

ALL ROOFS 6/12 PITCH
12\"/>

HOUSE SQ. FT. 1784 SQ. FT.
MAIN LEVEL: 1323 SQ. FT.
LOWER LEVEL FINISH: 670 SQ. FT.
GARAGE: 206 SQ. FT.
COVERED DECK:



4740 NE Jamestown
Dr LEE'S SUMMIT, MO

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

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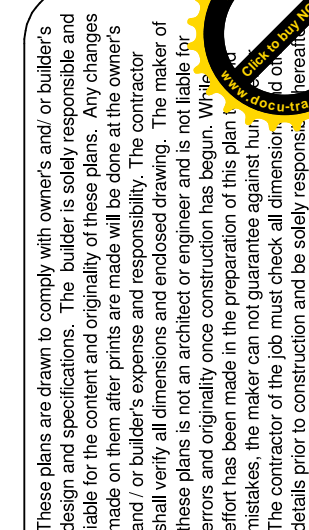
PLAN:
4-3-21
HAVEN 3.0

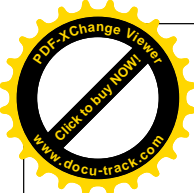
ELEVATIONS
GARAGE RIGHT

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

HAVEN
3.0

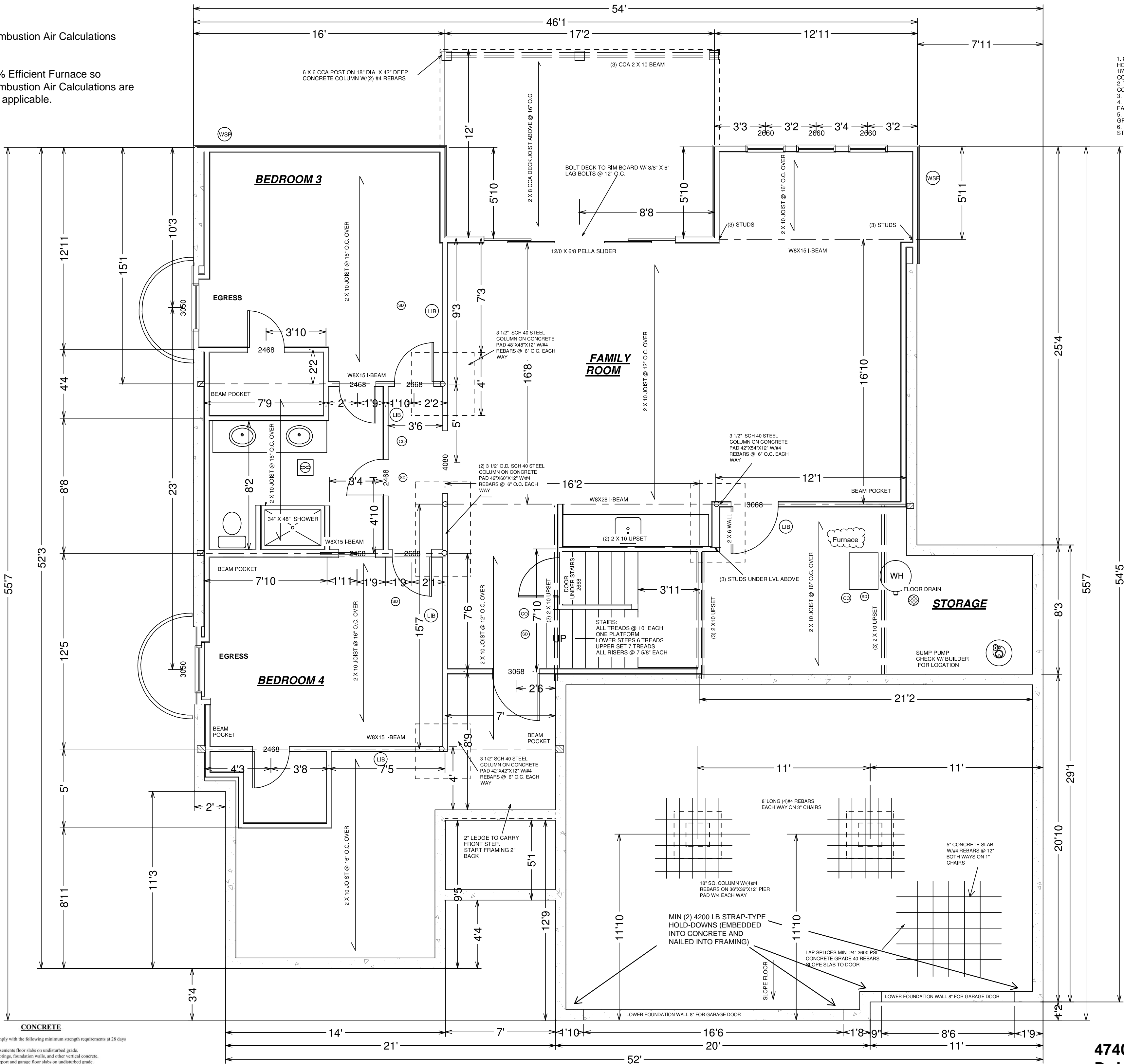
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Combustion Air Calculations

92% Efficient Furnace so
Combustion Air Calculations are
not applicable.



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 CONTINUOUS.
2. WALK-OUT- 2X4 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. EACH WAY.
5. BOTTOM OF FOOTING MIN. 36" BELOW FINISHED GRADE.
6. FOUNDATION DIMENSIONS DO NOT ALLOW FOR STONE SHELF

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 SEPARATION DOORS. R302.1.
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) 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 507.3.
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) N102.1.
10. EXTERIOR WINDOWS/DOORS SHALL HAVE U-FACTOR 0.35 AND GLAZING SHALL HAVE SOLAR HEIGHT GAIN FACTOR OF 0.40 N103.1.
11. HOUSE LEAKAGE AND DUCT LEAKAGE PERFORMANCE STANDARDS EFFECTIVE JANUARY 1, 2014, A SAMPLE TESTING PROGRAM WILL BE IMPLEMENTED OCTOBER 1, 2012 KBCRC N102.4.1.2 N103.2.2.
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. N103.4.4.
13. PROGRAMMABLE THERMOSTAT REQUIRED N103.1.1.
14. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2 % AIR LEAKAGE RATE N103.2.3.
15. BUILDING CAVITIES USED AS RETURN AIR PLENUMS SHALL BE SEALED TO PREVENT LEAKAGE ACROSS THE THERMAL ENVELOPE KBCRC N103.2.3.
16. CERTAIN HOT WATER PIPES SHALL BE INSULATED N103.4.
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 (UNLESS THE REQUIRED INSULATION AND AIR BARRIER ARE MAINTAINED) IRC M1501.1, #7.5.
20. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING SPACE AND THE GARAGE R102.4.
21. A CONCRETE- ENCASED GROUNDING ELECTRODE ('UFER' GROUND) CONNECTION SHALL BE PROVIDED TO THE ELECTRICAL SERVICE E3408.1.
22. COMPLIANCE WITH THE REQUIREMENT AND SHOW CONNECTION AS NEEDED FOR ROOF BEAM, TRUS, RAFTER, AND GIRDER CONNECTION FOR UPLIFT PER IRC 802.11.

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**BASEMENT
GARAGE RIGHT**

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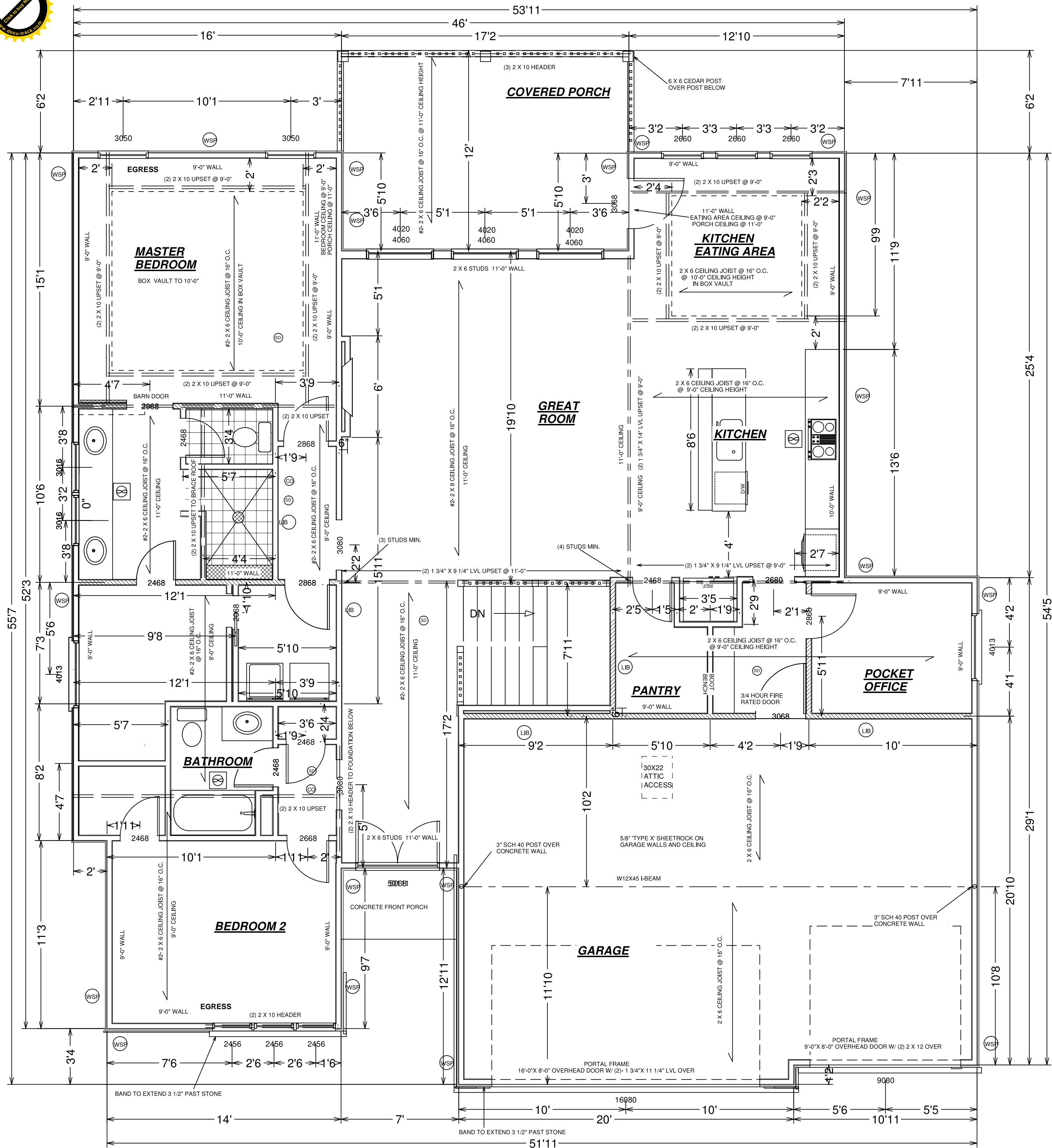
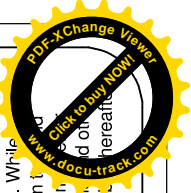
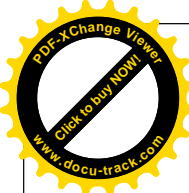
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These plans are drawn to comply with owner's and/or builder's design and specifications. The builder is solely responsible and liable for the content and originality of these plans. Any changes made on them after prints are made will be done at the 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 and is not liable for errors and omissions once construction has begun. While the contractor is not an architect or engineer, the contractor can not guarantee against future mistakes. The contractor of the job must check all dimensions and details prior to construction and be solely responsible.

**PLAN:
4-3-21
HAVEN 3.0**

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

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- 2 X 10 FLOOR JOIST AS PER LAYOUT
- FLOOR LOAD 40 PSF LL + 10 PSF DL
- ALL BEARING POINTS TO HAVE SOLID BLOCKING TO BEARING BELOW.
- INTERIOR AND EXTERIOR WALLS TO BE 2X4 STUD GRADE @ 16" O.C.
- WALLS OVER 10'-0" TO HAVE SOLID BLOCKING @ MIDSPAN OR 9'-0" MAX.
- EXTERIOR WALL INSULATION TO BE R-13.
- MULTI HEADERS AND JOIST TO BE GLUED AND NAILED @ 12" O.C. STAGGERED.
- FLOOR TO BE NAILED AND GLUED PER APA SPEC.
- 9'-0" WALLS UNLESS NOTED.
- WINDOW HEADER HEIGHT @ 80" ABOVE SUBFLOOR.
- 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/CARBON MONOXIDE DETECTOR ON PLAN AND AS REQUIRED BY CODE



BWL BRACED WALL LINE



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

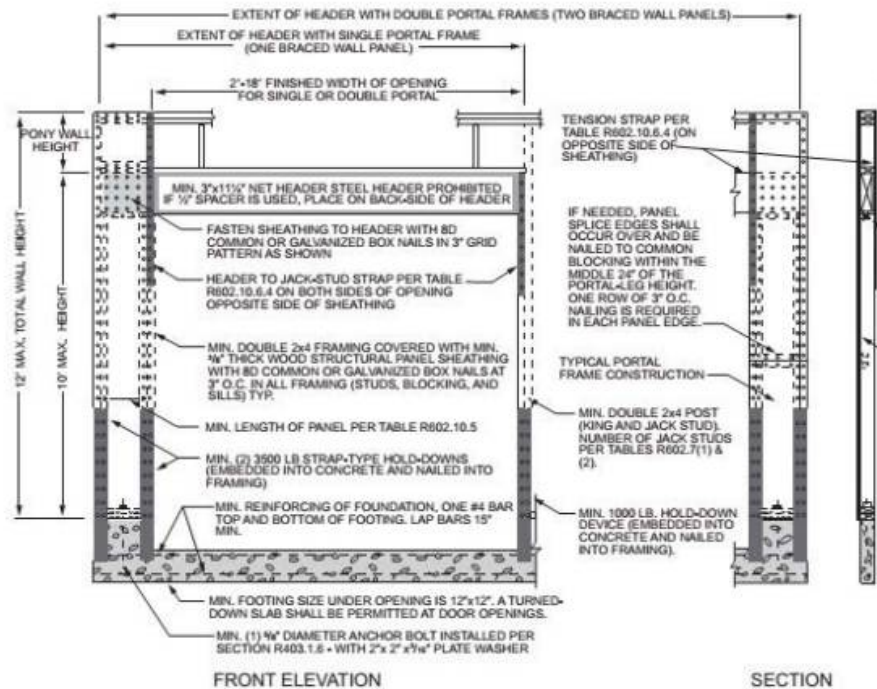


LIB LET IN BRACE



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 IN FLOOR AND CEILING ASSEMBLY		R-8 R-6
BASEMENT WALL	R-13 INSULATION CONCRETE WALLS ADJACENT TO FINISHED SPACE		
ON GRADE TRENCH FOOTING	R-10, R-15 FOR HEATED SLAB		

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



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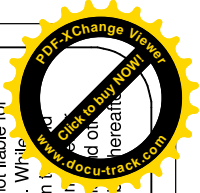
FIRST FLOOR

GARAGE RIGHT

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

HAVEN
3.0

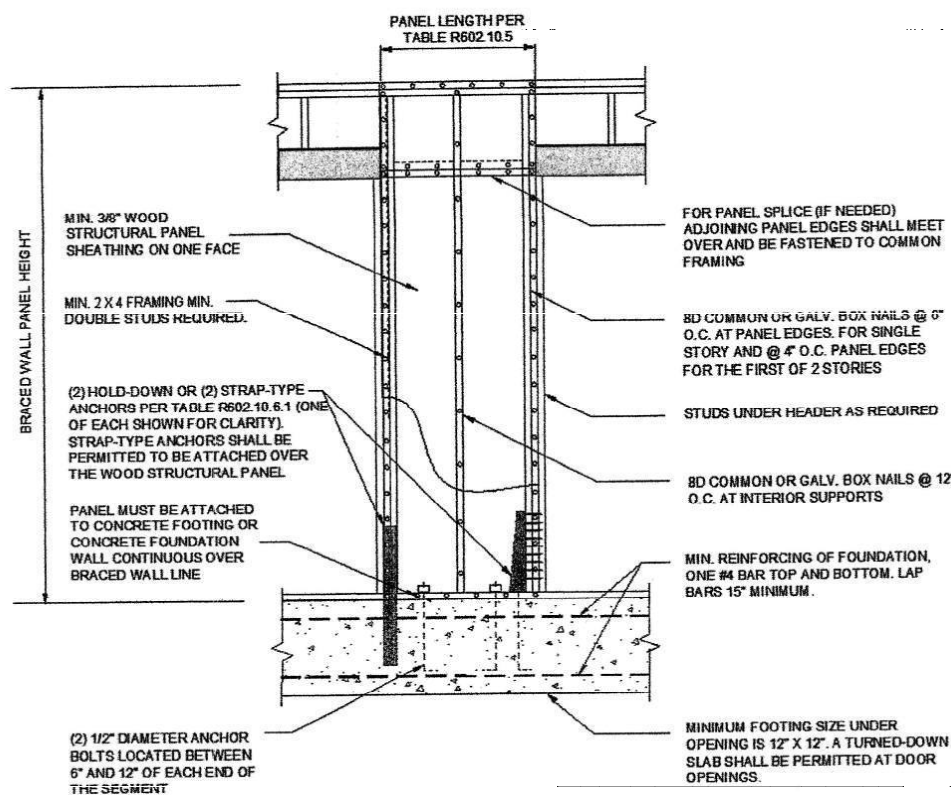
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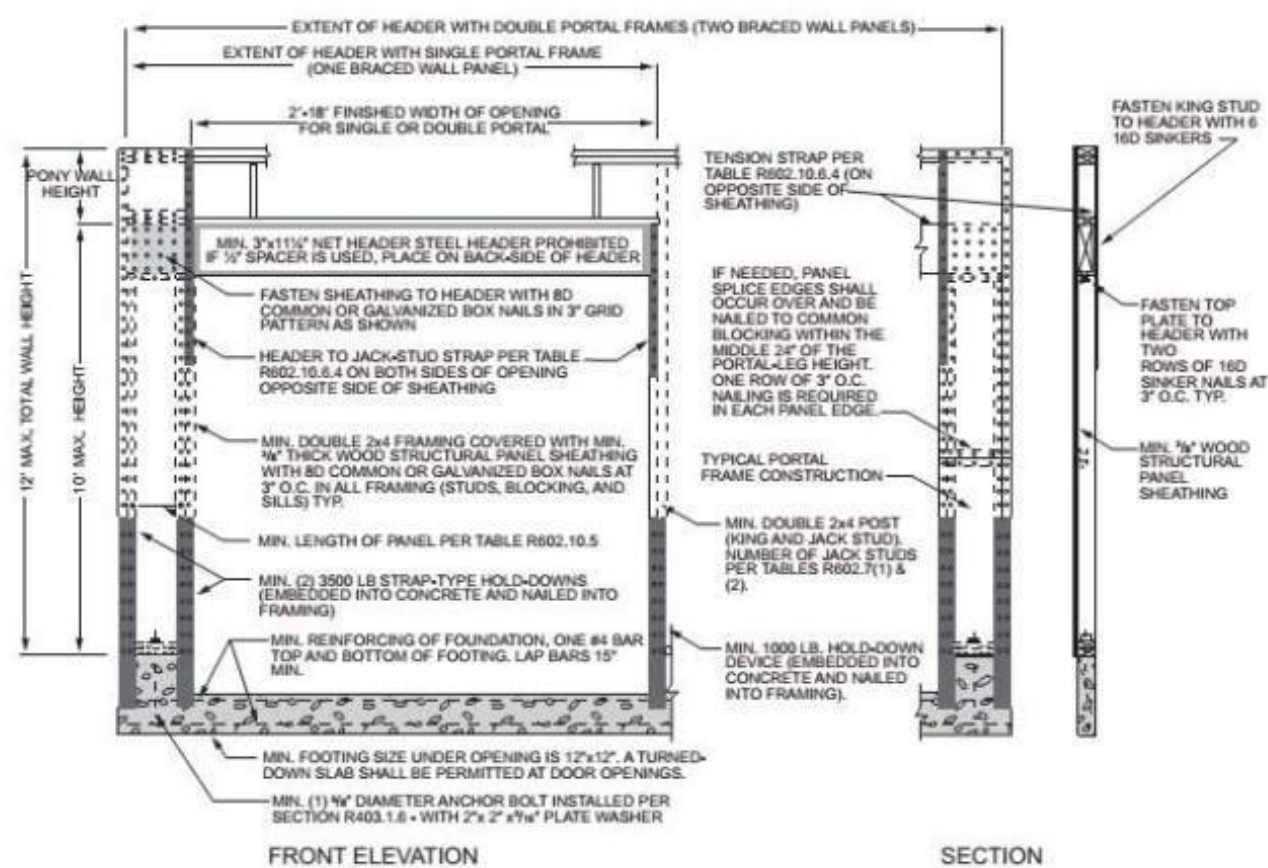


TABLE R602.10.3(1) BRACING REQUIREMENTS BASED ON WIND SPEED						
EXPOSURE CATEGORY B • 30 FOOT MEAN ROOF HEIGHT • 10 FOOT EAVE-TO-RIDGE HEIGHT • 10 FOOT WALL HEIGHT • 2 BRACED WALL LINES		MINIMUM TOTAL LENGTH (FEET) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE ^a				
Basic Wind Speed (mph)	Story Location	Method LIB ^b	Method GB	Methods DWB, WSP, SFB, PBS, PCP, HPS, CS-SFB ^c	Methods CS-WSP, CS-G, CS-PF ^d	
≤ 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	
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	
DWB Diagonal wood boards	3/4\"/>		Metal strap: per manufacturer	Metal: per manufacturer	
WSP Wood structural panel (See Section R602.4)	3/8\"/>		2-8d (2 1/2\"/>	Per stud	
BV-WSP Wood Structural Panels with Stone or Masonry Veneer (See Section R602.10.6.5)	7/16\"/>	See Figure R602.10.6.5	Exterior sheathing per Table R602.3(3)	6\"/>	
SFB Structural fiberboard sheathing	1/2\"/>		Interior sheathing per Table R602.3(3) or R602.3(2)	Varies by fastener	
GB Gypsum board	1/2\"/>		8d common (2 1/2\"/>	4\"/>	
PBS Particleboard sheathing (See Section R605)	3/4\"/>		Nails or screws per Table R602.3(1) for exterior locations	For all braced wall panel locations: 7\"/>	
PCP Portland cement plaster	See Section R703.6 for maximum 16\"/>		Nails or screws per Table R702.3.5 for exterior locations	For all braced wall panel locations: 7\"/>	
HPS Hardboard siding	7/16\"/>		For 1/2\"/>	3\"/>	
ABW Alternate braced wall	3/4\"/>		For 1/2\"/>	3\"/>	

TABLE R602.10.5 MINIMUM LENGTH OF BRACED WALL PANELS							
METHOD (See Table R602.10.4)		MINIMUM LENGTH ^a (inches)					CONTRIBUTING LENGTH (inches)
		Wall Height					
		8 feet	9 feet	10 feet	11 feet	12 feet	
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, D ₁ and D ₂ , wind speed < 110 mph	32	32	34	NP	NP	
PFH	Supporting roof only	16	16	16	18"	20"	48
	Supporting one story and roof	24	24	24	27"	29"	48
PGF		24	27	30	33" ^c	36" ^c	1.5 × Actual ^b
CS-G		24	27	30	33	36	Actual ^b
CS-PF		16	18	20	22"	24"	Actual ^b
CS-WSP, CS-SFB	Adjacent clear opening height (inches)						
	≤ 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		
							Actual ^b