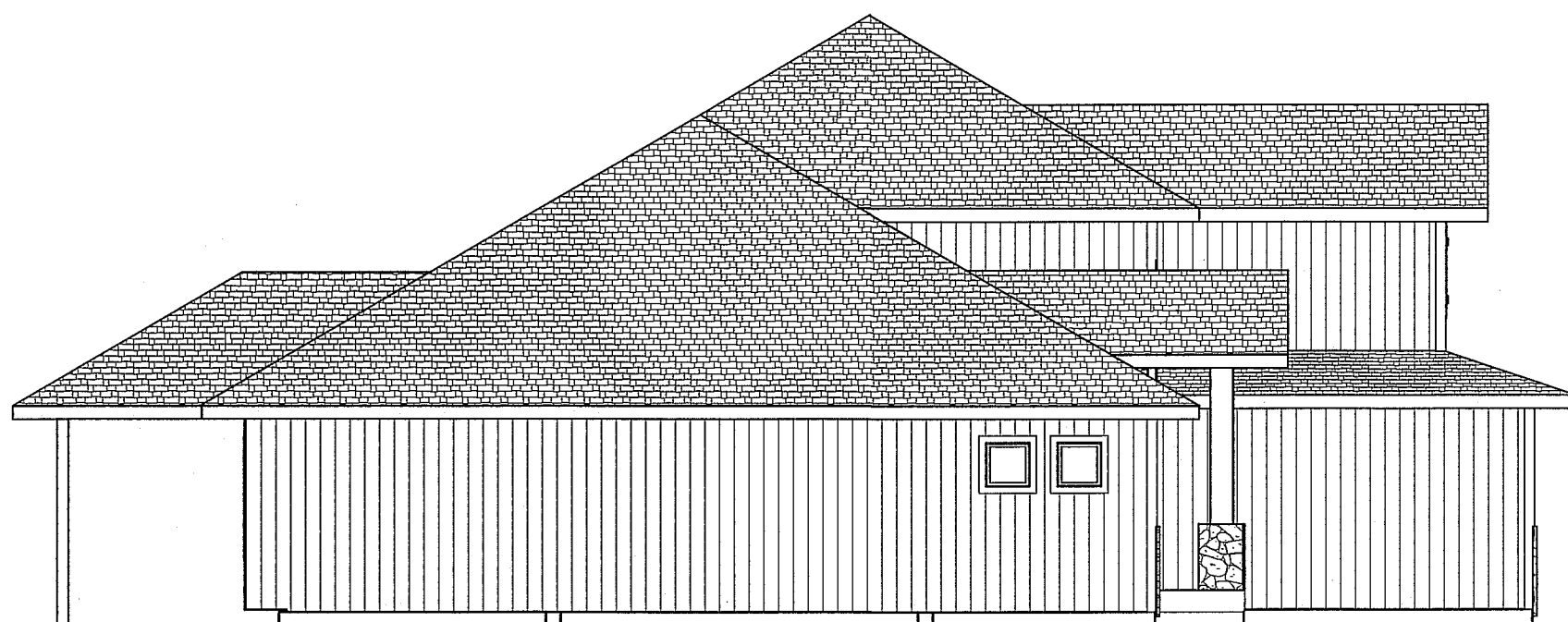
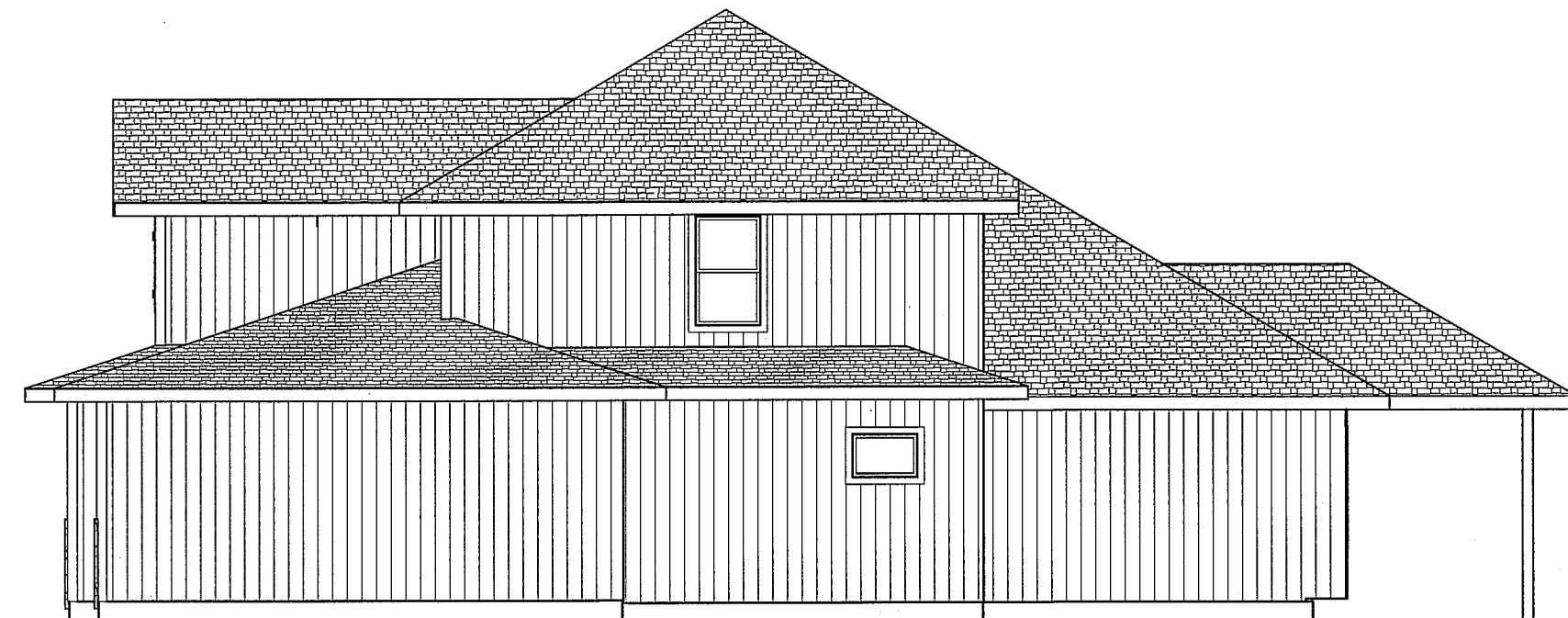




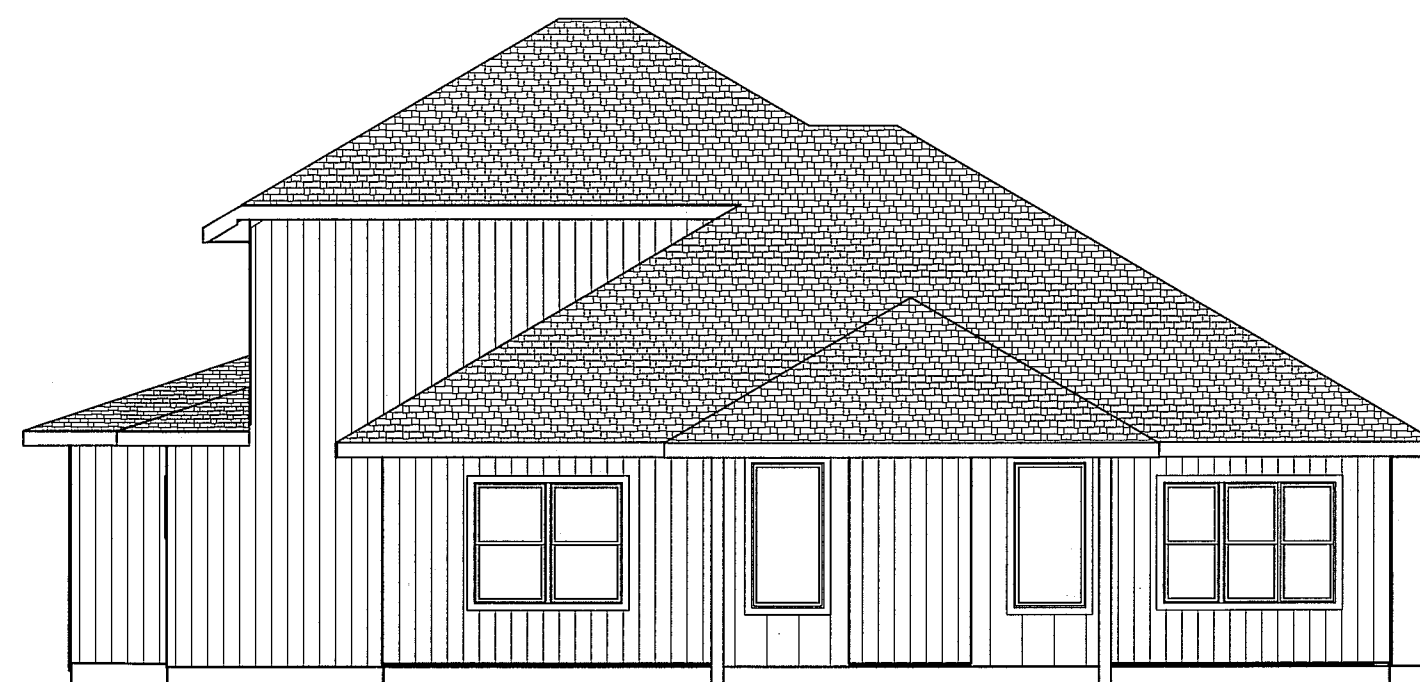
FRONT EL.



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



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



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

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

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

SCALE
1/4" = 1'-0"

DATE
5-10-21

PLAN NO.

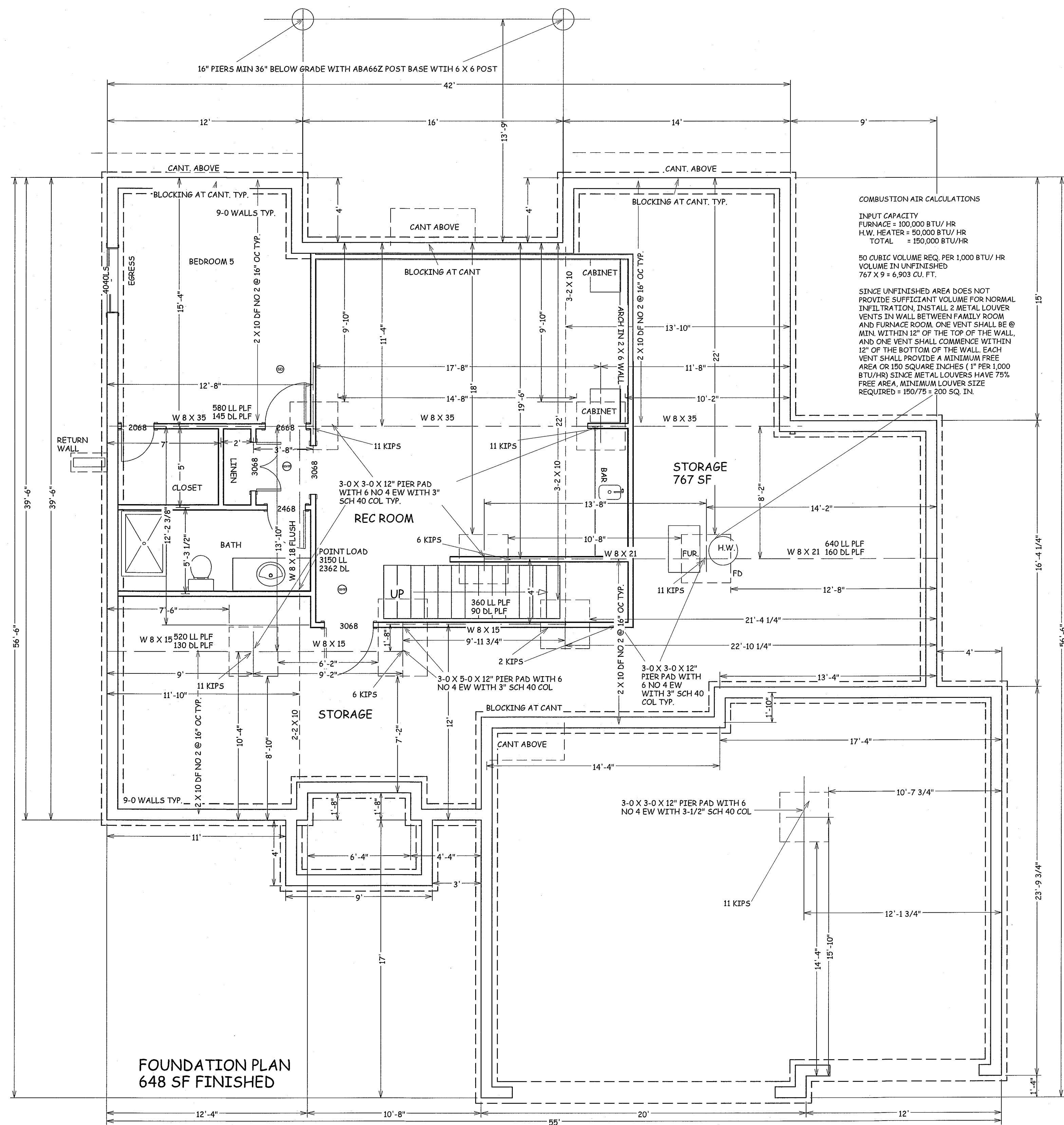
3524

SHEET NO.

1 OF 6



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 111 MONTICELLO
4713 NE FREEHOLD DR
LEE SUMMIT MO

SCALE
1/4" = 1'-0

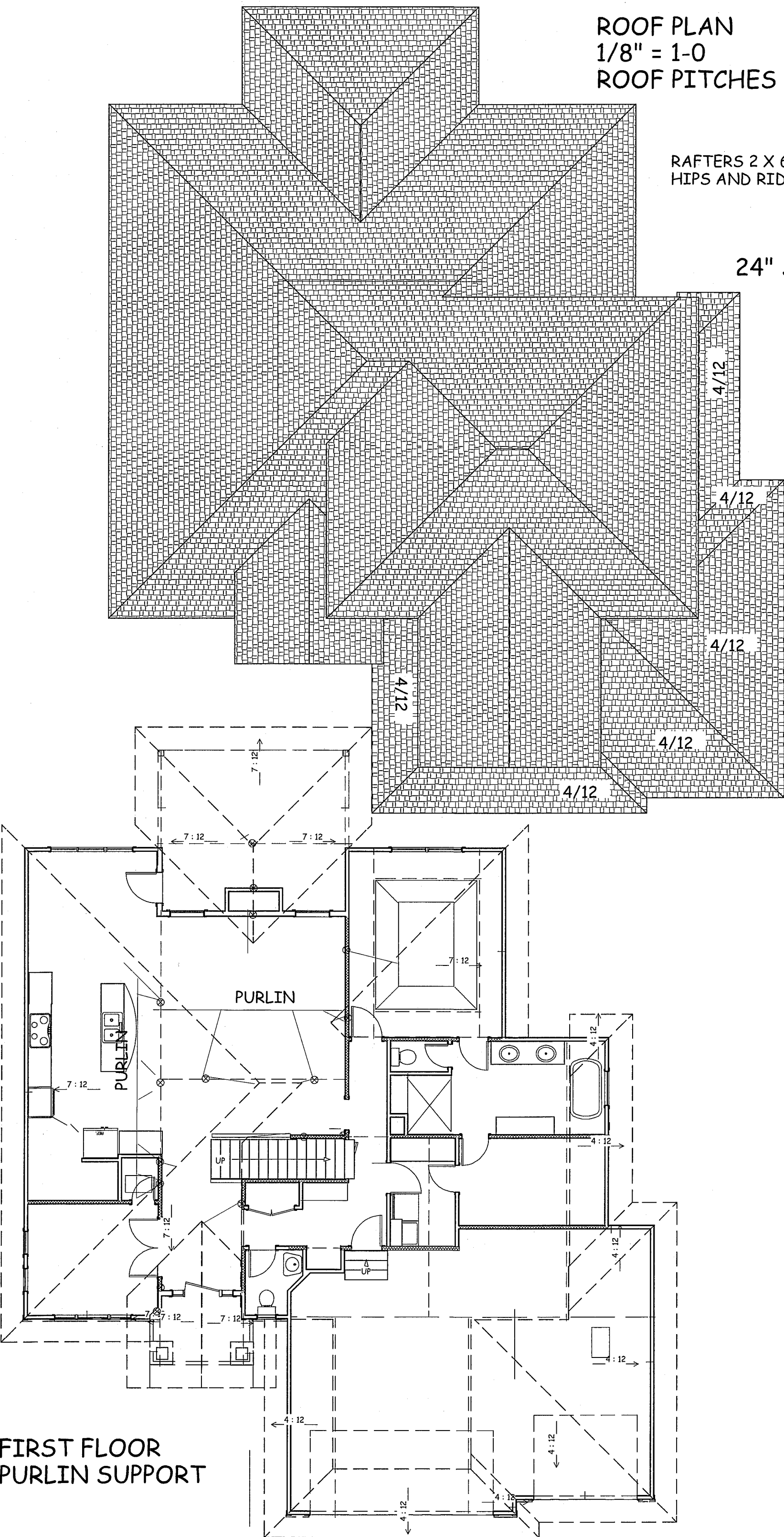
DATE
5-10-21

PLAN NO.
3524

SHEET NO.
2 OF 6

STATE OF MISSOURI
JOSEPH A. TOWNS P.E.
ALAN TOWNS
REGISTERED PROFESSIONAL ENGINEER
NUMBER E-22017
EXPIRES 12/31/2024

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

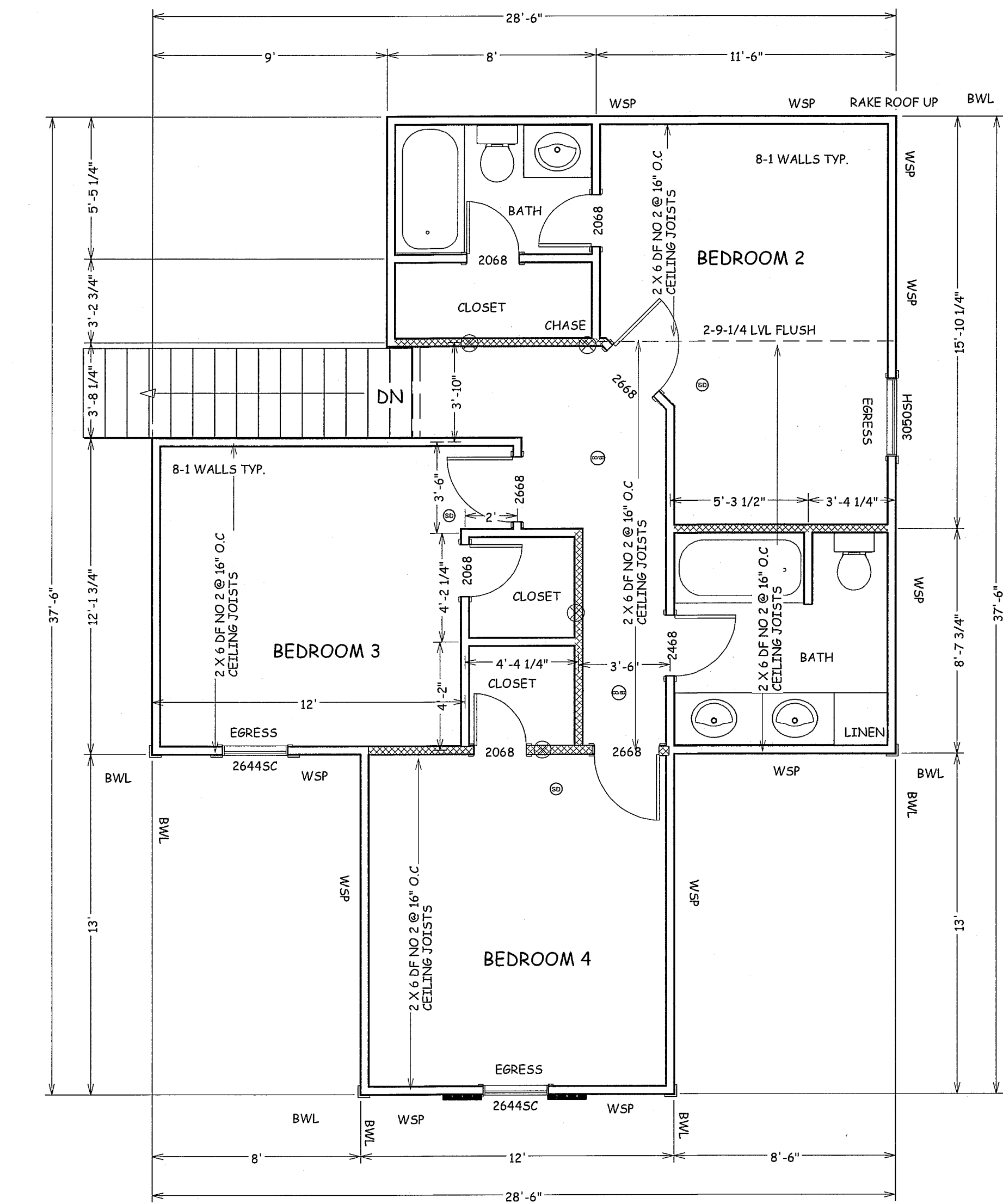


FIRST FLOOR
PURLIN SUPPORT

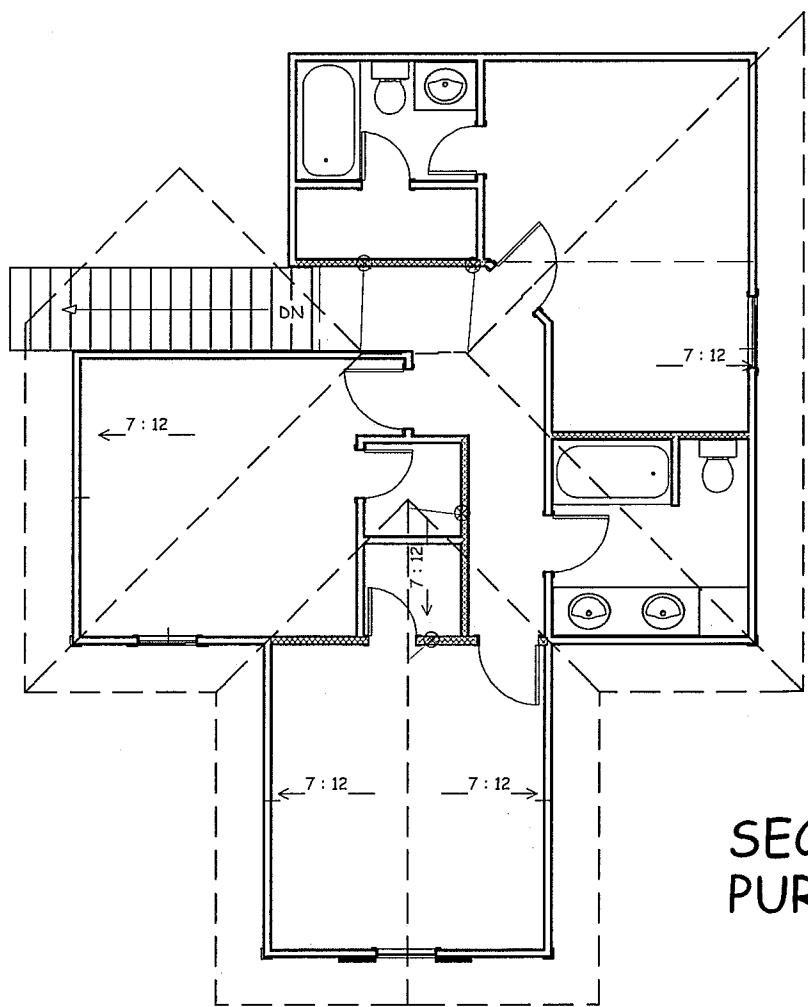
ROOF PLAN
1/8" = 1'-0"
ROOF PITCHES 7/12 TYP. UNO

RAFTERS 2 X 6 DF NO 2 @ 16" OC TYP.
HIPS AND RIDGES 2 X 8 DF NO 2 TYP.

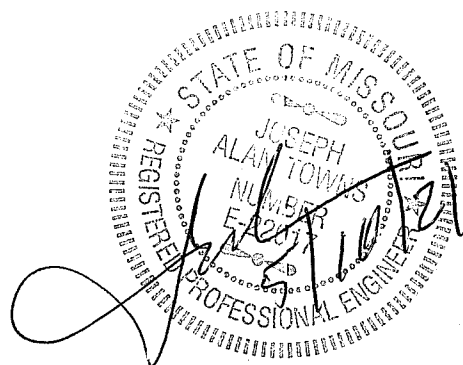
24" SOFFITS TYP.



SECOND FLOOR
741 SF



SECOND FLOOR
PURLIN SUPPORT



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

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

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

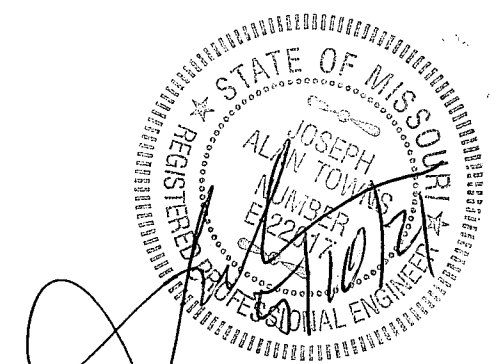
SCALE
1/4" = 1'-0"

DATE
5-10-21

PLAN NO.
3524

SHEET NO.
4 OF 6

DUCTWORK NEEDS TO HAVE AN R-8 VALUE



5 OF 6

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

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

SCALE
1/4" = 1'-0"

DATE
5-10-21

PLAN NO.

3524

SHEET NO.

6 OF 6

TABLE R602.10.3(1)
BRACING REQUIREMENTS BASED ON WIND SPEED

EXPOSURE CATEGORY 2 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, PFB, PFC, HPS, BV-WSP, ABW, PFH, PFC, 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

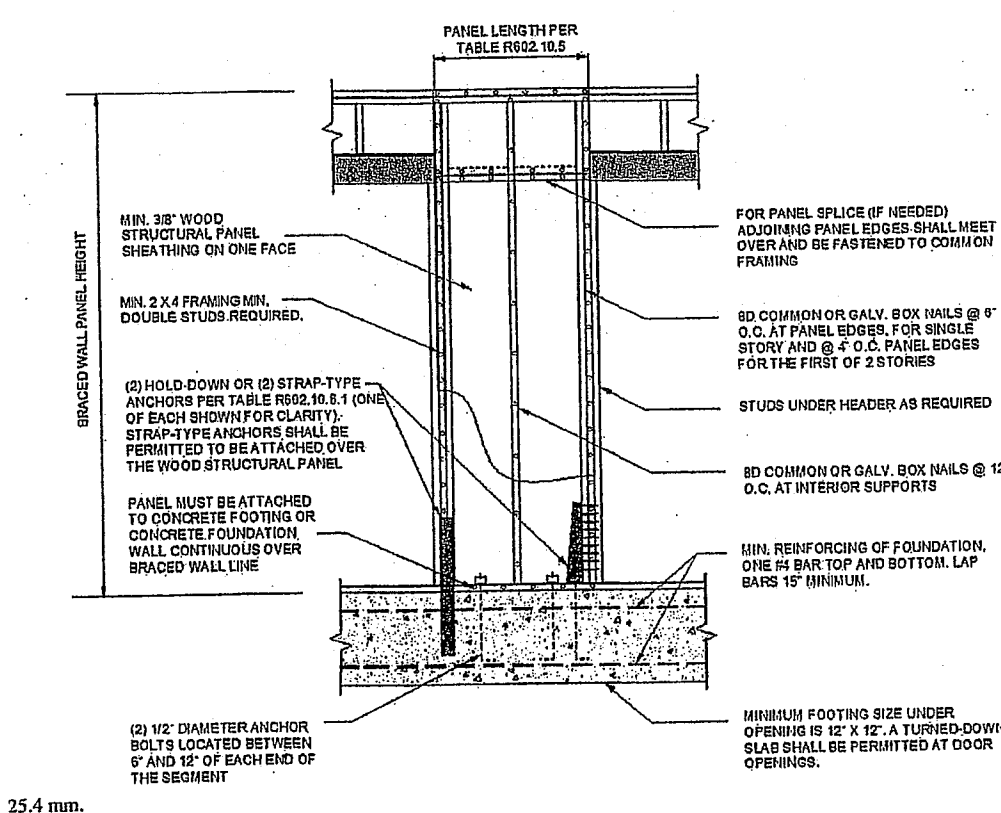


FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL

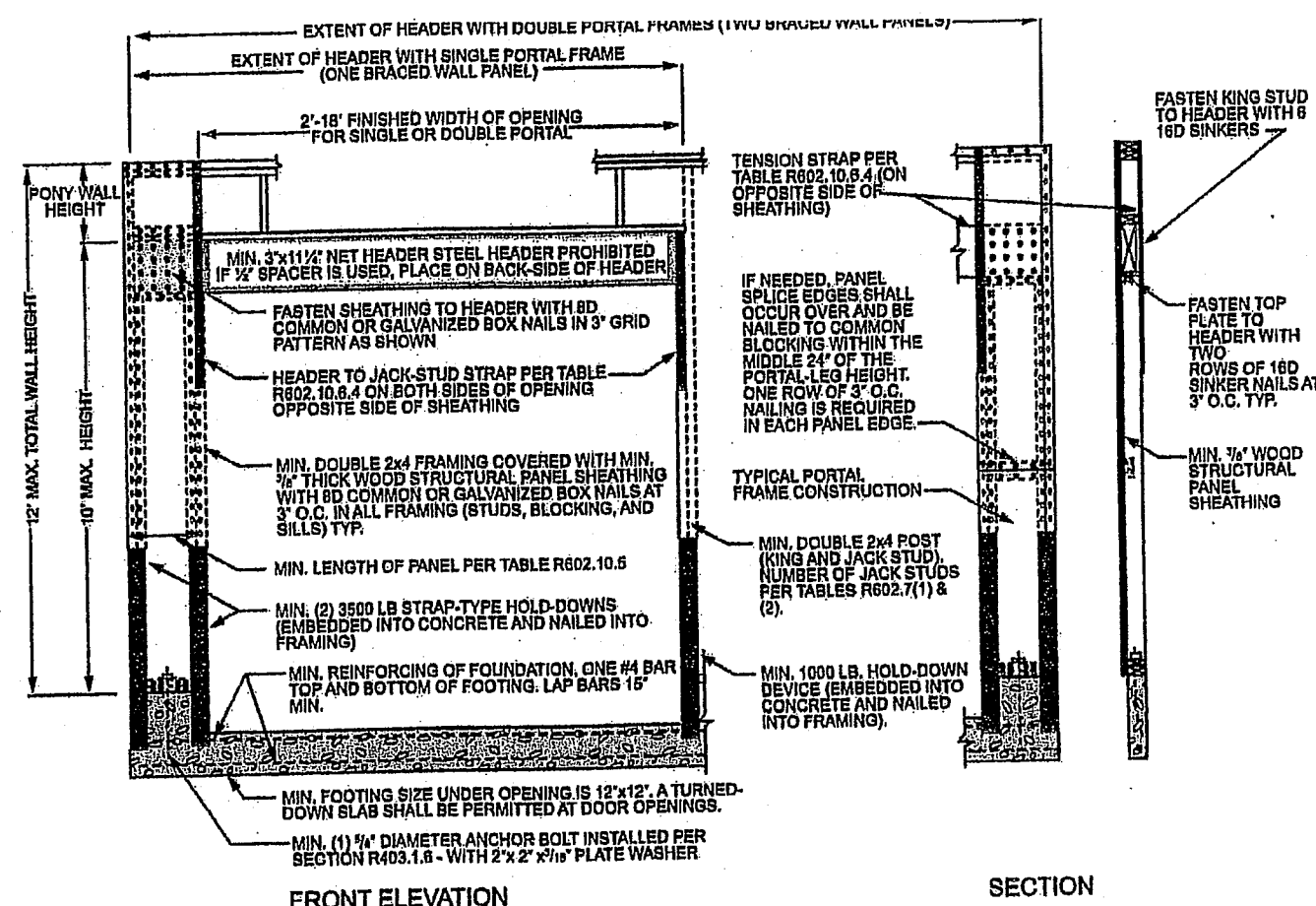


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

TABLE R602.10.4
BRACING METHODS

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA*
LIB Let-in bracing	1 x 4 wood or approved metal straps at 45° to 60° angles for maximum 16\" stud spacing		Fasteners: Wood: 2-8d common nails or 3-8d (2 1/2\" long x 0.113\" dia.) nails Metal strap: per manufacturer
DWB Diagonal wood boards	3/4\" (1\" nominal) for maximum 24\" stud spacing		Fasteners: 2-8d (2 1/2\" long x 0.113\" dia.) nails 2 - 1 1/4\" long staples
WSP Wood structural panel (See Section R604)	3/8\"		Fasteners: Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)
BV-WSP Wood structural panels with stone or masonry veneer (See Section R602.10.6.5)	7/16\"	See Figure R602.10.6.5	Fasteners: 8d common (2 1/2\" x 0.131\" dia.) nails
SFB Structural fiberboard sheathing	1/2\" or 3/4\" for maximum 16\" stud spacing		Fasteners: 1 1/2\" long x 0.12\" dia. (for 1/2\" thick sheathing) 1 1/2\" long x 0.12\" dia. (for 3/4\" thick sheathing) galvanized roofing nails
GB Gypsum board	1/2\"		Fasteners: Nails or screws per Table R602.3(1) for exterior locations Nails or screws per Table R702.3.5 for interior locations
PBS Particleboard sheathing (See Section R605)	3/4\" or 1/2\" for maximum 16\" stud spacing		Fasteners: For 3/4\", 6d common (2\" long x 0.113\" dia.) nails For 1/2\", 8d common (2 1/2\" long x 0.131\" dia.) nails
FCP Portland cement plaster	See Section R703.7 for maximum 16\" stud spacing		Fasteners: 1 1/2\" long, 11 gage, 1/8\" dia. head nails or 1/4\" long, 16 gage staples
HPS Hardboard panel siding	7/16\" for maximum 16\" stud spacing		Fasteners: 0.092\" dia. x 0.225\" dia. head nails with length to accommodate 1 1/2\" penetration into studs
ABW Alternate braced wall	3/8\"		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)
	8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, PBS, FCP, HPS, BV-WSP	48	48	48	53	58	Actual ^b
GB	48	48	48	53	58	Double sided = Actual Single sided = 0.5 x Actual
LIB	55	62	69	NP	NP	Actual ^b
ABW	SDC A, B and C, ultimate design wind speed < 140 mph	28	32	34	38	42
	SDC D ₁ , D ₂ and D ₃ , ultimate design wind speed < 140 mph	32	32	34	NP	NP
CS-G	Adjacent clear opening height (Inches)	24	27	30	33	36
CS-WSP, CS-SFB	≤ 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	33	33	33	36
	92	43	37	33	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					CONTRIBUTING LENGTH (Inches)
	8 feet	9 feet	10 feet	11 feet	12 feet	
PFH	Supporting roof only	16	16	16	Note c	Note c
	Supporting one story and roof	24	24	24	Note c	Note c
PFG		24	27	30	Note d	Note d
CS-PF	SDC A, B and C	16	18	20	Note e	Note e
	SDC D ₁ , D ₂ and D ₃	16	18	20	Note e	Note e

For S1: 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 when 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.

TABLE R602.10.4—continued
BRACING METHODS

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA*
PFH Portal frame with hold-downs	3/4\"		Fasteners: See Section R602.10.6.2
PFG Portal frame at garage	7/16\"		Fasteners: See Section R602.10.6.3
Continuous Sheathing Methods	CS-WSP Continuously sheathed wood structural panel		Fasteners: Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)
	CS-G Continuously sheathed wood structural panel adjacent to garage openings		Fasteners: See Method CS-WSP
	CS-PF Continuously sheathed portal frame		Fasteners: See Section R602.10.6.4
	CS-SFB Continuously sheathed structural fiberboard		Fasteners: 1 1/2\" long x 0.12\" dia. (for 1/2\" thick sheathing) 1 1/2\" long x 0.12\" dia. (for 3/4\" thick sheathing) galvanized roofing nails

For S1: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.0175 rad, 1 pound per square foot = 47.88 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, D₁, D₂, and D₃.
b. Applies to gables next to garage door opening where supporting gable and wall or roof load only. Shall only be used on one wall of the garage. In Seismic Design Categories D₁, D₂, and D₃, 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 D₁, D₂, and D₃.
e. Method applies to detached one- and two-family dwellings in Seismic Design Categories D₁ through D₃ only.

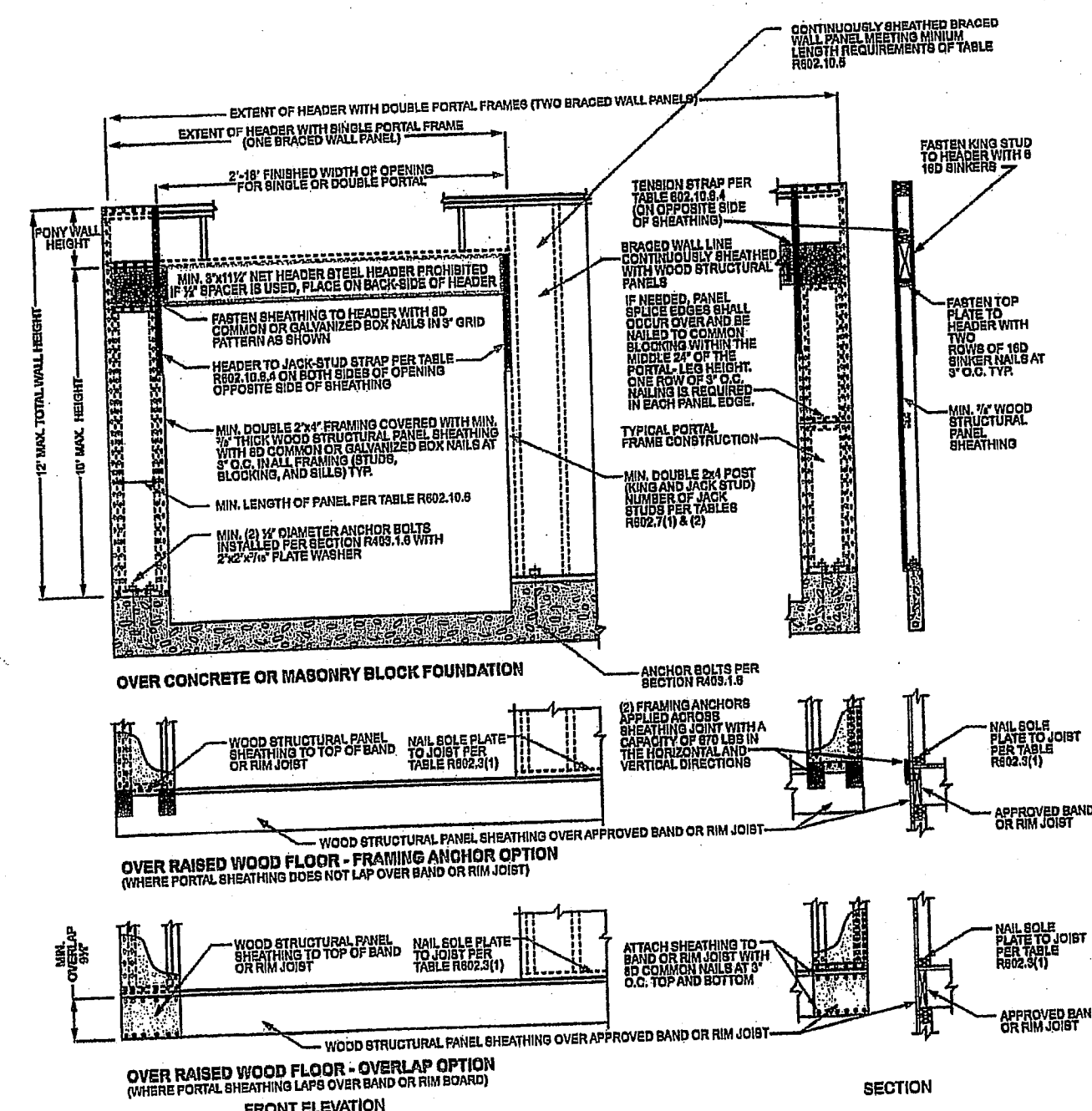
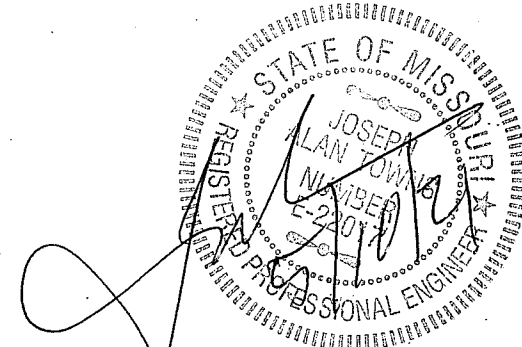


FIGURE R602.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION



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MO. LIC # 22017
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BRACE WALL DETAILS
WIND SPEED 115 MPH
WIND EXPOSURE A
SEISMIC DESIGN CATEGORY A