



HILLCREST LONG BOARD

FRONT EL.
LAP, STUCCO, & STONE

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/03/2024

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

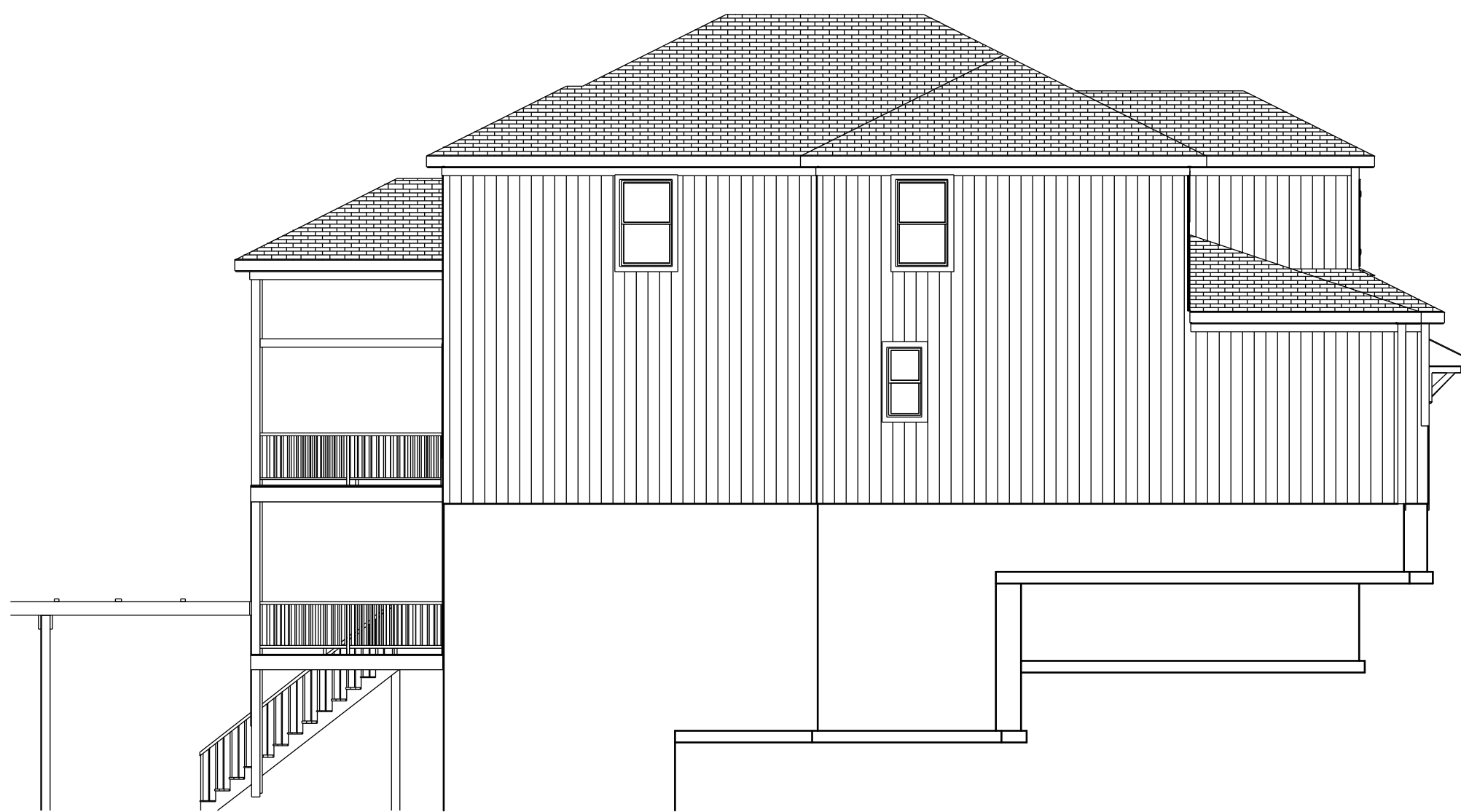
TRUMARK HOMES
MARIANA III
LOT 151 WOODSIDE RIDGE
2086 NW O' BRIEN RD
LEE SUMMIT MO

SCALE
1/4" = 1-0

DATE
6-27-24

PLAN NO.
4187

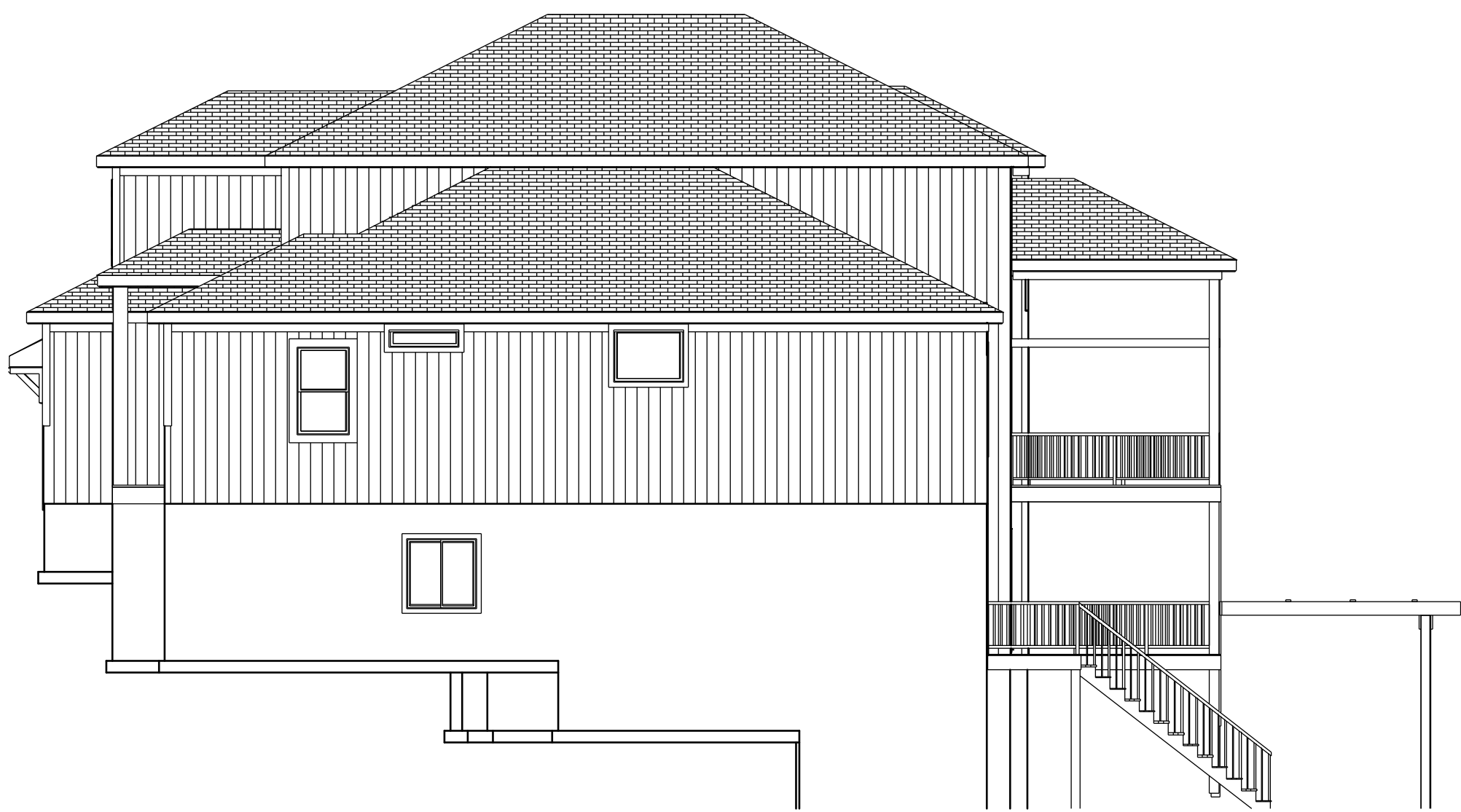
SHEET NO.
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LEFT EL.
1/8 = 1-0

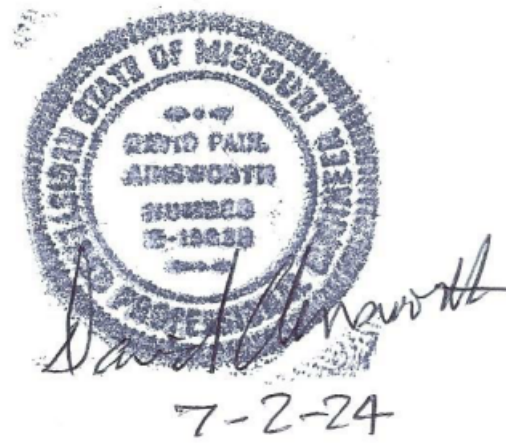


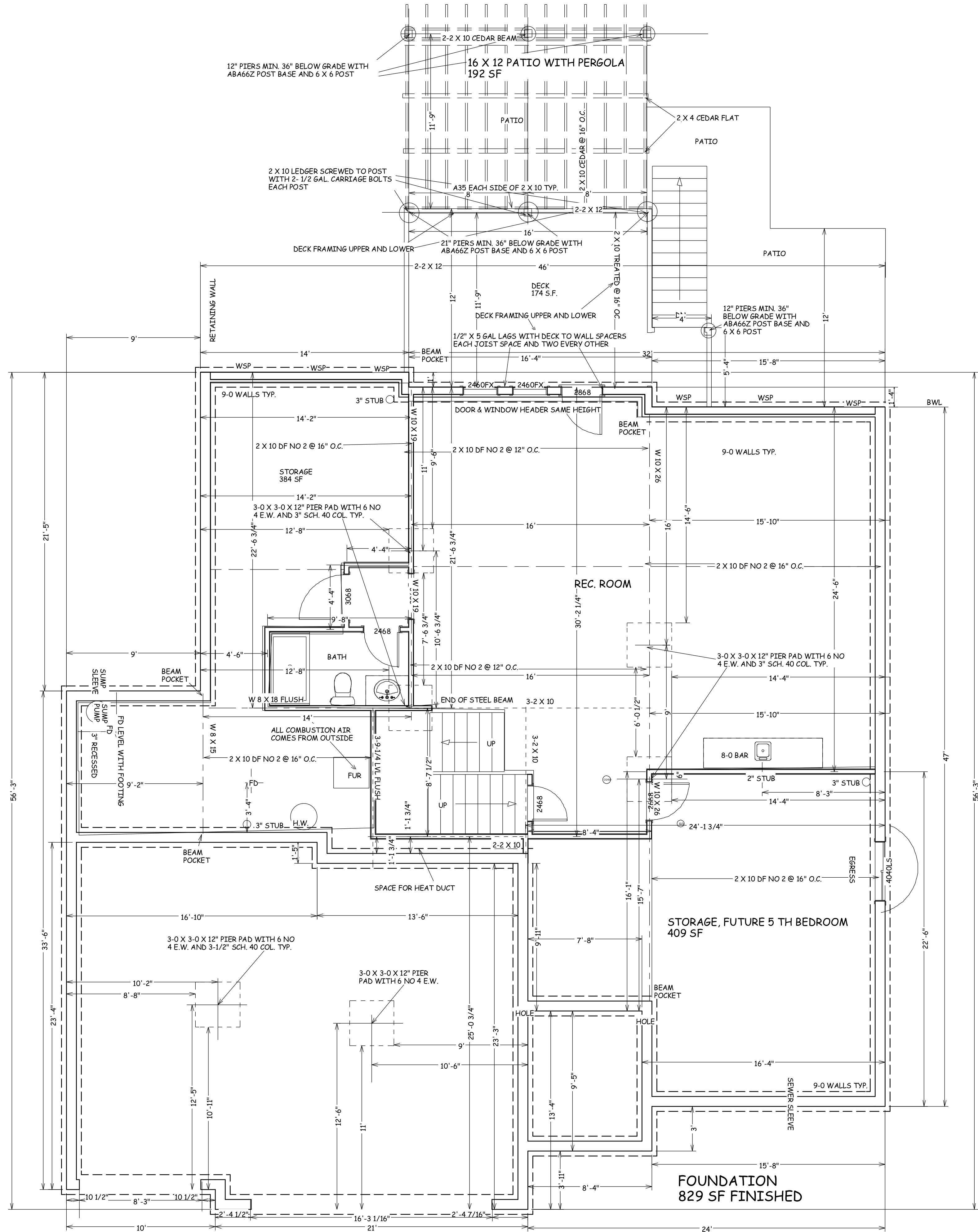
REAR EL.
1/8 = 1-0



RIGHT EL.
1/8 = 1-0

3 SIDES LP PANEL SIDING





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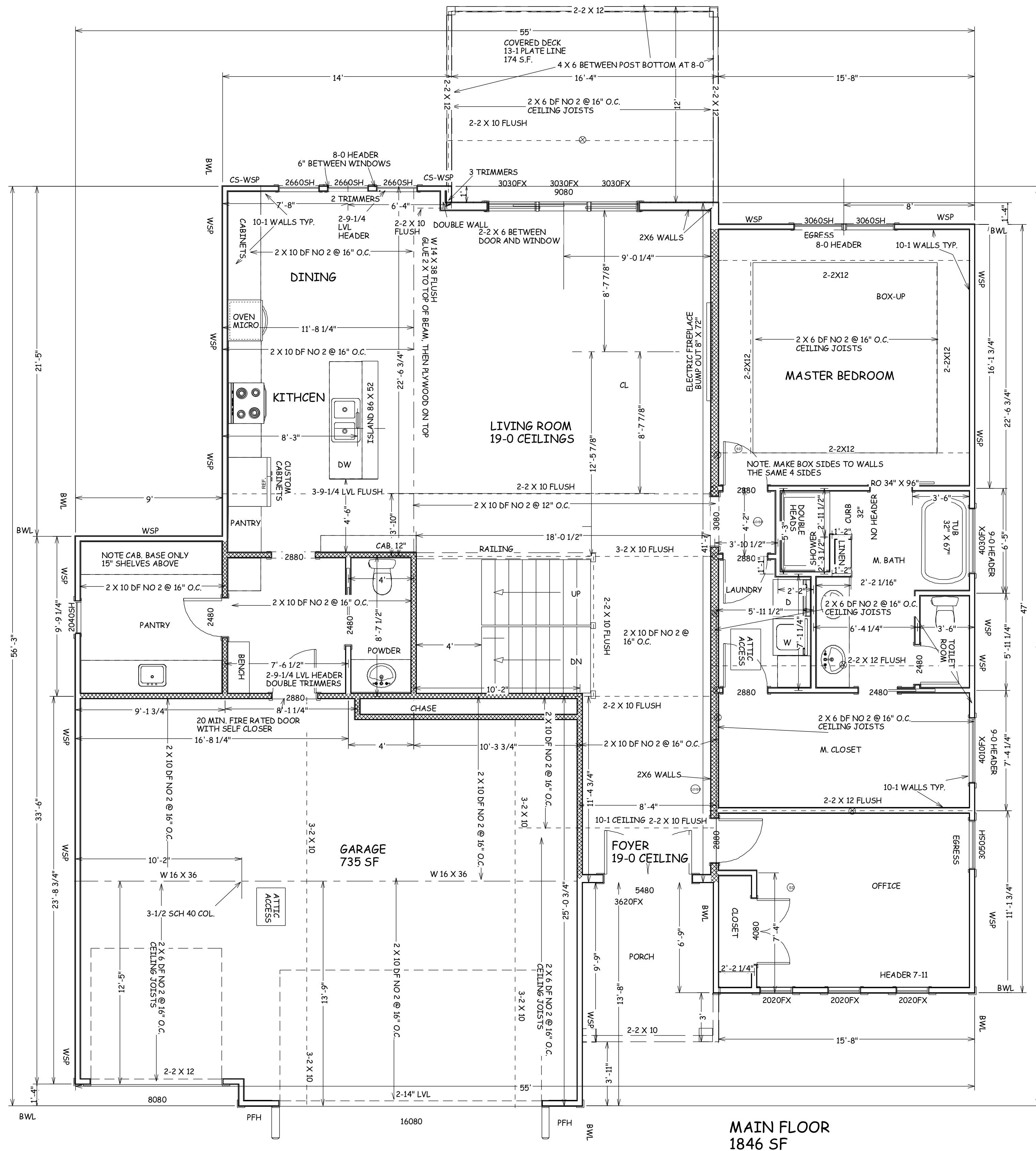
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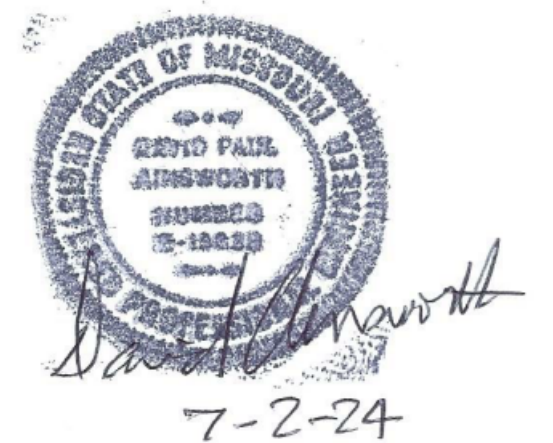
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MAIN FLOOR
1846 SF



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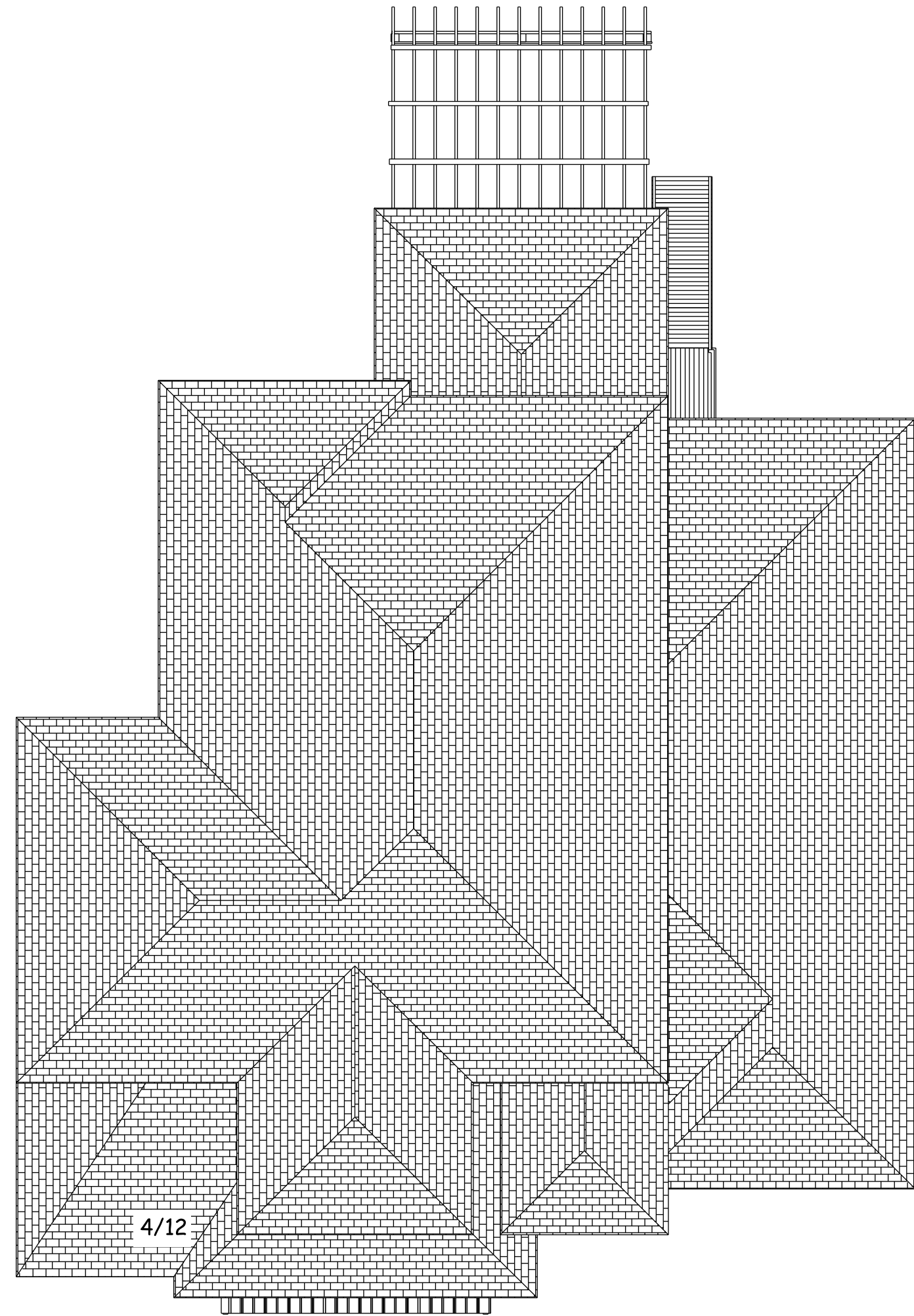
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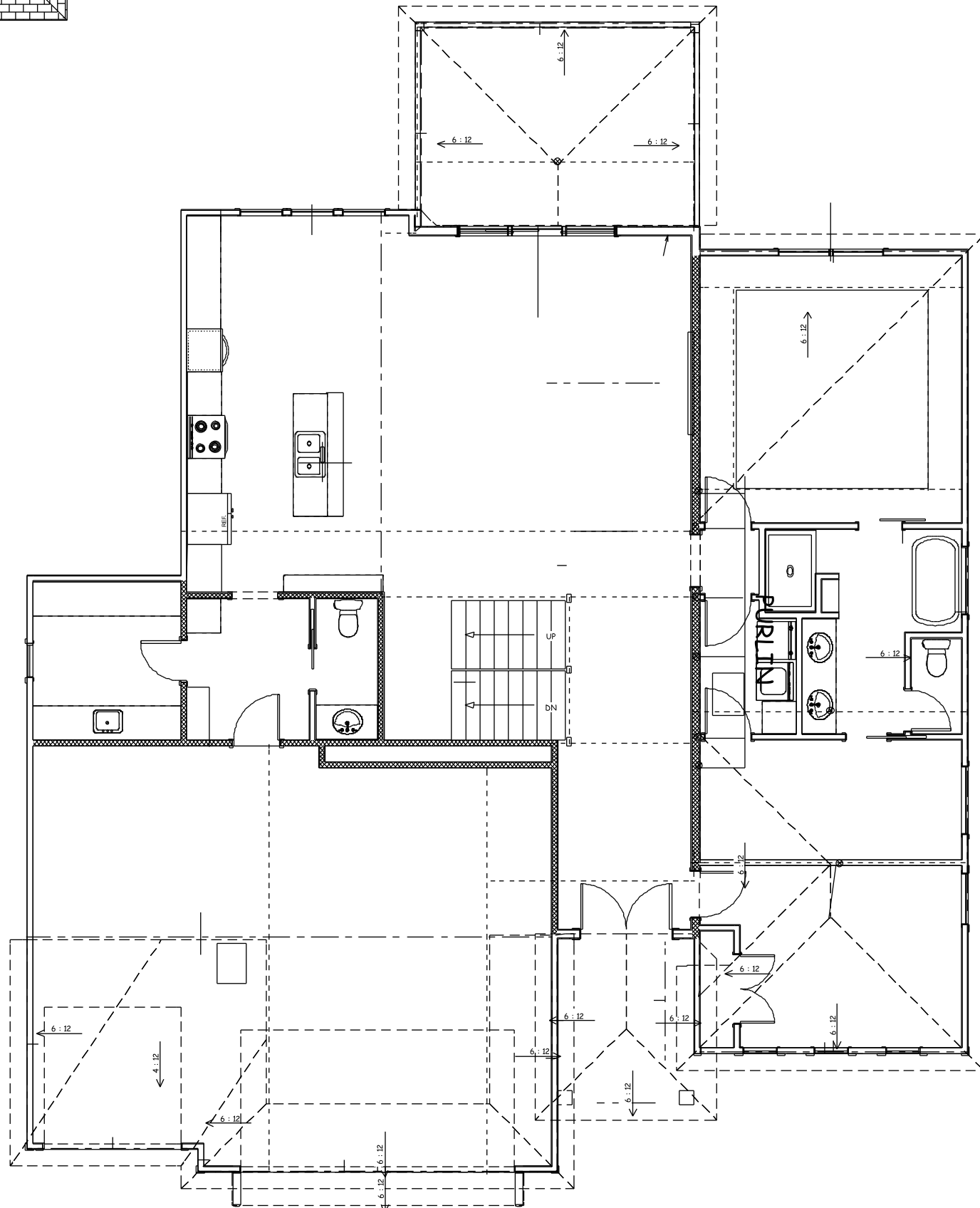
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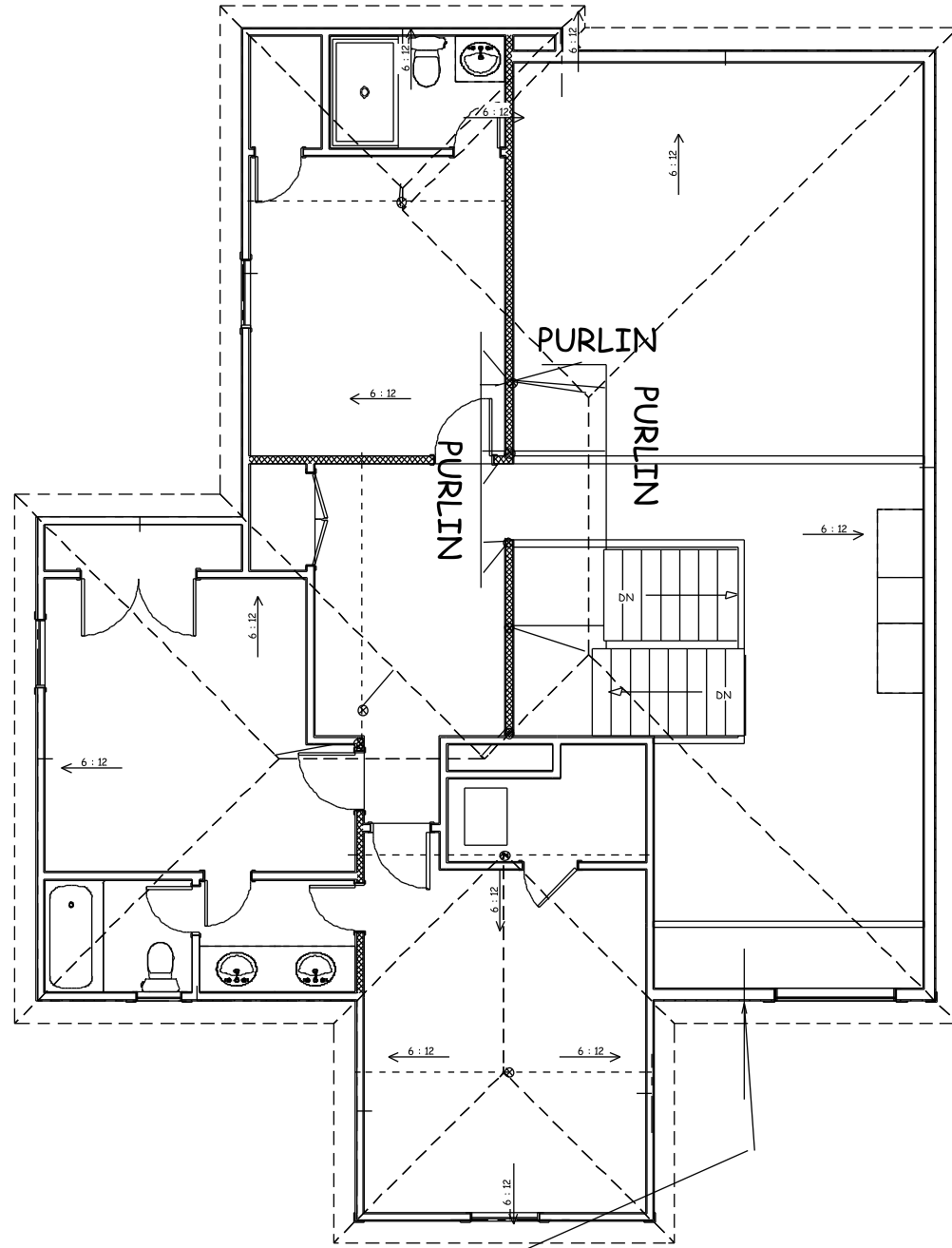
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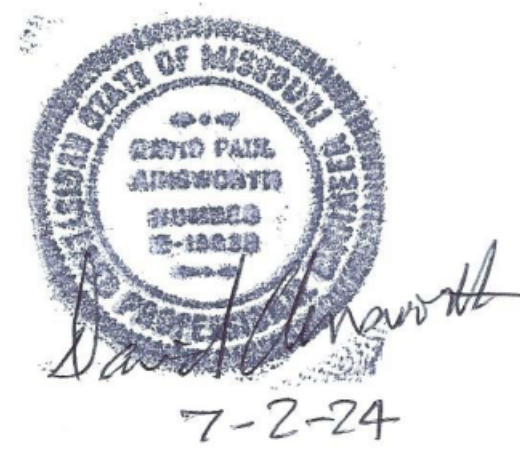
ROOF PLAN
1/8 = 1-0
ROOF PITCHES 6/12 TYP.
RAFTERS 2 X 6 DF NO 2 @ 16" O.C.
HIPS AND RIDGES 2 X 8 DF NO 2



PURLIN PLAN MAIN FLOOR
1/8 = 1-0
ROOF PITCHES 6/12 TYP.
RAFTERS 2 X 6 DF NO 2 @ 16" O.C.
HIPS AND RIDGES 2 X 8 DF NO 2



PURLIN PLAN SECOND FLOOR
NO PURLIN REQUIRED ALL SPANS UNDER 14'-6"
1/8 = 1-0
ROOF PITCHES 6/12 TYP.
RAFTERS 2 X 6 DF NO 2 @ 16" O.C.
HIPS AND RIDGES 2 X 8 DF NO 2



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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

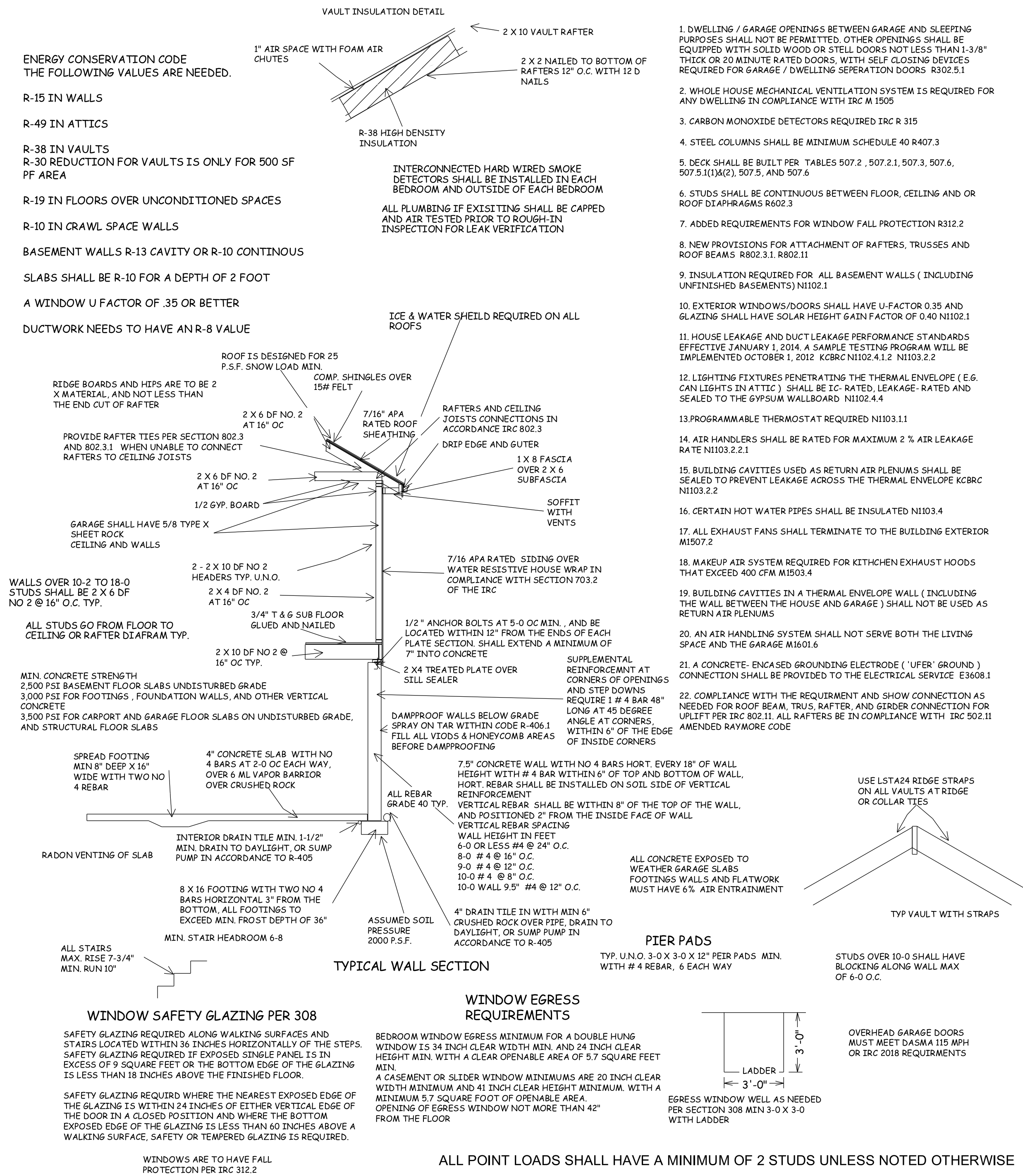
R-10 IN CRAWL SPACE WALLS

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



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. ATR HANDLERS SHALL BE RATED FOR MAXIMUM 2 % AIR LEAKAGE RATE N1103.2.1

15. BUILDING CAVITIES USED AS RETURN ATR 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 ATR 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, TRUSS, RAFTER, AND GIRDER CONNECTION FOR UPLIFT PER IRC 802.11. ALL RAFTERS BE IN COMPLIANCE WITH IRC 502.11 AMENDED RAYMORE CODE

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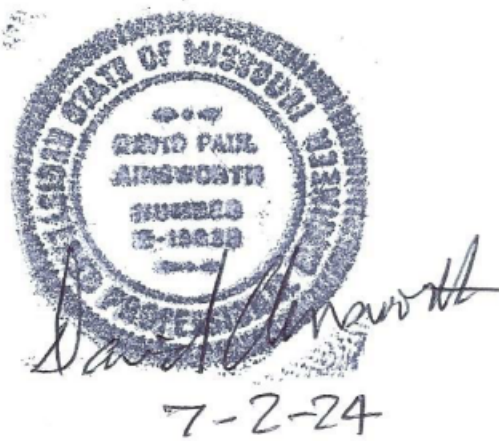
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EXPOSURE CATEGORY B • 30-FOOT MEAN ROOF HEIGHT • 10-FOOT WALL HEIGHT • 2 BRACED WALL LINES		MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^a				
Ultimate Design Wind Speed (mph)	Story Location	Braced Wall Line Spacing ^c (feet)	Method LIB ^b	Method GB	Methods DWB, WSP, SFB, FBS, FCP, HPS, BV-WSP, ABW, PFH, FPC, 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

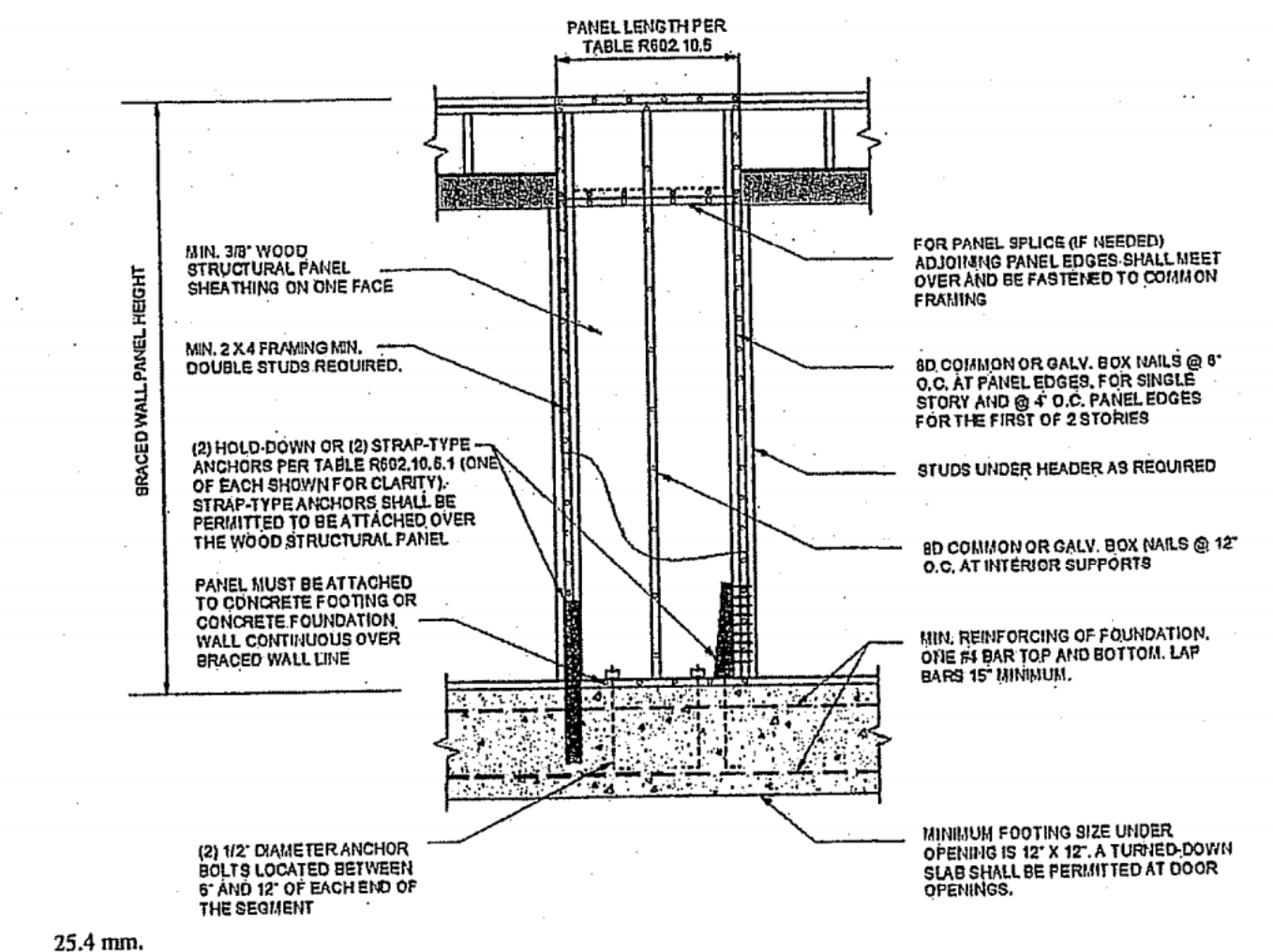


FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL

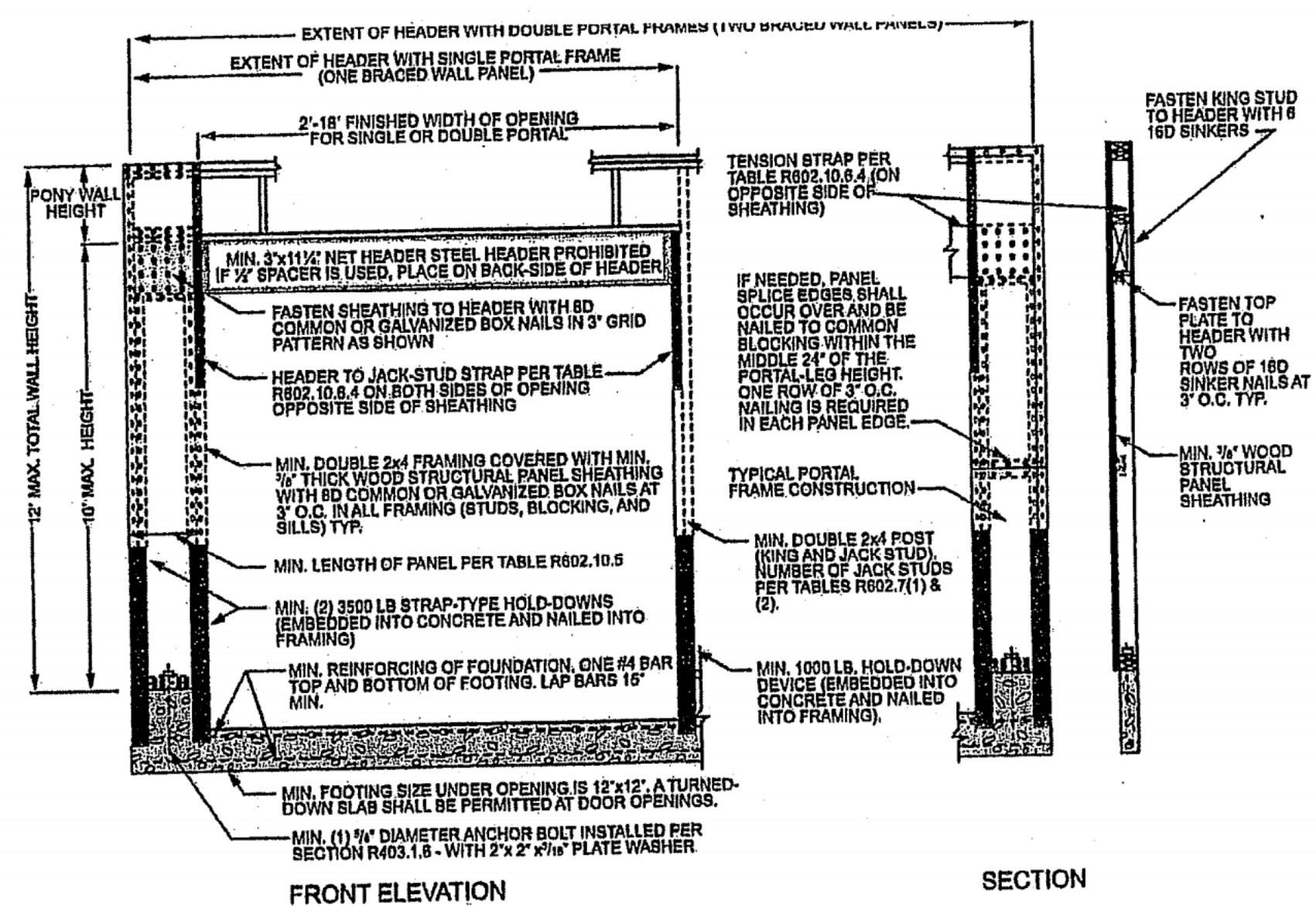


FIGURE R602.10.6.2
METHOD PFH—PORTAL FRAME WITH HOLD-DOWNS

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a
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 Spacing: Wood: per stud and top and bottom plates Metal: per manufacturer
DWB Diagonal wood boards	1/2\" (1\" nominal) for maximum 24\" stud spacing		Fasteners: 2-8d (2 1/2\" long x 0.113\" dia.) nails or 2- 1 1/4\" long staples Spacing: Per stud
WSP Wood structural panel (See Section R604)	3/4\"		Fasteners: Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2) Spacing: 6\" edges 12\" field Varies by fastener
BV-WSP ^b Wood structural panels with stone or masonry veneer (See Section R602.10.6.5)	3/4\"	See Figure R602.10.6.5	Fasteners: 8d common (2 1/2\" x 0.131\" dia.) nails Spacing: 4\" at panel edges 12\" at intermediate supports 4\" at braced wall panel end posts
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 1/4\" long x 0.12\" dia. (for 3/4\" thick sheathing) galvanized roofing nails Spacing: 3\" edges 6\" field
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 Spacing: For all braced wall panel locations: 7\" edges (including top and bottom plates) 7\" field
FBS Particleboard sheathing (See Section R605)	3/4\" or 1/2\" for maximum 16\" stud spacing		Fasteners: For 1/2\", 6d common (2\" long x 0.113\" dia.) nails For 3/4\", 8d common (2 1/2\" long x 0.131\" dia.) nails Spacing: 3\" edges 6\" field
PCP Portland cement plaster	See Section R703.7 for maximum 16\" stud spacing		Fasteners: 1 1/2\" long, 11 gage, 1/4\" dia. head nails or 7/8\" long, 16 gage staples Spacing: 6\" o.c. on all framing members
HPS Hardboard panel siding	7/8\" for maximum 16\" stud spacing		Fasteners: 0.092\" dia., 0.225\" dia. head nails with length to accommodate 1 1/2\" penetration into studs Spacing: 4\" edges 8\" field
ABW Alternate braced wall	1/2\"		Fasteners: See Section R602.10.6.1 Spacing: See Section R602.10.6.1

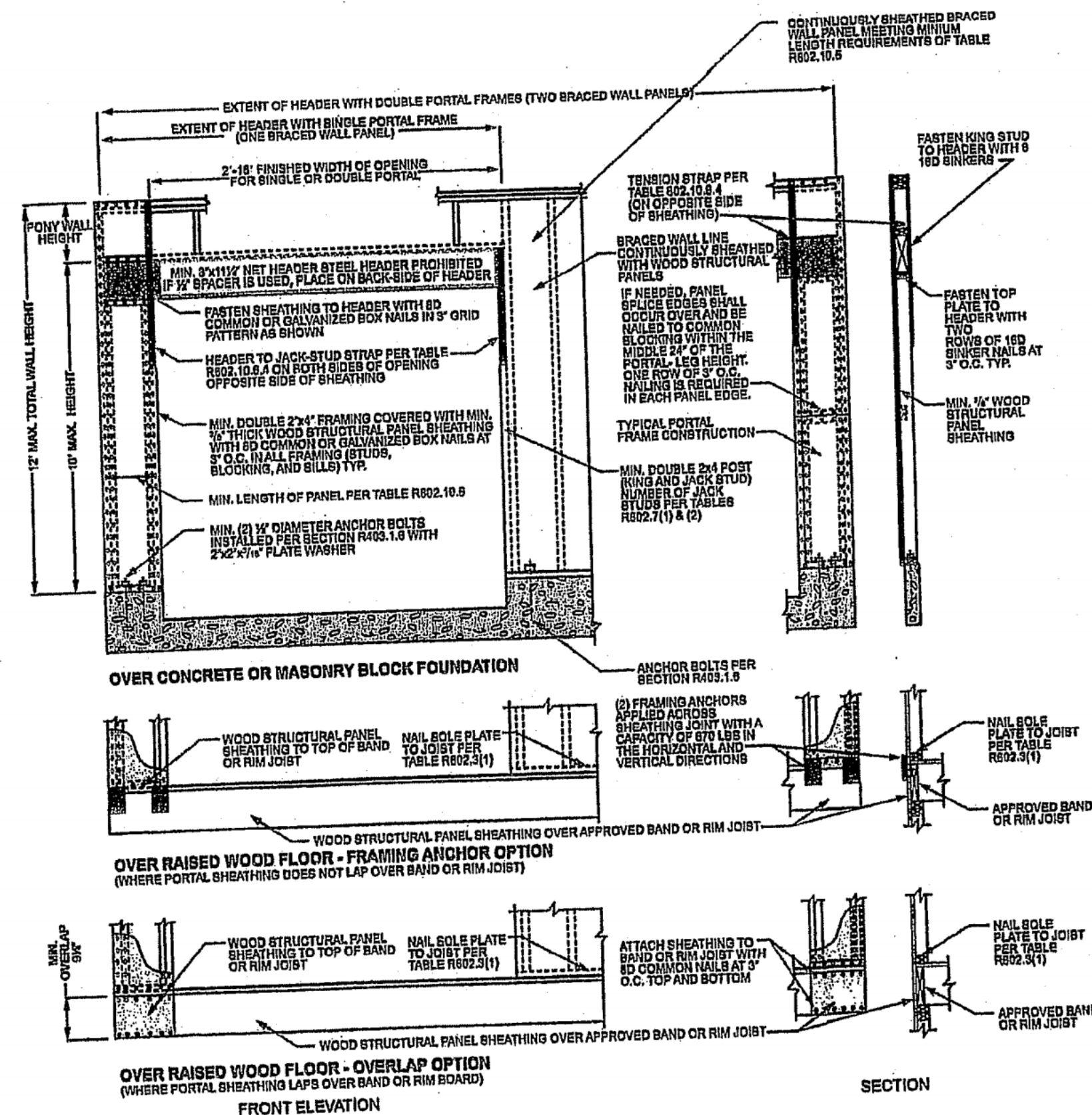
TABLE R602.10.5 MINIMUM LENGTH OF BRACED WALL PANELS							
METHOD (See Table R602.10.4)		MINIMUM LENGTH ^a (feet)				CONTRIBUTING LENGTH (feet)	
		Wall Height					
		8 feet	9 feet	10 feet	11 feet		12 feet
DWB, WSP, SFB, PBS, FCP, HFS, BV-WSP		48	48	48	53	58	Actual ^b Double sided = Actual Single sided = 0.5 x Actual ^b
GB		48	48	48	53	58	
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	48
	SDC D ₁ , D ₂ and D ₃ , ultimate design wind speed < 140 mph	32	32	34	NP	NP	
CS-G		24	27	30	33	36	Actual ^b
CS-WSP, CS-SFB		Adjacent clear opening height (inches)					Actual ^b
		≤ 64					
		68					
		72					
		76					
		80					
		84					
		88					
		92					
		96					
		100					
		104					
		108					
		112					
		116					
		120					
		124					
		128					
132							
136							
140							
144							

METHOD (See Table R602.10.4)		Partial header height					
		8 feet	9 feet	10 feet	11 feet	12 feet	
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 ^b
CS-PF	SDC A, B and C	16	18	20	Note e	Note e	1.5 x Actual ^b
	SDC D ₁ , D ₂ and D ₃	16	18	20	Note e	Note e	Actual ^b

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.

METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a
PFH Portal frame with hold-downs	3/4\"		Fasteners: See Section R602.10.6.2 Spacing: See Section R602.10.6.2
PFG Portal frame at garage	3/4\"		Fasteners: See Section R602.10.6.3 Spacing: See Section R602.10.6.3
CS-WSP Continuously sheathed wood structural panel	3/4\"		Fasteners: Exterior sheathing per Table R602.3(3) Interior sheathing per Table R602.3(1) or R602.3(2) Spacing: 6\" edges 12\" field Varies by fastener
CS-G ^b Continuously sheathed wood structural panel adjacent to garage openings	3/4\"		Fasteners: See Method CS-WSP Spacing: See Method CS-WSP
CS-PF Continuously sheathed portal frame	3/4\"		Fasteners: See Section R602.10.6.4 Spacing: See Section R602.10.6.4
CS-SFB ^c Continuously sheathed structural fiberboard	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 1/4\" long x 0.12\" dia. (for 3/4\" thick sheathing) galvanized roofing nails Spacing: 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 = 47.88 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 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 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.



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

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