

PLAN: 7-1-21

ROBINSON RESIDENCE

Dave Richards Homebuilding, Inc.

PANAL SIDING FRONT RETURNS SIDES AND BACK, LP PRECISION PANEL SIDING 7/16" MUST BE INSTALLED WITH ITS LONG DIMISION ORIENTED VERTICALLY.

FASTENER SPACING (INCHES O.C.) 6" EDGES AND 12" IN THE FIELD

FASTER PENETRATION INTO STUD MIN. 1-1/2"

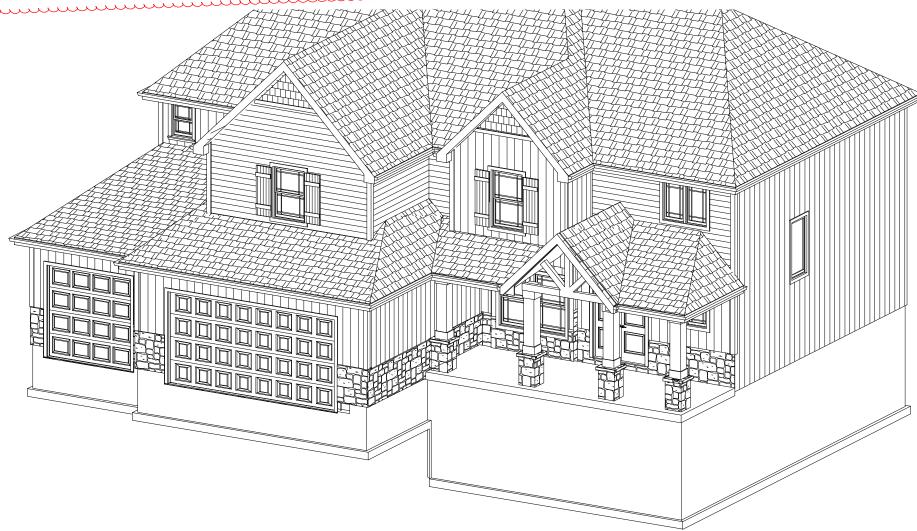
FASTENER MUST HAVE A MINIMUM HEAD DIAMETER OF 0.297 INCH, A MINIMUM SHAFT DIAMETER OF 0.113 INCH AND A MINIMUM LENGTH OF 2-1/2" INCHES

OSB 7/16" UNDER STUCCO AND STONE ON FRONT

FASTENER SPACING (INCHES O.C.) 6" EDGES AND 12" IN THE FIELD

FASTER PENETRATION INTO STUD MIN. 1-1/2"

FASTENER MUST HAVE A MINIMUM HEAD DIAMETER OF 0.297 INCH, A MINIMUM SHAFT DIAMETER OF 0.113 INCH AND A MINIMUM LENGTH OF 2-1/2" INCHES

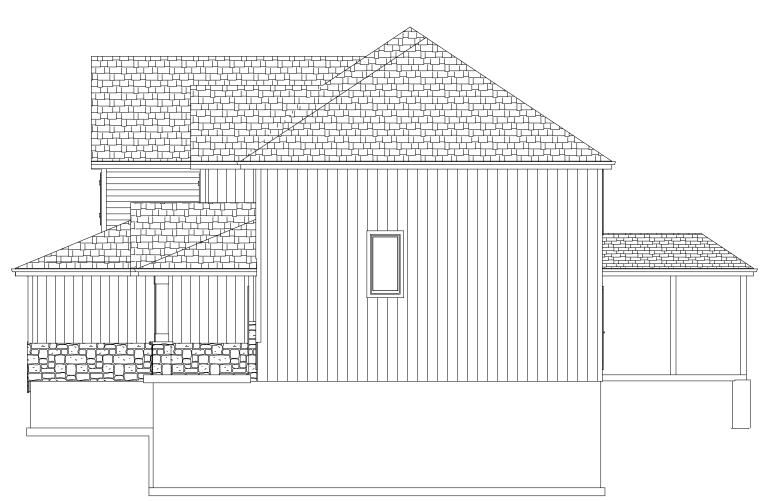


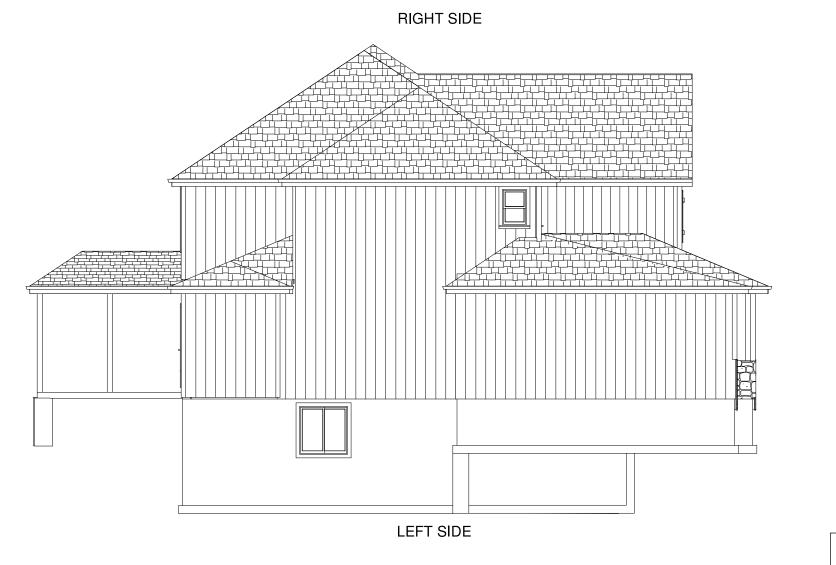




4713 NE Jamestown Dr LEE'S SUMMIT, MO







ELEVATIONS ROBINSON RESIDENCE



PLAN: 7-1-2 \sim

PAGE

Combustion Air Calculations

92% Efficient Furnace so

not applicable.

Combustion Air Calculations are

CONCRETE

FUTURE

REC ROOM

3 1/2" SCH 40 STEEL COL

ON CONCRETE PAD 48"X48"X16" W/8#4 BARS

E.W. 32.0 K PL

STUB BAR

3 1/2" SCH 40 STEEL COL

42"X42"X14" W/7#4 BARS

1,925 PLF

STAIRS: ALL TREADS @ 10" EACH

TWO PLATFORMS LOWER STEPS 3 TREADS

MIDDLE STEPS 5 TREADS UPPER STEPS 4 TREADS ALL RISERS @ 7 5/8" EACH

2" LEDGE TO CARRY FRONT STEP START FRAMING 2" BACK

EARTH FILL CONCRETE SLAB ABOVE

24'5-

ON CONCRETE PAD

E.W. 22.6 K PL

W10X30 I-BEAM

CONCRETE PATIO ABOVE

← 2'9 >

 \otimes

FLOOR DRAIN

FLASH CORNER~

MIN (2) 4200 LB STRAP-

CONCRETE AND NAILED

TYPÈ HOLD-DOWNS

(EMBEDDED INTO

INTO FRAMING)

LOWER FOUNDATION WALL 8" FOR GARAGE DOOR

22'-

FURNACE

ΗМ

18" DIA. X 48" DEEP CONCRETE COLUMN

(SD)

REBARS ON 36"X36"X12" PIER PAD W/4 EACH WAY

8' LONG (4)#4 REBARS

EACH WAY ON 3" CHAIRS

LAP SPLICES MIN. 24" 3600 PSI

– 2'9 ->

B'11—— FUTURE

<u>BATH</u>

BOLT DECK TO BOX W/ 3/8" X 6" LAG BOLTS @ 12" O.C.

3 1/2" SCH 40 STEEL COL

(SD)

ON CONCRETE PAD 42"X42"X14" W/7#4 BARS

E.W. 18.7K PL

1,297 PLF

TURN JOIST FOR CANTILEVER

EGRESS

FUTURE

BEDROOM 5

5" CONCRETE SLAB W/#4 REBARS @ 12" BOTH WAYS ON 1"

CHAIRS

MIN (2) 4200 LB STRAP-

CONCRETE AND NAILED

TYPE HOLD-DOWNS

(EMBEDDED INTO

INTO FRAMING)

Concrete strength shall comply with the following minimum strength requirements at 28 days [IRC R402.2]:

2,500 psi for basements floor slabs on undisturbed grade.

- 3,000 psi for footings, foundation walls, and other vertical concrete.
- 3,500 psi for carport and garage floor slabs on undisturbed grade.
- · 3,500 psi for structural floor slabs.

Concrete shall be 6% (+/- 1%) air-entrained for garage slabs and for all locations footings, walls or flatwork where exposed to weather. Rebar shall be minimum 40 ksi unless noted otherwise.

> 1. 8" X 9'-0" CONCRETE WALLS W/5 #4 BARS HORIZONTAL AND #4 BARS VERTICAL @ 24" O.C. ON 16" X 8" CONCRETE FOOTING W/2 #4 BARS 2. WALK-OUT- 2X6 STUDS @ 16" O.C. ON 8" X 36" CONCRETE WALL ON 16" X 8" CONCRETE FOOTING. 3. FOUNDATION DESIGNED FOR 1500 PSF BEARING 4. COLUMN FOOTING 12" THICK W/#4 BARS @ 6" O.C. 5. BOTTOM OF FOOTING MIN. 36" BELOW FINISHED

1. DWELLING / GARAGE OPENINGS BETWEEN GARAGE AND SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS SHALL BE EQUIPPED WITH SOLID WOOD OR STELL 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 WITH AIR INFILTRATION AT A RATE OF LESS THAN 3 AIR CHANGES PER HOUR (AT ACH50 STANDARD 0 R303.4

4. STEEL COLUMNS SHALL BE MINIMUM SCHEDULE 40 R407.3

6. STUDS SHALL BE CONTINUOUS BETWEEN FLOOR, CEILING AND OR

7. ADDED REQUIREMENTS FOR WINDOW FALL PROTECTION R312.2

8. NEW PROVISIONS FOR ATTACHMENT OF RAFTERS, TRUSSES AND

UNFINISHED BASEMENTS) N1102.:

10. EXTERIOR WINDOWS/DOORS SHALL HAVE U-FACTOR 0.35 AND

11. HOUSE LEAKAGE AND DUCT LEAKAGE PERFORMANCE STANDARDS EFFECTIVE JANUARY 1, 2014. A SAMPLE TESTING PROGRAM WILL BE

CAN LIGHTS IN ATTIC) SHALL BE IC-RATED, LEAKAGE-RATED AND SEALED TO THE GYPSUM WALLBOARD N1102.4.4

14. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2 % AIR LEAKAGE RATE NI103.2.2.1

19. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL (INCLUDING THE WALL BETWEEN THE HOUSE AND GARAGE) SHALL NOT BE USED AS

20. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING SPACE AND THE GARAGE MI601.6

UPLIFT PER IRC 802.11



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6. FOUNDATION DIMENSIONS DO NOT ALLOW FOR STONE SHELF

3. CARBON MONOXIDE DETECTORS REQUIRED 9 R3150

5. DECK LEDGER ATTACHMENT TO HOUSE SHALL BE PER TABLES 507.2 AND 507.2.1

9. INSULATION REQUIRED FOR ALL BASEMENT WALLS (INCLUDING

GLAZING SHALL HAVE SOLAR HEIGHT GAIN FACTOR OF 0.40 N1102.1

IMPLEMENTED OCTOBER 1, 2012 KCBRC N1102.4.1.2 N1103.2.2 12. LIGHTING FIXTURES PENETRATING THE THERMAL ENVELOPE (E.G.

13.PROGRAMMABLE THERMOSTAT REQUIRED N1103.1.1

15. BUILDING CAVITIES USED AS RETURN AIR PLENUMS SHALL BE SEALED TO PREVENT LEAKAGE ACROSS THE THERMAL ENVELOPE KCBRC

16. CERTAIN HOT WATER PIPES SHALL BE INSULATED N1103.4

17. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR

18. MAKEUP AIR SYSTEM REQUIRED FOR KITHCHEN EXHAUST HOODS THAT EXCEED 400 CFM M1503.4

RETURN AIR PLENUMS (UNLESS THE REQUIRED INSULATION AND AIR BARRIER ARE MAINTAINED) IRC M1601.1.1, #7.5

21. A CONCRETE- ENCASED GROUNDING ELECTRODE ('UFER' GROUND) CONNECTION SHALL BE PROVIDED TO THE ELECTRICAL SERVICE E3608.1

22. COMPLIANCE WITH THE REQUIRMENT AND SHOW CONNECTION AS NEEDED FOR ROOF BEAM, TRUS, RAFTER, AND GIRDER CONNECTION FOR

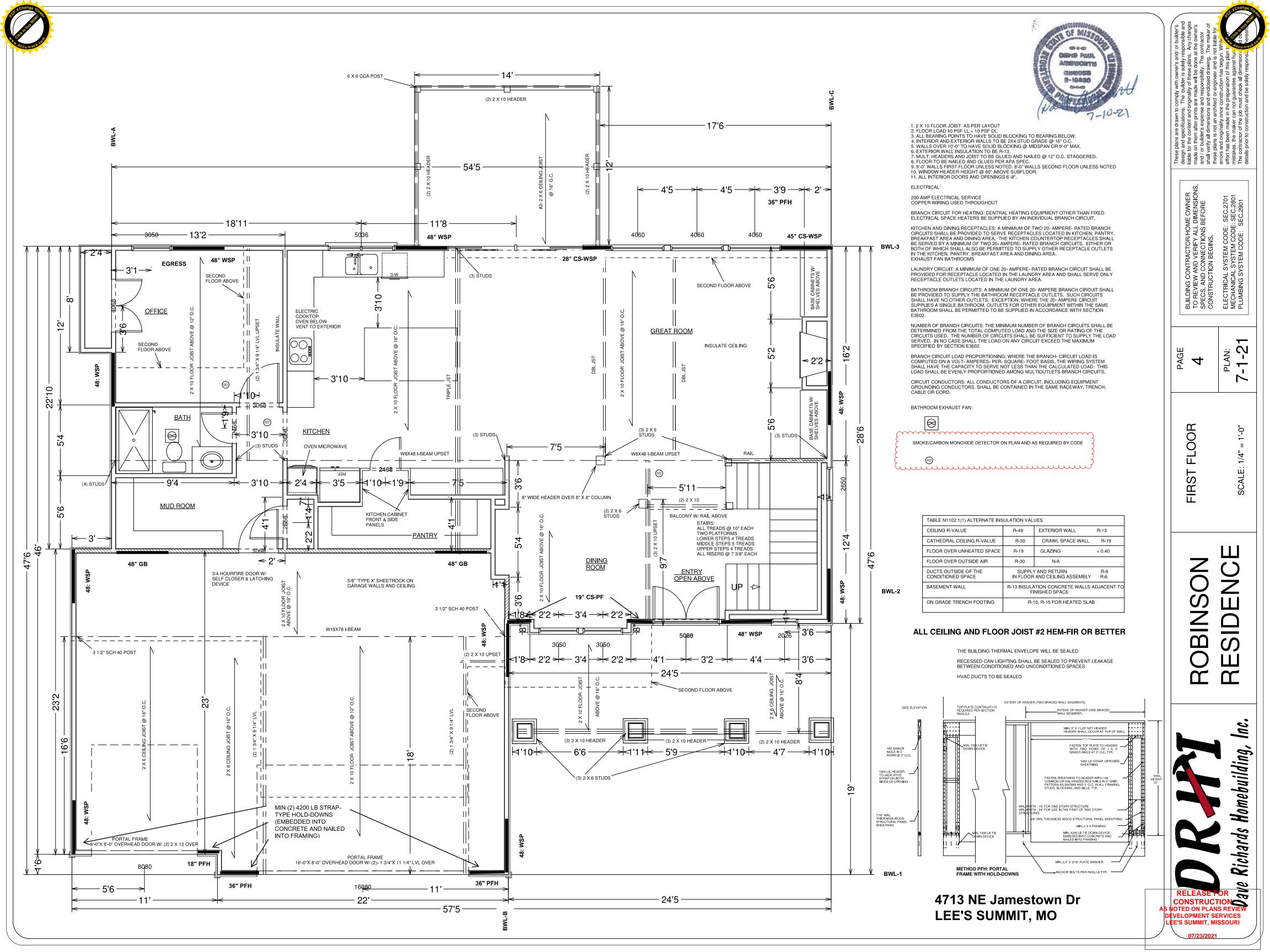
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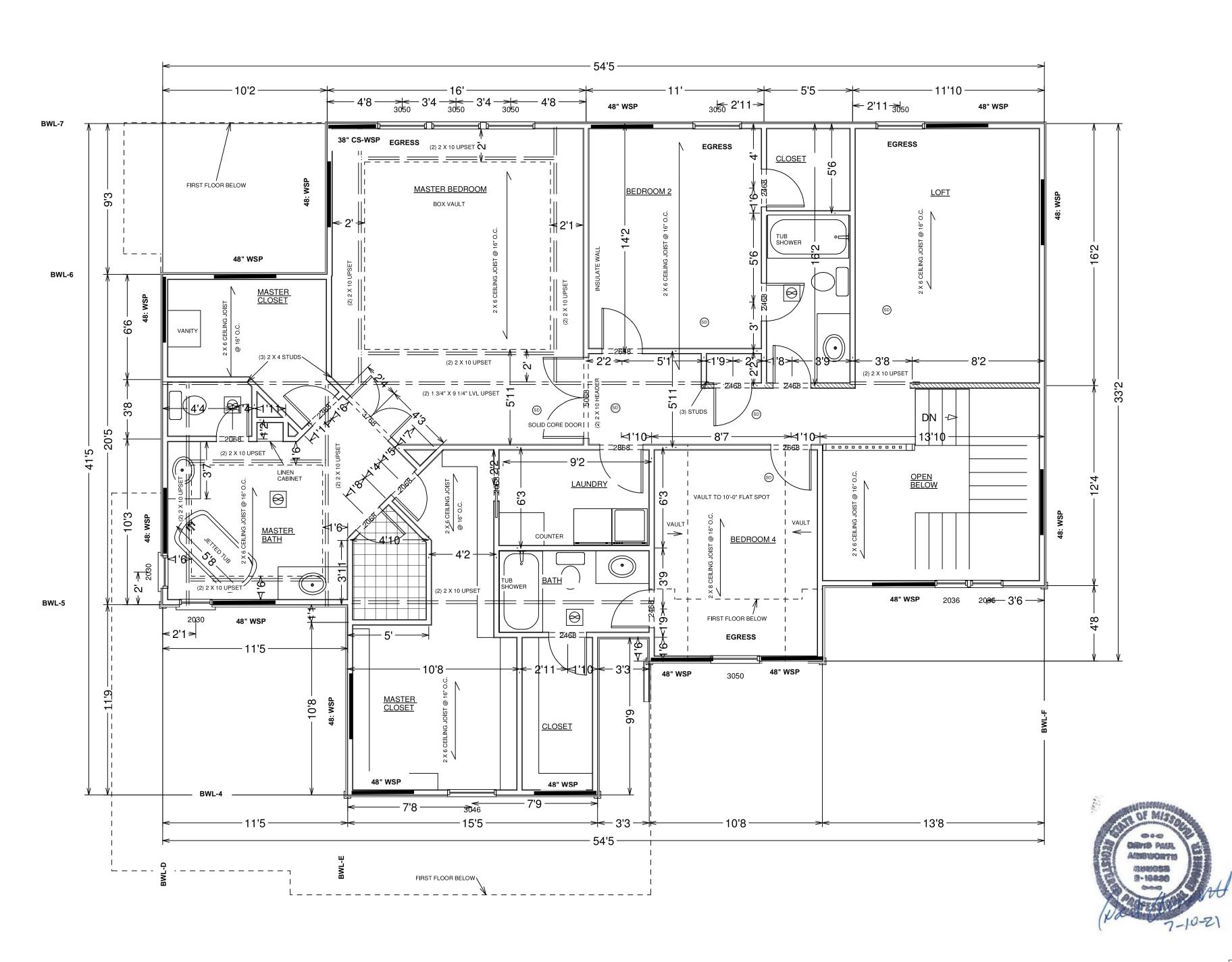
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BASEMENT

ENC







4713 NE Jamestown Dr LEE'S SUMMIT, MO These plans are drawn to comply with owner's and/ or build design and specifications. The builder is solely responsible liable for the content and originality of these plans. Any change on them after prints are made will be done at the own and / or builder's expense and responsibility. The contracts shall verify all dimensions and endosed drawing. The make these plans is not an architect or engineer and is not liable errors and originality once construction has begun. While effort has been made in the preparation of this plan to mistakes, the maker can not guarantee against hun and mistakes, the maker can not guarantee against hun and and an architect.

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ANICAL SYSTEM CODE: SEC.2801
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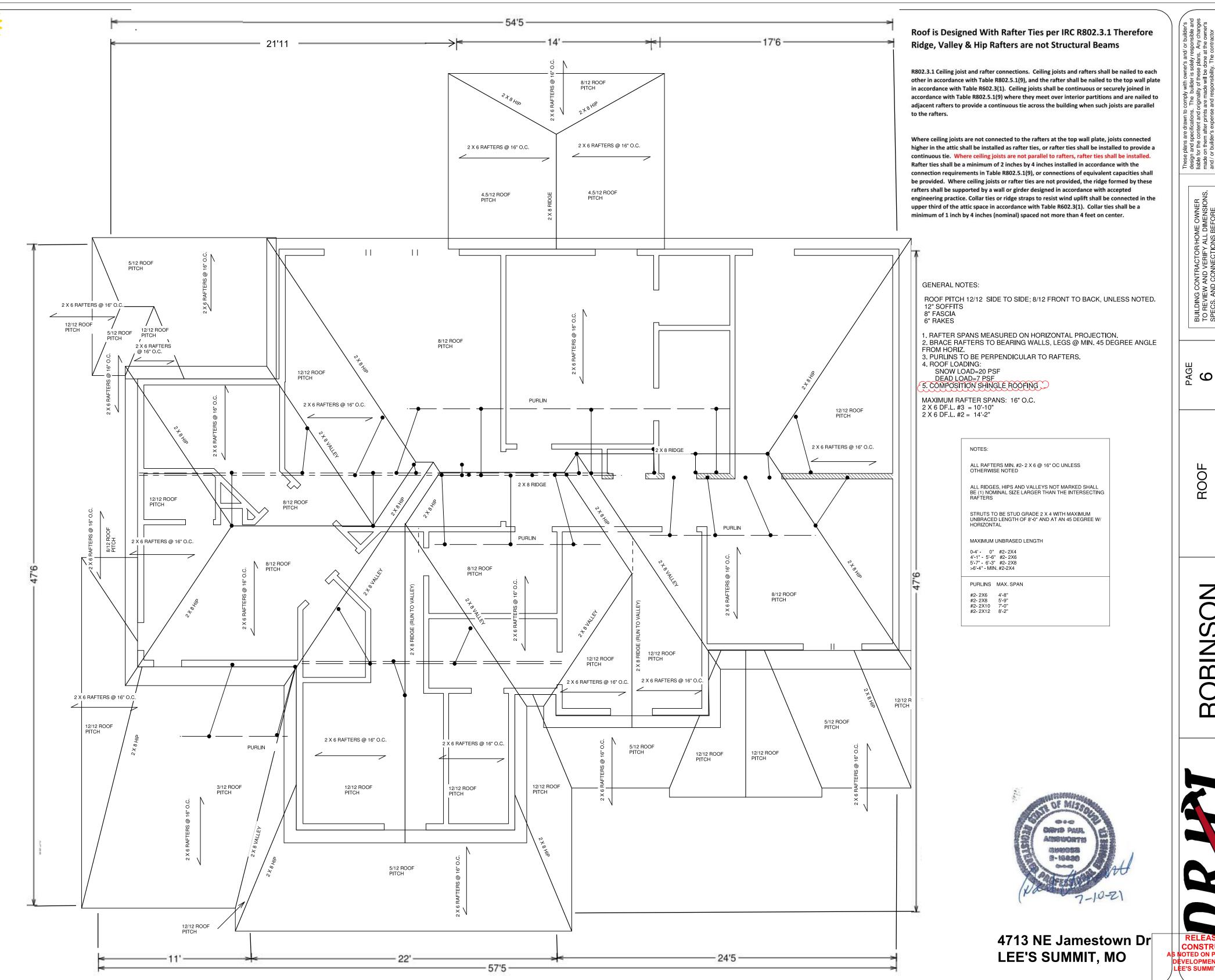
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SECOND FLOOR

ROBINSON RESIDENCE





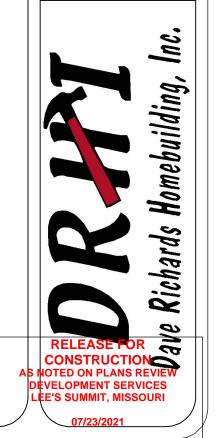
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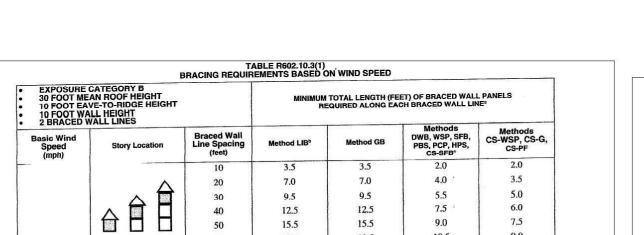
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PLAN: 7-1-21

ROBINSON RESIDENCE







18.5

7.0

13.0

18.5

24.0

29.5

35.0

NP

NP

NP

20

30

50

50

Î

≤ 90

18.5

7.0

13.0

18.5

24.0

29.5

35.0

10.5

19.0

27.5

35.5

44.0

52.0

10.5

4.0

10.5

14.0

17.0

20.0

11.0

15.5

20.5

25.0

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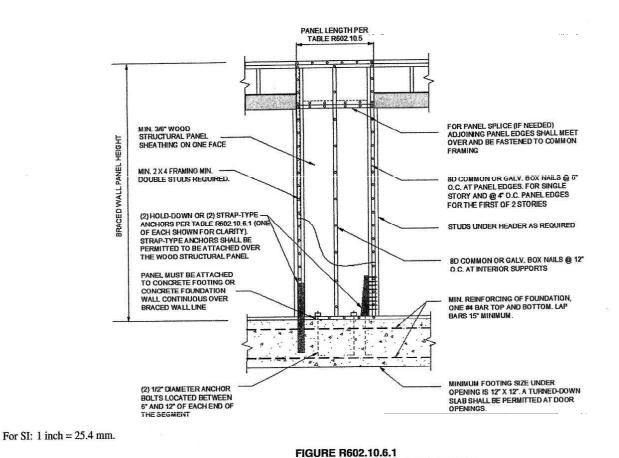
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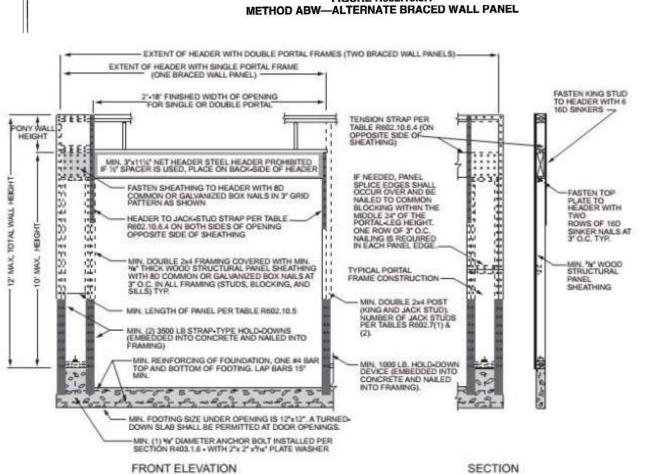
13.5

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21.5

25.5





2018 IRC PFH DETAIL

TABLE R602.10.4 BRACING METHODS CONNECTION CRITERIA METHODS, MATERIAL Fasteners d: per stud and or 3-8d (2¹/₂" long x 0.113" dia.) nails pproved metal strap: 45° to 60° angles fo Let-in-bracing maximum 16" stud spacing Metal strap: per manufacturer per manufacture $2-8d (2^{1}/_{2}" long \times 0.113" dia.)$ nails Per stud maximum 24" stud spacing $2 - 1^3/4$ long staples Exterior sheathing per Table R602.3(3) 6" edges 12" field WSP Wood 3/8" (See Section R604 Varies by fastener BV-WSP 4" at panel edges 12" at intermediate supports 4" at braced wall panel end posts Wood Structural Panels with Stone or Masonry Venee 8d common $(2^1/2^n \times 0.131)$ nails See Figure R602.10.6.5 7/16" (See Section R602.10.6.5) $^{1}/_{2}$ " long × 0.12" dia. (for $^{1}/_{2}$ " $^{1}/_{2}$ " long × 0.12" dia. (for $^{1}/_{2}$ " thick sheathing) $1^{3}/_{4}$ " long × 0.12" dia. (for $^{25}/_{32}$ " thick sheathing) SFB Structural erboard shea ing 1/2" or 25/32" for maximum 16" stud spacing vanized roofing nails or 8d comme $(2^{1}/_{2}" \text{ long } \times 0.131" \text{ dia.})$ nails ails or screws per Table R602.3(1) for For all braced wall exterior locations panel locations: 7" edges (including top and bottom plates) 7' 1/2" Gypsum board For ³/₈", 6d common (2" long × 0.113" dia.) nails For ¹/₂", 8d common (2"/₂" long × 0.131" dia.) nails 3/8" or 1/2" for maximum 16" stud spacing Particleboard sheathing ee Section R60 3" edges 6" field PCP Section R703.6 fo $\frac{1}{2}$ long, 11 gage, $\frac{7}{16}$ dia. head nails 6" o.c. on all framing Portland maximum 16" stud spacing 7/8" long, 16 gage staples cement plaste 92" dia., 0.225" dia. head nails with length to accommodate 1 1/2" penetration into studs HPS Hardboard 4" edges 8" field /16" for maximum 1 stud spacing panel siding See Section R602.10.6.1 See Section R602.10.6.1 3/8"

TABLE R602.10.5
MINIMUM LENGTH OF BRACED WALL PANELS

METHOD

(See Table R602.10.4)

DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP

ABW

CS-WSP, CS-SFB

NP = Not Permitted.

a. Linear interpolation shall be permitted.

PFG

CS-G

CS-PF

SDC A, B and C,

wind speed < 110 mph

SDC D., D, and D.,

wind speed < 110 mph

Supporting roof only

Adjacent clear opening heigh

≤ 64

68

100

108

112

116

120 124

128 132

136

140

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

b. Use the actual length when it is greater than or equal to the minimum length.

(inches)

Wall Height

8 feet 9 feet 10 feet 11 feet 12 feet

48

24 27 30 33^d 36^d

24 27 30 33 36

16 18 20 22c 24e

24 27 30 33 36

26 27 30 33 36

27 | 27 | 30 | 33 | 36 30 29 30 33 36

32 30 30 33 36

48 41 38 36 36 **- 44 40 38 38**

_ 49 43 40 39

54 46 43 41

50 45 43

48 45

52 48

62

32 33 36

33 33 36

32 | 34

62 69 NP NP

48 48 48

32

55

28

Supporting one story and roof 24 24 24 27c 29c

35 32

c. Maximum header height for PFH is 10 feet in accordance with Figure R602.10.6.2, but wall height may be increased to 12 feet with pony wall.

d. Maximum opening height for PFG is 10 feet in accordance with Figure R602.10.6.3, but wall height may be increased to 12 feet with pony wall.

| | | | -500 Million | CONNECTION CRITERIA* | |
|------------------------------|---|---|--------------|--|------------------------|
| METHODS, MATERIAL | | MINIMUM THICKNESS | FIGURE | Fasteners | Spacing |
| Intermittent Bracing Methods | PFH Portal frame with hold-downs | 3/8" | | See Section R602.10.6.2 | See Section R602.10.6. |
| | PFG Portal frame at garage | ⁷ / ₁₆ " | -11- | See Section R602.10.6.3 | See Section R602.10.6. |
| Continuous Sheathing Methods | CS-WSP | | | Exterior sheathing per Table R602.3(3) | 6" edges 12" field |
| | Continuously sheathed wood structural panel | | | Interior sheathing per Table R602.3(1) or R602.3(2) | Varies by fastener |
| | CS-G ^{h,c} Continuously sheathed wood structural panel adjacent to garage openings | 3/8" | | 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. |
| | CS-SFB ^d Continuously sheathed structural fiberboard | "/2" or ²⁵ /32" for maximum 16" stud spacing | | 1 ¹ / ₂ " long × 0.12" dia. (for ¹ / ₂ " thick sheathing) 1 ³ / ₂ " long × 0.12" dia. (for ² / ₂ " thick sheathing) galvanized roofing nails or 8d common (2 ¹ / ₂ " long × 0.131" dia.) nails | 3" edges 6" field |

a. Annuaries to panels next to garage door opening when supporting gable end wall or roof load only. May only be used on one wall of the garage. In Seismic Design Categories D₀, D₁ and D₂ roof covering dead load may not exceed 3 psf.

c. Garage openings adjacent to a Method CS-G panel shall be provided with a header in accordance with Table R502.5(1). A full height clear opening shall not be permitted adjacent to a Method CS-G panel.

Method CS-SFB does not apply in Seismic Design Categories D., and D, and in areas where the wind speed exceeds 100 mph.

| | 8 | | | |
|--|---|--|--|--|
| | EXTENT OF HEADER WITH DOUBLE PORTAL FRAMES (TWO BRACED WALL PANELS). | | | |
| CONTRIDUTING LENGTH (inches) | EXTENT OF HEADER WITH SINGLE PORTAL FRAME (ONE SPACED WALL PANEL) 2'-18 FINISHED WIDTH OF OPENING | | | |
| Actual ^b Double sided = Actual Single sided = 0.5 × Actual | FOR SINGLE OR DOUBLE PORTAL TENSION STRAP PER TABLE 602 10.6.4 (ON OPPOSITE SIDE OF SHEATHING) MIN. 3°X 11-1/4°NET HEADER BRACED WALLLINE | | | |
| Actual ^b 48 | STEEL HEADER PROHIBITED CONTINUOUSLY SHEATHED WITH WOOD STRUCTURAL PANELS FASTEN SHEATHING TO HEADER WITH 80 FASTEN SHEATHING TO HEADER WITH TWO | | | |
| 48 48 1.5 × Actual ^b | HEADER TO JACK-STUD STRAP PER TABLE OCCUR AND BE ATTACHED TO OPPOSITE SIDE OF SHEATHING OPPOSITE SIDE OF SHEATHING MID. HEIGHT, ONE ROW MIN. 7/16" WOOD | | | |
| Actual ^b Actual ^b | | | | |
| | NUMBER OF JACK STUDS FER TABLES R 502.6(1) & (2). | | | |
| | OVER CONCRETE OR MASONRY BLOCK FOUNDATION ANCHOR BOLTS PER SECTION R4GS.1.6 | | | |
| Actual ^b | -WOOD STRUCTURAL PANEL SHEATHING TO TOP OF BAND OR RIM JOIST NAIL SOLE PLATE TO JOIST PER TABLE R802.3(1) APPROVED BAND APPROVED BAND APPROVED BAND | | | |
| | OVER RAISED WOOD FLOOR - FRAMING ANCHOR OPTION (WHEN PORTAL SHEATHING DOES NOT LAP OVER BAND OR RIM JOIST) | | | |
| | WOOD STRUCTURAL PANEL SHEATHING CONTINUOUS OVER BAND OR RIM JOIST TABLE RE02.3(1) ATTACH SHEATHING TO BAND OR RIM JOIST WITH SD COMMON NAILS AT 3" O.C. TOP AND BOTTOM NAIL SOLE PLATE TO JOIST PER TABLE RE02.3(1) | | | |
| | WOOD STRUCTURAL PANEL SHEATHING OVER APPROVED BAND OR RIM JOIST OVER RAISED WOOD FLOOR - OVERLAP OPTION (WHEN PORTAL SHEATHING LAPS OVER BAND OR RIM BOARD) | | | |
| 12 feet with pony wall. b 12 feet with pony wall. | FRONT ELEVATION For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm. FIGURE R602.10.6.4 METHOD CS-PF—CONTINUOUSLY SHEATHED PORTAL FRAME | | | |
| | (Na 7-10-21 — | | | |

4713 NE Jamestown Dr LEE'S SUMMIT, MO

BUILDIN TO REVI SPECS, CONSTE

MERRIFIELD SIDE ENTRY

PAGE **6**

L BRACING ETAILS

Dave Richards Homebuilding,

RELEASE FOR CONSTRUCTION **AS NOTED ON PLANS REVIEW** DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI