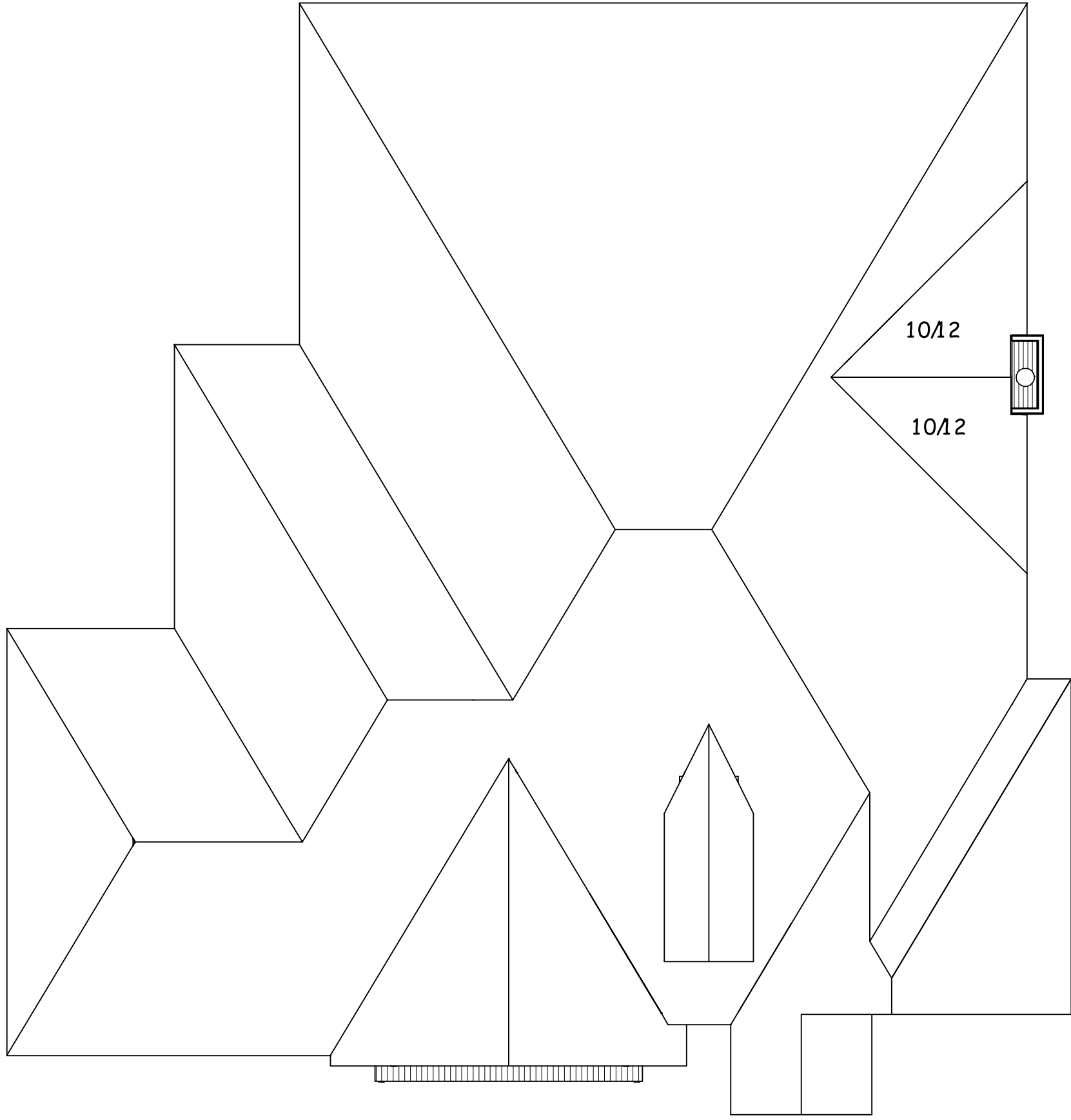
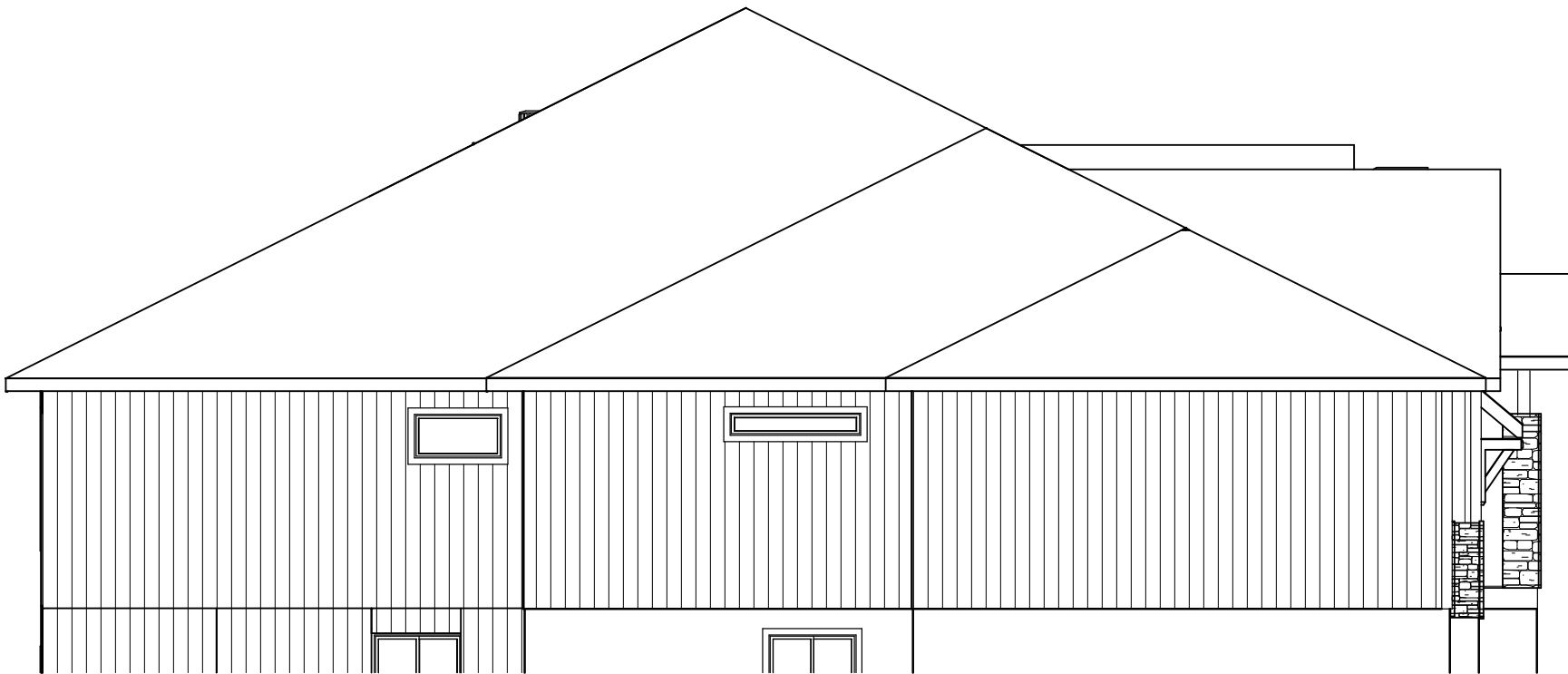




ROOF PLAN
1/8 = 1'-0"
ROOF PITCHES FRONT TO BACK 6/12 TYP. U.N.O.
ROOF PITCHES SIDE TO SIDE 10/12 TYP. U.N.O
RAFTERS 2 X 6 DF NO 2 @ 16" OC TYP.
HIPS AND RIDGES 2 X 8 DF NO 2 TYP.



LEFT ELEVATION
1/8 = 1'-0"

LP PANEL SIDING 3 SIDES



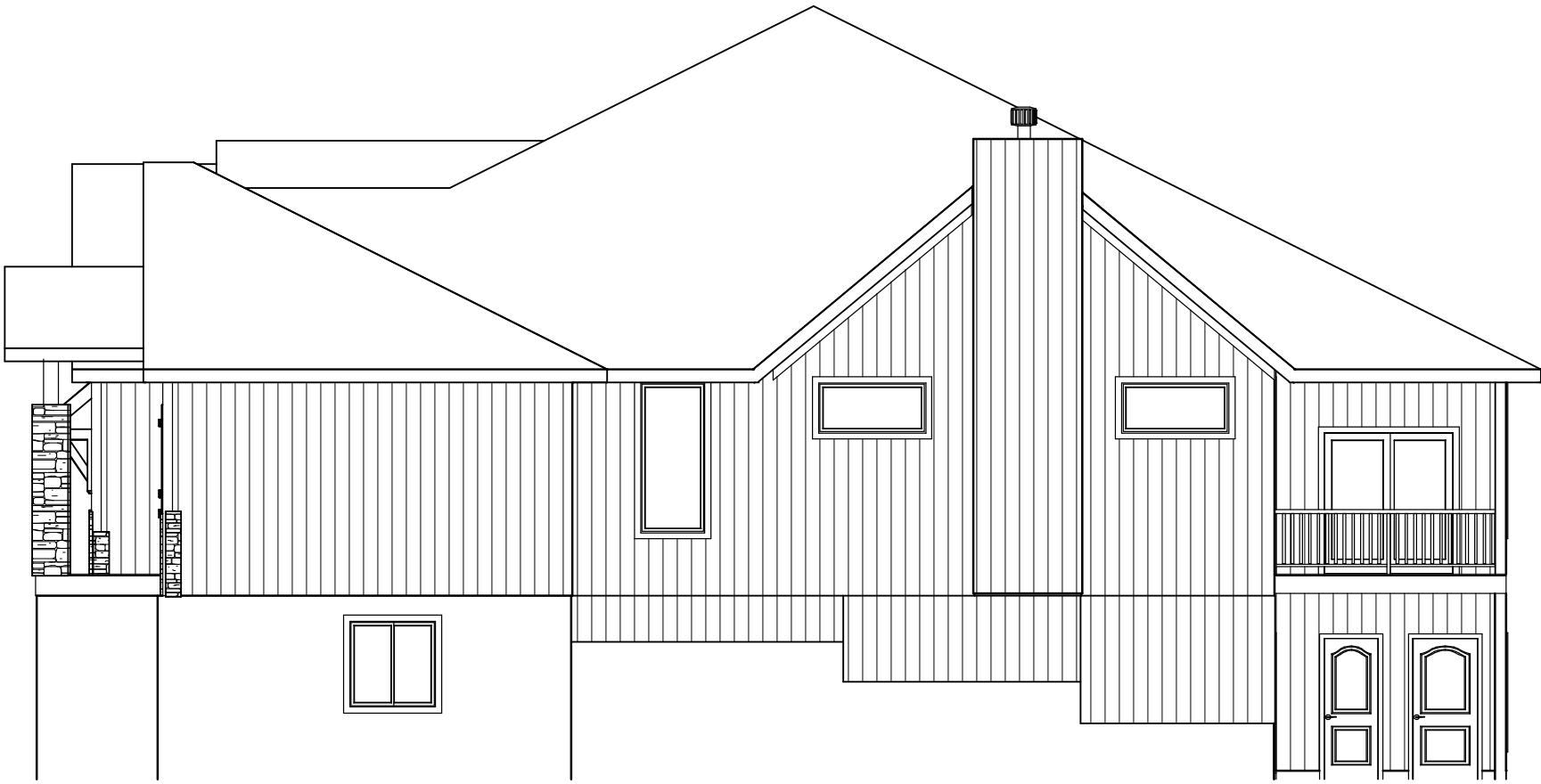
WOOD TRIM
PANEL GARAGE
DOORS

FRONT ELEVATION " B "
STUCCO AND STONE

LP TRIM, SOFFIT, AND FASCIA TYP.



REAR ELEVATION
1/8 = 1'-0"



RIGHT ELEVATION
1/8 = 1'-0"

LP PANEL SIDING 3 SIDES



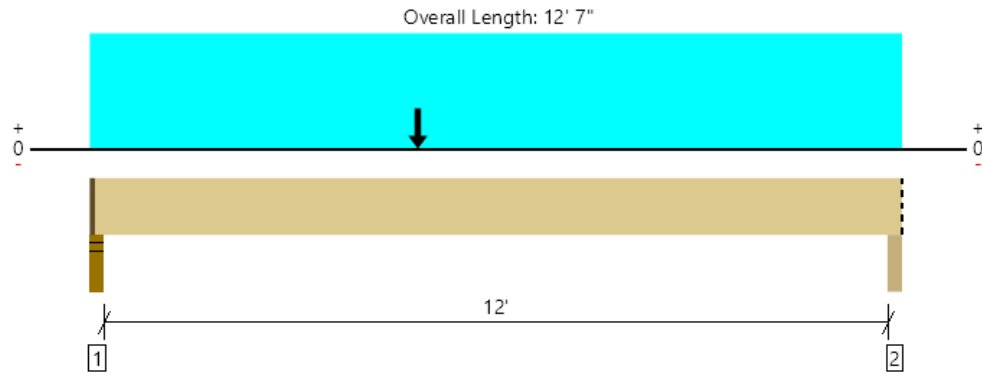
BUILD IN ACCORDANCE WITH 2018 INTERNATIONAL RESIDENTIAL CODE AND LOCAL CODES.	
TRUMARK HOMES KYLE VI CUSTOM LOT 163 WOODSIDE RIDGE 362 NW PATCH CT LEE SUMMIT MO	
SCALE 1/4" = 1'-0"	
DATE 8-16-22	
PLAN NO. 3857	
SHEET NO. 1 OF 5	



MEMBER REPORT

Level, Floor: 3d1st FLOOR JOISTS UNDER FOYER PANTRY AREA
1 piece(s) 2 x 10 DF NO 2 @ 16" OC

PASSED



All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal.

Design Results	Actual @ Location	Allowed	Result	LDF	Load Combination (Pattern)
Member Reaction (lbs)	465 @ 2' 1/2"	1434 (2.25)	Passed (32%)	1.00	1.0 D + 1.0 L (All Spans)
Shear (lbs)	399 @ 1' 3/4"	1665	Passed (24%)	1.00	1.0 D + 1.0 L (All Spans)
Moment (ft-lbs)	1433 @ 5' 11 5/16"	2029	Passed (71%)	1.00	1.0 D + 1.0 L (All Spans)
Live Load Defl. (in)	0.166 @ 6' 3 7/16"	0.304	Passed (L/879)	--	1.0 D + 1.0 L (All Spans)
Total Load Defl. (in)	0.239 @ 6' 3 7/16"	0.608	Passed (L/610)	--	1.0 D + 1.0 L (All Spans)
TJ Pro [®] Rating	N/A	N/A	N/A	--	N/A

- Deflection criteria: LL (L/800) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.
- No composite action between deck and joist was considered in analysis.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Floor Live	Snow	Factored	
1 - Stud wall - SPF	3.50"	2.25"	1.50"	137	336	72	472	1 1/4" Rim Board
2 - Beam - SPF	3.50"	3.50"	1.50"	125	336	48	460	Blocking

- Rim Board is assumed to carry all loads applied directly above it, bypassing the member being designed.
- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	8' 7" o/c	
Bottom Edge (Lu)	12' 6" o/c	
Maximum allowable bracing intervals based on applied load.		

Vertical Loads	Location (Side)	Spacing	Dead (0.90)	Floor Live (1.00)	Snow (1.15)	Comments
1 - Uniform (PSF)	0 to 12' 7"	16"	12.0	40.0	-	Default Load
2 - Point (lb)	5' 1"	N/A	60	-	120	

Member Notes

PLAN 3857 FLOOR JOISTS UNDER PANTRY / OFFICE

Weyerhaeuser Notes

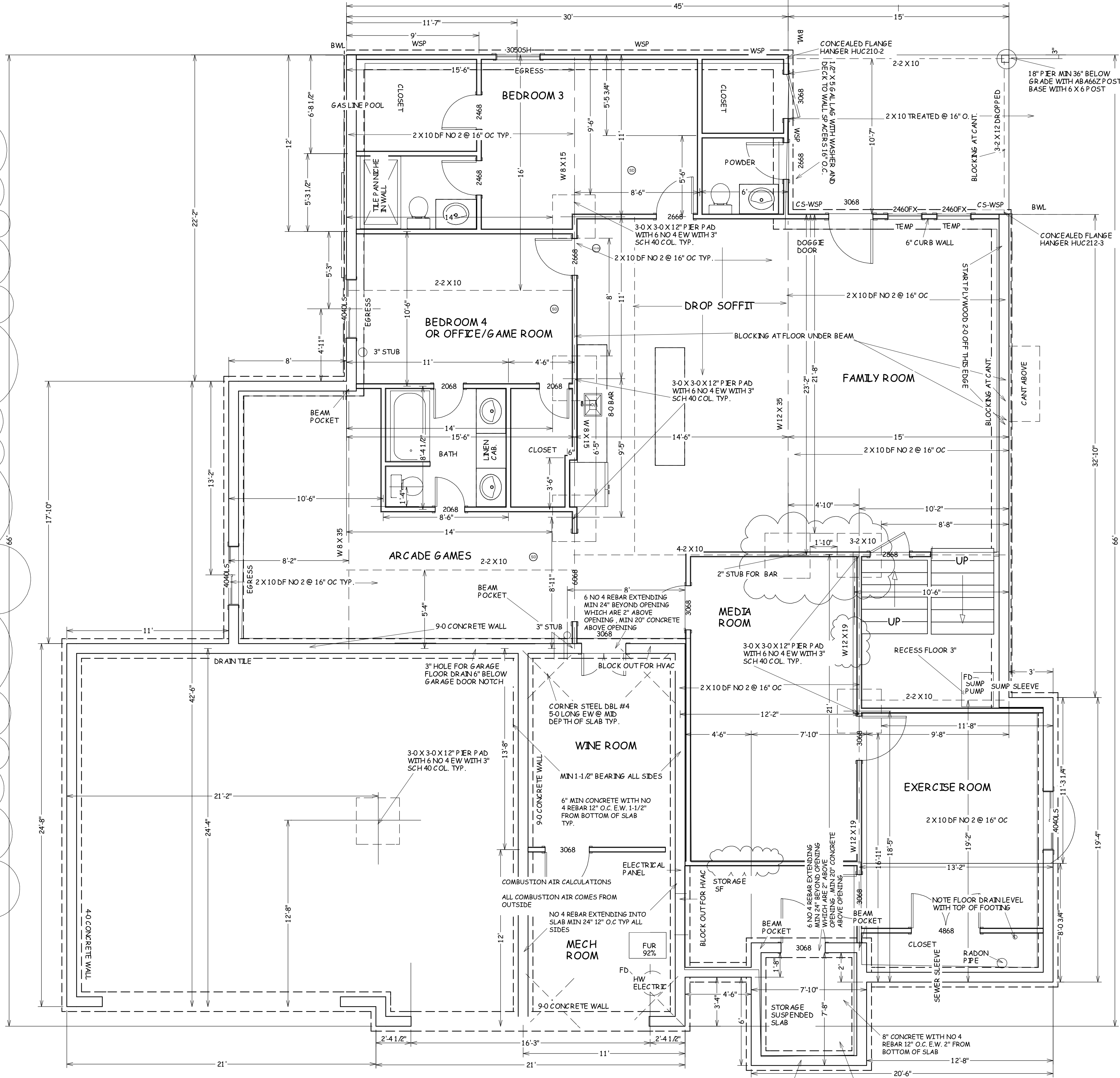
Weyerhaeuser warrants that the string of its products will be in accordance with Weyerhaeuser product design criteria and published design values. Weyerhaeuser expressly disclaims any other warranties related to the software. Use of this software is not intended to circumvent the need for a design professional as determined by the authority having jurisdiction. The designer of record, builder or framer is responsible to assure that the calculation is compatible with the overall project. Accessories (Rim Board, Blocking Panels and Square Blocks) are not designed by this software. Products manufactured at Weyerhaeuser facilities are third-party certified to sustainable forestry standards. Weyerhaeuser Engineered Lumber Products have been evaluated by ICC-ES under evaluation reports ESR-1153 and ESR-1387 and/or tested in accordance with applicable ASTM standards. For current code evaluation reports, Weyerhaeuser product literature and installation details refer to www.weyerhaeuser.com/woodproducts/document-library.

The product application, input design loads, dimensions and support information have been provided by A. K. Designs Inc.

ForteWEB Software Operator	Job Notes
Alan Koster A K Designs Inc (314) 215-0088 akoster@comcast.net	



8/16/2022 3:45:22 PM UTC
ForteWEB v3.4, Engine: V8.2.2.122, Data: V8.1.2.2
File Name: 2997
Page 1 / 1



NOTE : BUILDER WILL
CUT DOWN CONCRETE
SIDE WALLS TO GRADE

FOUNDATION PLAN
2102 SF FINISHED
224 SF UNFINISHED

SUSPENDED SLAB
CONCRETE MIN 3,500 PSI
GRADE 40 REBAR

NO 4 REBAR EXTENDING INTO
SLAB MIN 24" 12" O.C TYP ALL
SIDES

NOTE BUILD 2 X 6 FLOOR TO POUR
STOOP * NOT TEMPORARY * LAG TO
CONCRETE WALLS. FLOOR FLUSH
WITH TOP OF FOUNDATION



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

TRUMARK HOMES
KYLE VI CUSTOM
LOT 163 WOODSIDE RIDGE
362 NWPATCH CT
LEE SUMMIT MO

SCALE
1/4" = 1-0

DATE
8-16-22

PLAN NO.
3857

SHEET NO.

2 OF 5

TRUMARK HOMES
KYLE VI CUSTOM
LOT 163 WOODSIDE RIDGE
362 NW PATCH CT
LEE SUMMIT MO

DATE
8-16-22

SHEET NO.
3 OF 5

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

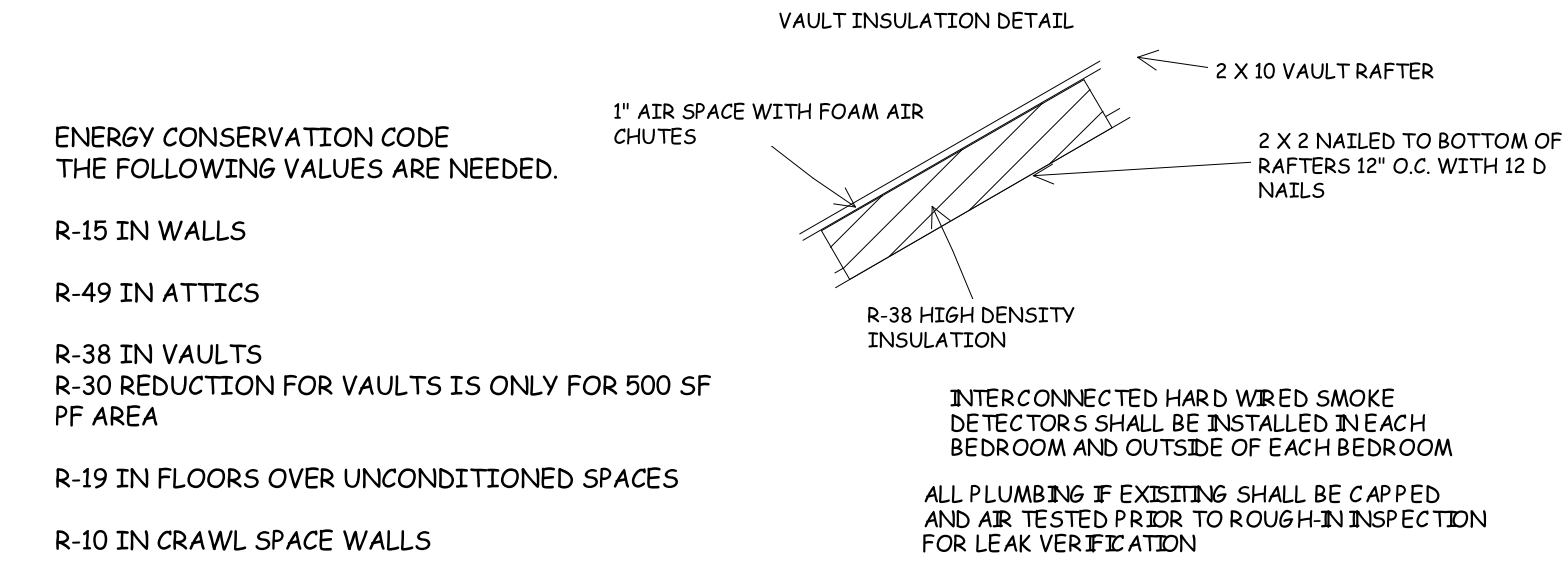
R-10 IN CRAWL SPACE WALLS

BASEMENT WALLS R-13 CAVITY OR R-10 CONTINUOUS

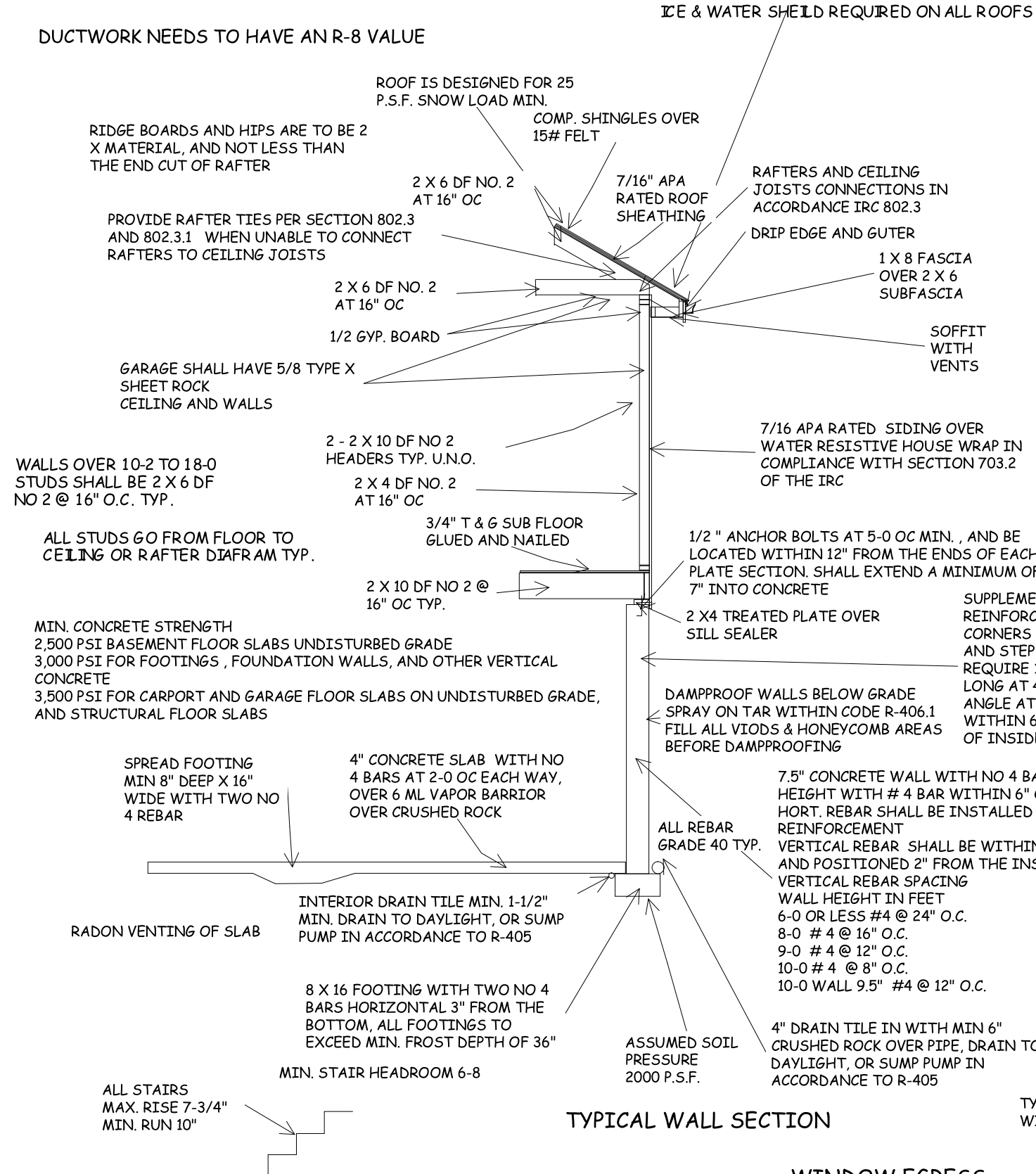
SLABS SHALL BE R-10 FOR A DEPTH OF 2 FOOT

A WINDOW U FACTOR OF .35 OR BETTER

DUCTWORK NEEDS TO HAVE AN R-8 VALUE

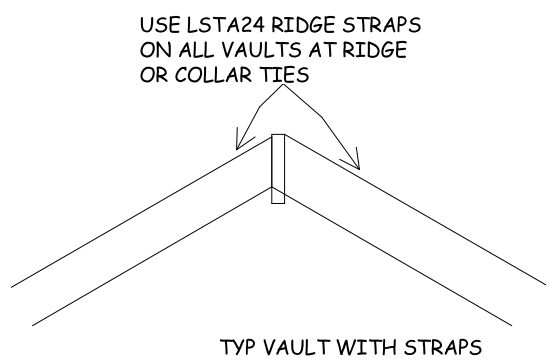


1. DWELLING / GARAGE OPENINGS BETWEEN GARAGE AND SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS SHALL BE EQUIPPED WITH SOLID WOOD OR STEEL DOORS NOT LESS THAN 1-3/8" THICK OR 20 MINUTE RATED DOORS, WITH SELF CLOSING DEVICES REQUIRED FOR GARAGE / DWELLING SEPERATION DOORS R302.5.1
2. WHOLE HOUSE 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 I.C. 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 N1103.2.2.1
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



SUPPLEMENTAL
REINFORCEMENT AT
CORNERS OF OPENINGS
AND STEP DOWNS
REQUIRE 1 # 4 BAR 48"
LONG AT 45 DEGREE
ANGLE AT CORNERS,
WITHIN 6" OF THE EDGE
OF INSIDE CORNERS

ALL CONCRETE EXPOSED TO
WEATHER GARAGE SLABS
FOOTINGS WALLS AND FLATWORK
MUST HAVE 6% AIR ENTRAINMENT

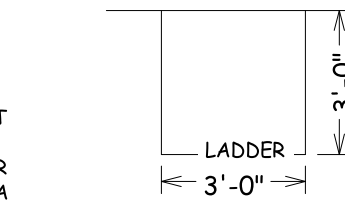


PIER PADS

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

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

WINDOW EGRESS REQUIREMENTS



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

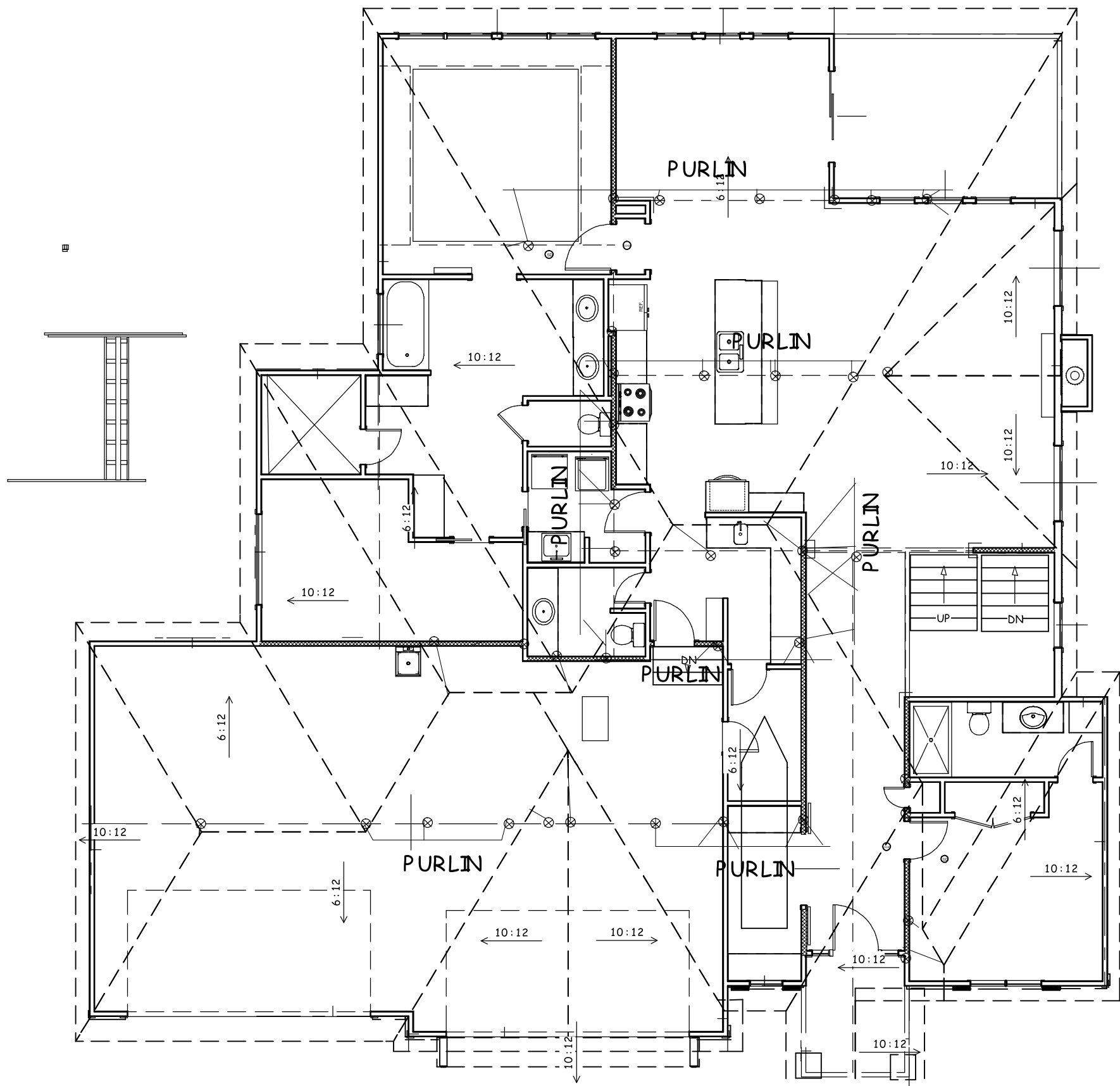
WINDOW SAFETY GLAZING PER 308

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

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



PURLIN PLAN
1/8" = 1'-0
RAFTER SPAN MAX. 14'-0

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

TRUMARK HOMES
KYLE VI CUSTOM
LOT 163 WOODSIDE RIDGE
362 NWPATCH CT
LEE SUMMIT MO

SCALE
1/4" = 1'-0

DATE
8-16-22

PLAN NO.
3857

SHEET NO.
4 OF 5



TABLE R602.10.3(1) BRACING REQUIREMENTS BASED ON WIND SPEED						
EXPOSURE CATEGORY B 10-FOOT MEAN ROOF HEIGHT 10-FOOT WALL HEIGHT 3 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 (feet)	Method L1B ^b	Method Q8	Methods DWB, WSP, SFB, PFB, PCP, HPS, BV-WSP, ASB, PFH, PFC, CS-SFB	Methods CS-WSP, CS-Q, 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

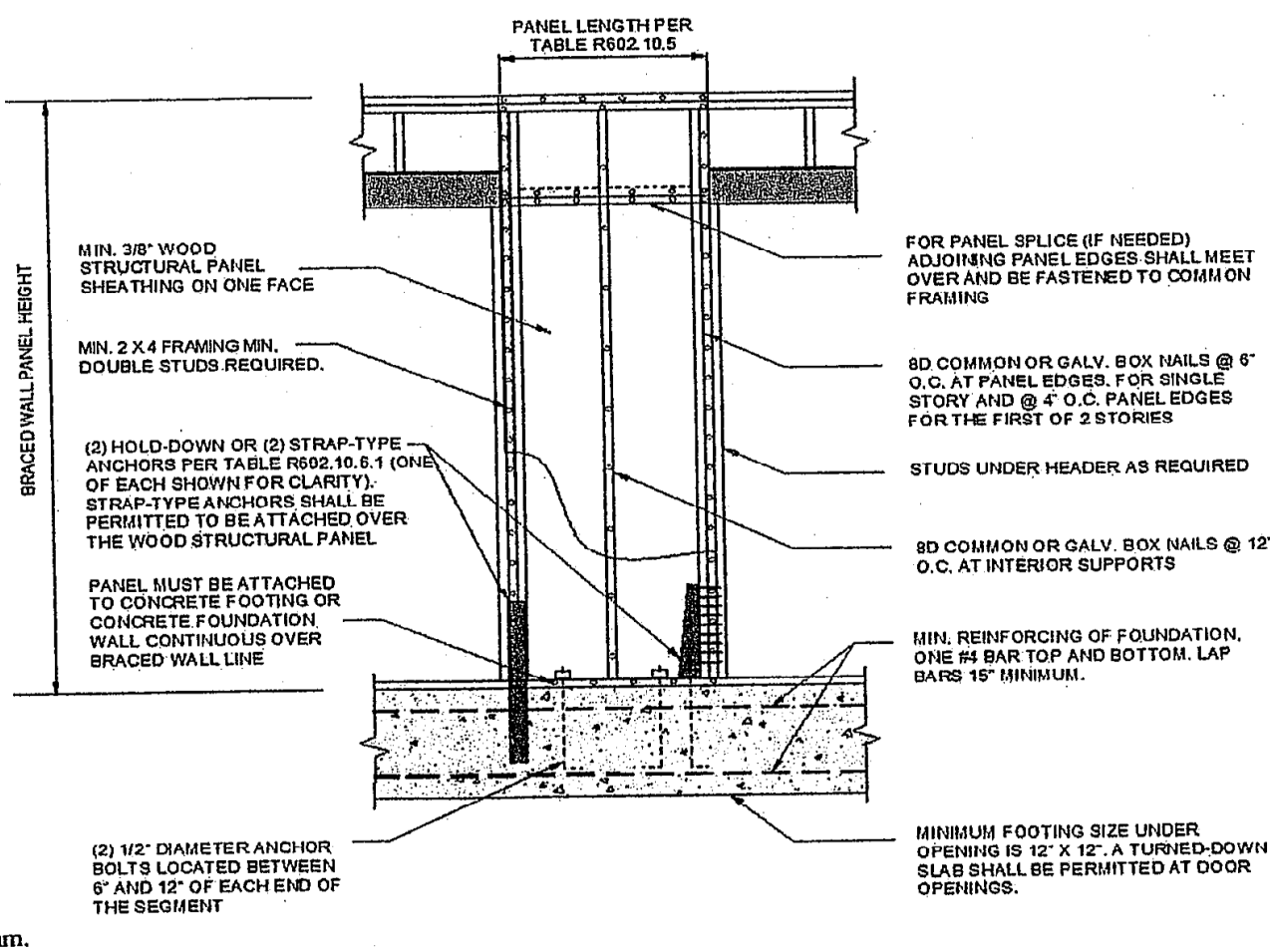
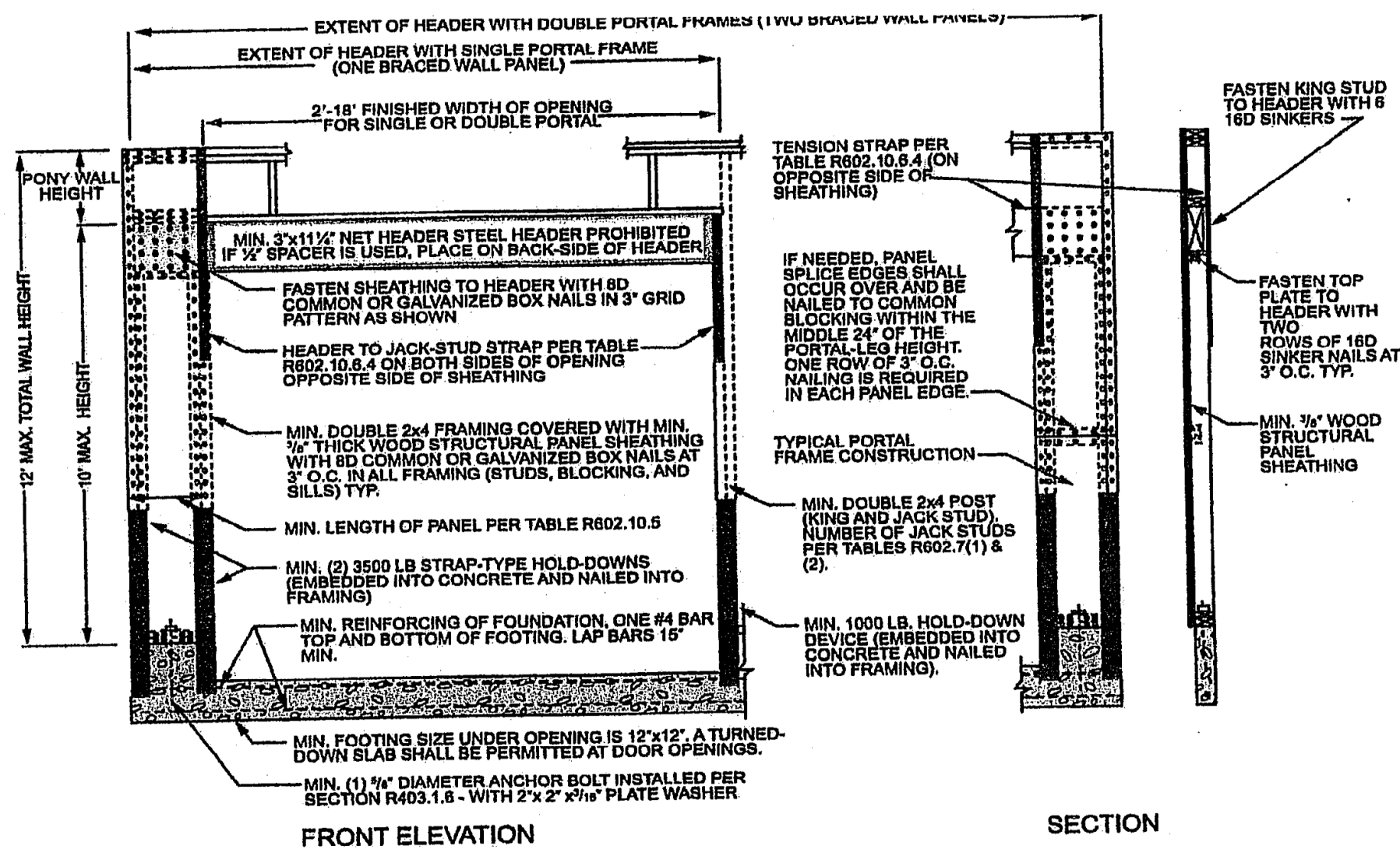


FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL



4 mm, 1 foot = 304.8 mm.

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

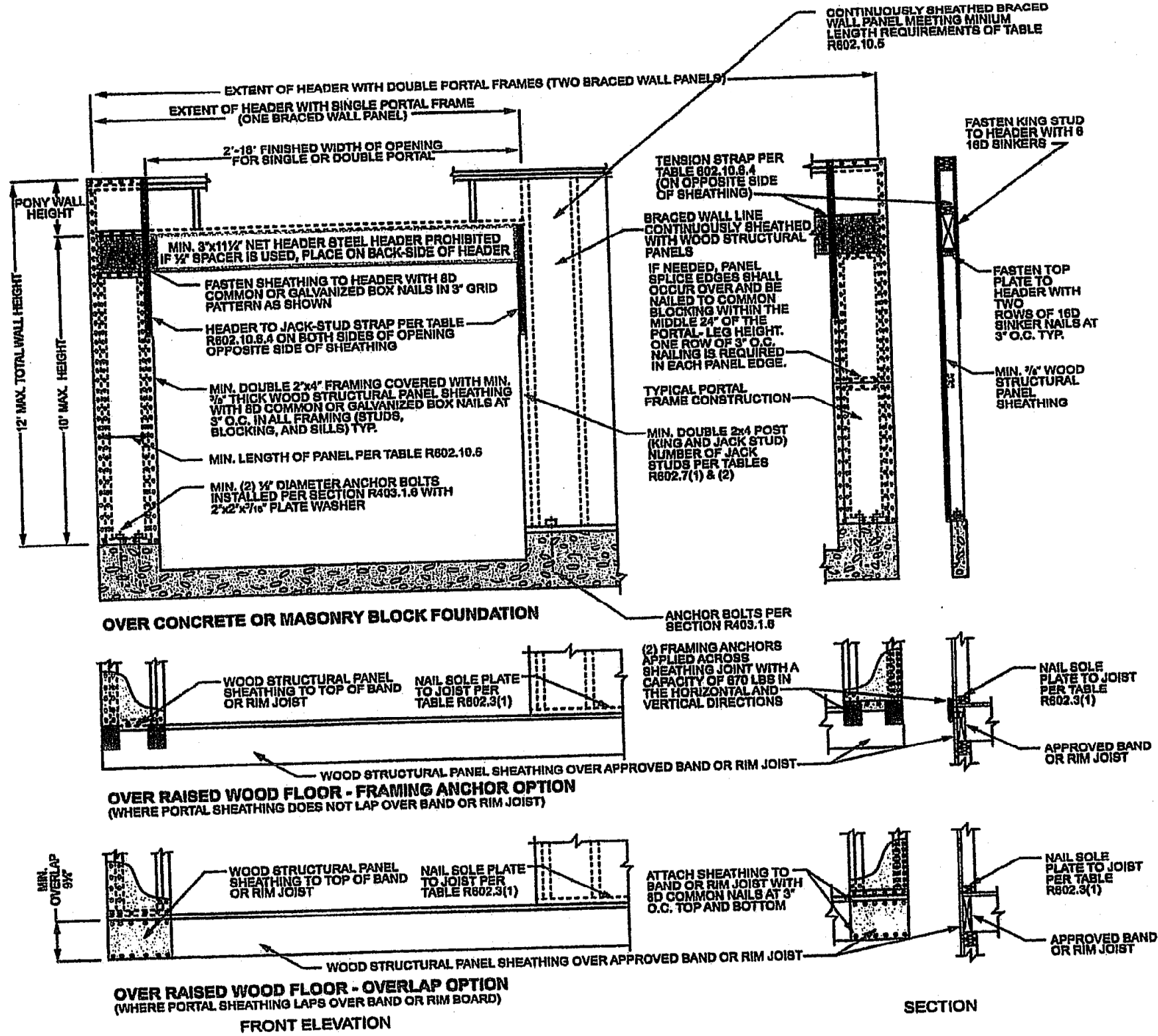
TABLE R602.10.4 BRACING METHODS				
METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a	
			Fasteners	Spacing
L1B Let-in-bracing	1 x 4 wood or approved metal straps at 45° to 60° angles for maximum 16" stud spacing		Wood: 2-8d common nails or 3-8d (2 1/2" long x 0.113" dia.) nails Metal 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 1/2" 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 ^b 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 3/4" 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 3/4" thick sheathing)	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, 1/8" 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	3/4"		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 ^a (inches)					CONTRIBUTING LENGTH (inches)
	8 feet	9 feet	10 feet	11 feet	12 feet	
DWB, WSP, SFB, PFB, PCP, 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
L1B	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	35	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
METHOD (See Table R602.10.4)	Portal header height	8 feet	9 feet	10 feet	11 feet	12 feet
	Supporting roof only	16	16	16	Note c	Note c
PFH	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	1.5 x Actual ^b
	SDC D ₀ , D ₁ and D ₂	16	18	20	Note e	1.5 x Actual ^b

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 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.

TABLE R602.10.4—continued BRACING METHODS				
METHODS, MATERIAL	MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA ^a	
			Fasteners	Spacing
PFH Portal frame with hold-downs	3/4"		See Section R602.10.6.2	See Section R602.10.6.2
PFG Portal frame at garage	7/16"		See Section R602.10.6.3	See Section R602.10.6.3
Continuous Sheathing Methods	CS-WSP Continuously sheathed wood structural panel		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
	CS-GP+ Continuously sheathed wood structural panel adjacent to garage openings		See Method CS-WSP	See Method CS-WSP
	CS-PF Continuously sheathed portal frame		See Section R602.10.6.4	See Section R602.10.6.4
	CS-SFB+ Continuously sheathed structural fiberboard		1 1/2" or 7/8" 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 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 = 47.8 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.



For S1: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

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

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

TRUMARK HOMES
KYLE VI CUSTOM
LOT 163 WOODSIDE RIDGE
362 NWPATCH CT
LEE SUMMIT MO

SCALE
1/4" = 1-0

DATE
8-16-22

PLAN NO.
3857

SHEET NO.

5 OF 5

