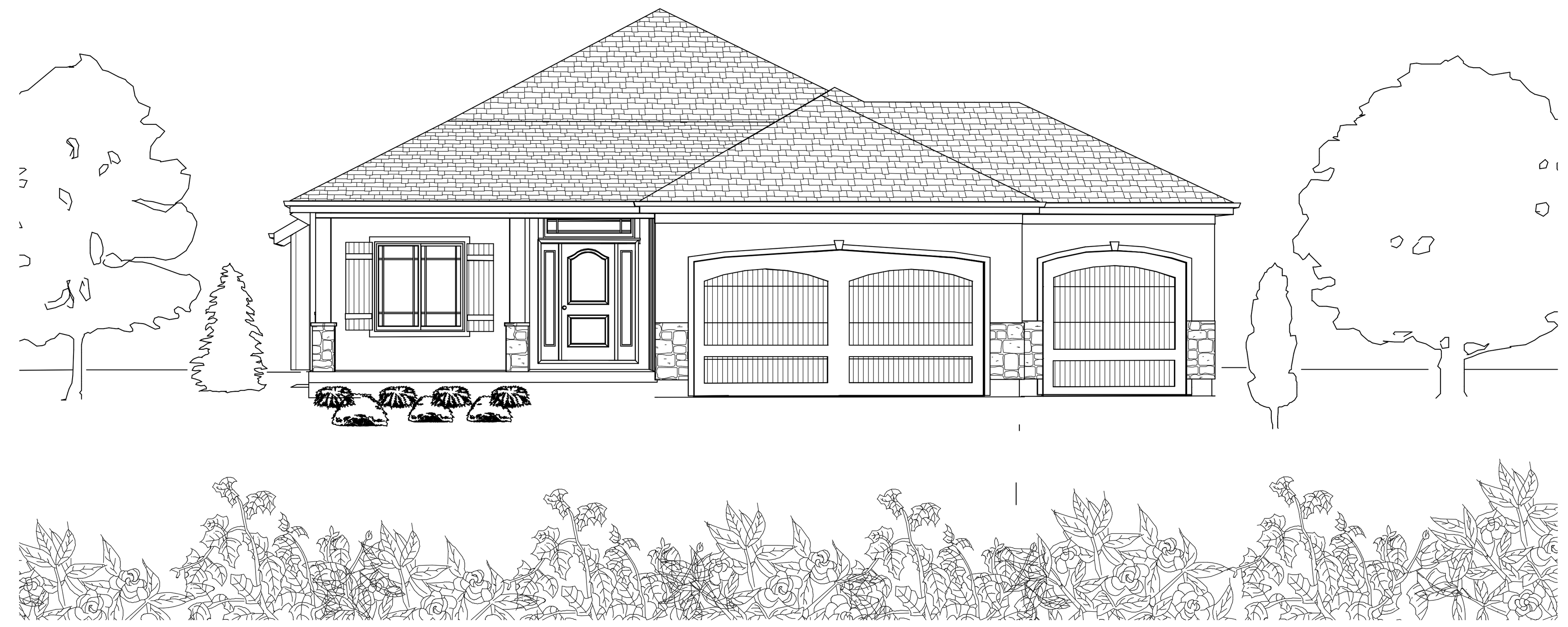
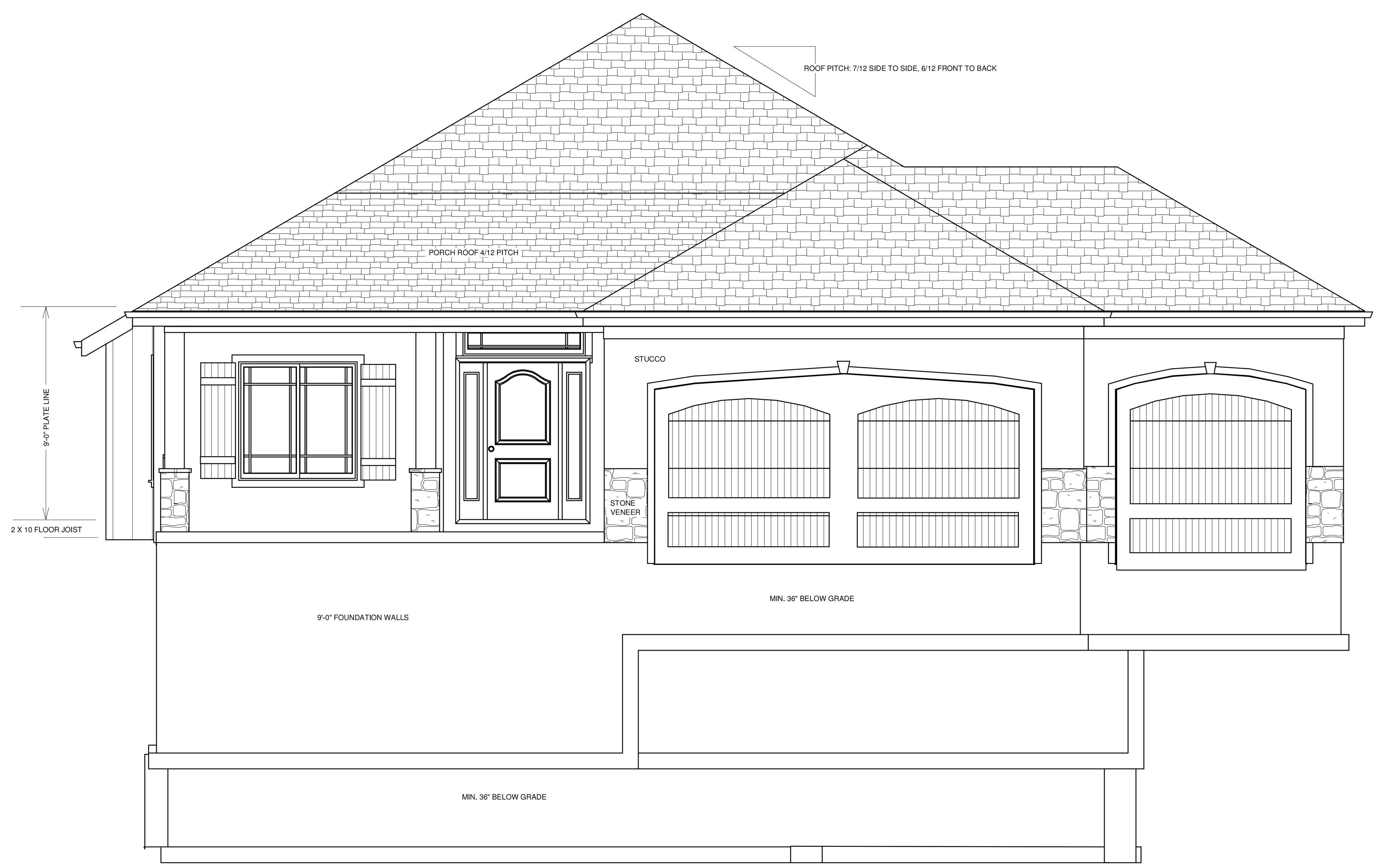




ROOF PITCH: 7/12 SIDE TO SIDE, 6/12 FRONT TO BACK
PORCH ROOF: 4/12 PITCH
12" SOFFITS
8" FASCIA
6" RAKES

HOUSE SQ. FT.	
MAIN FLOOR:	1784 SQ. FT.
LOWER LEVEL FINISH:	1122 SQ. FT.
LOWER LEVEL UNFINISHED:	662 SQ. FT
DECK	144 SQ. FT.
GARAGE:	712 SQ. FT.

Digitally signed by Kim Brennan
Reason: Release for Construction
Date: 2021.05.19 10:32:19-05'00'
Kim Brennan

5-8-21

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/19/2021

4729 NE Freehold DR.
LEE'S SUMMIT, MO

Dave Richards Homebuilding, Inc.

ELEVATIONS
COSTANZA MC-115
MERRIFIELD
SCALE: 1/4" = 1'-0"

PAGE
1

PLAN
MONTICELLO
115

BUILDING CONTRACTOR/HOME OWNER TO REVIEW AND VERIFY ALL DIMENSIONS, SPECS, AND CONNECTIONS BEFORE CONSTRUCTION BEGINS.

ELECTRICAL SYSTEM CODE: SEC.E3401
MECHANICAL SYSTEM CODE: SEC.M1201
PLUMBING SYSTEM CODE: SEC.P2501

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"

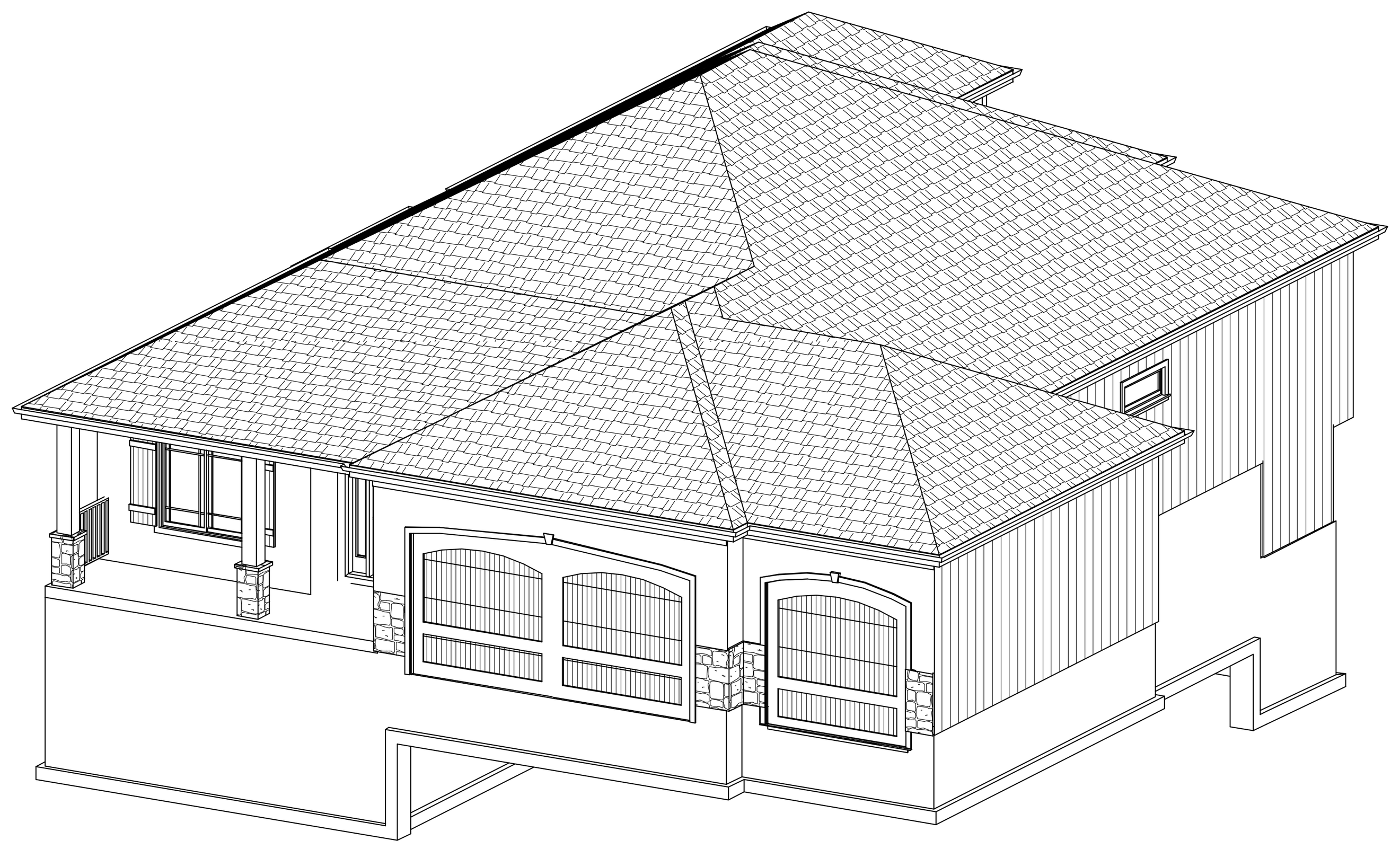
FASTENER MUST HAVE A MINIMUM HEAD DIAMETER OF 0.297 INCH, A MINIMUM SHAFT DIAMETER OF 0.113 INCH AND A MINIMUM LENGTH OF 2-1/2" INCHES

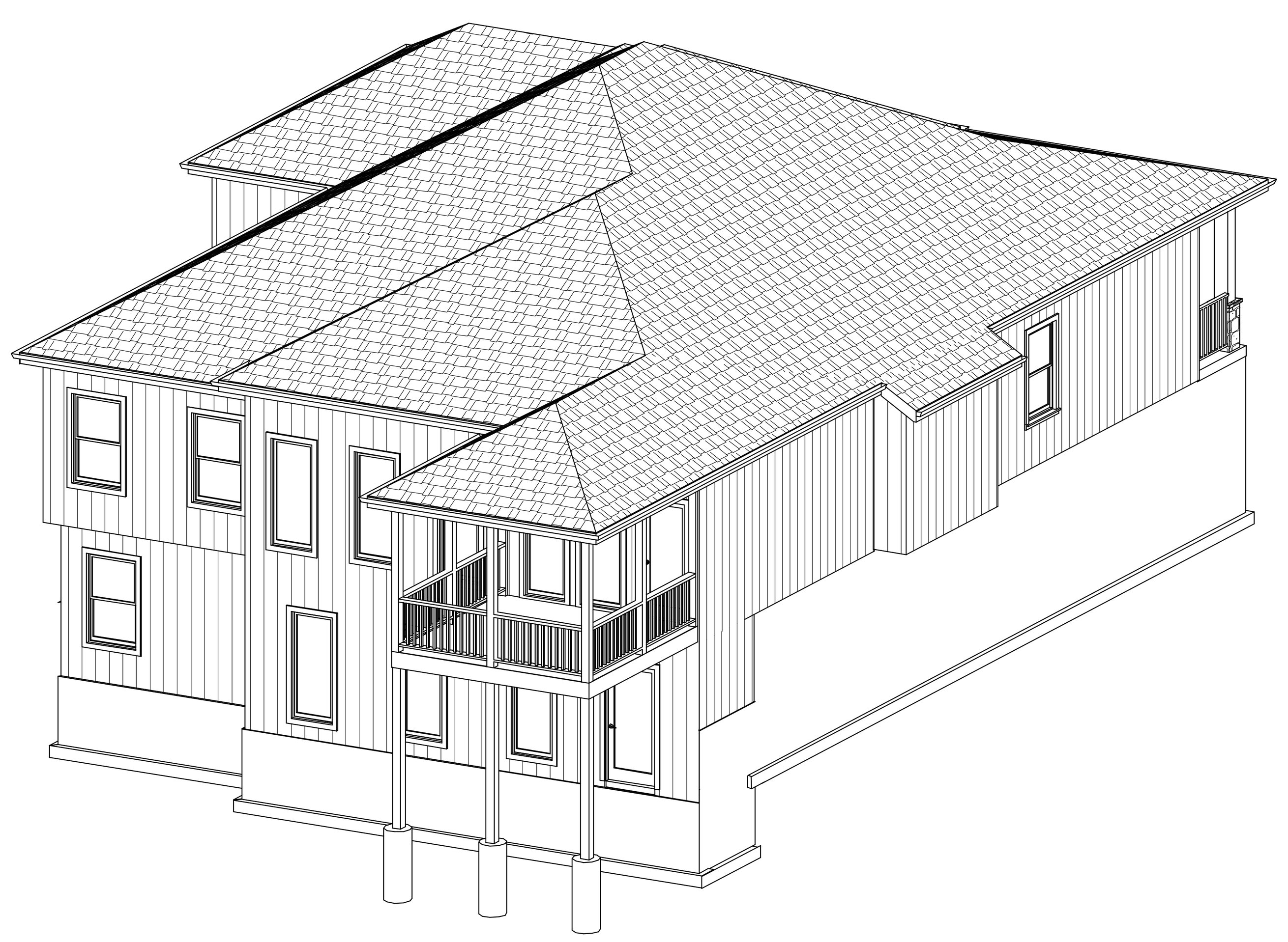
OSB 7/16" UNDER STUCCO AND STONE ON FRONT

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

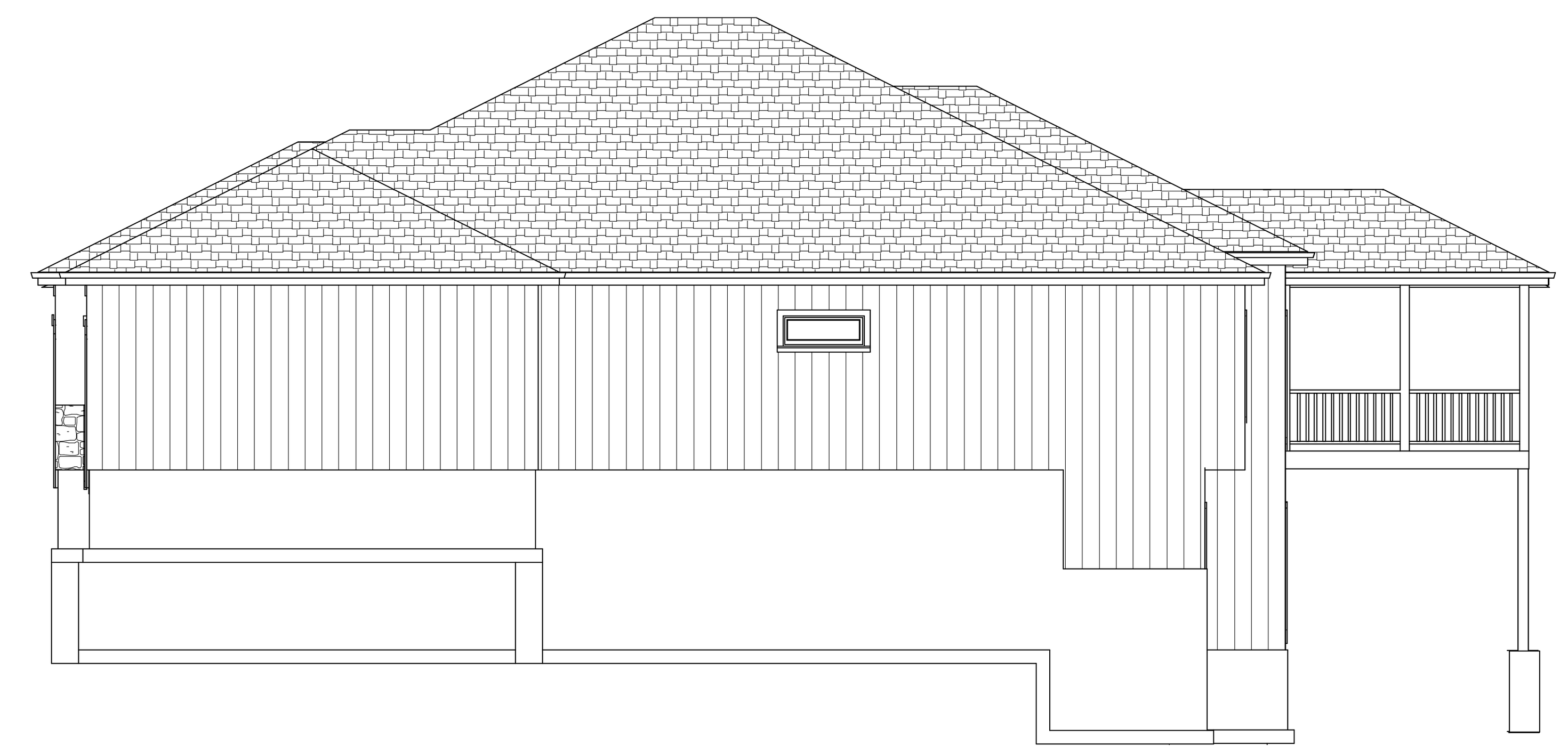
FASTER PENETRATION INTO STUD MIN. 1-1/2"

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

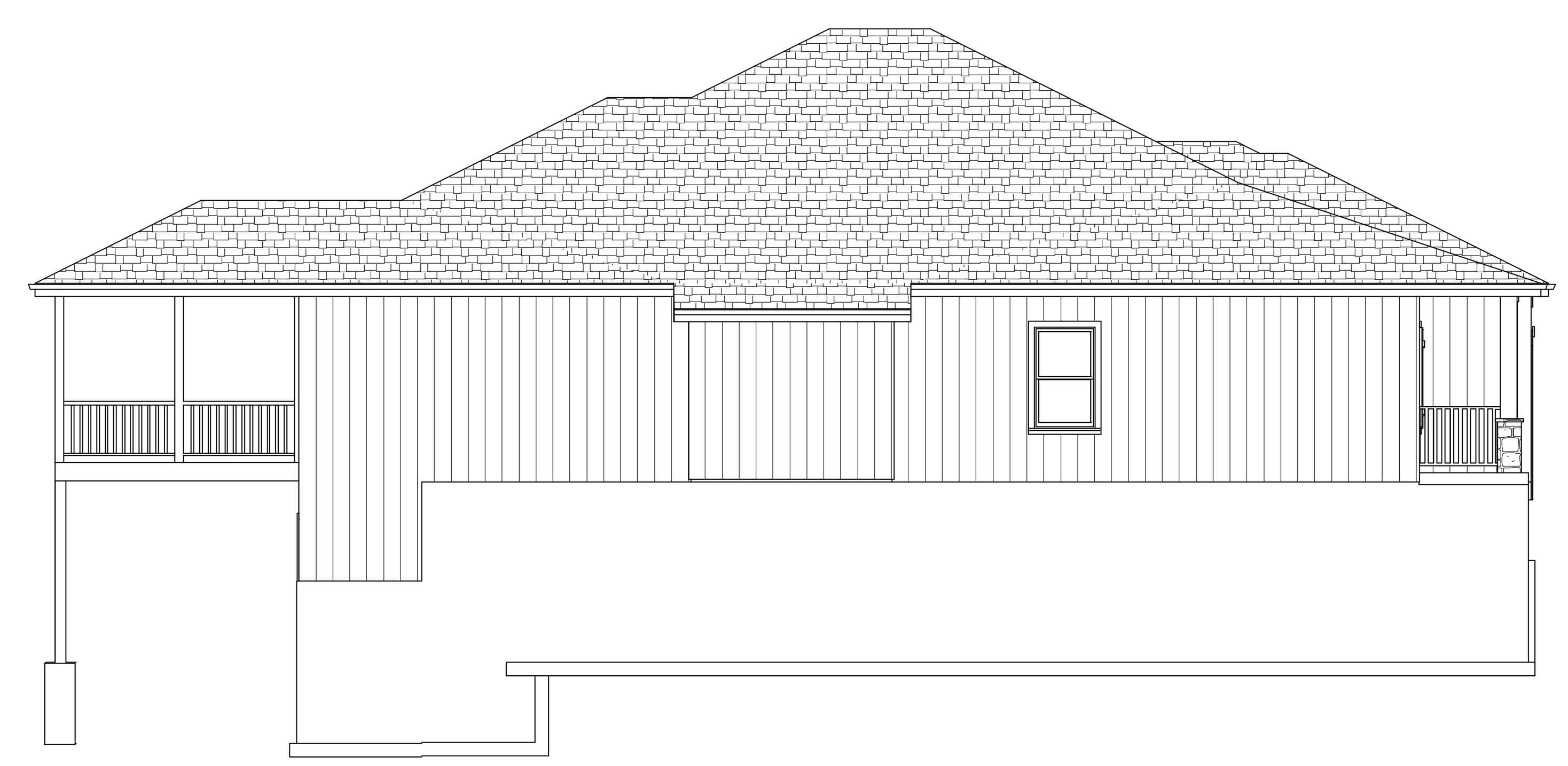




BACK



RIGHT SIDE



LEFT SIDE

4729 NE Freehold DR.
LEE'S SUMMIT, MO

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PAGE 2

PLAN MONTICELLO 115

ELEVATIONS
COSTANZA MC-115
MERRIFIELD
SCALE: 1/4" = 1'-0"

DRHI
Dave Richards Homebuilding, Inc.

RELEASE FOR CONSTRUCTION
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05/19/2021

Combustion Air Calculations

90% Efficient Furnace so Combustion Air
Calculations are not applicable.

CONCRETE

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. 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

3. CARBON MONOXIDE DETECTORS REQUIRED 9 R3150

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

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

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 N1103.2.3

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

17. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR M1507.2

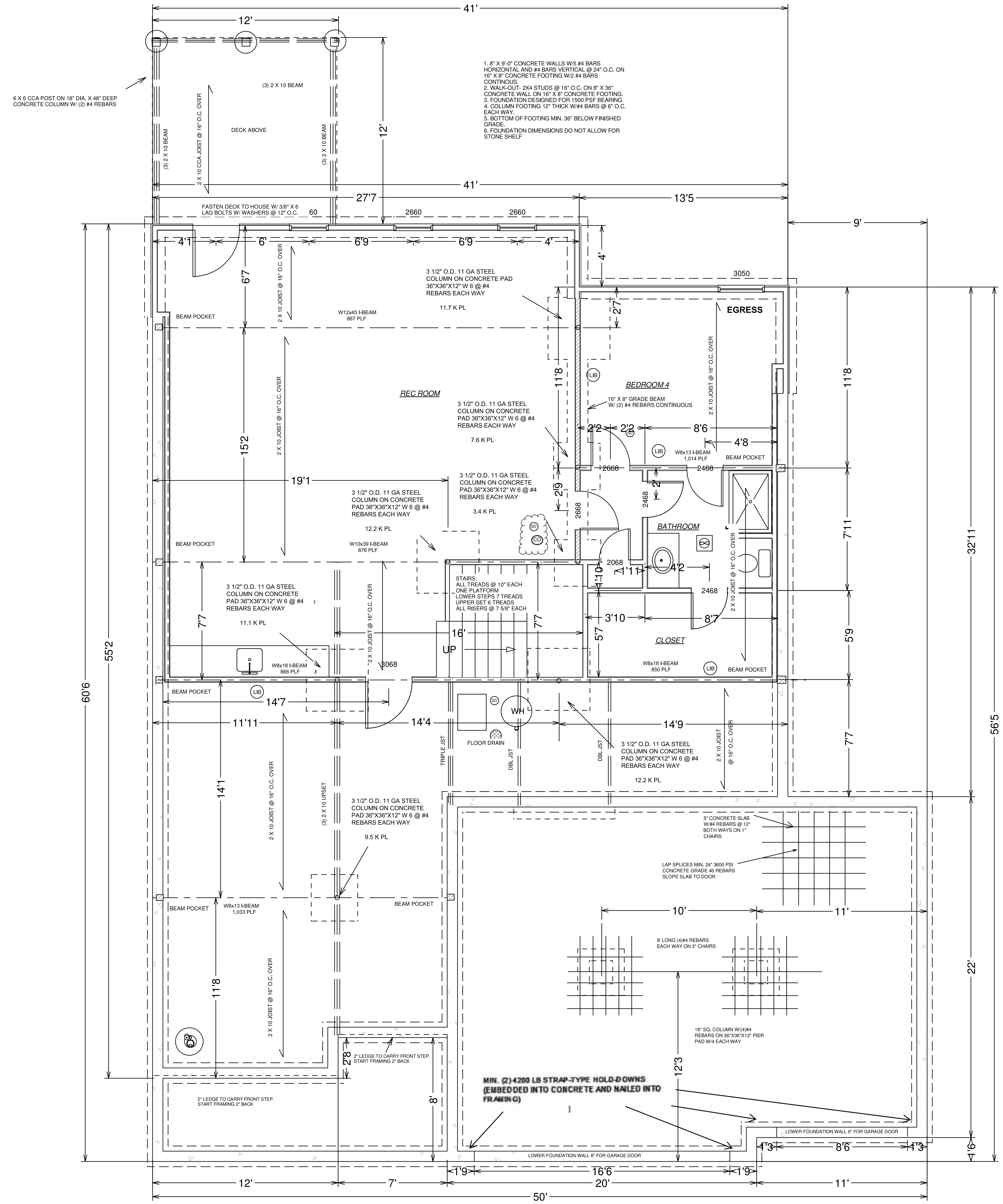
18. MAKEUP AIR SYSTEM REQUIRED FOR KITHCHEN EXHAUST HOODS THAT EXCEED 400 CFM M1503.4

19. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL (INCLUDING THE WALL BETWEEN THE HOUSE AND GARAGE) SHALL NOT BE USED AS RETURN AIR PLENUMS (UNLESS THE REQUIRED INSULATION AND AIR BARRIER ARE MAINTAINED) IRC M1601.1.1, #7.5

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 REQUIRMENT AND SHOW CONNECTION AS NEEDED FOR ROOF BEAM, TRUS, RAFTER, AND GIRDER CONNECTION FOR UPLIFT PER IRC 802.11



4729 NE Freehold DR.
LEE'S SUMMIT, MO

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PLUMBING SYSTEM CODE: SEC.P2501

PAGE 3

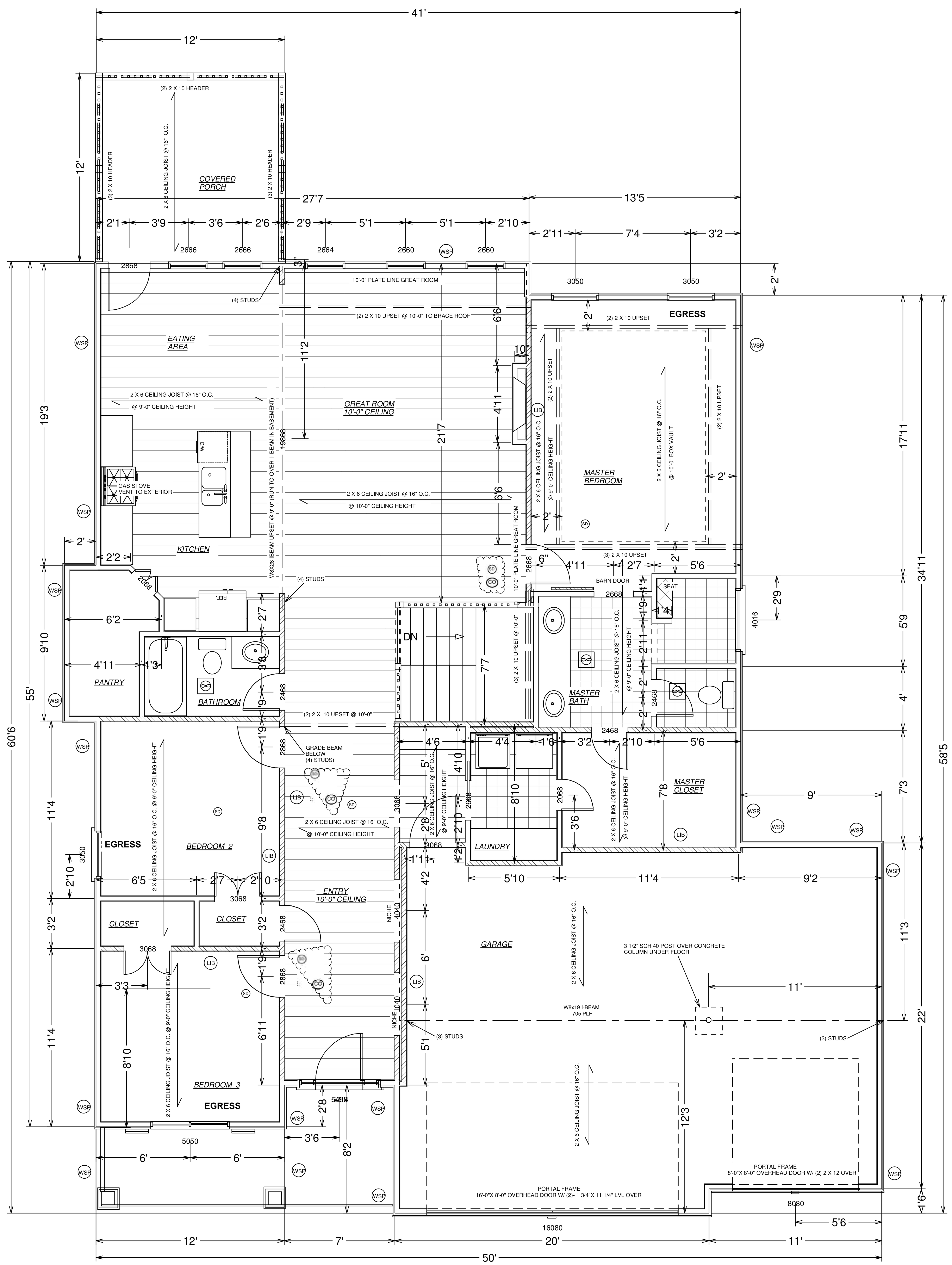
PLAN MONTICELLO 115

FOUNDATION
COSTANZA MC-115
MERRIFIELD
SCALE: 1/4" = 1'-0"

Dave Richards Homebuilding, Inc.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/19/2021

INSULATION
1. Walls - Wall assemblies forming portions of a building envelope shall meet or exceed an R factor rating of 13. (LSCO 7-802.a).
2. Floors - Floor assemblies forming portions of a building envelope shall meet or exceed an R factor rating of 19. (LSCO 7-802.b)
3. Roofs – Roofs assemblies forming a portion of the building envelope shall meet or exceed an R factor rating of 19. (LCSO 7-802.c)
4. Ceilings – Ceiling assemblies forming a portion of the building envelope shall meet or exceed an R factor rating of 30 at the time of installation. (LCSO 7-802.d)
5. Ducts – Shall be insulated to an R factor rating of 5 when installed within the building but outside of a conditioned space and shall be insulated to an R factor of 8 when located outside of the building. (LSCO 7-802.e)



1. 2 X 10 FLOOR JOIST AS PER LAYOUT
2. FLOOR LOAD 40 PSF LL = 10 PSF DL
3. ALL BEARING POINTS TO HAVE SOLID BLOCKING TO BEARING BELOW.
4. INTERIOR AND EXTERIOR WALLS TO BE 2X4 STUD GRADE @ 16" O.C.
5. WALLS OVER 10'-0" TO HAVE SOLID BLOCKING @ MIDSPAN OR 9'-0" MAX.
6. EXTERIOR WALL INSULATION TO BE R-13.
7. MULT. HEADERS AND JOIST TO BE GLUED AND NAILED @ 12" O.C. STAGGERED.
8. FLOOR TO BE NAILED AND GLUED PER APA SPEC.
9. 9'-0" WALLS UNLESS NOTED.
10. WINDOW HEADER HEIGHT @ 80" ABOVE SUBFLOOR.
11. ALL INTERIOR DOORS AND OPENINGS 6'-8".

ELECTRICAL:

200 AMP ELECTRICAL SERVICE
COPPER WIRING USED THROUGHOUT

BRANCH CIRCUIT FOR HEATING: CENTRAL HEATING EQUIPMENT OTHER THAN FIXED ELECTRICAL SPACE HEATERS BE SUPPLIED BY AN INDIVIDUAL BRANCH CIRCUIT.

KITCHEN AND DINING RECEPTACLES: A MINIMUM OF TWO 20- AMPERE- RATED BRANCH CIRCUITS SHALL BE PROVIDED TO SERVE RECEPTACLES LOCATED IN KITCHEN, PANTRY, BREAKFAST AREA AND DINING AREA. THE KITCHEN COUNTERTOP RECEPTACLES SHALL BE SERVED BY A MINIMUM OF TWO 20- AMPERE- RATED BRANCH CIRCUITS, EITHER OR BOTH OF WHICH SHALL ALSO BE PERMITTED TO SUPPLY OTHER RECEPTACLE OUTLETS IN THE KITCHEN, PANTRY, BREAKFAST AREA AND DINING AREA.
EXHAUST FAN BATHROOMS

LAUNDRY CIRCUIT: A MINIMUM OF ONE 20- AMPERE- RATED BRANCH CIRCUIT SHALL BE PROVIDED FOR RECEPTACLE LOCATED IN THE LAUNDRY AREA AND SHALL SERVE ONLY RECEPTACLE OUTLETS LOCATED IN THE LAUNDRY AREA.

BATHROOM BRANCH CIRCUITS: A MINIMUM OF ONE 20- AMPERE BRANCH CIRCUIT SHALL BE PROVIDED TO SUPPLY THE BATHROOM RECEPTACLE OUTLETS. SUCH CIRCUITS SHALL HAVE NO OTHER OUTLETS. EXCEPTION: WHERE THE 20- AMPERE CIRCUIT SUPPLIES A SINGLE BATHROOM, OUTLETS FOR OTHER EQUIPMENT WITHIN THE SAME BATHROOM SHALL BE PERMITTED TO BE SUPPLIED IN ACCORDANCE WITH SECTION E3602.

NUMBER OF BRANCH CIRCUITS: THE MINIMUM NUMBER OF BRANCH CIRCUITS SHALL BE DETERMINED FROM THE TOTAL COMPUTED LOAD AND THE SIZE OR RATING OF THE CIRCUITS USED. THE NUMBER OF CIRCUITS SHALL BE SUFFICIENT TO SUPPLY THE LOAD SERVED. IN NO CASE SHALL THE LOAD ON ANY CIRCUIT EXCEED THE MAXIMUM SPECIFIED BY SECTION E3602.

BRANCH CIRCUIT LOAD PROPORTIONING: WHERE THE BRANCH- CIRCUIT LOAD IS COMPUTED ON A VOLT- AMPERES- PER- SQUARE- FOOT BASIS, THE WIRING SYSTEM SHALL HAVE THE CAPACITY TO SERVE NOT LESS THAN THE CALCULATED LOAD. THIS LOAD SHALL BE EVENLY PROPORTIONED AMONG MULTIOUTLETS BRANCH CIRCUITS.

CIRCUIT CONDUCTORS: ALL CONDUCTORS OF A CIRCUIT, INCLUDING EQUIPMENT GROUNDING CONDUCTORS, SHALL BE CONTAINED IN THE SAME RACEWAY, TRENCH, CABLE OR CORD.

BATHROOM EXHAUST FAN:

SMOKE DETECTORS SHOWN ON PLAN AND AS REQUIRED BY CODE: (SD)

CARBON MONOXIDE DETECTORS SHOWN ON PLAN AND AS REQUIRED BY CODE: (CO)

(WSP) METHOD 3 (7/16 APA) W/ BRACE LENGTH

(LIB) LET IN BRACE

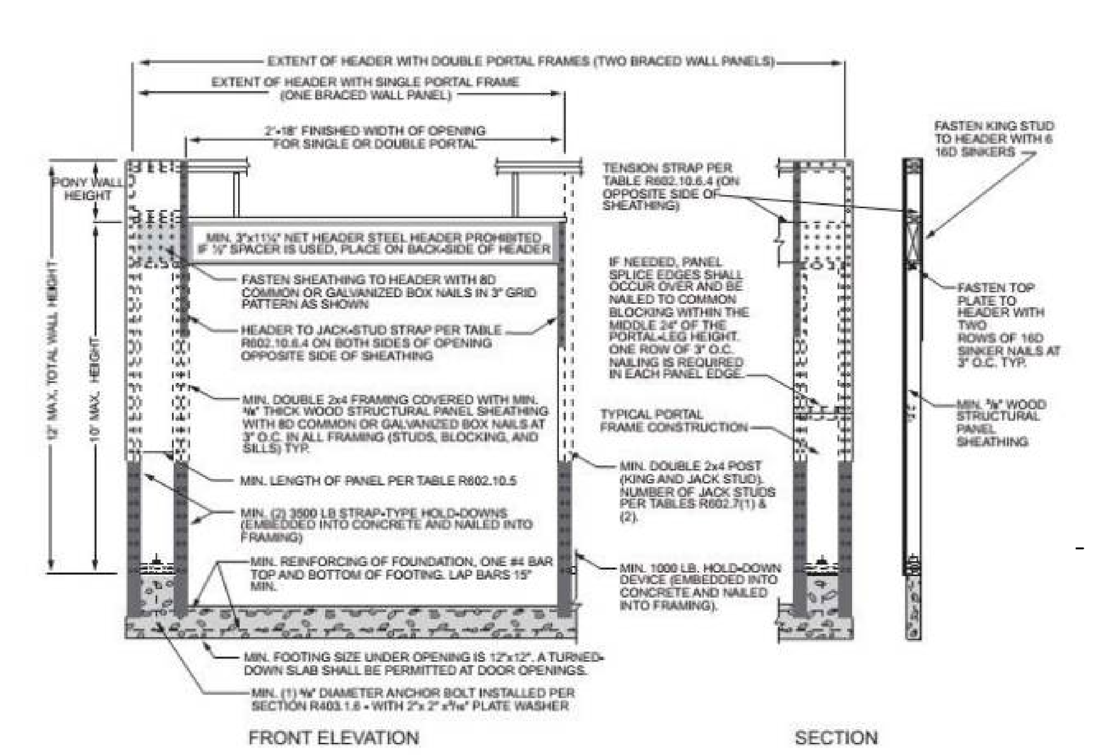
TABLE N1102.1(1) ALTERNATE INSULATION VALUES			
CEILING R-VALUE	R-49	EXTERIOR WALL	R-13
CATHEDRAL CEILING R-VALUE	R-30	CRAWL SPACE WALL	R-19
FLOOR OVER UNHEATED SPACE	R-19	GLAZING	< 0.40
FLOOR OVER OUTSIDE AIR	R-30	N/A	
DUCTS OUTSIDE OF THE CONDITIONED SPACE	SUPPLY AND RETURN R-8 IN FLOOR AND CEILING ASSEMBLY R-6		
BASEMENT WALL	R-13 INSULATION CONCRETE WALLS ADJACENT TO FINISHED SPACE		
ON GRADE TRENCH FOOTING	R-10, R-15 FOR HEATED SLAB		

ALL CEILING AND FLOOR JOIST #2 HEM-FIR OR BETTER

THE BUILDING THERMAL ENVELOPE WILL BE SEALED

RECESSED CAN LIGHTING SHALL BE SEALED TO PREVENT LEAKAGE BETWEEN CONDITIONED AND UNCONDITIONED SPACES

HVAC DUCTS TO BE SEALED



2018 IRC PFH DETAIL

[Seal: STATE OF MISSOURI — DAVID PAUL AINSWORTH — NUMBER E-15688 — PROFESSIONAL ENGINEER] 5-8-21

4729 NE Freehold DR.
LEE'S SUMMIT, MO

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PAGE 4

PLAN MONTICELLO 115

FIRST FLOOR
COSTANZA MC-115
MERRIFIELD
SCALE: 1/4" = 1'-0"

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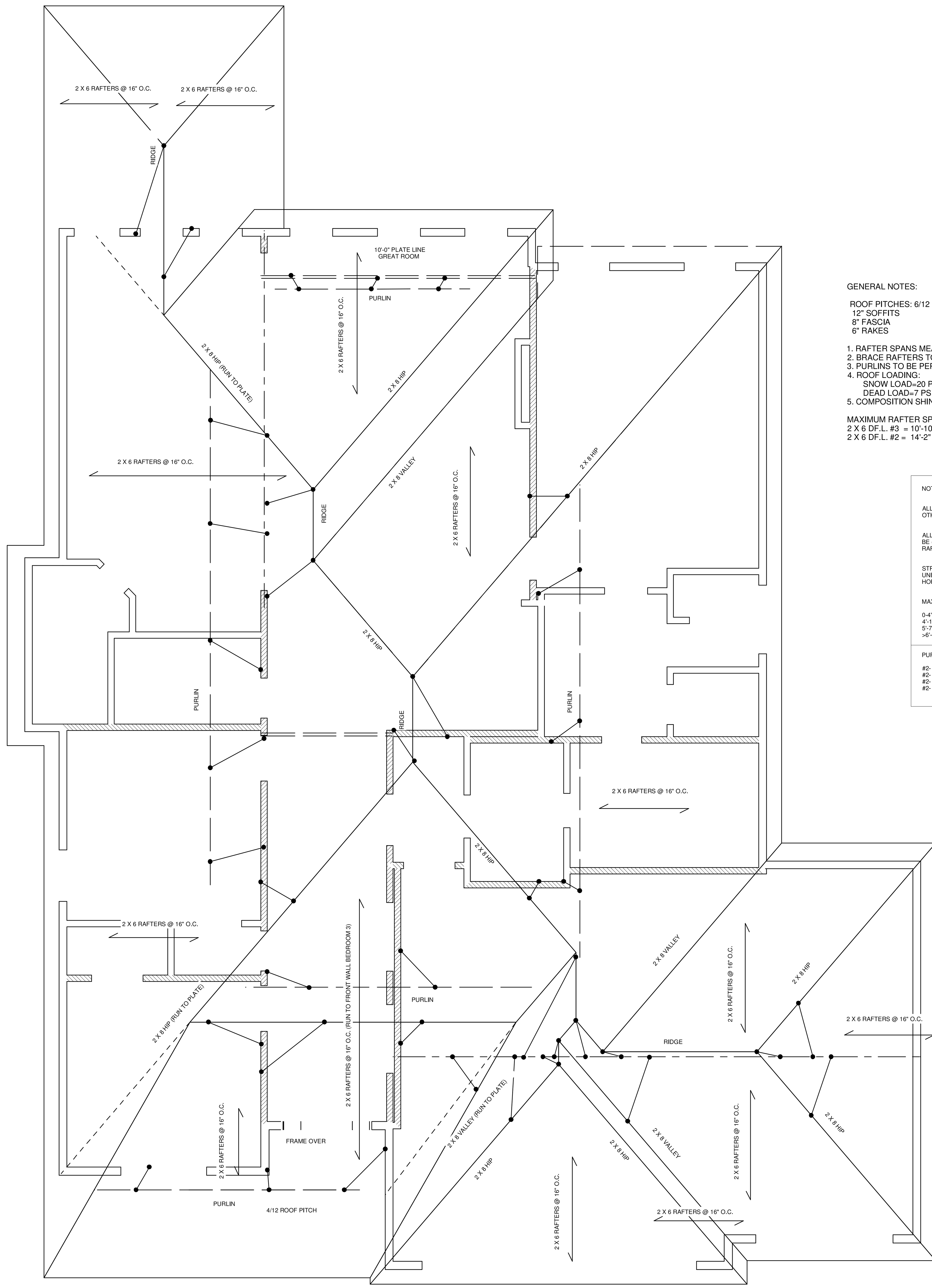
Dave Richards Homebuilding, Inc.



GENERAL NOTES:

ROOF PITCHES: 6/12 FRONT TO BACK; 7/12 SIDE TO SIDE: 4/12 FRONT PORCH ROOF
12" SOFFITS
8" FASCIA
6" RAKES

1. RAFTER SPANS MEASURED ON HORIZONTAL PROJECTION.
2. BRACE RAFTERS TO BEARING WALLS, LEGS @ MIN. 45 DEGREE ANGLE FROM HORIZ.
3. PURLINS TO BE PERPENDICULAR TO RAFTERS.
4. ROOF LOADING:
   SNOW LOAD=20 PSF
   DEAD LOAD=7 PSF
5. COMPOSITION SHINGLE ROOFING

MAXIMUM RAFTER SPANS: 16" O.C.
2 X 6 DF.L. #3 = 10'-10"
2 X 6 DF.L. #2 = 14'-2"

NOTES:

ALL RAFTERS MIN. #2- 2 X 6 @ 16" OC UNLESS OTHERWISE NOTED

ALL RIDGES, HIPS AND VALLEYS NOT MARKED SHALL BE (1) NOMINAL SIZE LARGER THAN THE INTERSECTING RAFTERS

STRUTS TO BE STUD GRADE 2 X 4 WITH MAXIMUM UNBRACED LENGTH OF 8'-0" AND AT AN 45 DEGREE W/ HORIZONTAL

MAXIMUM UNBRASED LENGTH

0-4' - 0" #2- 2X4
4'-1" - 5'-6" #2- 2X6
5'-7" - 6'-3" #2- 2X8
>6'-4" - MIN. #2-2X4

PURLINS	MAX. SPAN
#2- 2X6	4'-8"
#2- 2X8	5'-9"
#2- 2X10	7'-0"
#2- 2X12	8'-2"

Roof is Designed With Rafter Ties per IRC R802.3.1 Therefore Ridge, Valley & Hip Rafters are not Structural Beams

R802.3.1 Ceiling joist and rafter connections. Ceiling joists and rafters shall be nailed to each other in accordance with Table R802.5.1(9), and the rafter shall be nailed to the top wall plate in accordance with Table R602.3(1). Ceiling joists shall be continuous or securely joined in accordance with Table R802.5.1(9) where they meet over interior partitions and are nailed to adjacent rafters to provide a continuous tie across the building when such joists are parallel to the rafters.

Where ceiling joists are not connected to the rafters at the top wall plate, joists connected higher in the attic shall be installed as rafter ties, or rafter ties shall be installed to provide a continuous tie. Where ceiling joists are not parallel to rafters, rafter ties shall be installed. Rafter ties shall be a minimum of 2 inches by 4 inches installed in accordance with the connection requirements in Table R802.5.1(9), or connections of equivalent capacities shall be provided. Where ceiling joists or rafter ties are not provided, the ridge formed by these rafters shall be supported by a wall or girder designed in accordance with accepted engineering practice. Collar ties or ridge straps to resist wind uplift shall be connected in the upper third of the attic space in accordance with Table R602.3(1). Collar ties shall be a minimum of 1 inch by 4 inches (nominal) spaced not more than 4 feet on center.

5-8-21

4729 NE Freehold DR.
LEE'S SUMMIT, MO

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LEE'S SUMMIT, MISSOURI
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DRH Dave Richards Homebuilding, Inc.

ROOF
COSTANZA MC-115
MERRIFIELD
SCALE: 1/4" = 1'-0"

PAGE
5

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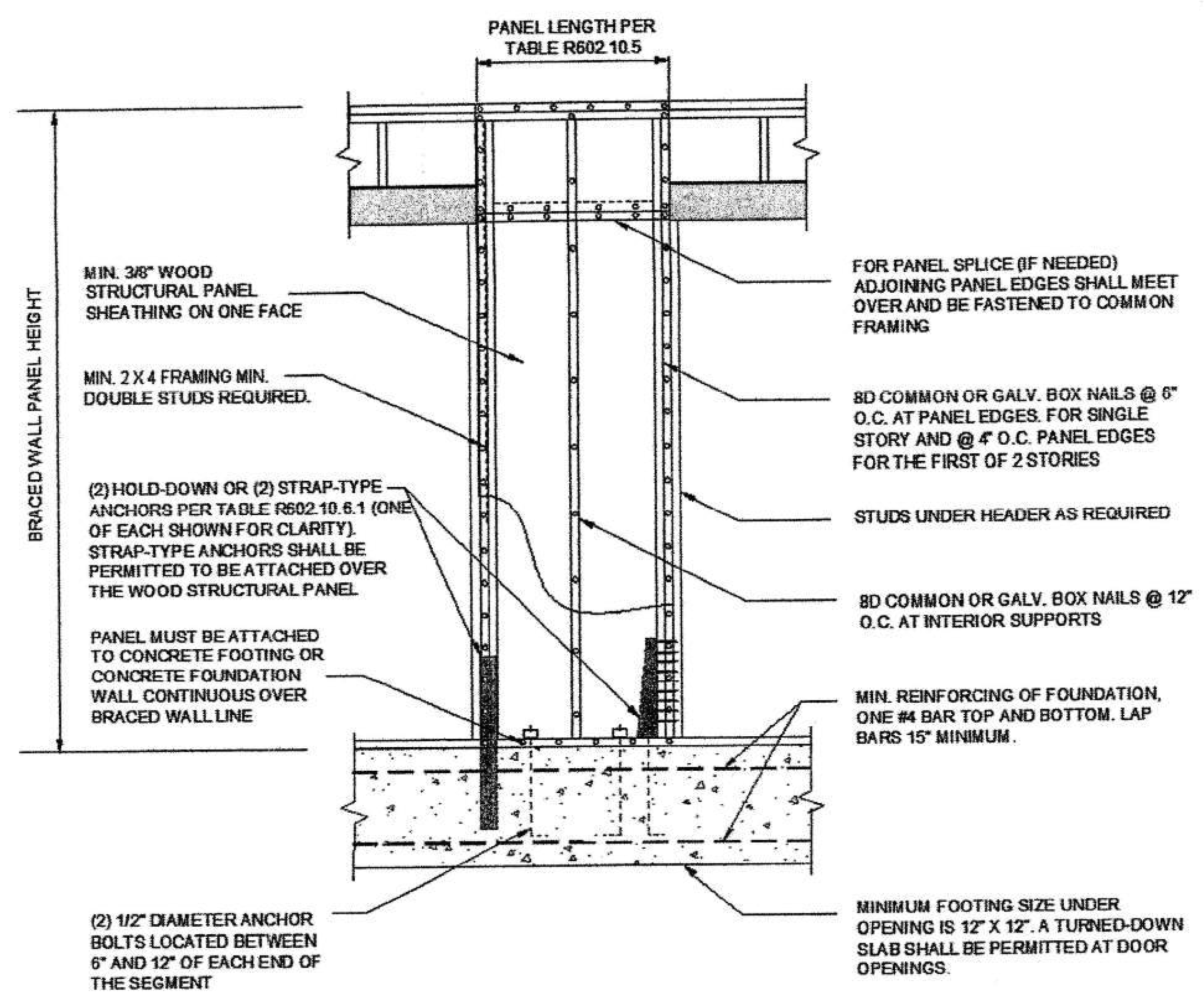
TABLE R602.10.3(1)
BRACING REQUIREMENTS BASED ON WIND SPEED

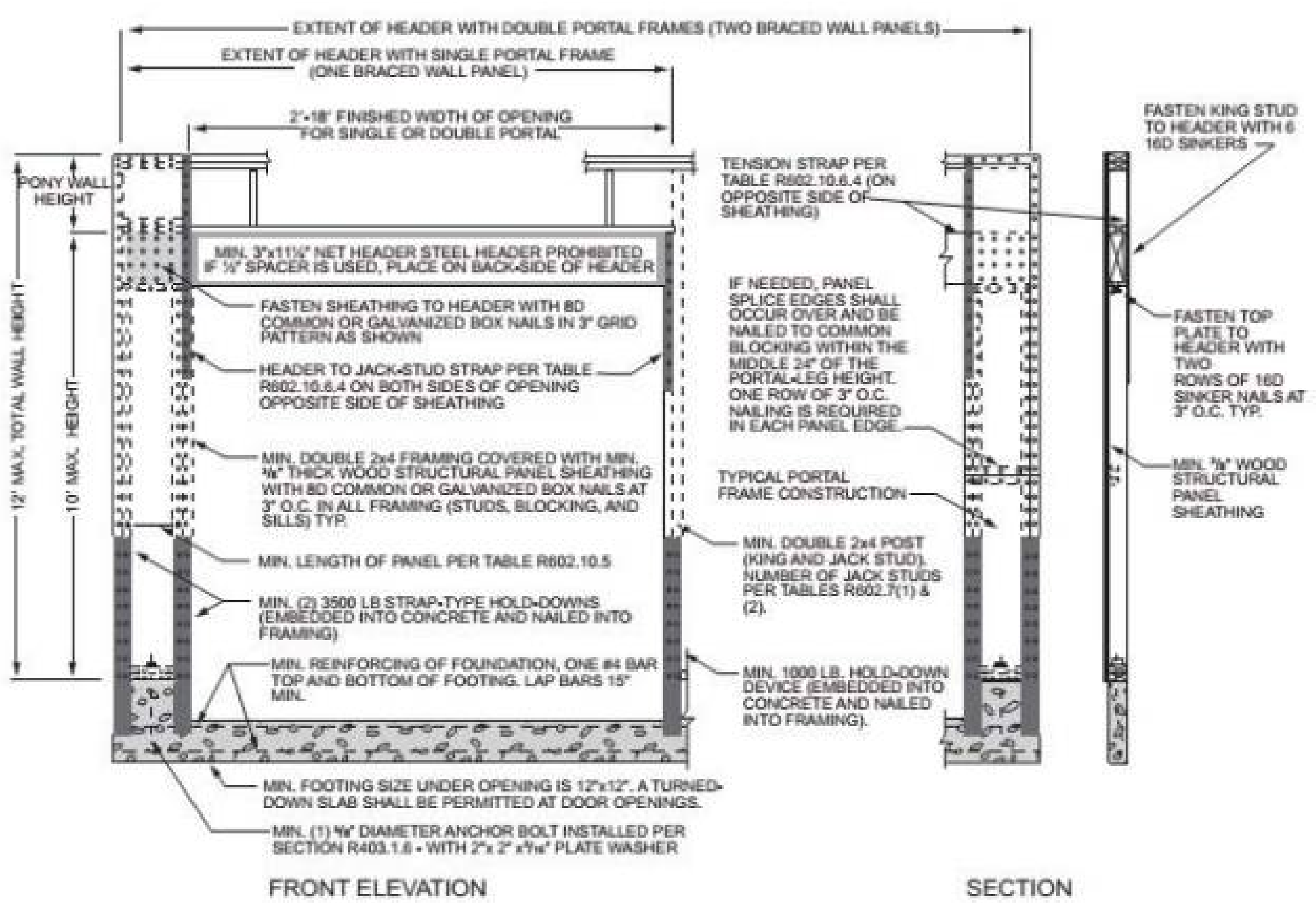
- EXPOSURE CATEGORY B
- 30 FOOT MEAN ROOF HEIGHT
- 10 FOOT EAVE-TO-RIDGE HEIGHT
- 10 FOOT WALL HEIGHT
- 2 BRACED WALL LINES

Basic Wind Speed (mph)	Story Location	Braced Wall Line Spacing (feet)	MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE[a] Method LIB[b]	Method GB	Methods DWB, WSP, SFB, PBS, PCP, HPS, CS-SFB[c]	Methods CS-WSP, CS-G, CS-PF
≤ 90		10	3.5	3.5	2.0	2.0
		20	7.0	7.0	4.0	3.5
		30	9.5	9.5	5.5	5.0
		40	12.5	12.5	7.5	6.0
		50	15.5	15.5	9.0	7.5
		60	18.5	18.5	10.5	9.0
		10	7.0	7.0	4.0	3.5
		20	13.0	13.0	7.5	6.5
		30	18.5	18.5	10.5	9.0
		40	24.0	24.0	14.0	12.0
		50	29.5	29.5	17.0	14.5
		60	35.0	35.0	20.0	17.0
		10	NP	10.5	6.0	5.0
		20	NP	19.0	11.0	9.5
		30	NP	27.5	15.5	13.5
		40	NP	35.5	20.5	17.5
		50	NP	44.0	25.0	21.5
		60	NP	52.0	30.0	25.5



For SI: 1 inch = 25.4 mm.

FIGURE R602.10.6.1
METHOD ABW—ALTERNATE BRACED WALL PANEL



2018 IRC PFH DETAIL

TABLE R602.10.4
BRACING METHODS

METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA[a] Fasteners	Spacing
Intermittent Bracing Method	LIB Let-in-bracing	1 × 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	Wood: per stud and top and bottom plates
				Metal strap: per manufacturer	Metal: per manufacturer
	DWB Diagonal wood boards	$^3/_4$"(1" nominal) for maximum 24" stud spacing		2-8d ($2^1/_2$" long × 0.113" dia.) nails or 2 - $1^3/_4$" long staples	Per stud
	WSP Wood structural panel (See Section R604)	$^3/_8$"		Exterior sheathing per Table R602.3(3)	6" edges 12" field
				Interior sheathing per Table R602.3(1) or R602.3(2)	Varies by fastener
	BV-WSP[e] Wood Structural Panels with Stone or Masonry Veneer (See Section R602.10.6.5)	$^7/_{16}$"	See Figure R602.10.6.5	8d common ($2^1/_2$" × 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 $^{25}/_{32}$" for maximum 16" stud spacing		$1^1/_2$" long × 0.12" dia. (for $^1/_2$" thick sheathing) $1^3/_4$" long × 0.12" dia. (for $^{25}/_{32}$" thick sheathing) galvanized roofing nails or 8d common ($2^1/_2$" long × 0.131" dia.) nails	3" edges 6" field
	GB Gypsum board	$^1/_2$"		Nails or screws per Table R602.3(1) for exterior locations	For all braced wall panel locations: 7" edges (including top and bottom plates) 7" field
				Nails or screws per Table R702.3.5 for interior locations	
	PBS Particleboard sheathing (See Section R605)	$^3/_8$" or $^1/_2$" for maximum 16" stud spacing		For $^3/_8$", 6d common (2" long × 0.113" dia.) nails For $^1/_2$", 8d common ($2^1/_2$" long × 0.131" dia.) nails	3" edges 6" field
	PCP Portland cement plaster	See Section R703.6 for maximum 16" stud spacing		$1^1/_2$" long, 11 gage, $^7/_{16}$" 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	$^3/_8$"		See Section R602.10.6.1	See Section R602.10.6.1

(continued)

TABLE R602.10.4—continued
BRACING METHODS

METHODS, MATERIAL		MINIMUM THICKNESS	FIGURE	CONNECTION CRITERIA[a] Fasteners	Spacing
Intermittent Bracing Methods	PFH Portal frame with hold-downs	$^3/_8$"		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	$^3/_8$"		Exterior sheathing per Table R602.3(3)	6" edges 12" field
				Interior sheathing per Table R602.3(1) or R602.3(2)	Varies by fastener
	CS-G[b, 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 R602.10.6.4
	CS-SFB[d] Continuously sheathed structural fiberboard	$^1/_2$" or $^{25}/_{32}$" for maximum 16" stud spacing		$1^1/_2$" long × 0.12" dia. (for $^1/_2$" thick sheathing) $1^3/_4$" long × 0.12" dia. (for $^{25}/_{32}$" thick sheathing) galvanized roofing nails or 8d common ($2^1/_2$" long × 0.131" dia.) nails	3" edges 6" field

For SI: 1 inch = 25.4 mm, 1 foot = 305 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, D_0, D_1 and D_2.

b. Applies 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 D_0, D_1 and D_2 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.

d. Method CS-SFB does not apply in Seismic Design Categories D_0, D_1 and D_2 and in areas where the wind speed exceeds 100 mph.

TABLE R602.10.5
MINIMUM LENGTH OF BRACED WALL PANELS

METHOD (See Table R602.10.4)		MINIMUM LENGTH[a] (inches) Wall Height 8 feet	9 feet	10 feet	11 feet	12 feet	CONTRIBUTING LENGTH (inches)
DWB, WSP, SFB, PBS, PCP, HPS, BV-WSP		48	48	48	53	58	Actual[b]
GB		48	48	48	53	58	Double sided = Actual Single sided = 0.5 × Actual
LIB		55	62	69	NP	NP	Actual[b]
ABW	SDC A, B and C, wind speed < 110 mph	28	32	34	38	42	48
	SDC D_0, D_1 and D_2, wind speed < 110 mph	32	32	34	NP	NP	
PFH	Supporting roof only	16	16	16	18[c]	20[c]	48
	Supporting one story and roof	24	24	24	27[c]	29[c]	48
PFG		24	27	30	33[d]	36[d]	1.5 × Actual[b]
CS-G		24	27	30	33	36	Actual[b]
CS-PF		16	18	20	22[e]	24[e]	Actual[b]
CS-WSP, CS-SFB	Adjacent clear opening height (inches)						Actual[b]
	≤ 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	

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

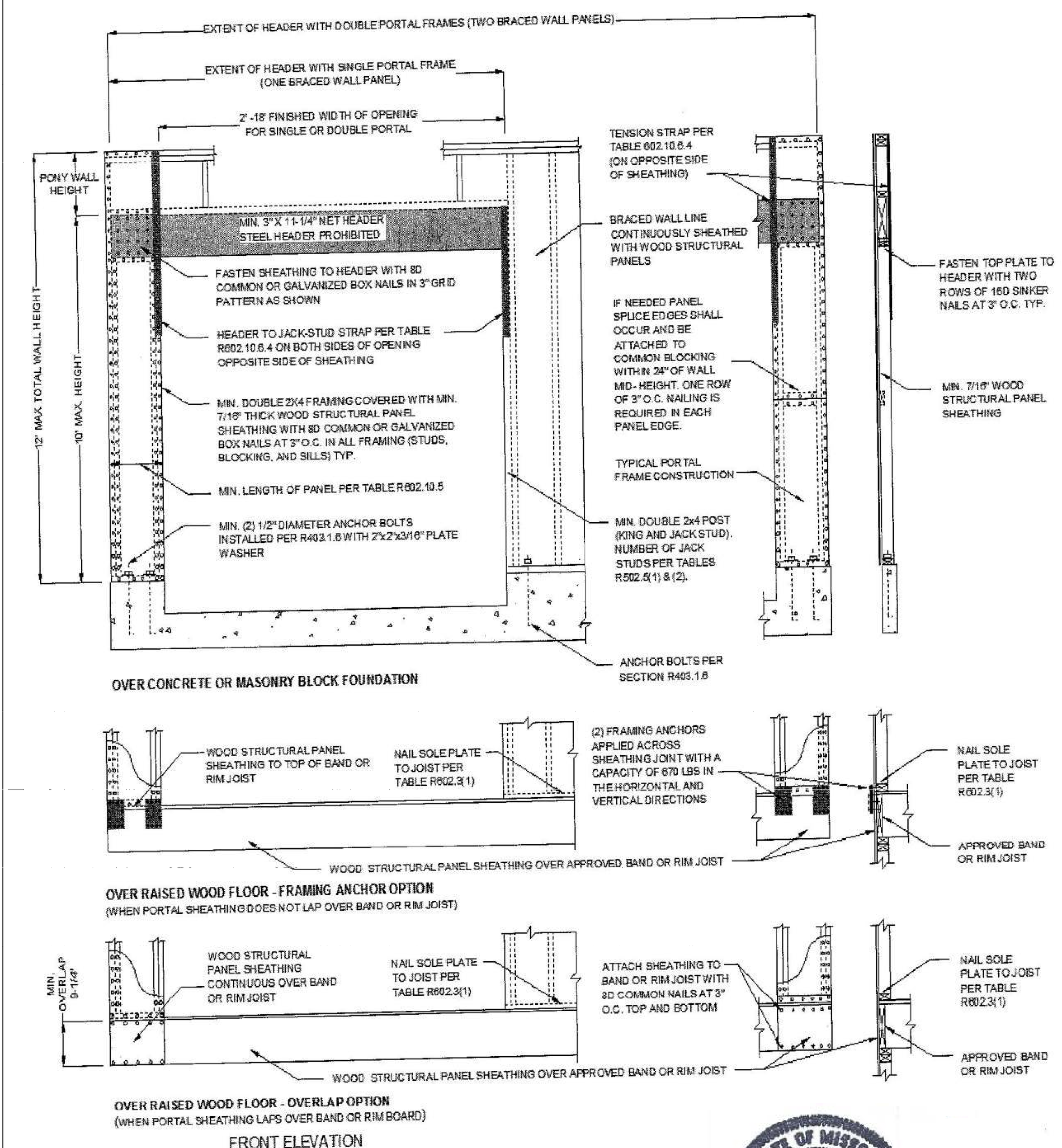
NP = Not Permitted.

a. Linear interpolation shall be permitted.

b. Use the actual length 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 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.



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

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

STATE OF MISSOURI DAVID PAUL AINSWORTH NUMBER E-18830 REGISTERED PROFESSIONAL ENGINEER
5-8-21

4729 NE Freehold DR.
LEE'S SUMMIT, MO

To the best of my knowledge these plans are drawn to comply with owner's and/ or builder's specifications and a changes made on them after prints are made will be done the owner's and / or builder's expense and responsibility. The contractor shall verify all dimensions and enclosed drawing. The maker of these plans is not an architect or engineer is not liable for errors once construction has beg While every effort has been made in the preparation of th plan to avoid mistakes, the maker can not guarantee agai human error. The contractor of the job must check all dimensions and other details prior to construction and be solely responsible thereafter.

BUILDING CONTRACTOR/HOME OWNER TO REVIEW AND VERIFY ALL DIMENSIONS, SPECS, AND CONNECTIONS BEFORE CONSTRUCTION BEGINS.

ELECTRICAL SYSTEM CODE: SEC.2701
MECHANICAL SYSTEM CODE: SEC.2801
PLUMBING SYSTEM CODE: SEC.2901

PAGE 6

PLAN MONTICELLO 115

WALL BRACING DETAILS

SCALE: 1/4" = 1'-0"

DRHI Dave Richards Homebuilding, Inc.

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/19/2021