



Type V Wood Frame Prescriptive Provisions

The purpose of this Wood Frame Prescriptive Provisions (WFPP) Information is to assist owners, builders and others to meet the general requirements and specifications prescribed in the 2019 California Residential Code (CRC) for building one- and two-family dwellings and townhouses not more than one story in height with light frame wood construction.

Light-frame wood frame construction is a type of construction where vertical and horizontal structural elements are primarily formed by a system of repetitive wood framing members. It is the least restrictive construction type permitted by the CRC and CBC. The WFPP Information Bulletin is for information and reference only and are not a substitute for accurate construction documents (i.e., drawings, plan specifications, etc.) prepared for each proposed construction project. Additional construction documents may be required when the scope of work exceeds the limits of light frame wood construction as prescribed by the CRC.

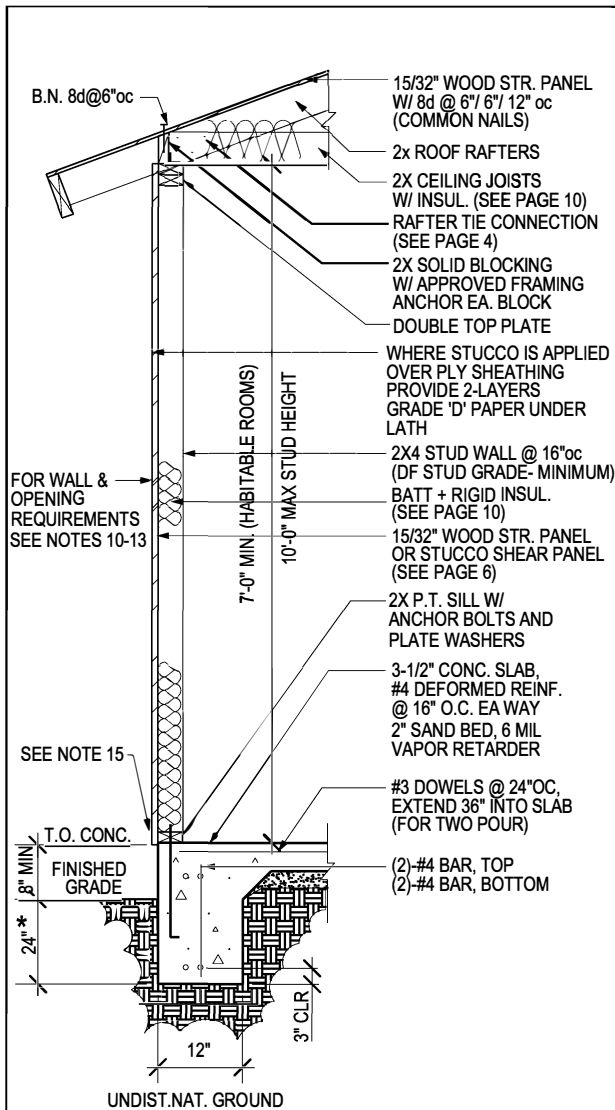
When portions of a building or structure are constructed of other than light frame wood construction exceed the limits of this WFPP Information Bulletin, or as required other local ordinances, these portions and the supporting load path shall be designed by a registered design professional licensed in the State of California. This WFPP Information Bulletin may not be suitable in all cases. Where the proposed construction is located on a site with slope steeper than 10% or has adverse soil conditions (e.g., expansive soil, liquefaction, flood hazard, etc.), a registered design professional licensed in the State of California should be consulted. The use of this WFPP Information Bulletin is permitted at the discretion of the Building Official on a case-by-case basis.

An automatic fire sprinkler system shall be installed in new one- and two-family dwellings and townhouses per CRC §R313.2.

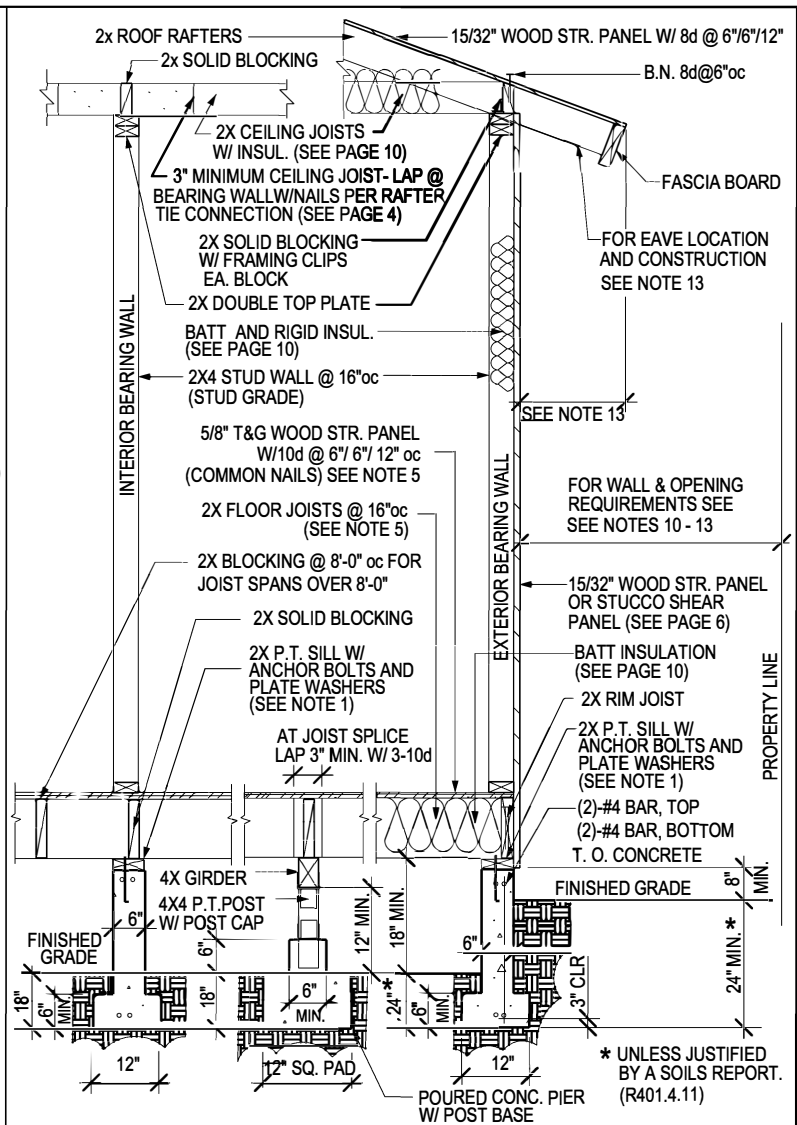
All work must comply with the California Energy Code requirements for the climate zone within which the project resides. See 2019 Energy Efficiency Standards on page 10 of this bulletin for more information.

For new construction and additions/alterations that increase the conditioned space, a minimum of 65% of construction and demolition waste shall be recycled or salvaged for reused per Compton Municipal Code.

Newly constructed one- or two- family dwellings with an attached private garage shall provide accommodation for future installation and use of an electric vehicle charger per 4.106.4.1 CALGreen.



WALL SECTION: SLAB-ON-GRADE CONSTRUCTION



WALL SECTION: RAISED FLOOR CONSTRUCTION

NOTES:

1. Anchor bolts 1/2" x 10" embedded 7" and spaced maximum 6' with 0.229" x 3" x 3/16" plate washers, minimum 2 anchor bolts per piece, located not more than 12" or less than 7" bolt diameters from each end of the piece.
2. All foundation plates or sills and sleepers on a concrete or masonry slab, which is in direct contact with earth, and sills that rest on concrete or masonry foundations shall be preservative treated wood (AWPA U1) and field cut ends, notches, and drilled holes shall be field treated in accordance with AWPA M4. Fasteners (other than anchor bolts) in preservative treated wood or fire retardant treated wood shall be of hot dipped zinc coated galvanized steel or stainless steel.
3. Minimum concrete strength 2,500-psi.
4. Bearing walls and braced wall panels require continuous footings.
5. Where 23/32" thick T&G plywood is provided, 24" joist spacing may be used.
6. Where interior walls are shear walls, wall framing and sheathing shall extend to the roof sheathing. (See Page 6)
7. Footings on or adjacent to slopes shall meet the requirements of R403.1.7.
8. Walls separating units in townhouses shall be fire-resistance rated per R302.2 and provided with parapet in accordance with R302.2.2. Walls separating two-family dwellings shall be fire-resistance rated per R302.3.
9. Exterior walls of dwellings and accessory structures closer than 5-ft. (non-sprinklered) / 3-ft. (sprinklered) to the property line shall be 1-hr fire-resistance rated construction.
10. No openings other than approved foundation vents shall be permitted in the exterior walls of dwellings and accessory buildings where the exterior wall is less than 3-ft. to the property line.
11. The area of exterior wall openings of non-sprinklered dwellings and accessory buildings located \geq 3-ft. and < 5-ft. to the property line shall be limited to 25% of the wall area. Exterior wall openings are unlimited when exterior walls are located \geq 5-ft. for non-sprinklered buildings and \geq 3-ft. for sprinklered buildings.
12. Where gable or eave vents occur, eaves shall be of 1-hr fire-resistive construction on the underside when located between 2-ft. and 5-ft. from the property line for non-sprinklered buildings and between 2-ft. and 3-ft. from the property line for sprinklered buildings. Detached garages within 2-ft. of a property line may have a maximum 4-inch eave, provided the eave does not extend over the property line and is allowed by the Zoning Code.
13. Eaves shall not project more than 4" for each one foot of required side yard, and shall provide a minimum 30" clear space between the eave and the property line.
14. Exterior plaster (stucco) walls shall be provided with a corrosion resistant weep screed complying with R7072.1.

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ALLOWABLE SPANS FOR DF #2 ROOF RAFTERS (DF - LARCH) Light Dead Load: up to 15 psf (Total including roof) Max. Roofing Load: 6 psf (Asphalt Shingles) Live Load: 20 psf L/Δ = 240 (T-R802.5.1(2))			ALLOWABLE SPANS FOR DF #2 CEILING JOISTS (DF - LARCH) Dead Load: 10 psf Live Load : 20 psf L/Δ = 240 (T-R802.4(2))			ALLOWABLE SPANS FOR DF #2 FLOOR JOISTS (DF - LARCH) Light Dead Load : 10 psf Live Load : 40 psf L/Δ = 360 (T-R502.3.1(2))		
RAFTER SIZE	SPACING	ALLOWABLE SPAN	JOIST SIZE	SPACING	ALLOWABLE SPAN	JOIST SIZE	SPACING	ALLOWABLE SPAN
2 X 6	24"	10' - 9"	2 X 4	24"	7' - 3"	2 X 6	24"	8' - 3"
	16"	13' - 0"		16"	8' - 11"		16"	9' - 9"
	12"	14' - 9"		12"	9' - 10"		12"	10' - 9"
2 X 8	24"	13' - 6"	2 X 6	24"	10' - 8"	2 X 8	24"	10' - 5"
	16"	16' - 7"		16"	13' - 0"		16"	12' - 9"
	12"	18' - 11"		12"	15' - 0"		12"	14' - 2"
2 X 10	24"	16' - 6"	2 X 8	24"	13' - 6"	2 X 10	24"	12' - 9"
	16"	20' - 3"		16"	16' - 6"		16"	15' - 7"
	12"	23' - 5"		12"	19' - 1"		12"	18' - 0"
2 X 12	24"	19' - 2"	2 X 10	24"	16' - 5"	2 X 12	24"	14' - 9"
	16"	23' - 6"		16"	20' - 2"		16"	18' - 1"
	12"	25' - 10"		12"	23' - 3"		12"	20' - 11"

ALLOWABLE SPANS FOR DF #2 HEADERS FOR EXTERIOR BEARING WALLS Max. Roof/ Ceiling Dead Load: 25 psf Max. Live Load: 20 psf (T-R602.7(1))							ALLOWABLE SPANS FOR DF #2 HEADERS FOR EXTERIOR BEARING WALLS Max. Roof/ Ceiling Dead Load: 25 psf Max. Live Load: 40 psf (Roof/ Limited Storage Attic) (T-R602.7(1))						
SIZE	20-ft. Building Width	NJ	28-ft. Building Width	NJ	36-ft. Building Width	NJ	20-ft. Building Width	NJ	28-ft. Building Width	NJ	36-ft. Building Width	NJ	
2-2 X 6	5'-5"	1	4'-8"	1	4'-2"	1	4'-6"	1	4'-0"	1	3'-7"	2	
2-2 X 8	6'-10"	1	5'-11"	2	5'-4"	2	5'-9"	2	5'-0"	2	4'-6"	2	
2-2 X 10	8'-5"	2	7'-3"	2	6'-6"	2	7'-0"	2	6'-2"	2	5'-6"	2	
2-2 X 12	9'-9"	2	8'-5"	2	7'-6"	2	8'-1"	2	7'-1"	2	6'-5"	2	
3-2 X 8	8'-4"	1	7'-5"	1	6'-8"	1	7'-2"	1	6'-3"	2	5'-8"	2	
3-2 X 10	10'-6"	1	9'-1"	2	8'-2"	2	8'-9"	2	7'-8"	2	6'-11"	2	
3-2 X 12	12'-2"	2	10'-7"	2	9'-5"	2	10'-2"	2	8'-11"	2	8'-0"	2	

- a. Building width is perpendicular to ridge measured to exterior wall.
b. NJ - Number of Jack Studs required to support each end of header.

ALLOWABLE SPANS FOR DF #2 HEADERS FOR INTERIOR BEARING WALLS Max. Roof/ Ceiling Dead Load: 25 psf Max. Live Load: 20 psf (T-R602.7(2))							ALLOWABLE SPANS FOR DF #2 HEADERS FOR INTERIOR BEARING WALLS Max. Roof/ Ceiling Dead Load: 25 psf Max. Live Load: 40 psf (Roof/ Limited Storage Attic) (T-R602.7(2))						
SIZE	20-ft. Building Width	NJ	28-ft. Building Width	NJ	36-ft. Building Width	NJ	20-ft. Building Width	NJ	28-ft. Building Width	NJ	36-ft. Building Width	NJ	
2-2 X 6	4'-6"	1	3'-11"	1	3'-6"	1	3'-2"	2	2'-9"	2	2'-5"	2	
2-2 X 8	5'-9"	1	5'-0"	2	4'-5"	2	4'-1"	2	3'-6"	2	3'-2"	2	
2-2 X 10	7'-0"	2	6'-1"	2	5'-5"	2	4'-11"	2	4'-3"	2	3'-10"	3	
2-2 X 12	8'-1"	2	7'-0"	2	6'-3"	2	5'-9"	2	5'-0"	3	4'-5"	3	
3-2 X 8	7'-2"	2	6'-3"	2	5'-7"	2	5'-1"	2	4'-5"	2	3'-11"	2	
3-2 X 10	8'-9"	2	7'-7"	2	6'-9"	2	6'-2"	2	5'-4"	2	4'-10"	2	
3-2 X 12	10'-2"	2	8'-10"	2	7'-10"	2	7'-2"	2	6'-3"	2	5'-7"	3	

- a. Building width is perpendicular to ridge measured to exterior wall.
b. NJ - Number of Jack Studs required to support each end of header.

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ALLOWABLE SPANS FOR DF #2 FLOOR GIRDERS
SUPPORTING ONE FLOOR ONLY
Max. Floor Dead Load: 15 psf^{1,2} (T-R602.7(2))

SIZE	20-ft Building Width	28-ft Building Width	36-ft Building Width
2-2X6	4'-6"	3'-11"	3'-6"
2-2X8	5'-9"	5'-0"	4'-5"
2-2X10	7'-0"	6'-1"	5'-5"
2-2X12	8'-1"	7'-0"	6'-3"
3-2X8	7'-2"	6'-3"	5'-7"
3-2X10	8'-9"	7'-7"	6'-9"
3-2X12	10'-2"	8'-10"	7'-10" ³

1. Building width is perpendicular to ridge measured to exterior walls.
2. Minimum 4x post.
3. Minimum 4x 6 post for 36 ft. building width and 3-2x12 member.

RAFTER TIE CONNECTION
ROOF LIVE LOAD 20 psf [Table R802.5.1 (9)]

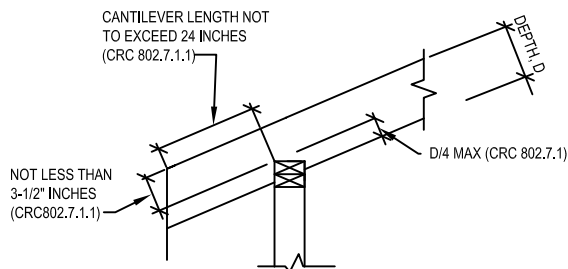
Minimum number of 16d common nails
at rafter tie connection

Rafter Slope	Tie Spacing (in)	Roof Span (ft.)			
		12	20	28	36
3 : 12	16	5	8	10	13
	24	7	11	15	19
4 : 12	16	4	6	8	10
	24	5	8	12	15
5 : 12	16	3	5	6	8
	24	4	7	9	12

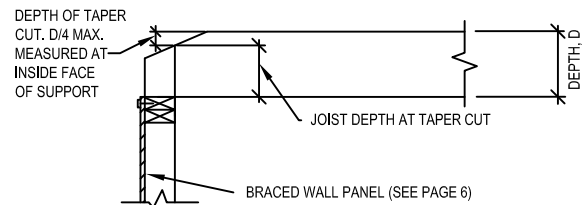
1. When nails are clinched, nailing shall be permitted to be reduced 25 percent.

ALLOWABLE SPANS AND LOADS FOR WOOD STRUCTURAL PANEL SHEATHING AND SINGLE-FLOOR GRADES CONTINUOUS OVER TWO OR MORE SPANS WITH STRENGTH AXIS PERPENDICULAR TO SUPPORTS NOTE : APPLIES TO PANELS 24" OR WIDER

SHEATHING GRADES		ROOF				FLOOR
PANEL SPAN RATING Roof/ Floor Span	MINIMUM PANEL THICKNESS (INCHES)	MAXIMUM SPAN (INCHES)		LOADS (PSF)		MAX. SPAN (INCHES) Panel edges with tongue and groove joints or with blocking
		EDGE SUPPORT	NO EDGE SUPPORT	TOTAL LOAD	LIVE LOAD	
24/ 0	3/ 8	24	20	40	30	
24/ 16	7/ 16	24	24	50	40	16
32/ 16	15/ 32, 1/ 2	32	28	40	30	16
40/ 20	19/ 32, 5/ 8	40	32	40	30	20
48/ 24	23/ 32, 3/ 4	48	36	45	35	24



RAFTER NOTCH (FIGURE R802.7.1.1)

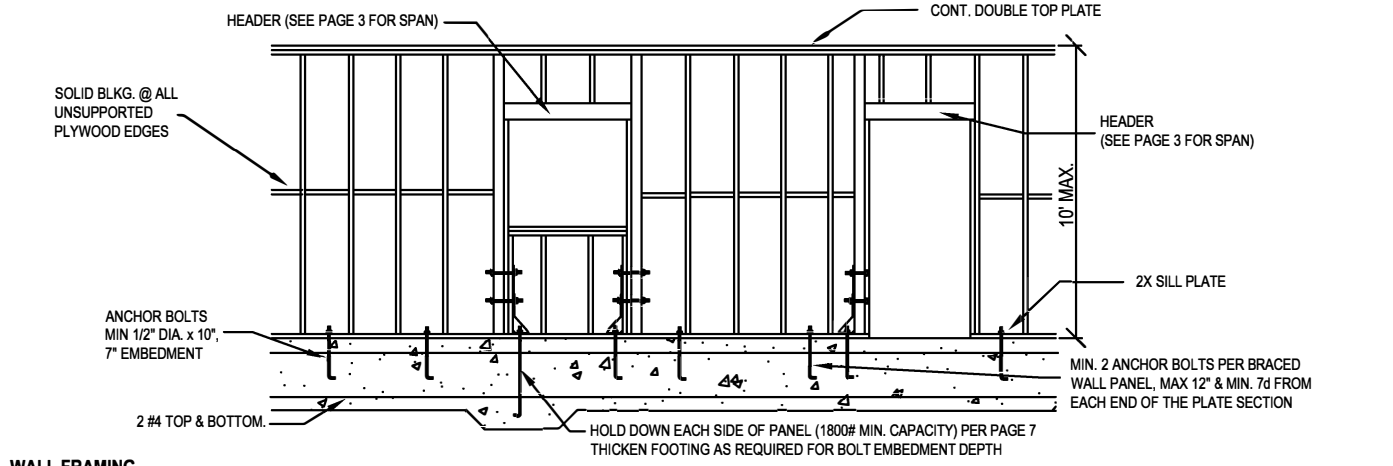
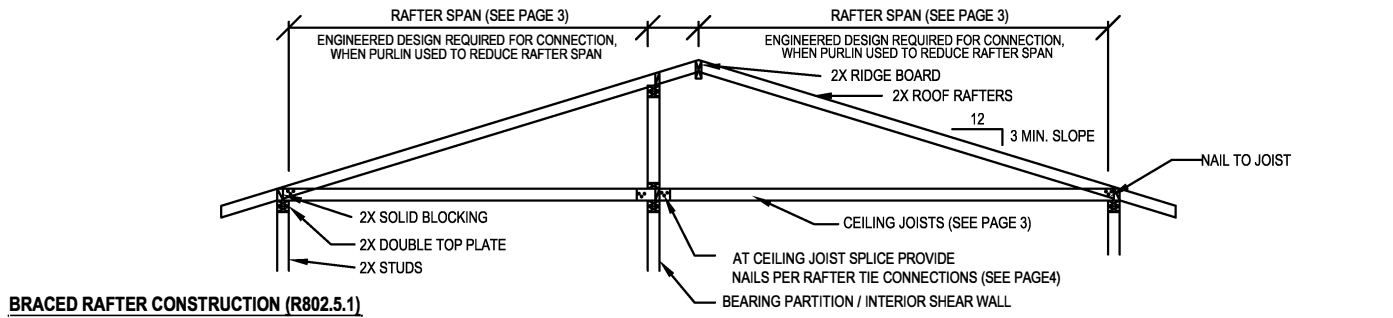
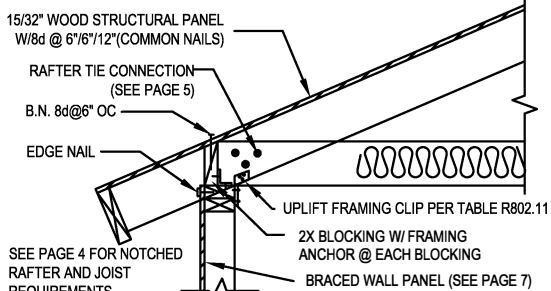
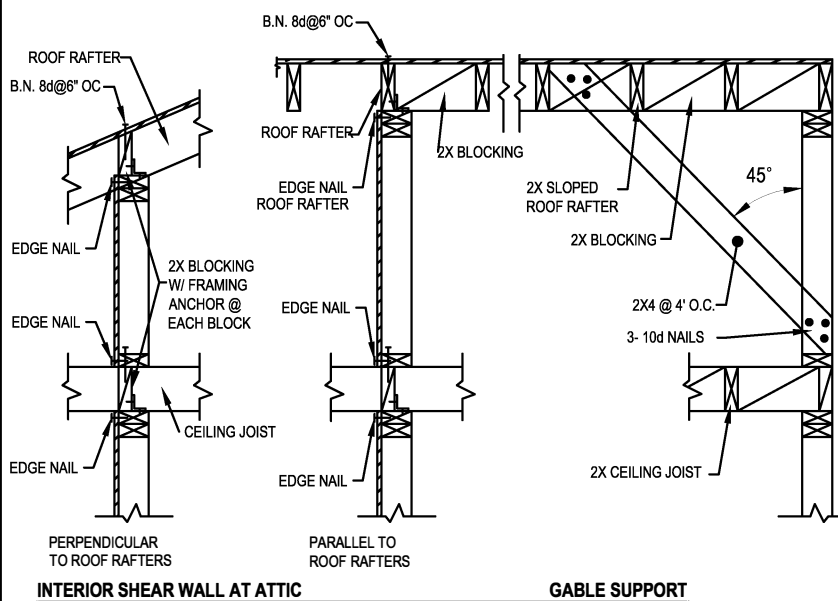
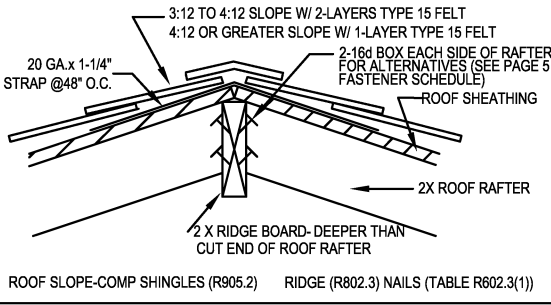
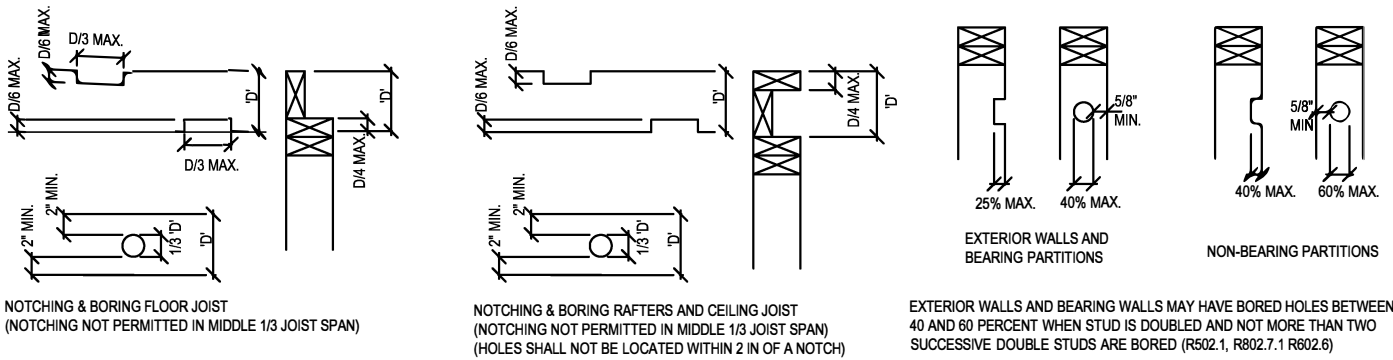


CEILING JOIST TAPER CUT (FIGURE R802.7.1.2)

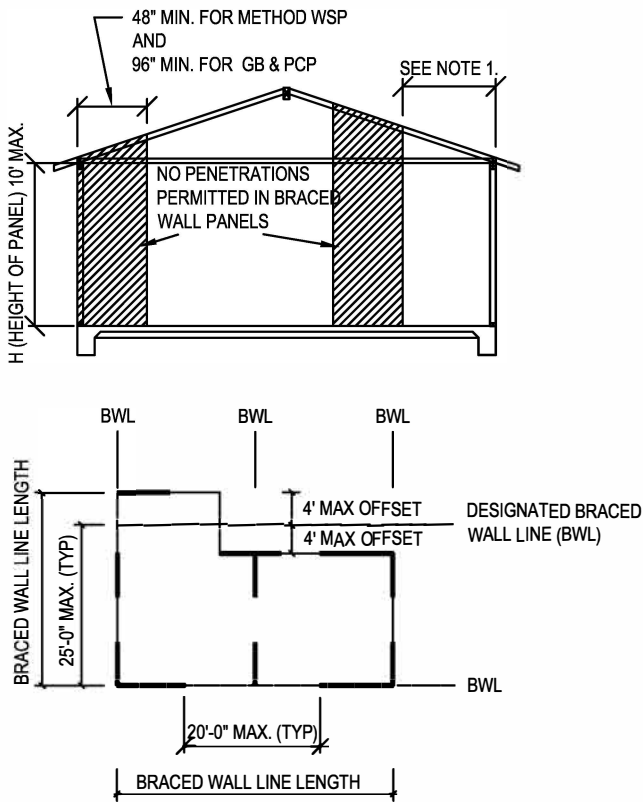
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CONNECTION	FASTENING	REMARKS
Roof		
Blocking between ceiling joists or rafters to top plate	4-8d box (2-1/2" x 0.113")	Toe nail
Ceiling joist to plate	4-8d box (2-1/2" x 0.113")	Toe nail
Ceiling Joist not attached to parallel rafter, laps over partitions	4-10d box (3" x 0.128")	Face nail
Collar tie to rafter, face nail or 1 1/4" 20-gage ridge strap	4-10d box (3" x 0.128")	
Rafter or roof truss to plate	3-16d box nails (3-1/2" x 0.135") or 3-10d common nails (3" x 0.148")	2 toe nails on one side and 1 toe nail on opposite side of each rafter or truss
Roof rafters to ridge, valley or hip rafters or roof rafter to minimum 2" ridge beam:	4-16d box (3-1/2" x 0.135"), or 3-10d common (3-1/2" x 0.148")	Toe nail
	3-16d box (3-1/2" x 0.135"), or 2-16d common (3-1/2" x 0.162")	End nail
Wall		
Stud to Stud (not braced wall panels)	16d common (3-1/2" x 0.162")	16" o.c. face nail
	10d box (3" x 0.128")	24" o.c. face nail
Stud to stud and abutting studs at intersecting wall corners (at braced wall panels)	16d box (3-1/2" x 0.135")	12" o.c. face nail
	16d common (3-1/2" x 0.162")	16" o.c. face nail
Abutting Studs at intersecting wall corners, face nail	16d box (3-1/2" x 0.135")	12" o.c.
Built -up header (2" to 2" header with 1/2" spacer)	16d common (3-1/2" x 0.162")	16" o.c. each edge face nail
	16d box (3-1/2" x 0.135")	12" o.c. each edge face nail
Continuous header to stud	5-8d box (2-1/2" x 0.113")	Toe nail
	4 8d common (2-1/2" x 0.131")	Toe nail
Top plate to top plate	16 common (3-1/2" x 0.162")	16" o.c. face nail
	10d box (3" x 0.128")	12" o.c. face nail
Double top plate splice	8-16d common (3-1/2" x 0.162") 12-16d box (3-1/2" x 0.035")	Face nail on each side of end joint (minimum 24" lap splice length each side of joint)
Bottom plate to joist, rim joist, band joist or blocking (not at braced wall panels)	16d common (3-1/2" x 0.162")	16" o.c. face nail
	16d box (3-1/2" x 0.135")	12" o.c. face nail
Bottom plate to joist, rim joist, band joist or blocking (at braced wall panel)	3-16d box (3-1/2" x 0.135"), or 2-16d common (3-1/2" x 0.162")	3 each 16" o.c. face nail 2 each 16" o.c. face nail
Top or bottom plate to stud	4-8d box (2-1/2" x 0.113"), or 3-16d box (3-1/2" x 0.135"), or 4-8d common (2-1/2" x 0.131")	toe nail
	3-16d box (3-1/2" x 0.135"), or 2-16d common (3 1/2" x 0.162"), or 3-10d box (3" x 0.128")	End nail
Top plates, lap at corners and intersections	3-10d box (3" x 0.128"), or 2-16d common (3 1/2" x 0.162")	Face nail
Floor		
Joist to sill, top plate or girder	4-8d box (2-1/2" x 0.113"), or 3-8d common (2-1/2" x 0.131), or 3-10d box (3" x 0.128")	Toenail
Rim Joist, band joist or blocking to sill or top plate (roof applications also)	8d box (2-1/2" x 0.113")	4" o.c.
	8d common (2-1/2" x 0.131"), or 10d box (3" x 0.128")	6" o.c.
Band or rim joist to joist	3-16d common (3-1/2" x 0.162"), or 4-10d box (3" x 0.128")	End nail
Built-up girders and beams, 2-inch lumber layers	20d common (4" x 0.192"), or	Nail each layer as follows: 32" o.c. at top and bottom and staggered.
	10d box (3" x 0.128"), or	24" o.c. face nail at top and bottom staggered on opposite sides
	AND: 2-20d common (4" x 0.192"), or 3-10d box (3" x 0.128"),	Face nail at ends and at each splice
Ledger strip supporting joists or rafters	4-16d box (3-1/2" x 0.135"), or 3-16d common (3-1/2" x 0.162), or 4-10d box (3" x 0.128")	At each joist or rafter
Bridging to Joist	2-10d (3" x 0.128")	Each end, toe nail

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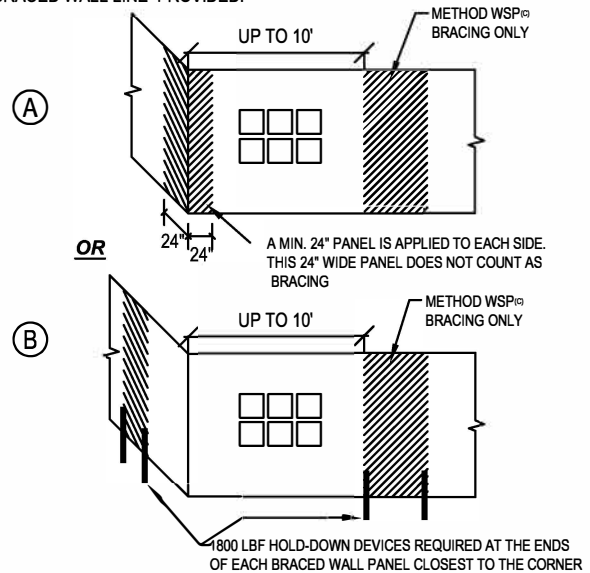
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BRACED WALL PANEL REQUIREMENTS

NOTES:

1. BRACED WALL LINES AT EXTERIOR WALLS SHALL HAVE A BRACED WALL PANEL LOCATED AT EACH END OF THE BRACED WALL LINE.
EXCEPTION: FOR METHOD WSP^(c), THE BRACED WALL PANEL SHALL BE PERMITTED TO BEGIN NO MORE THAN 10 FEET FROM EACH END OF THE BRACED WALL LINE PROVIDED:



- MIXING BRACING METHODS WITHIN A BRACED WALL LINE IS NOT PERMITTED.
- INTERIOR BRACED WALL PANEL SHALL BE LOCATED NOT MORE THAN 10-FT FROM THE END OF A BRACED WALL LINE AS DEMONSTRATED IN FIGURE R602.10.2.2 OF THE CRC.
- HOLD-DOWN DEVICE SHALL BE APPROVED BY CURRENT LOS ANGELES CITY RESEARCH REPORT OR A NATIONALLY RECOGNIZED AGENCY REPORT W/ 25% CAPACITY REDUCTION.

BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY

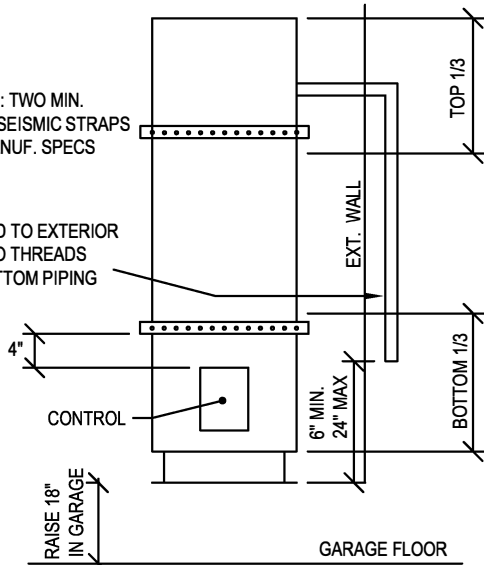
Roof/ Ceiling Dead Load = 15-psf Wall Height = 10-ft Floor Dead Load = 10-psf Braced Wall Line Spacing = 25-ft.			Minimum Total Length of Braced Wall Panels Required Along each Braced Wall Line (ft.)	
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method GB ^{a,d} and PCP ^{b,d}	Method WSP ^c
SDC D ₂		10	8	4
		20	16	5
		30	24	7.5
		40	32	10
		50	40	12.5

- Method GB** : ½ inch minimum thickness gypsum board with 1-1/2 inch galvanized roofing nail, or 1-1/4 inch screws, Type W or S for exterior sheathing, or 5d cooler nail, 0.086 inch diameter, 1-5/8 inch head for interior gypsum board. Maximum fastener spacing shall be 7 inch o.c. at panel edges, including top and bottom plates, and along intermediate supports. When method GB panels are applied to only one face of a braced wall panel, the minimum total length in the table shall be doubled.
- Method PCP** : ⅞ inch minimum thickness Portland cement plaster with 1-1/2 inch, 11-gage, ⅞ inch head nails at 6 inch spacing (16 inch stud spacing required). ½ inch minimum gypsum wallboard shall be installed on the side of the wall opposite the bracing material, except when the minimum total length of braced wall panel in the Table is multiplied by a factor of 1.5.
- Method WSP** : 15/32 inch minimum thickness wood structural panel with 8d common (2-1/2 inch x 0.131 inch) nails at 6 inch spacing along panel edges, 12 inch spacing at intermediate supports, and ⅜ inch distance to panel edge. ½ inch minimum gypsum wall board shall be installed on the side of the wall opposite the bracing material, except when the minimum total length of braced wall panel in the Table is multiplied by a factor of 1.5.
- Method GB and PCP braced wall panel height to width ratio (h/w) shall not exceed 1:1.
- Multiply required braced wall panel lengths specified in the Table by 1.2 when combined Roof Ceiling Dead Load is between 15 psf and 25 psf.

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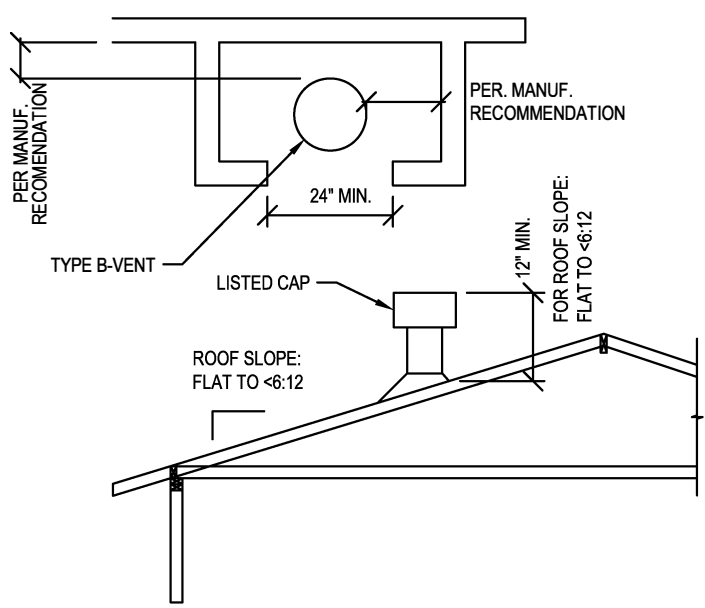
SEISMIC STRAPS: TWO MIN.
DSA APPROVED SEISMIC STRAPS
APPLIED PER MANUF. SPECS

T&P VALVE PIPED TO EXTERIOR
3/4" MIN. PIPE. NO THREADS
ALLOWED IN BOTTOM PIPING

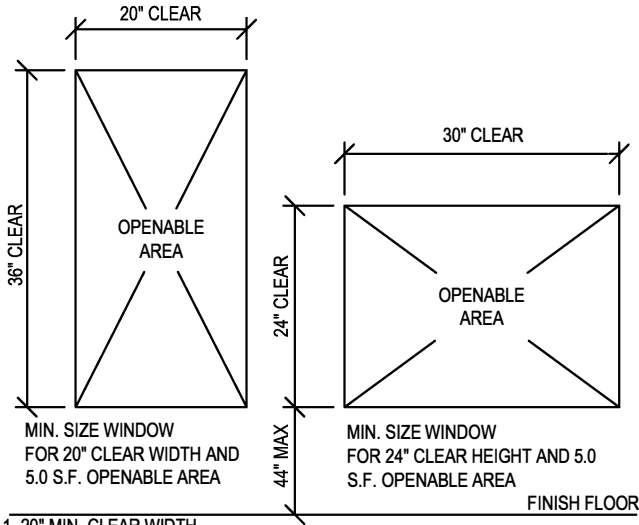


NOTE: NO GAS-FIRED WATER HEATER ALLOWED IN BEDROOMS, BATHROOMS,
CLOTHES CLOSETS, OR ANY SPACE OPENING INTO A BEDROOM OR BATHROOM.

WATER HEATERS (CPC 508)



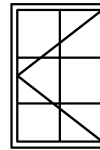
WATER HEATER VENT AND ACCESS REQUIREMENTS



1. 20" MIN. CLEAR WIDTH
2. 24" MIN. CLEAR HEIGHT
3. 5.0 SF MIN. OPENABLE AREA AT GRADE-FLOOR ONLY, 5.7 SF MIN. ELSEWHERE.

EMERGENCY ESCAPE/ RESCUE OPENING (R310)

THE FOLLOWING WINDOW SIZES WILL BE THE MINIMUM ALLOWED FOR 5.0 SF.



SINGLE CASEMENT: 2-4X 4-0,

2-6 X 3-6

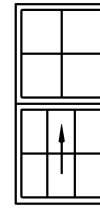
DOUBLE CASEMENT: 4-8X 4-0

CASEMENT/ FIXED COMBO: 7-0X 4-0

OTHER WINDOW TYPES:

AWNING & BAY W/ FIXED CENTER:

NONE W/O MANUF. DATA



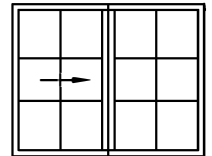
SINGLE/ DOUBLE HUNG:

3-0 X 5-0, 3-0 X 5-6, 3-4 X 5-0,

3-8 X 5-0, 4-0 X 5-0

SINGLE/ FIXED COMBO: NONE W/O

MANUF. DATA



SLIDER:

4-0 X 4-0

5-0 X 3-6

6-0 X 3-0

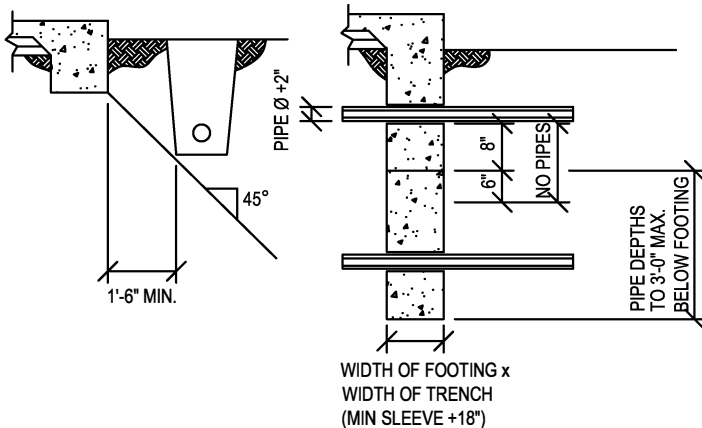
SLIDER/ FIXED COMBO:

8-0 X 4-0

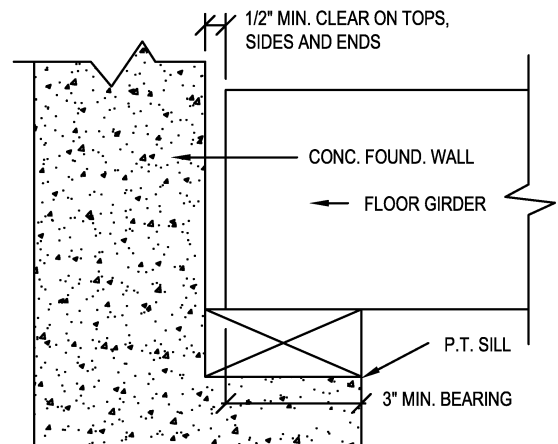
10-0 X 4-0

12-0 X 3-0

NOTE: SIZES ARE TAKEN FROM DATA SUPPLIED BY
WINDOW MANUFACTURERS. HOWEVER, THESE ARE
GENERAL DIMENSIONS AND MUST BE VERIFIED WITH
ACTUAL WINDOWS INSTALLED TO MEET MINIMUM
EGRESS REQUIREMENTS.



TRENCHES AT FOOTINGS



GIRDER (R317.1 / R502.6)

• Wood Frame Prescriptive Provisions

