



CITY OF CHINO

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TYPE V SHEET

ONE STORY CONSTRUCTION ONLY

Type V construction is a classification of buildings by construction materials and methods. It is the least restrictive permitted by the California Building Code and includes light, wood-frame construction. This sheet is for information and reference only and is not a substitute for accurate drawings prepared for each proposed construction project.

FOOTINGS ON EXPANSIVE SOILS

Footing systems on expansive soil shall be constructed in a manner that will minimize damage to the structure from movement of the soil.

1. Depth of footings below the natural and finished grades shall not be less than 24 inches for exterior and 18 inches for interior footings.
2. Exterior walls and interior bearing walls shall be supported on continuous footings.
3. Footings shall be reinforced with four 1/2-inch diameter deformed reinforcing bars. Two bars shall be placed 4 inches from the bottom of the footing and two bars within 4 inches from the top of the footing.
4. Concrete floor slabs on grade shall be 2500 psi and a 6-inch fill of coarse aggregate or on a moisture barrier membrane. The slabs shall be at least 3-1/2 inches thick and shall be reinforced with 1/2" diameter deformed reinforcing bars. Reinforcing bars shall be spaced at intervals not exceeding 16 inches each way.
5. The soil below an interior concrete slab shall be saturated with a moisture to a depth of 18 inches prior to placing the concrete.

ALLOWABLE SPANS FOR DF #2 ROOF RAFTERS (DF-LARCH) attached to ceiling joist Light Dead Load (up to 15 PSF)/ Max. Roofing Load: 6 PSF (Asphalt Shingles) Live Load: 20 PSF				ALLOWABLE SPANS FOR DF #2 CEILING JOISTS (DF-LARCH) Dead Load: 10 PSF/ Live Load: 20 PSF			
RAFTER SIZE	SPACING	ALLOWABLE SPAN		JOIST SIZE	SPACING	ALLOWABLE SPAN	
2x4	24"	7'-0"		2x4	24"	7'-3"	
	19.2"	7'-10"			19.2"	8'-2"	
	16"	8'-7"			16"	8'-11"	
	12"	9'-10"			12"	9'-10"	
2x6	24"	10'-4"		2x6	24"	10'-8"	
	19.2"	11'-6"			19.2"	11'-11"	
	16"	12'-7"			16"	13'-0"	
	12"	14'-7"			12"	15'-0"	
2x8	24"	13'-0"		2x8	24"	13'-6"	
	19.2"	14'-7"			19.2"	15'-1"	
	16"	16'-0"			16"	16'-6"	
	12"	18'-5"			12"	19'-1"	
2x10	24"	15'-11"		2x10	24"	16'-5"	
	19.2"	17'-10"			19.2"	18'-5"	
	16"	19'-6"			16"	20'-2"	
	12"	22'-6"			12"	23'-3"	
2x12	24"	18'-6"					
	19.2"	20'-8"					
	16"	22'-7"					
	12"	26'-0"					

ALLOWABLE SPANS FOR DF #2 FLOOR JOISTS (DF-LARCH) Light Dead Load (up to 20 psf) Max. Flooring Load: 1.5 psf (Carpet or Vinyl) Live Load: 40 psf			ALLOWABLE SPANS FOR DF #1 FLOOR GIRDERS (DF-LARCH) Max. Floor Dead Load: 15 PSF Max. Tributary Width: 8'-0"			ALLOWABLE SPANS FOR DF#1 HEADERS (DF-LARCH) Maximum span of tributary load: 20'-0	
JOIST SIZE	SPACING	ALLOWABLE SPAN	SPAN		GIRDER SIZE	SPAN	BEAM SIZE
			PARTITIONS	NO PARTITIONS			
						Up to 4'-0"	4x4
2x6	24"*	7'-6"	5'-3"	5'-8"	4x6	4'-1" to 6'-0"	4x6
	19.2"	8'-5"				6'-1" to 8'-0"	4x8
	16"	9'-3"					
	12"	10'-8"					
2x8	24"*	9'-6"	6'-10"	7'-4"	4x8	8'-1" to 10'-0"	4x10
	19.2"	10'-8"					
	16"	11'-8"					
	12"	13'-6"					
2x10	24"*	11'-8"				10'-1" to 12'-0" 4x12* * 4x12 DF No.1 may be used over a 16'-0" garage door in one-story garages without ceilings or open patio or carport structures.	
	19.2"	13'					
	16"	14'-3"					
	12"	16'-5"					
2x12	24"*	13'-6"					
	19.2"	15'-1"					
	16"	16'-6"					
	12"	19'-1"					

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

NAILING SCHEDULE - CRC TABLE R602.3(1)

Roof

1.Blocking between joist or rafters to top plate, toe nail	3-8d (2 ½")
2.Ceiling joists to plate, toenail	3-8d (2 ½")
3.Ceiling joist not attached to parallel rafter, laps over partitions, face nail	3-10d
4.Collar tie to rafter, face nail or 1 1/4 x 20 gage ridge strap	3-10d
5.Rafter or roof truss to plate, toe nail	3-16d (3 ½") or 3-10d common nail (3") 2 toe nails on one side of each rafter or truss.
6.Roof rafters to ridge, valley or hip rafters: toe nail face nail	4-16d 3-16d

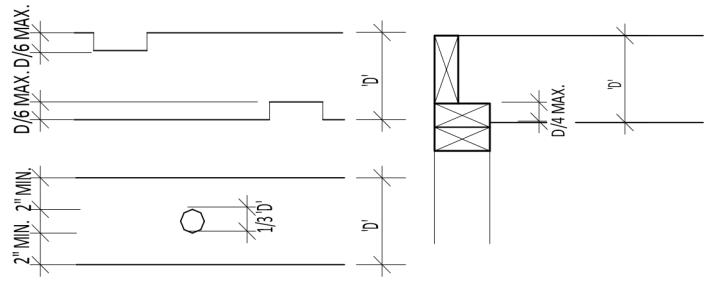
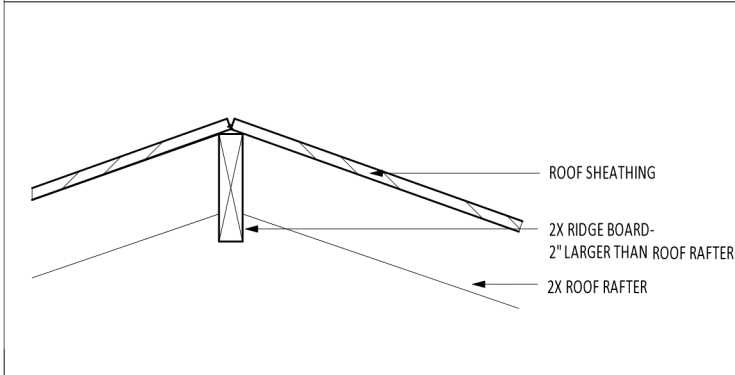
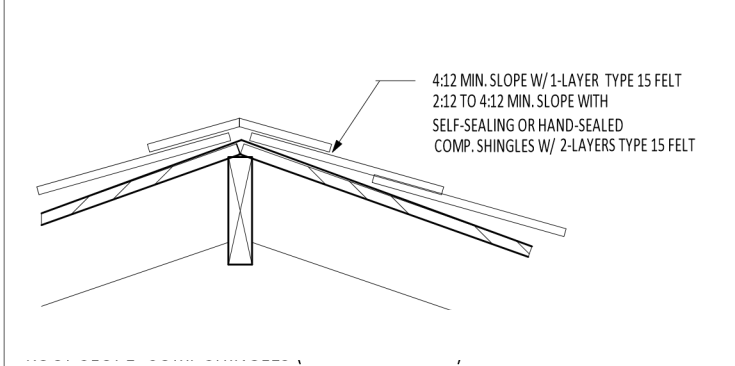
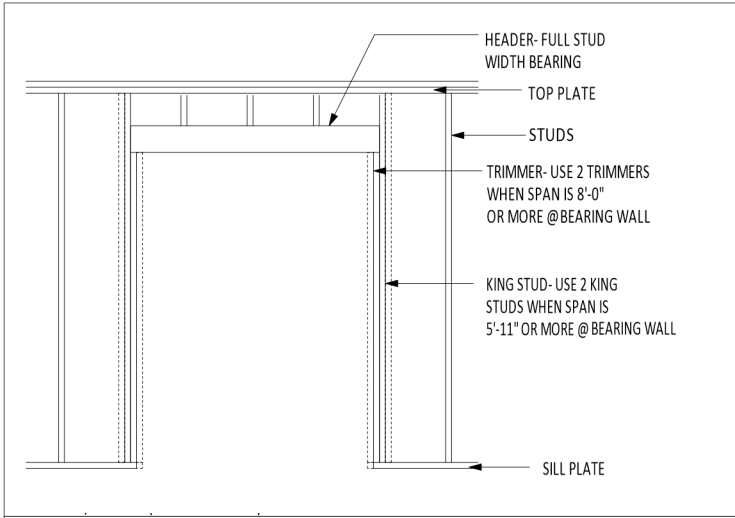
Wall

7.Built-up studs-face nail	10d 24"o.c
8.Abutting studs at intersecting wall corners, face nail	16d @ 12" o.c
9.Built-up header, two pieces with 1/2" spacer	16d @ 16" o.c along each edge
10. Continued header, two pieces	16d @ 16"oc along each edge
11.Continuous header to stud, toe nail	4-8d (2 ½"0
12.Double studs, face nail	10d @ 24" o.c
13.Double top plates, face nail	10d
14.Double top plates, minimum 24-inch offset of end joints, face nail in lapped area	8-16d
15. Sole plate to joist or blocking, face nail	16d
16.Sole plate to joist or blocking at braced wall panels	3-16d 16 o.c
17. Stud to sole plate, toe nail	3-8d or 2-16d
18.Top or sole plate to stud, end nail	2-16d
19.Top plates, laps at corners and intersections, face nail	2-10d
20.1" brace to each stud and plate, face nail	2-8 2 staples 1 1/3"
21.1"x 6" sheathing to each bearing, face nail	2-8d 2 staples 1 1/3"
22. 1"x 8" sheathing to each bearing, face nail	2-8d 3 staples 1 1/3"
23. Wider than 1"x 8" sheathing to each bearing, face nail	3-8d 4 staples 1 1/3"

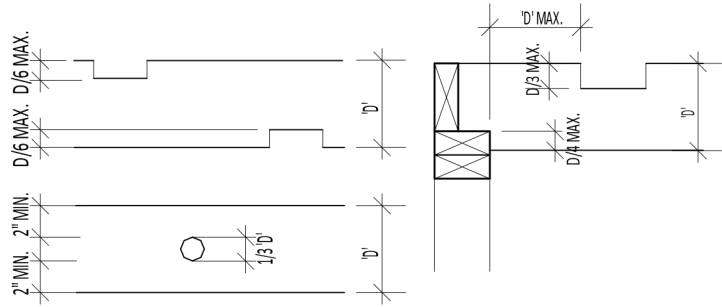
Floor

24. Joist to sill or girder, toe nail	3-8d
25. Rim joist to top plate, toe nail (roof application also)	8d 6"o.c
26. Rim joist or blocking to sill plate, toe nail	8d 6"o.c
27. 1" x 6" subfloor or less to each joist, face nail	2-8d 2 staples 1 3/4"
28. 2" subfloor to joist or girder, blind and face nail	2-16d
29. 2" planks (plank & beam- floor & roof)	2-16d at each bearing
30. Built-up girders and beams, 2-inch lumber layers	10d Nail each layer as follows: 32"o.c. at top & bottom and staggered. Two nails at ends and at each splice.
31. Ledger strip supporting joists or rafters	3-16d at each joist or rafter

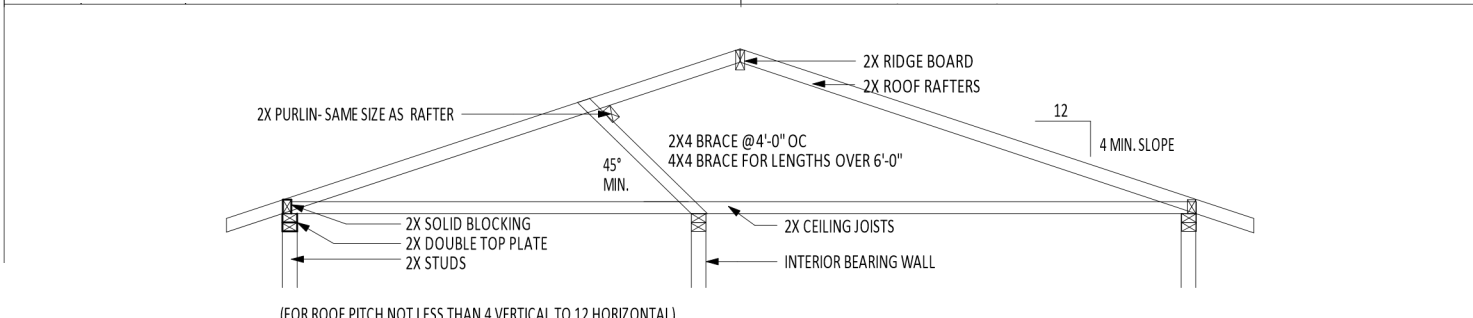
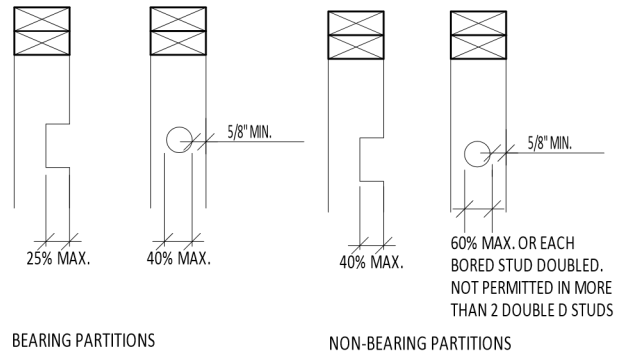
TYPEV



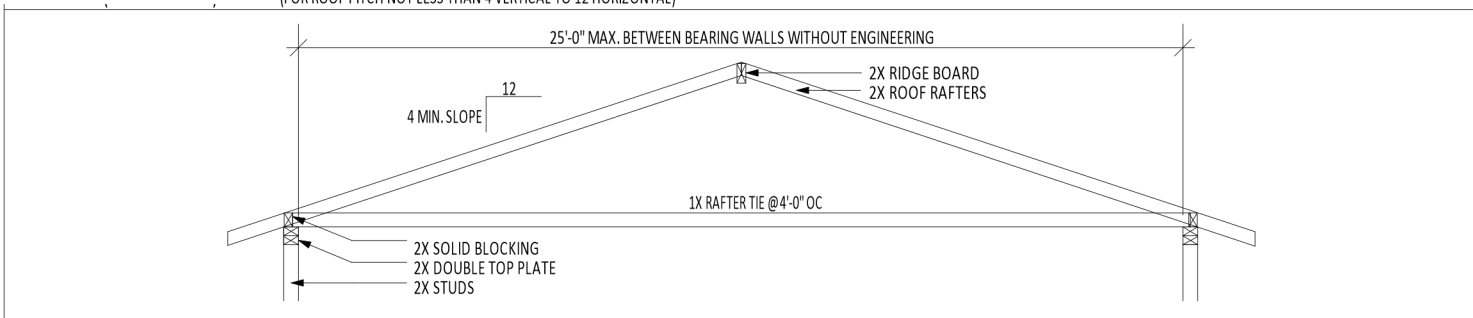
NOTCHING & BORING FLOOR JOISTS (NOTCHING NOT PERMITTED IN MIDDLE 1/3 OF JOIST SPAN)

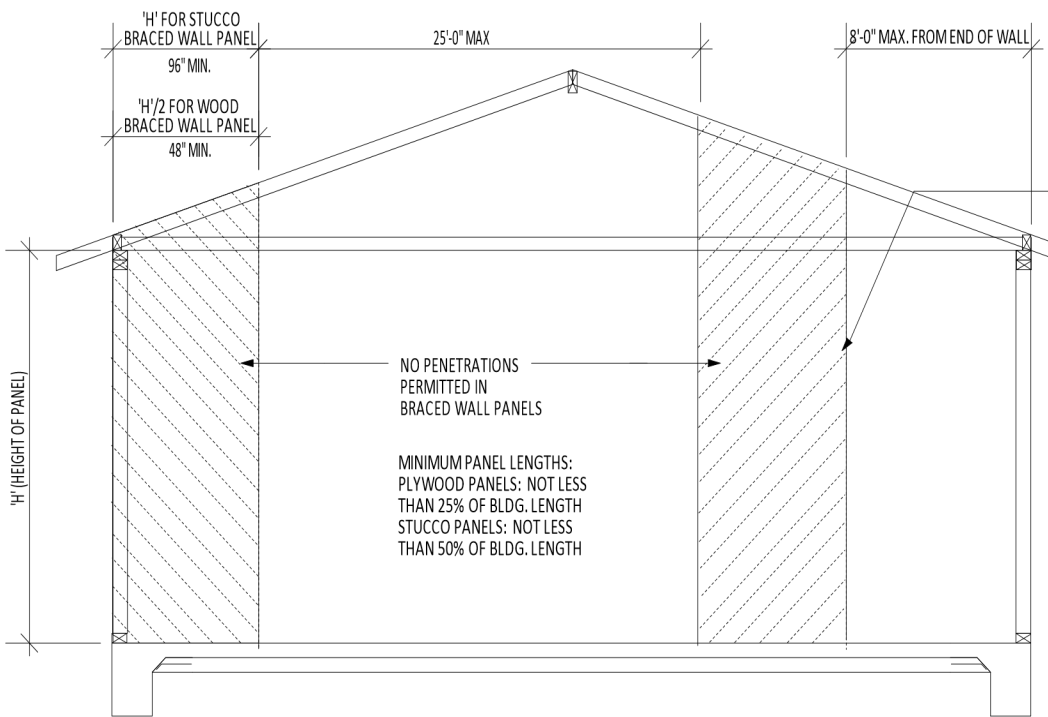


NOTCHING & BORING RAFTERS & CEILING JOISTS (NOTCHING NOT PERMITTED IN MIDDLE 1/3 OF RAFTER OR JOIST SPAN)



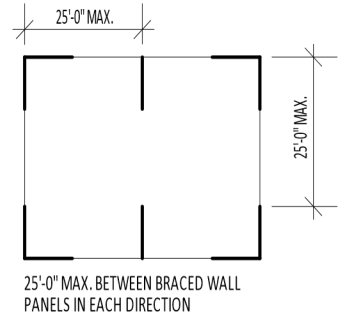
(FOR ROOF PITCH NOT LESS THAN 4 VERTICAL TO 12 HORIZONTAL)



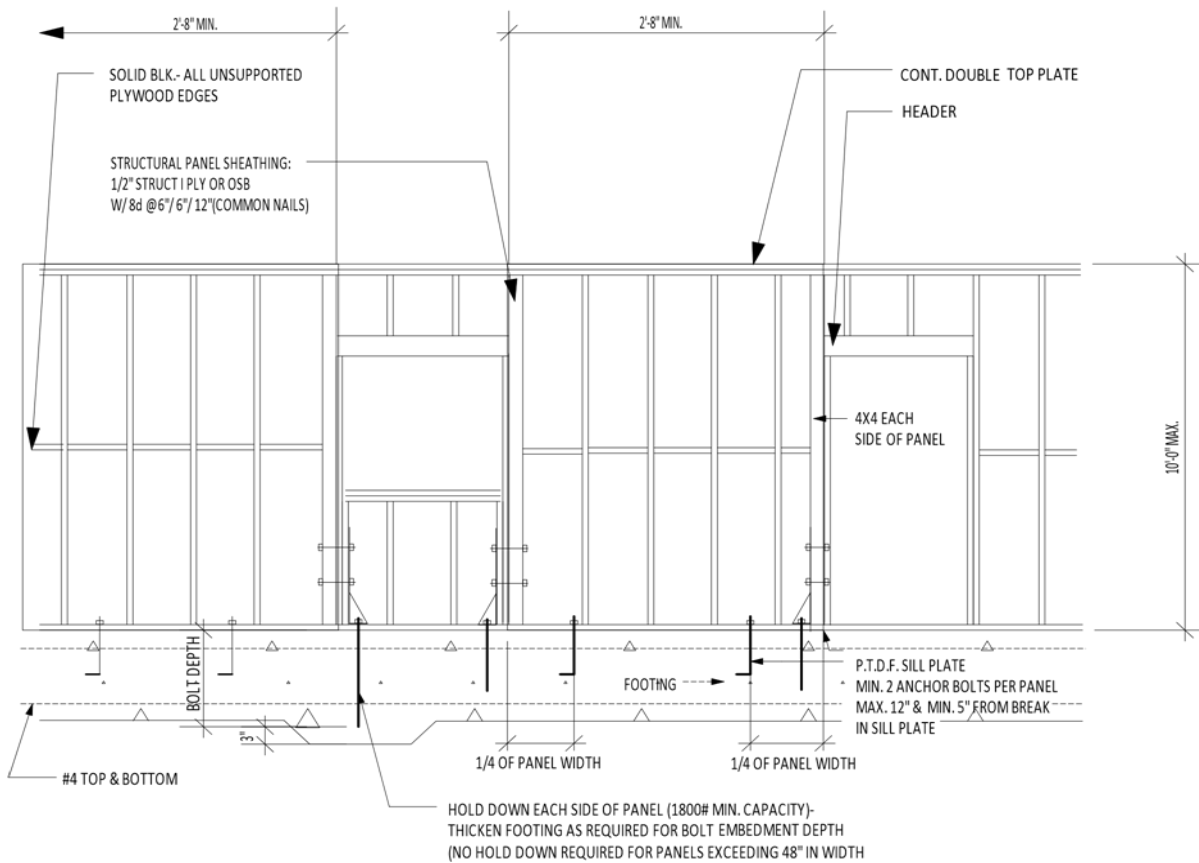


NOTES:
 SHEAR WALLS SHALL NOT BE OFFSET MORE THAN 4'-0" FROM EACH OTHER
 SHEAR PANEL TYPES SHALL NOT BE COMBINED IN THE SAME LINE OF RESISTANCE

SHEAR WALL OPTIONS:
 1/2" STRUCT I PLY
 W/ 8d @ 6"/6"/12" OC OR OSB (COMMON NAILS)
 7/8" STUCCO O/ WOVEN WIRE OR EXPANDED METAL LATH W/ NO.11 GA. NAILS, 1-1/2" X 7/16" HEADS W/ 1/4" FURRING;
 APPLIES TO NAILING AT ALL STUDS, TOP & BOTTOM PLATES, & BLOCKING.



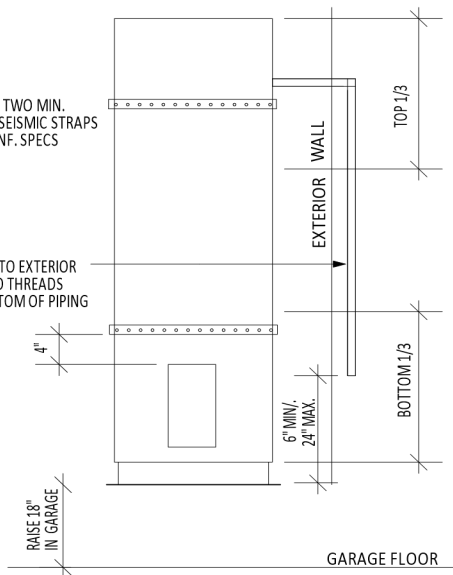
STANDARD BRACED WALL PANELS (CRC R602.10.2.2.1)



ALTERNATE BRACED WALL PANEL (CRC R602.10.6.1)
 1-STORY, 'U' OCCUPANCY ONLY (PRIVATE GARAGES, SHEDS, & AGRICULTURAL BUILDINGS)

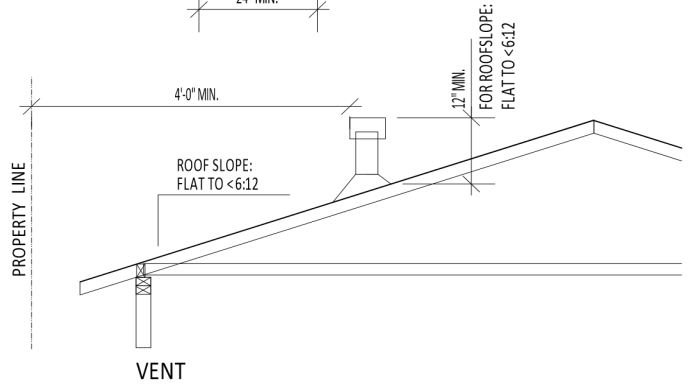
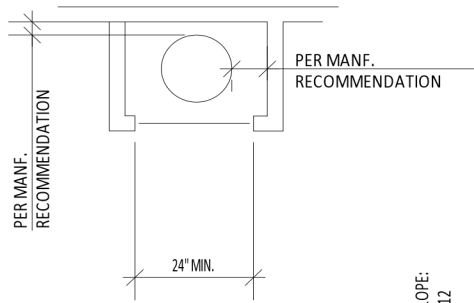
SEISMIC STRAPS: TWO MIN. DSA APPROVED SEISMIC STRAPS APPLIED PER MANF. SPECS

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

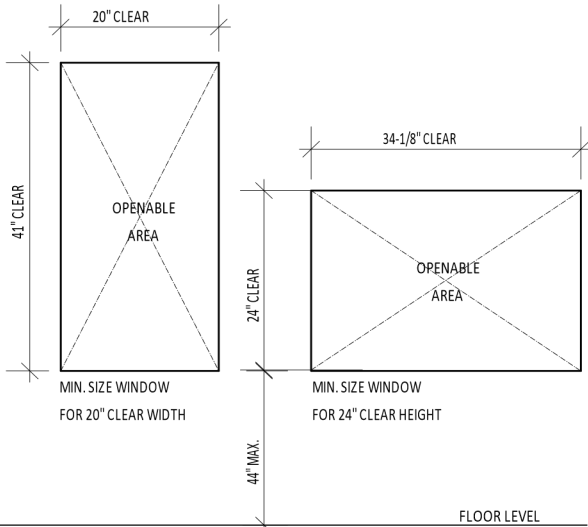


WATER HEATERS

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

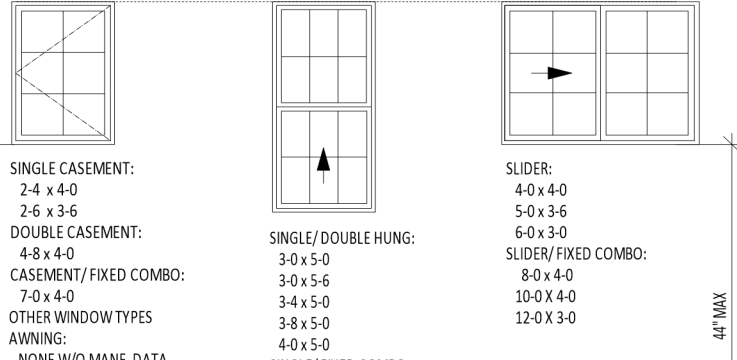


VENT



THE FOLLOWING WINDOW SIZES WILL BE THE MINIMUM ALLOWED FOR EGRESS UNLESS MANF. DATA IS SUPPLIED

STANDARD 6'-8" HEADER HEIGHT



SINGLE CASEMENT:
2-4 x 4-0
2-6 x 3-6

DOUBLE CASEMENT:
4-8 x 4-0
CASEMENT/FIXED COMBO:
7-0 x 4-0

OTHER WINDOW TYPES
AWNING:
NONE W/O MANF. DATA
BAY W/FIXED CENTER:
NONE W/O MANF. 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 MANF. DATA

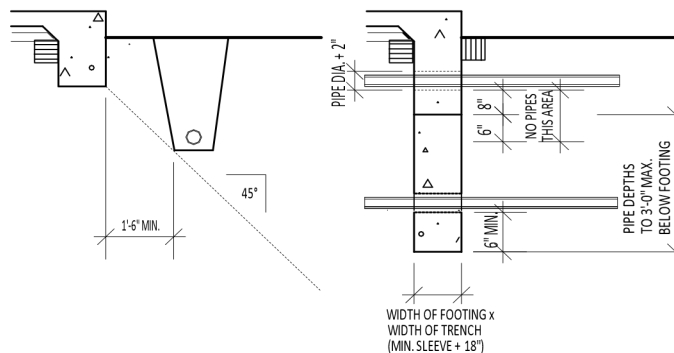
SLIDER:
4-0 x 4-0
5-0 x 3-6
6-0 x 3-0
SLIDER/FIXED COMBO:
8-0 x 4-0
10-0 x 4-0
12-0 x 3-0

NOTE: SIZES ARE TAKEN FROM DATA SUPPLIED BY WINDOW MANUFACTURERS, HOWEVER THESE ARE GENERAL DIMENSIONS. IT IS THE OWNERS RESPONSIBILITY TO VERIFY THAT THE ACTUAL WINDOWS INSTALLED MEET THE MINIMUM EGRESS REQUIREMENTS.

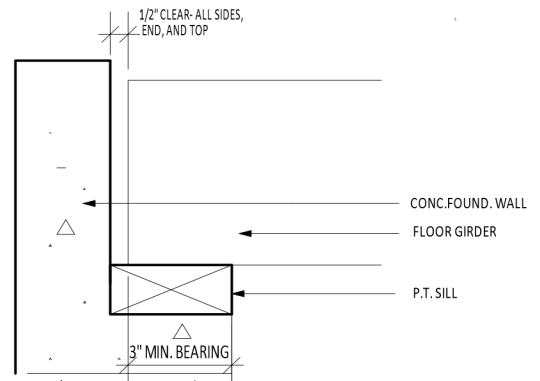
1. 20" MIN. CLEAR WIDTH
2. 24" MIN. CLEAR HEIGHT
3. 5.7 SF MIN. OPENABLE AREA

EMERGENCY ESCAPE/EXIT WINDOW CRC 310.1.1

EMERGENCY ESCAPE/EXIT WINDOW

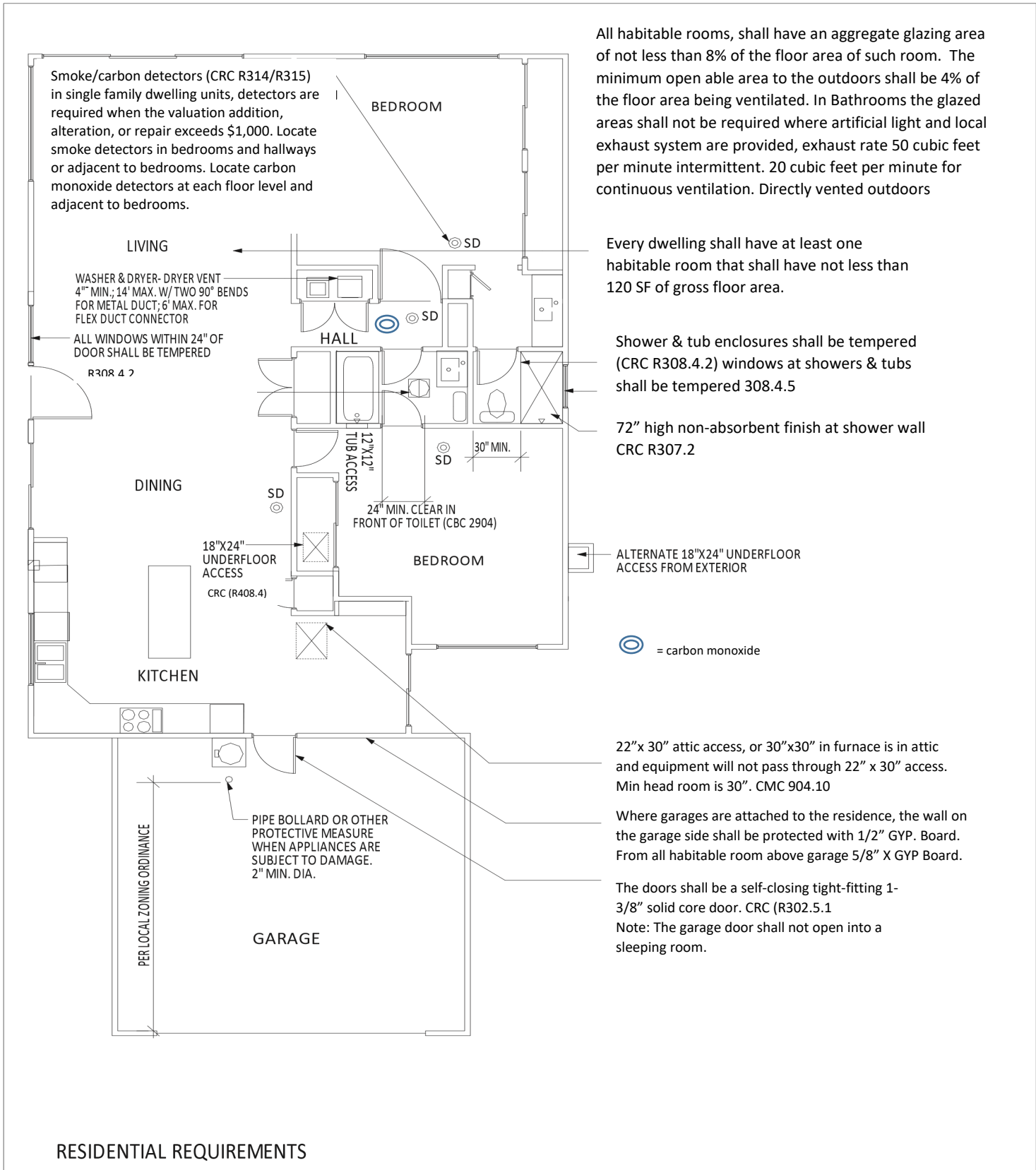


TRENCHES AT FOOTINGS



CRC R502.6

TYPE V



All habitable rooms, shall have an aggregate glazing area of not less than 8% of the floor area of such room. The minimum open able area to the outdoors shall be 4% of the floor area being ventilated. In Bathrooms the glazed areas shall not be required where artificial light and local exhaust system are provided, exhaust rate 50 cubic feet per minute intermittent. 20 cubic feet per minute for continuous ventilation. Directly vented outdoors

Every dwelling shall have at least one habitable room that shall have not less than 120 SF of gross floor area.

Shower & tub enclosures shall be tempered (CRC R308.4.2) windows at showers & tubs shall be tempered 308.4.5

72" high non-absorbent finish at shower wall CRC R307.2

ALTERNATE 18" x 24" UNDERFLOOR ACCESS FROM EXTERIOR

⊙ = carbon monoxide

22" x 30" attic access, or 30" x 30" in furnace is in attic and equipment will not pass through 22" x 30" access. Min head room is 30". CMC 904.10

Where garages are attached to the residence, the wall on the garage side shall be protected with 1/2" GYP. Board. From all habitable room above garage 5/8" X GYP Board.

The doors shall be a self-closing tight-fitting 1-3/8" solid core door. CRC (R302.5.1)
Note: The garage door shall not open into a sleeping room.

TYPE V