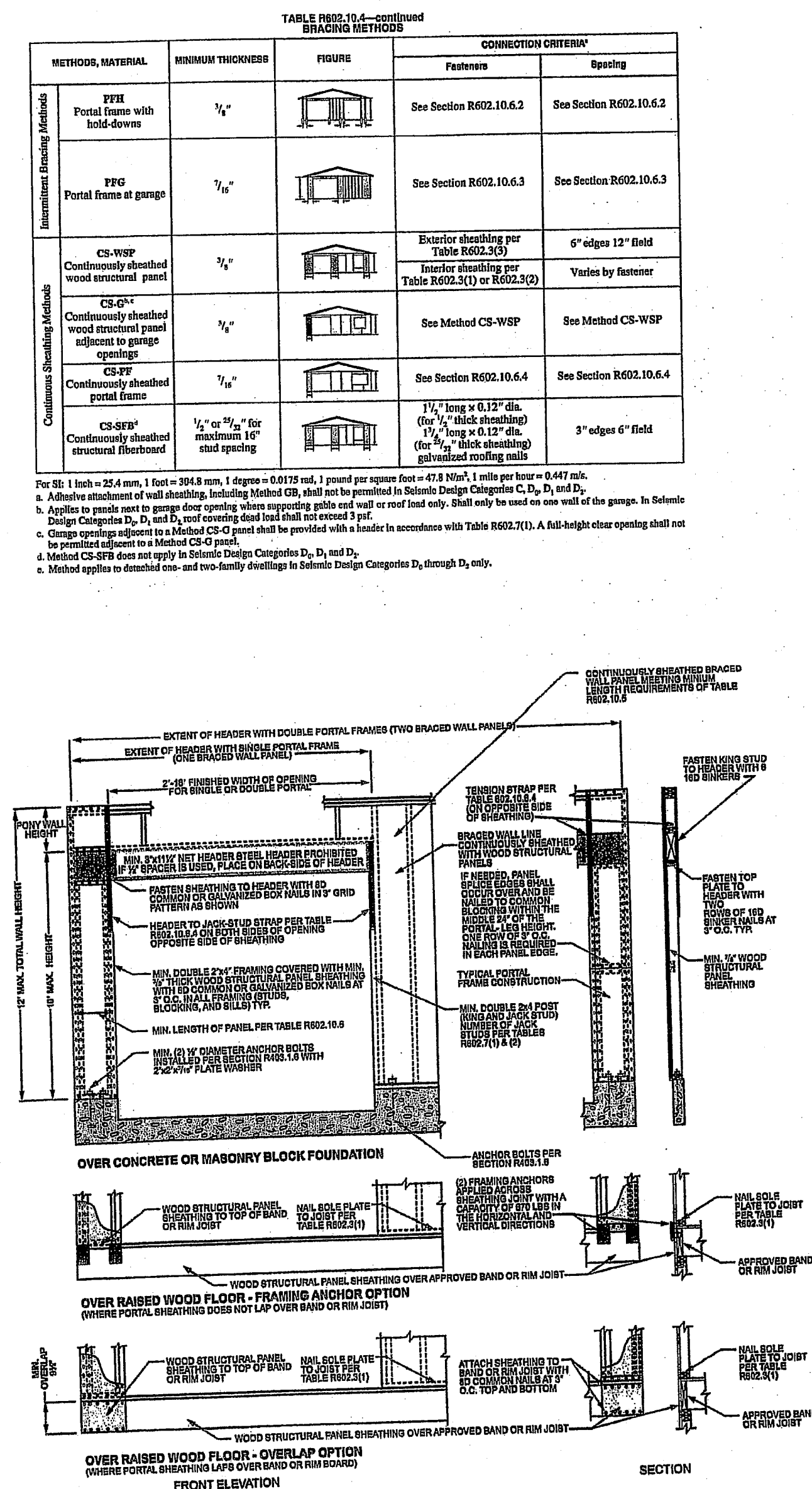


FIGURE R602.10.6.4  
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

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

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