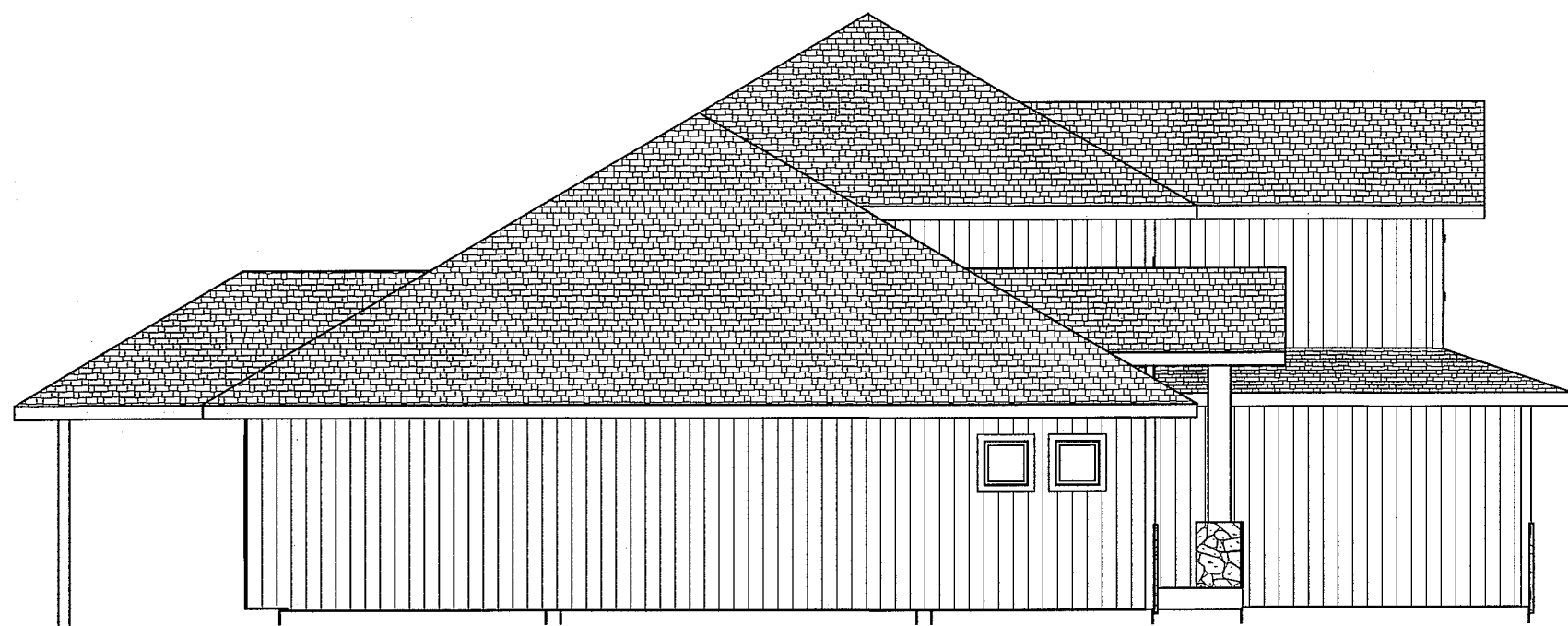
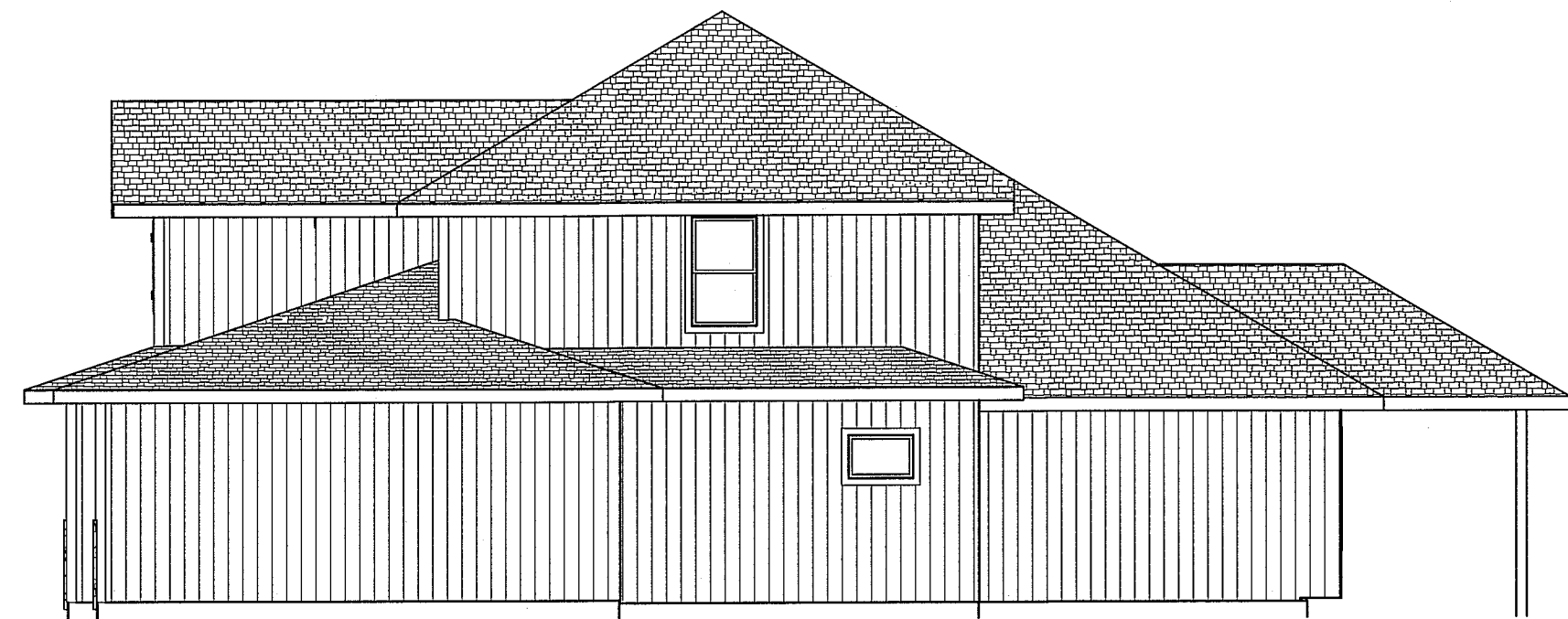




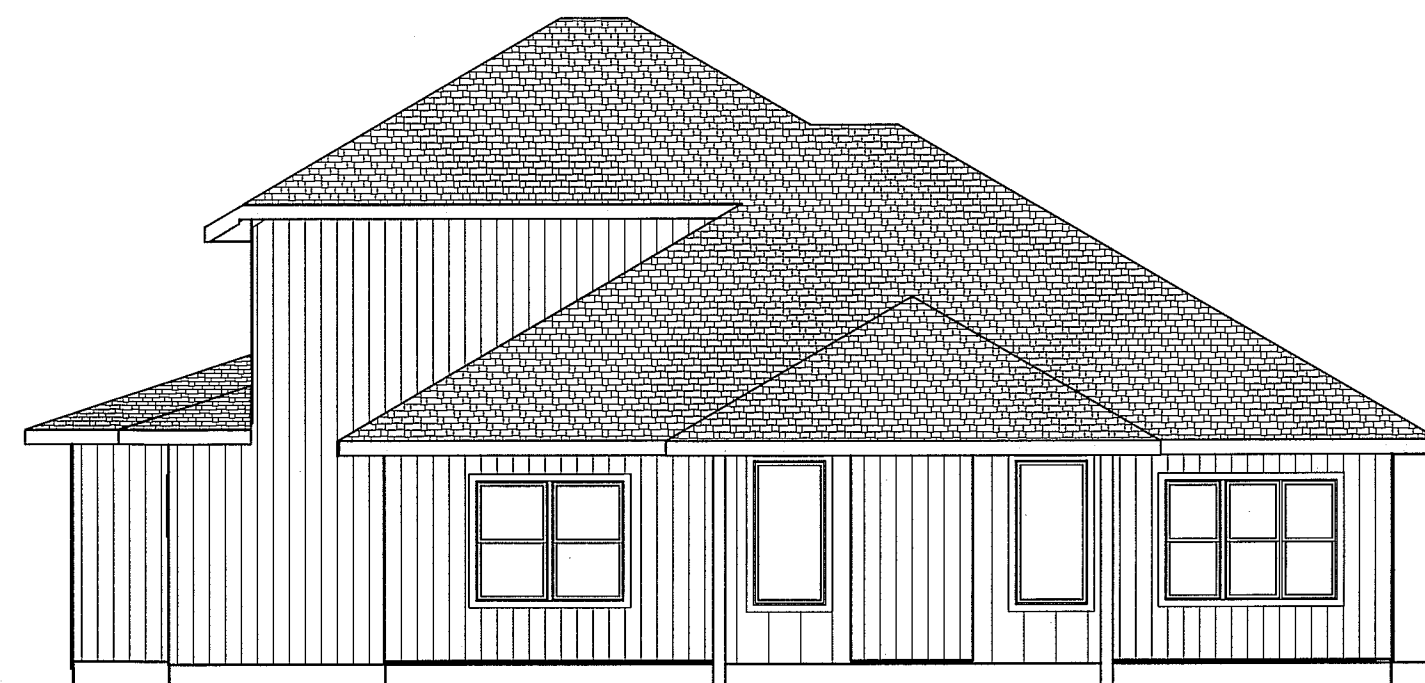
FRONT EL.



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 68 MONTECELLO
1245 NE GOSHEN DRIVE
LEE SUMMIT MO

SCALE
1/4" = 1'-0"

DATE
7-10-20

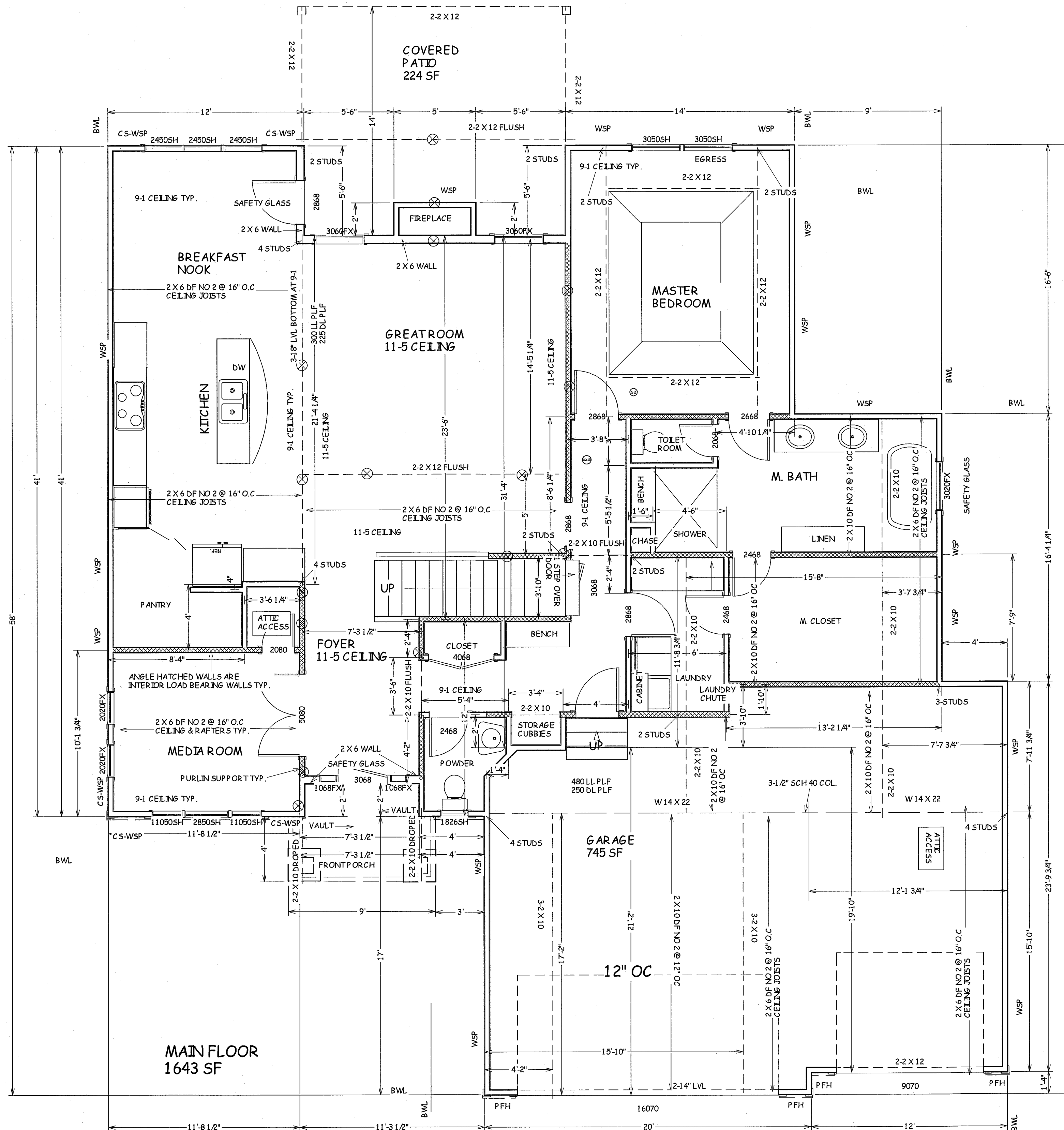
PLAN NO.

3157

SHEET NO.

1 OF 6

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

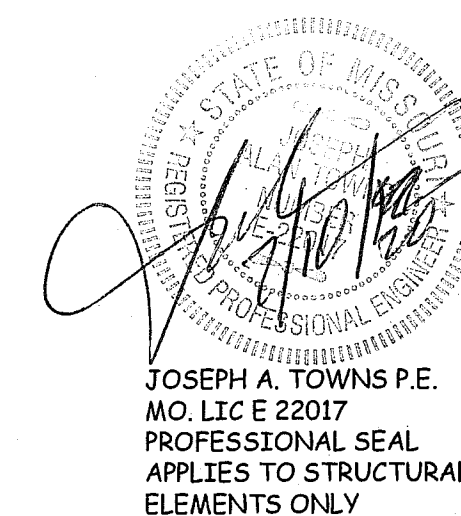
SCALE
1/4" = 1'-0"

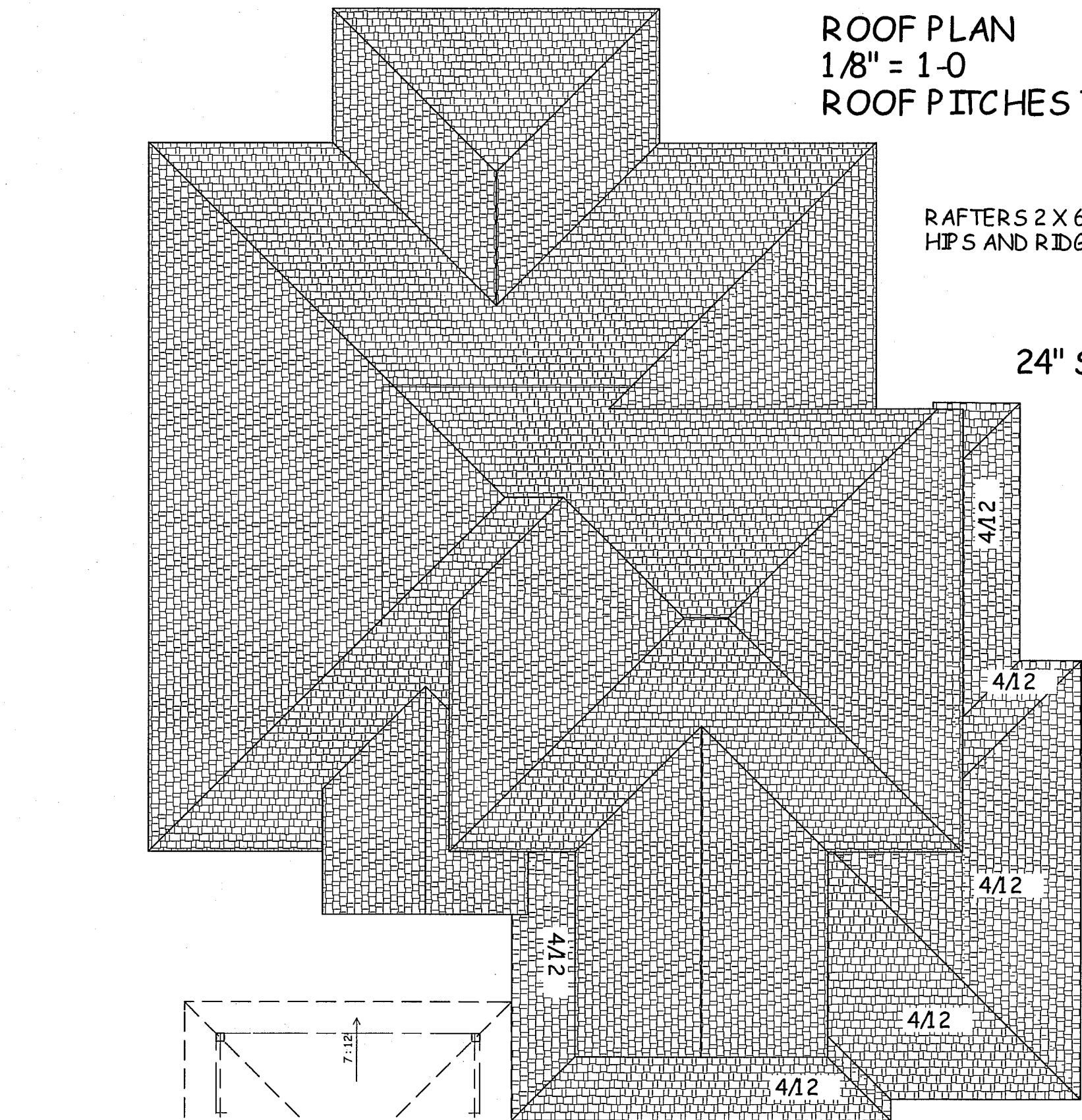
DATE
7-10-20

PLAN NO.
3157

SHEET NO.

3 OF 6

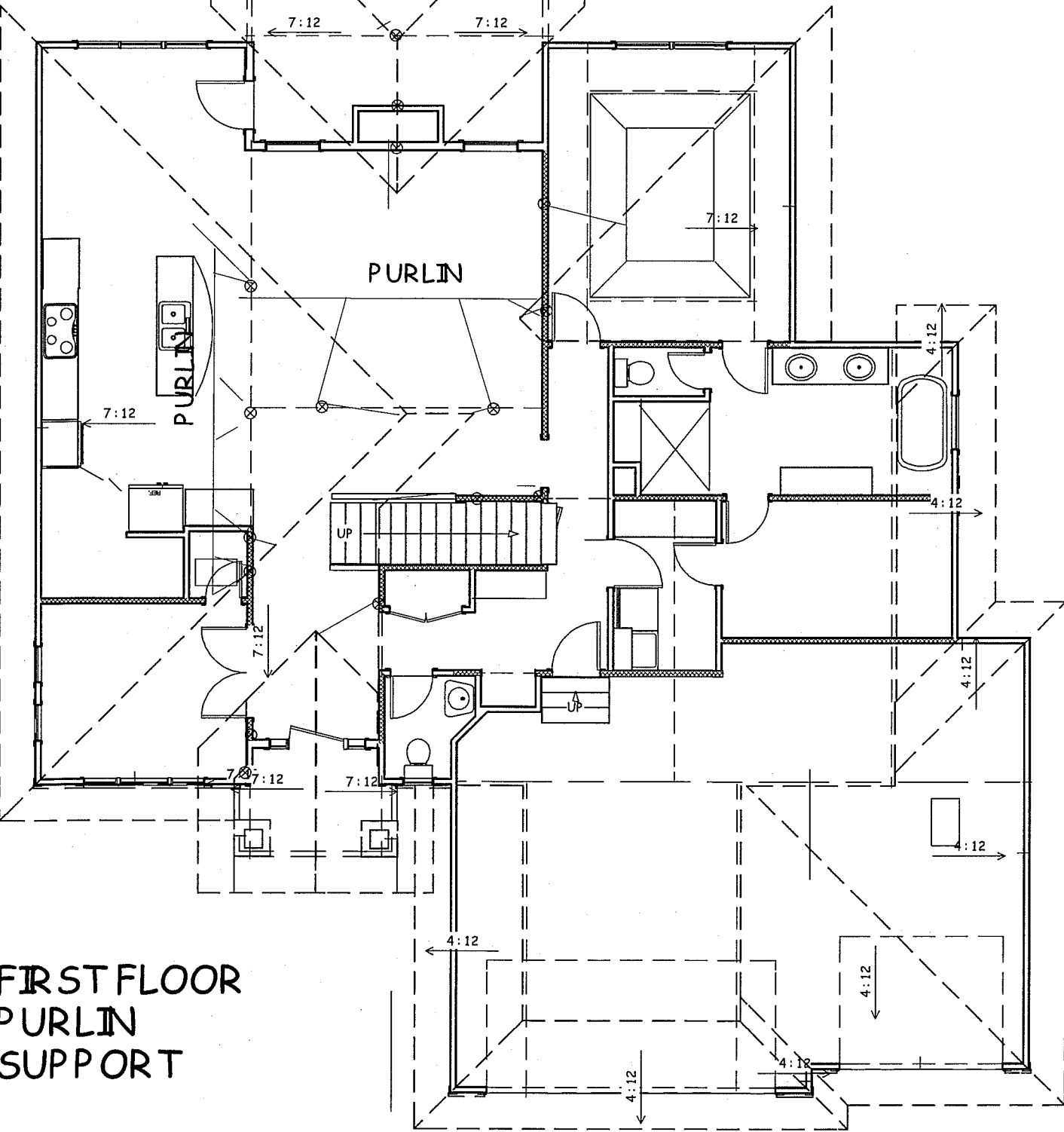




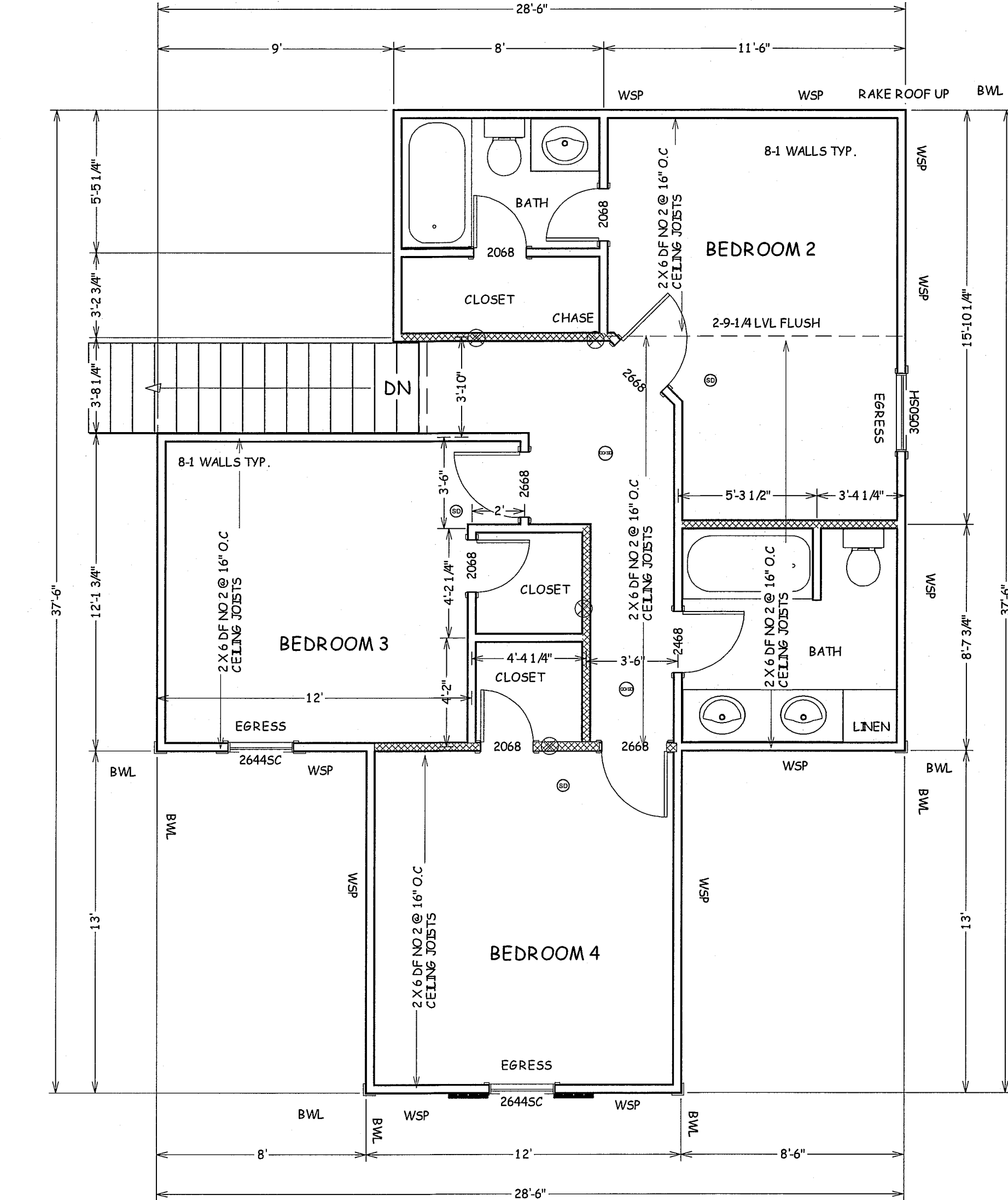
ROOF PLAN
 1/8" = 1'-0"
 ROOF PITCHES 7/12 TYP. UNO

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

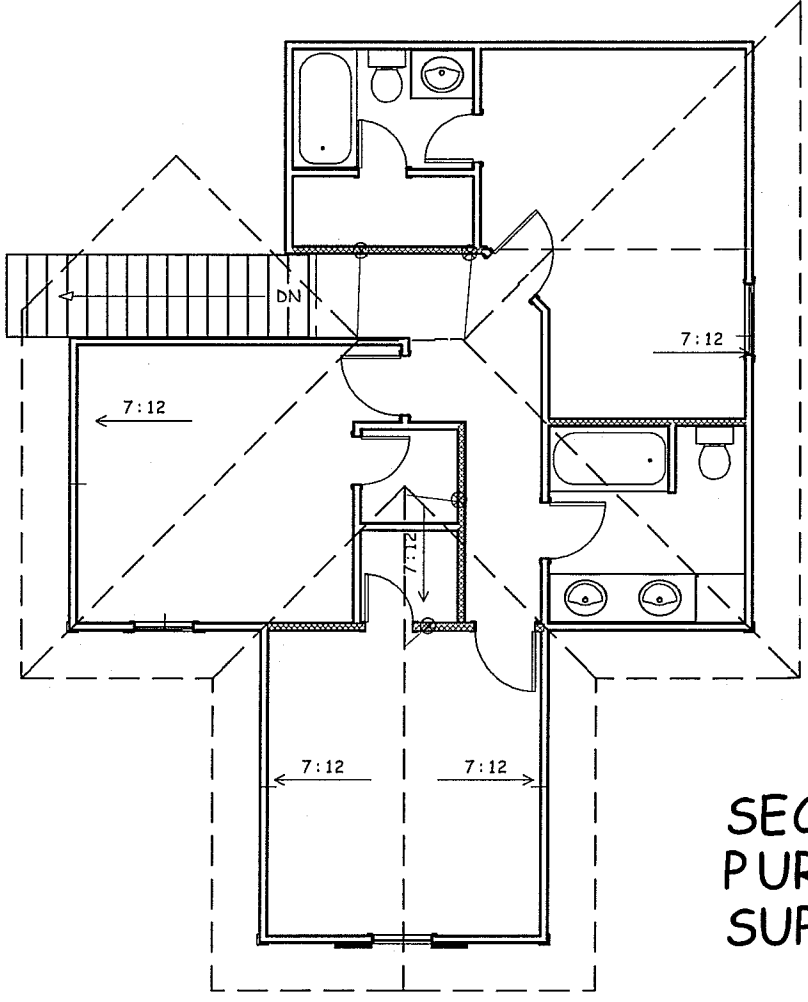
24" SOFFITS TYP.



FIRST FLOOR
 PURLIN
 SUPPORT



SECOND FLOOR
 741 SF



SECOND FLOOR
 PURLIN
 SUPPORT

STATE OF MISSOURI
 JOSEPH ALAN TOWNS
 REGISTERED PROFESSIONAL ENGINEER
 NO. 52017
 EXPIRES 12/31/2024
 JOSEPH ALAN TOWNS P.E.
 MO. LIC E 22017
 PROFESSIONAL SEAL
 APPLIES TO STRUCTURAL
 ELEMENTS ONLY

BUILD IN ACCORDANCE WITH
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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"

DATE
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 3157

SHEET NO.
 4 OF 6

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

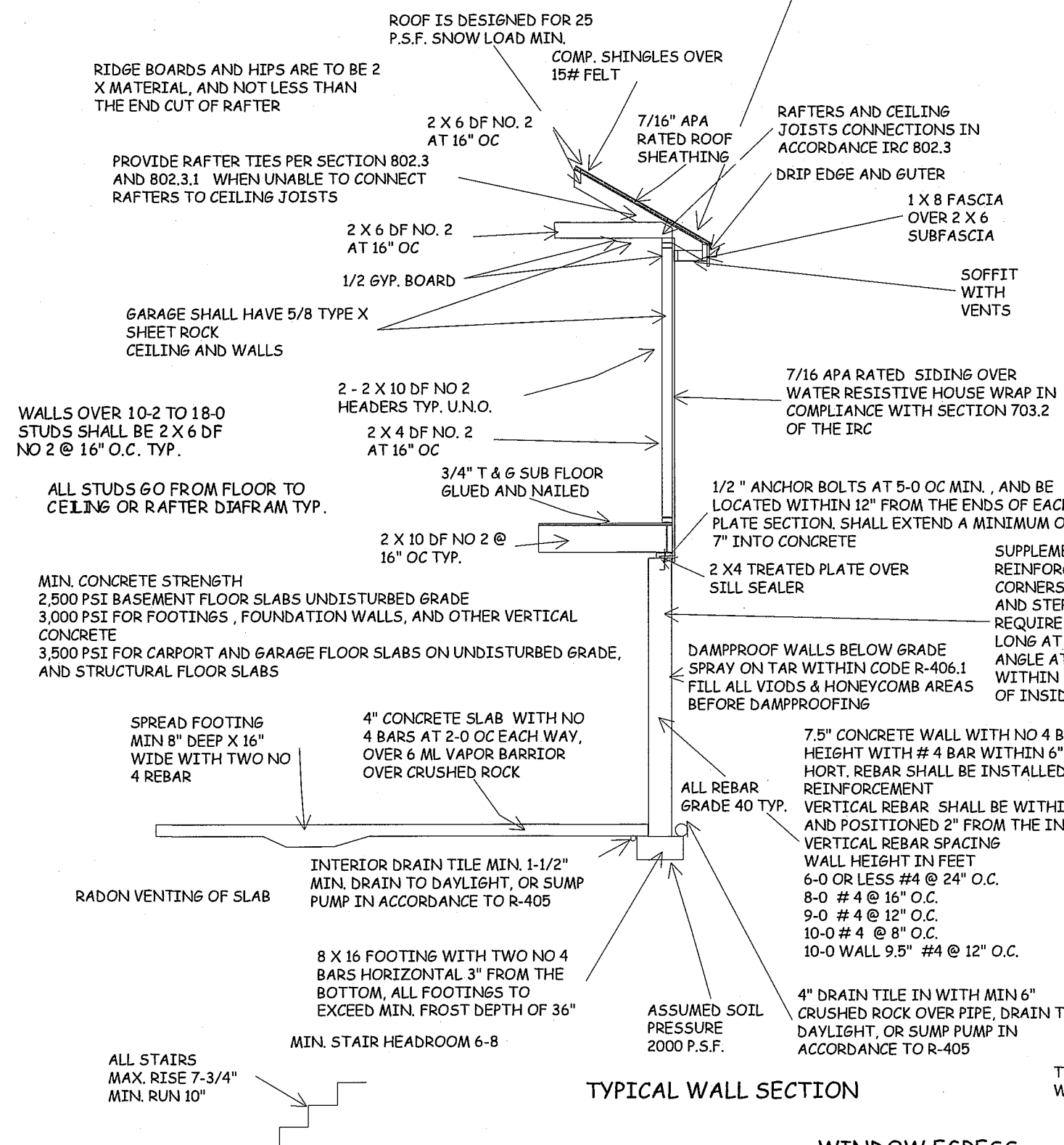
2 X 2 NAILED TO BOTTOM OF
RAFTERS 12" O.C. WITH 12 D
NAILS

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.

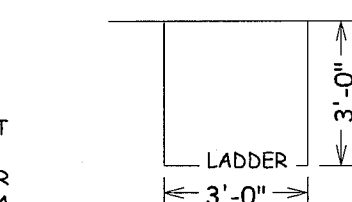
SAFETY GLAZING REQUIRED WHERE THE NEAREST EXPOSED EDGE OF
THE GLAZING IS WITHIN 24 INCHES OF EITHER VERTICAL EDGE OF
THE DOOR IN A CLOSED POSITION AND WHERE THE BOTTOM
EXPOSED EDGE OF THE GLAZING IS LESS THAN 60 INCHES ABOVE A
WALKING SURFACE, SAFETY OR TEMPERED GLAZING IS REQUIRED.

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

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

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

BUILD IN ACCORDANCE WITH
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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

STATE OF MISSOURI
JOSEPH A. TOWNS P.E.
MO. LIC # 22017
PROFESSIONAL SEAL
APPLIES TO STRUCTURAL
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NICK ZVACEK HOMES
ANDERSON III
LOT 68 MONTECELLO
1245 NE GOSHEN DRIVE
OP TONAL HILL RAMP

SCALE
1/4" = 1'-0"

DATE
7-10-20

PLAN NO.

3157

SHEET NO.

6 OF 6

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, HFS, 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	

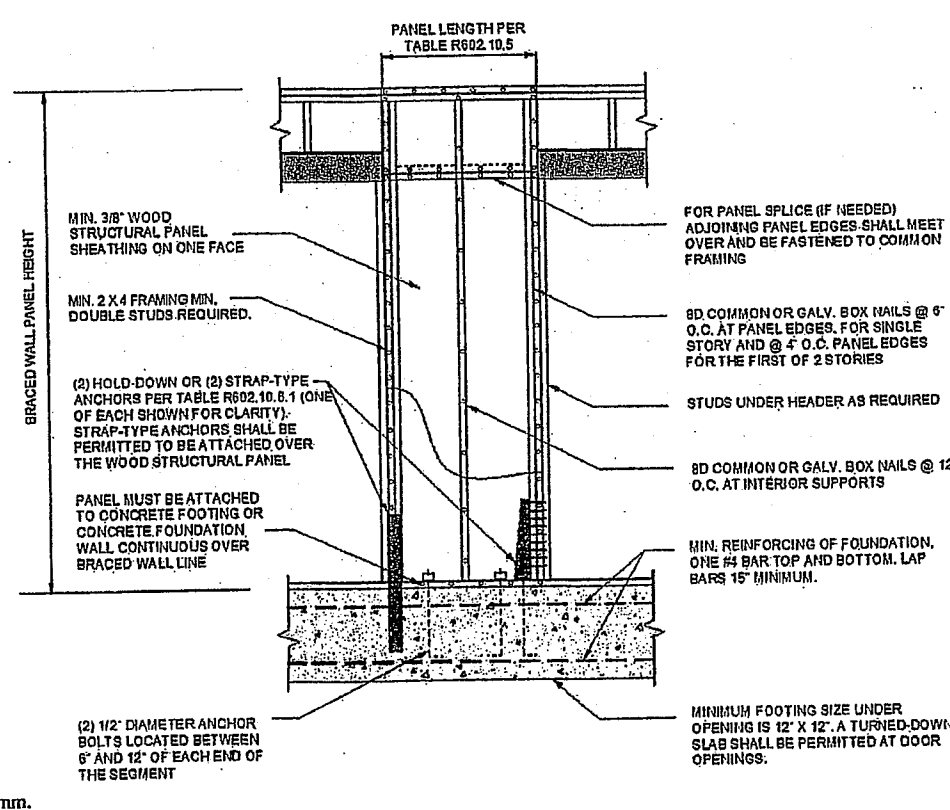


FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL

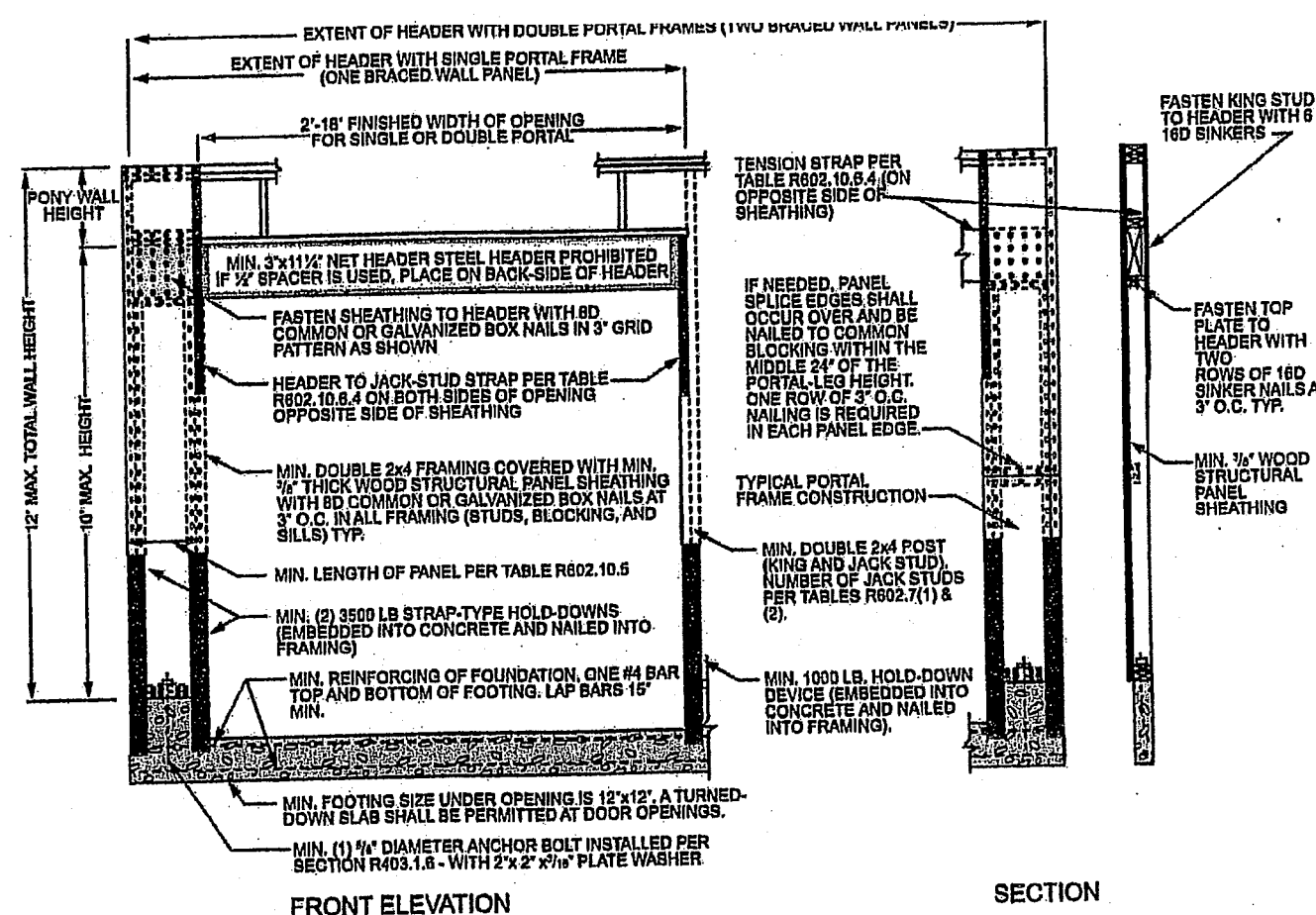


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

TABLE R602.10.4
BRACING METHODS

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA*	
			Fasteners	Spacing
LIB Let-in-bracing	1 x 4 wood or approved metal straps at 45° to 60° angles for maximum 16\"/>		Wood: 2-8d common nails or 3-8d (2 1/2\"/>	Wood: per stud and top and bottom plates Metal: per manufacturer
DWB Diagonal wood boards	3/4\"/>		2-8d (2 1/2\"/>	Per stud
WSP Wood structural panel (See Section R604)	3/4\"/>		Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)	6\"/>
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\"/>	4\"/>
SFB Structural fiberboard sheathing	1/2\"/>		1 1/2\"/>	3\"/>
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\"/>
PBS Particleboard sheathing (See Section R605)	3/4\"/>		For 1/2\"/>	3\"/>
FCP Portland cement plaster	See Section R703.7 for maximum 16\"/>		1 1/2\"/>	6\"/>
HFS Hardboard panel siding	7/16\"/>		0.092\"/>	4\"/>
ABW Alternate braced wall	3/4\"/>		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)
	8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, PBS, FCP, HFS, 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 ₀ , D ₁ and D ₂ , 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	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
PORTAL FRAME HEIGHT						
PFH	Supporting roof only	16	16	16	Note c	Note c
	Supporting one story and roof	24	24	24	Note c	Note c
PFH		24	27	30	Note d	Note d
CS-PF	SDC A, B and C	16	18	20	Note c	Note c
	SDC D ₀ , D ₁ and D ₂	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 PFH 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*	
			Fasteners	Spacing
PFH Portal frame with hold-downs	3/4\"/>		See Section R602.10.6.2	See Section R602.10.6.2
PFH Portal frame at garage	7/16\"/>		See Section R602.10.6.3	See Section R602.10.6.3
CS-WSP Continuously sheathed wood structural panel	3/4\"/>		Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2)	6\"/>
CS-G* Continuously sheathed wood structural panel adjacent to garage openings	3/4\"/>		See Method CS-WSP	See Method CS-WSP
CS-PF Continuously sheathed portal frame	7/16\"/>		See Section R602.10.6.4	See Section R602.10.6.4
CS-SFB* Continuously sheathed structural fiberboard	1/2\"/>		1 1/2\"/>	3\"/>

For SI: 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, D₀, D₁, and D₂.

b. Applies to garage 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.

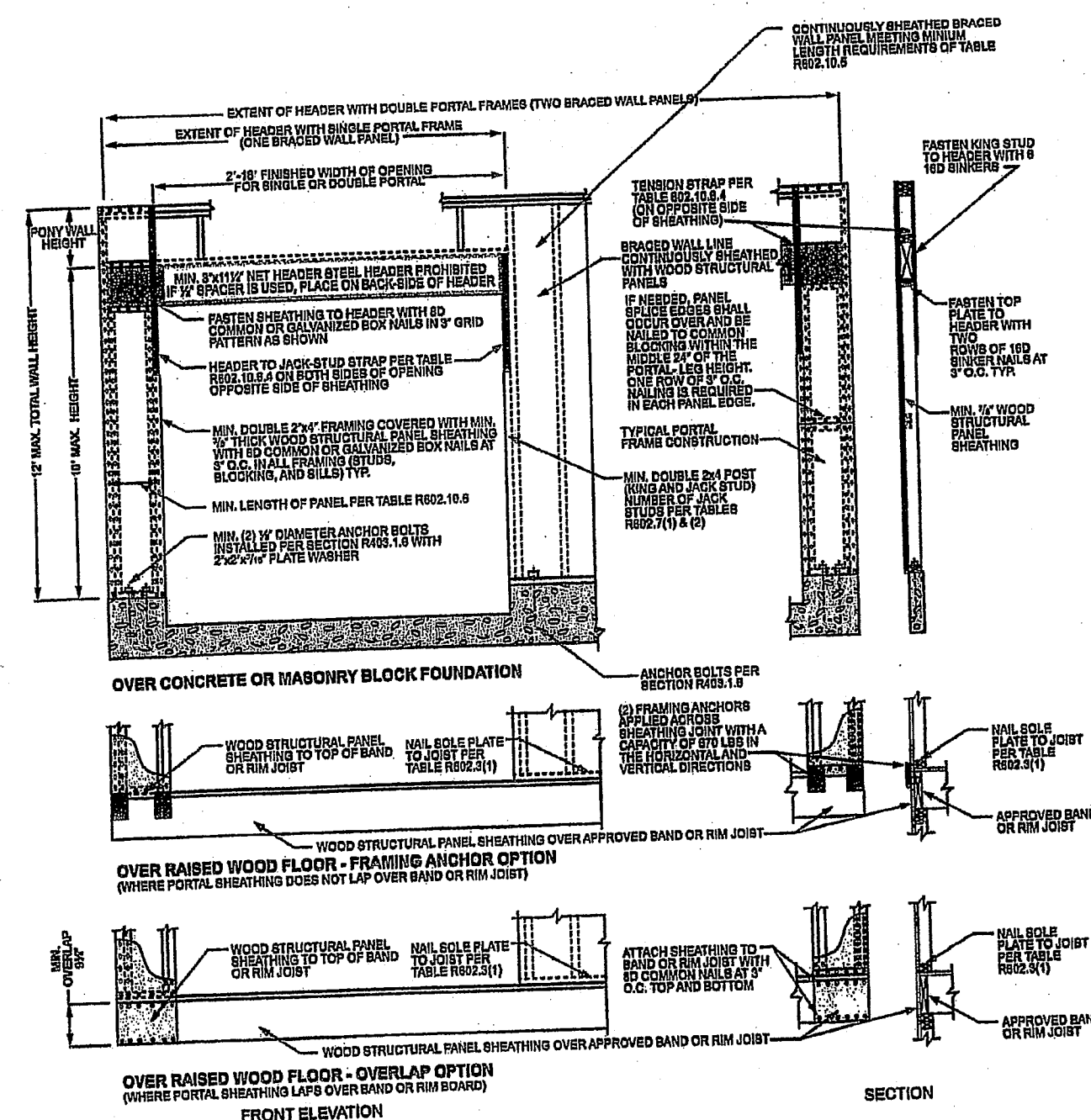


FIGURE R602.10.6.4
METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME PANEL CONSTRUCTION

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