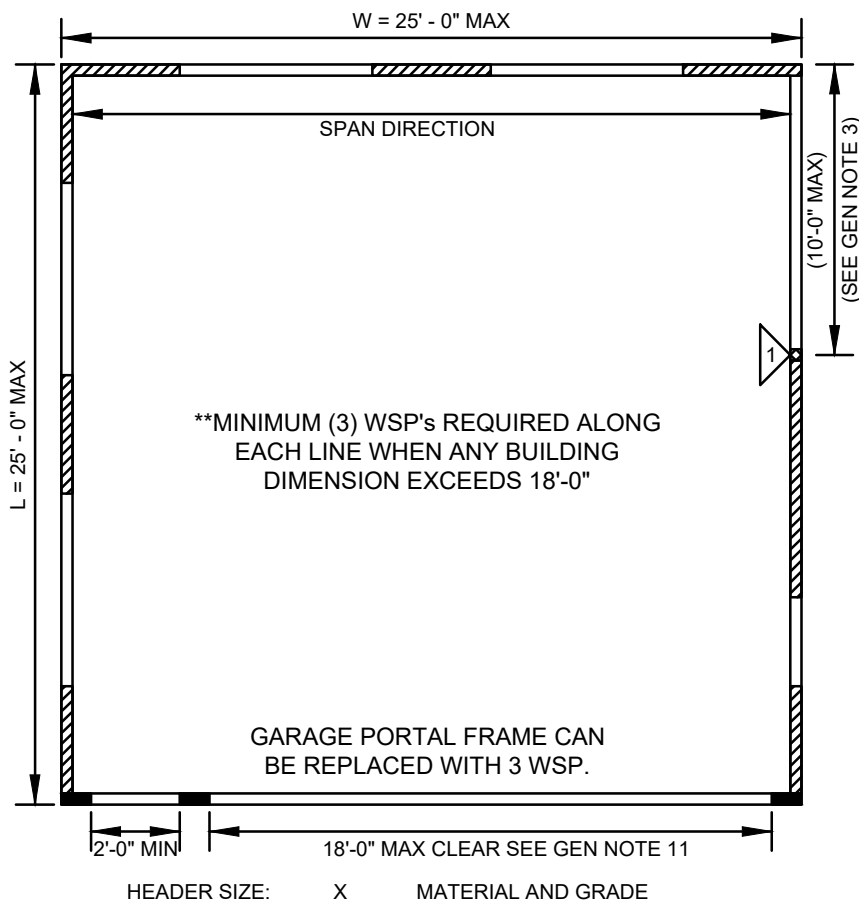


INSTRUCTIONS



1. COMPLETE ALL BLANKS FOR DIMENSIONS, RAFTER/JOIST SIZE AND SPACING, HEADERS, ROOFING, WALL FINISHES, ETC.
2. SHOW ALL OTHER DOORS AND WINDOWS
3. SHOW ALL PLUMBING AND ELECTRICAL
4. ON A SEPARATE SHEET, DRAW A SITE PLAN SHOWING ALL PROPERTY LINES, STRUCTURES, AND DISTANCES BETWEEN.

BRACING ASSUMPTIONS

1. WIND: $V_{ULT} = 95$ MPH, EXP. C
2. SEISMIC DESIGN CATEGORY: D₂
3. TILE ROOF (> 15 PSF & ≤ 25 PSF)
4. STUCCO WALLS (> 8 PSF & ≤ 15 PSF)
5. STUD HEIGHT ≤ 10 FEET
6. ROOF HEIGHT ≤ 10 FEET FROM EAVE TO RIDGE

LEGEND

-  48" WSP BRACED WALL PANEL
(SEE GEN NOTES 2-4)
-  16" PFH MODIFIED
(SEE MODIFIED FIGURE R602.10.6.2 ON SHEET 3)
-  MIN 1,800 LBS HOLD-DOWN

CHECK APPROPRIATE BOX(ES) AND FILL IN BLANKS

- ☐ ENGINEERED TRUSSES BY OTHERS
OR

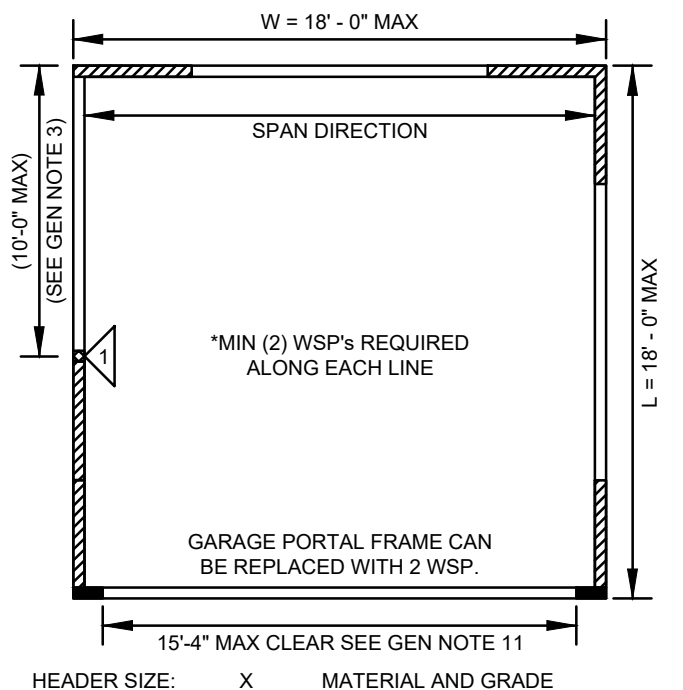
☐ 2 X ____ @ ____ " O.C. DF #2 RAFTERS w/ 2 X ____ RIDGE BOARD AND MIN 1 X 4 @ 48" O.C. MAX DF #2 COLLAR TIES LOCATED IN UPPER THIRD OF ATTIC (OR RIDGE STRAPS IN LEIU OF COLLAR TIES) AND ONE OF THE FOLLOWING:

☐ 2 X ____ @ ____ " O.C. DF #2 CELING JOISTS
OR

☐ 2 X ____ @ ____ " O.C. DF #2 RAFTER TIES

 - _____ ROOF SURFACE (COMP, CONC. TILE, ETC.) OVER MIN 15# FELT (PER CRC CHAPTER 9 OR MAN. SPECS) OVER SOLID SHEATHING (PLYWOOD OR OSB)
 - ROOF SLOPE = _____ IN 12
IF SLOPE < 4:12, PROVIDE TWO LAYERS OF 15# FELT
IF SLOPE ≥ 4:12, PROVIDE ONE LAYER OF 15# FELT
 - 2x4 STUDS AT 16" O.C. WITH _____ EXTERIOR FINISH (STUCCO, PLYWOOD, ETC) (10' MAX HEIGHT)
 - 4' < HEADER SPAN ≤ 8' ➡ 2 KING STUDS MIN EACH SIDE
 - 8' < HEADER SPAN ≤ 14' ➡ 3 KING STUDS MIN EACH SIDE
 - 14' < HEADER SPAN ≤ 18' ➡ 4 KING STUDS MIN EACH SIDE

**STRUCTURES NO MORE THAN
18 FT IN ANY DIMENSION***



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Kern County Public Works
Building & Code
Building Inspection Division
2700 M Street, Suite 100
Bakersfield, CA. 93301 (661) 862-8650

DETACHED RESIDENTIAL
ACCESSORY STRUCTURE

2022 California
Residential Code
SEP 2024
SHEET 1 OF 3

GENERAL NOTES

1. THIS DETAIL SHALL BE SUPPLEMENTED FROM THE NOTES, DETAILS, AND REFERENCES FOUND IN THE KERN COUNTY TYPICAL DWELLING DETAIL. THIS DOCUMENT IS ATTACHED.
2. ALL EXTERIOR WALLS SHALL BE SOLID SHEATHED WITH 7/16 INCH WOOD STRUCTURAL PANELS (WSP) WITH 8D COMMON NAILS AT 6 INCHES ON CENTER ALONG THE PANEL EDGES AND 12 INCHES ON CENTER IN THE FIELD. ALL PANEL EDGES SHALL BE BLOCKED. OPENINGS FOR WINDOWS AND DOORS ARE PERMITTED PROVIDED THE MINIMUM TOTAL REQUIRED LENGTH OF BRACED WALL PANELS IS PROVIDED. STANDARD SHEATHING SHALL CONSIST OF A MINIMUM 48 INCH WIDE PANEL AT EACH END OF THE WALL LINE (CORNERS).
 - A. FOR WOOD STRUCTURAL PANEL ROOF SHEATHING ATTACHED TO GABLE END ROOF FRAMING AND TO INTERMEDIATE SUPPORTS WITHIN 48 INCHES OF ROOF EDGES AND RIDGES, NAILS SHALL BE SPACED AT 6 INCHES ON CENTER.
 - B. SPACING OF FASTENERS ON ROOF SHEATHING PANEL EDGES APPLIES TO PANEL EDGES SUPPORTED BY FRAMING MEMBERS AND REQUIRED BLOCKING.
 - C. ROOF SHALL BE SOLID SHEATHED 7/16 INCH WSP W/ 8D @ 6" (EDGE) & 6" (FIELD)
3. A WSP IS PERMITTED TO BEGIN NO MORE THAN 10 FEET FROM THE END OF THE BRACED WALL LINE, PROVIDED A HOLD-DOWN DEVICE WITH AN UPLIFT CAPACITY OF 1,800 POUNDS, IS LOCATED AT THE END OF THE PANEL CLOSEST TO THE CORNER.
4. THE MINIMUM WIDTH OF A WSP SHALL NOT BE LESS THAN 48 INCHES, AND THE DISTANCE BETWEEN ADJACENT EDGES OF BRACED WALL PANELS ALONG A BRACED WALL LINE SHALL NOT BE GREATER THAN 20 FEET.
5. AN ALTERNATE BRACED WALL PANEL (ABW) MAY BE USED TO SUBSTITUTE FOR 48 INCHES OF WSP ALONG A BRACED WALL LINE, BUT MUST NOT BE COMBINED WITH A WSP ALONG THE SAME BRACED WALL LINE. THE ABW MUST BE A MINIMUM OF 2'-8" IN LENGTH (2'-10" FOR 10 FOOT HIGH WALLS) AND CONSIST OF SHEATHING AND NAILING AS REQUIRED FOR THE WSP, WITH TWO 1/2 INCH DIAMETER ANCHOR BOLTS AND A HOLD-DOWN DEVICE WITH AN UPLIFT CAPACITY OF 1,800 POUNDS INSTALLED AT EACH END OF THE ABW.
6. AN APPROVED, PRE-FABRICATED ELEMENT, SUCH AS A SIMPSON STRONG WALL, HARDY FRAME, ETC. WITH A SHEAR CAPACITY OF NOT LESS THAN 1,500 POUNDS, MAY ALSO BE USED TO SUBSTITUTE FOR 48 INCHES OF WSP ALONG A BRACED WALL LINE, BUT MUST NOT BE COMBINED WITH A WSP ALONG THE SAME BRACED WALL LINE.
7. A MODIFIED DOUBLE PORTAL FRAME WITH HOLD DOWNS (PFH) PER CRC SECTION R602.10.6.2, MAY BE USED FOR OPENINGS 6 FEET OR GREATER, BUT NOT MORE THAN 18 FEET. SEE ATTACHED MODIFIED CRC DETAIL.
8. BRACING METHODS MUST NOT BE MIXED ALONG A BRACED WALL LINE.
9. THE RATIO OF (L : W) OR (W : L) MUST NOT EXCEED (3 : 1).
10. DESIGN IS NOT APPLICABLE IN THE KERN COUNTY SPECIAL WIND REGION NOR IN SEISMIC DESIGN CATEGORY E.
11. HEADERS AND JACK STUDS FOR ALL OPENINGS MUST MEET THE MINIMUM REQUIREMENTS OF CRC TABLE R602.7(1) OR 2015-WFCM TABLE 3.22A1 OR 3.22A2.
12. SEE CRC SECTIONS R802.4 AND R802.5 FOR RAFTER AND CEILING JOIST REQUIREMENTS AND SPAN TABLES.

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SHEET 2 OF 3

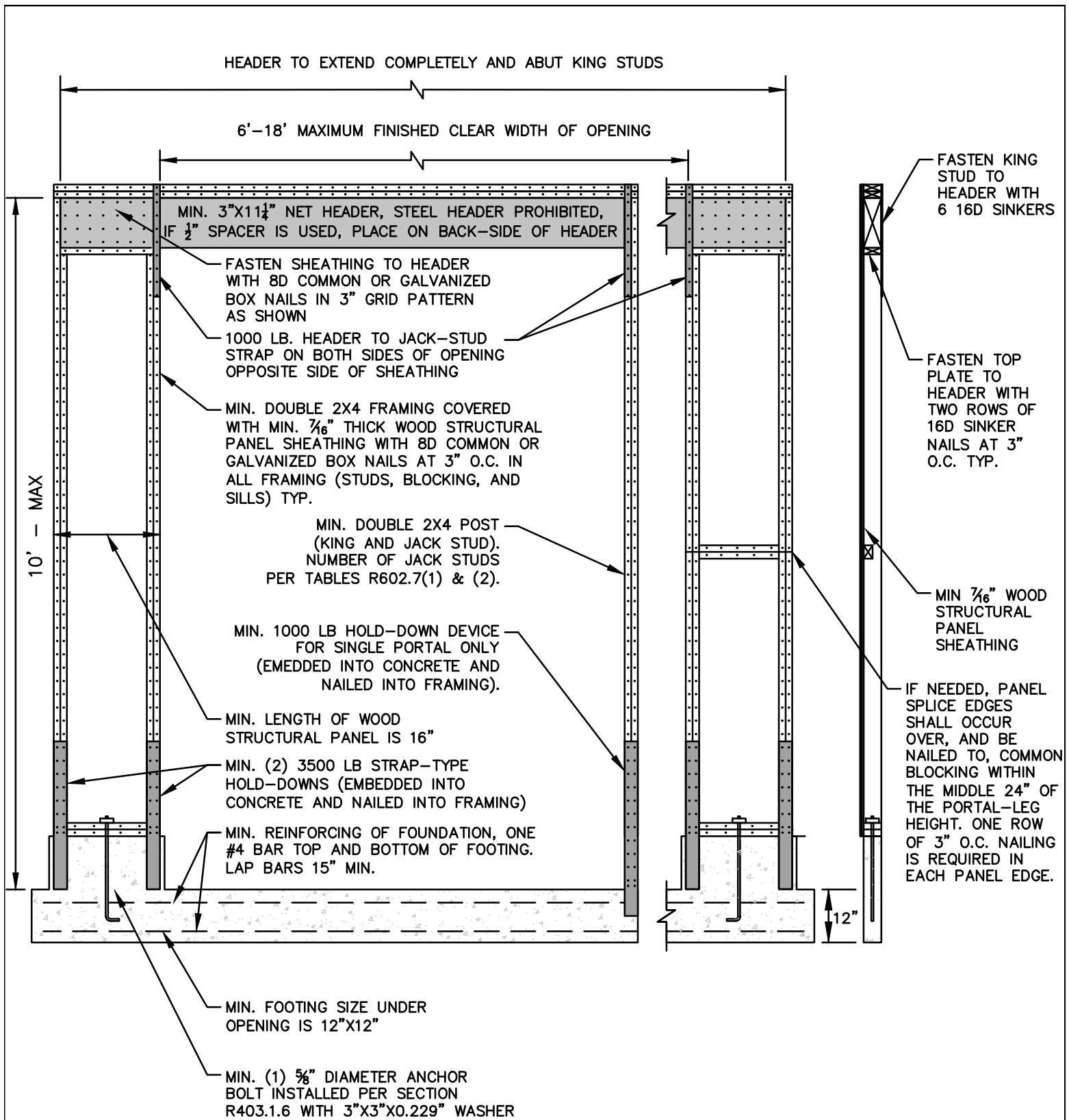


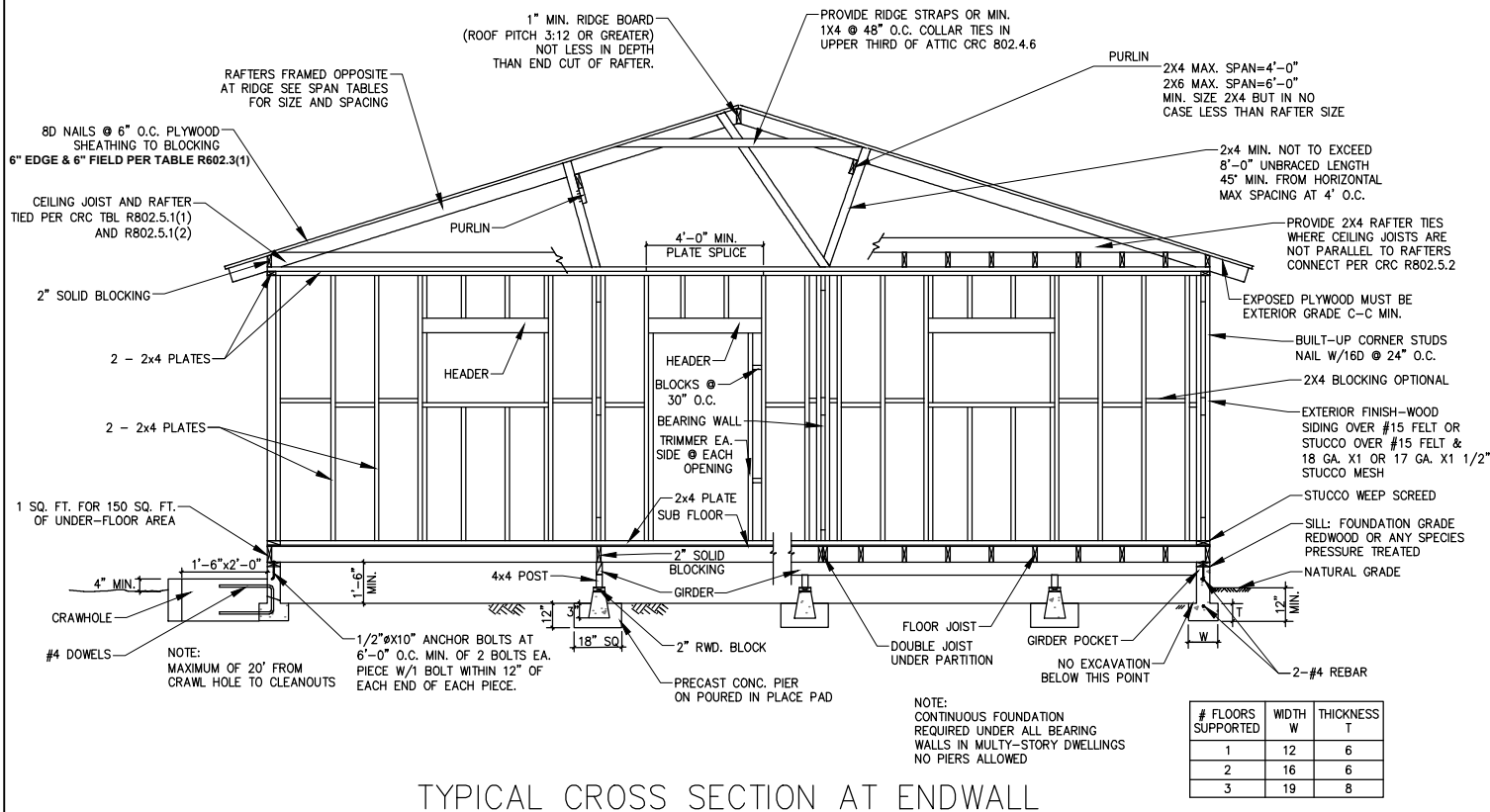
FIGURE R602.10.6.2 (MODIFIED)
PORTAL FRAME WITH HOLD-DOWNS

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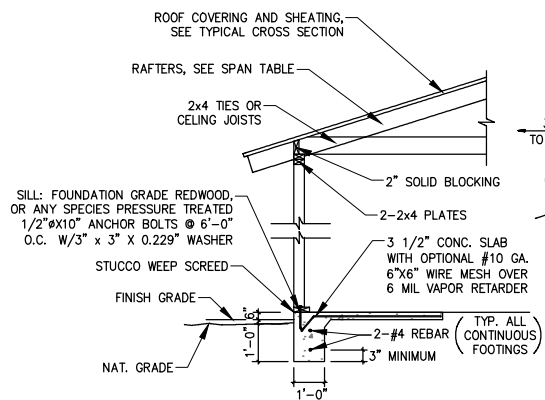
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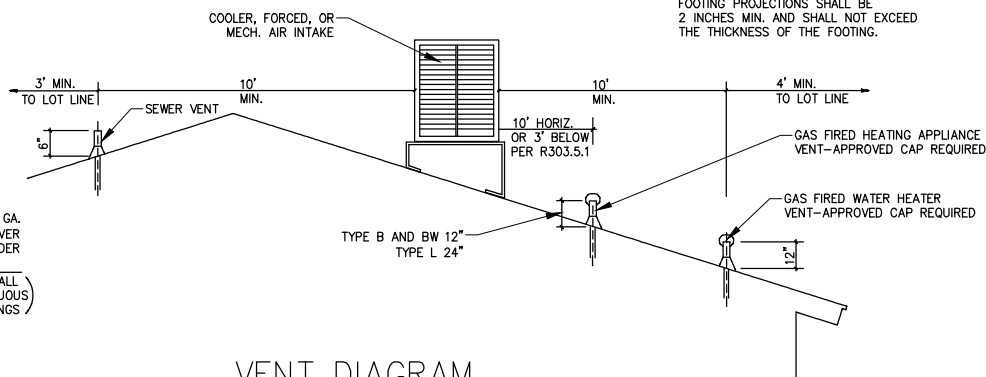
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SHEET 3 OF 3



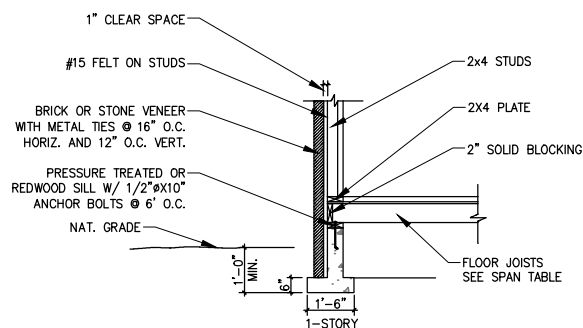
TYPICAL CROSS SECTION AT ENDWALL



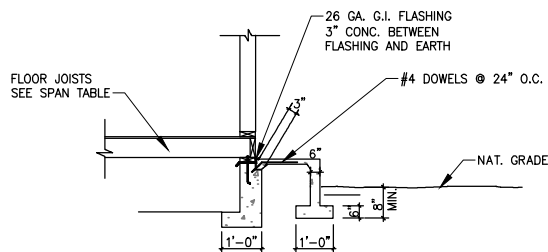
CONCRETE FLOOR



VENT DIAGRAM



VENEERED WALL



CONCRETE PORCH

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Date: Dec. 13, 1995
Rev: 1/08 - 2007 CBC
Rev: 3/11 - 2010 CBC
Rev: 1/14 - 2013 CRC
Rev: 12/16 - 2016 CRC
Rev: 1/20 - 2020 CRC

TYPICAL DWELLING
FRAMING DETAILS

SHEET 1 OF 1

MINIMUM CODE REQUIREMENTS FOR ADDITIONS AND ALTERATIONS OF SINGLE FAMILY DWELLINGS

This list is a guide for *minimum* requirements per current County of Kern Code of Building Regulations, based on the 2022 California Code of Regulations & California Building Standards Code. It is not intended as an all-inclusive list of applicable code requirements.

- | | |
|---|--|
| <ul style="list-style-type: none">• Per the 2022 KCCBR 17.06.200, provide a minimum 2% slope away from building foundations a minimum of 10 feet or to an approved drainage discharge.• Exterior door landings are required, as wide as the doorway and at least 36" in the direction of travel per CRC R311.3. Landing must not be more than 1-1/2" lower than the threshold. If the door does not swing over the landing a maximum of 7-3/4" is permitted.• Main exit door shall provide a minimum clear width of at least 32" (2'-8") and a minimum clear height of at least 78" (6'-6") per CRC R311.2.• Hallways shall be minimum 36" wide per CRC R311.6.• Per CRC R305 a minimum ceiling height of 7 feet is required (if a bathroom/toilet/laundry room 6'-8" min is required).• Windows for natural ventilation & lighting shall be sized in accordance with CRC R303. (4% Ventilation, 8% Lighting)• One window in each bedroom shall have an openable area of 5.7 square feet minimum with minimum of 20" width and 24" height, and not more than 44" from the finished floor to the sill per CRC R310.2. A 4030 "single-hung" or "horizontal slider" does NOT meet this requirement.• Bedroom windows at grade floor shall have a minimum net opening of 5 square feet with minimum 20" width and 24" height dimensions per exception to R310.2.1. A 4030 "single-hung" does NOT meet this requirement.• Safety (tempered) glass shall be installed in all locations subject to human impact per CRC R308.4.• Per CRC R302.1, projections 2 to 5 feet from the property line require 1 hour fire resistance on the underside. Walls less than 5 feet require 1 hour fire resistance. Openings from 3 to 5 feet may be a maximum of 25% of the wall area. Openings in walls less than 3 feet from the property line are not permitted.• <u>Smoke Alarms</u> shall be installed in bedrooms. Smoke alarms and carbon monoxide alarms shall be installed outside each sleeping area, upper floors, and lower floors. Alarms shall be interconnected per CRC R314 and/or R315.• Fireplace chimneys shall have spark arresters and extend at least 2 feet higher than any portion of a building within 10 feet, but shall not be less than 3 feet above the highest point where the chimney passes through the roof per CRC R1003.9 & R1001.12, the fireplace shall be fire-blocked where penetrating the ceiling and floors.• Stairs and handrails shall conform to CRC R311.7:<ul style="list-style-type: none">▪ RISE = 7.75" maximum and RUN = 10" minimum▪ CLEAR WIDTH = 36" minimum▪ HEADROOM = 6'-8" minimum▪ HANDRAILS = 34"-38" above landings and the nosing of treads▪ Provide "positive" top-of-stairway connection▪ Provide "positive" bottom-of-stairway connection▪ Useable spaces under stairs shall be lined on the inside with 1/2" gypsum board per CRC R302.7. | <ul style="list-style-type: none">• Per CRC R302.11, the stud spaces between stringers shall be fire blocked.• Per CEC 150.0(g), Class I or II vapor retarders are required on the conditioned space side of exterior walls in Climate Zones 14 & 16.• Per CRC R807.1, a minimum 22"x30" attic access with 30" headroom is required where the vertical height of the attic is at least 30". If there is mechanical equipment in the attic, the opening must be large enough to remove the largest piece of equipment with a minimum access size of 22"x30" per CMC 304.4.• Per CRC R317.1, minimum of 18" under-floor clearance from ground to bottom of <u>floor joists</u>, 12" to bottom of <u>girders</u>; unless preservative-treated• Per CRC R408.4, minimum 18"x24" under-floor access or minimum 16"x24" perimeter access when required (22"x30" when mechanical unit present under-floor per CMC 304.4).• Per CRC R408.2, screened vents required at under-floor areas where 1 square foot of ventilation is provided for every 150 square feet of under floor area. Ventilation to be approximately equally distributed on at least two opposite walls. One vent required within 3 feet of each corner.• Per KCCBR 17.06.171, a separation of 5/8" Type X gypsum board shall be provided between the dwelling and garage from floor to roof, or on the garage ceiling and all common walls with the dwelling unit. A 1-3/8" solid core or 20 minute fire rated self-closing and latching door is required (if door is provided) between the garage and dwelling. The door must not open into sleeping rooms.• Per CRC R703.7.2, stucco applied over metal lath or wire fabric lath shall be <u>three-coat stucco system with weep screeds</u> over 2 layers of Grade D paper.• Any one- and two-coat plaster wall finishes shall be installed per manufacturer's recommendations and according to approved listing information or ICC report.• Per CRC R404.1.3.3.1, minimum concrete compressive strength shall not be less than 3,000 psi for concrete basement or foundation walls and 2,500 psi for slab on grade foundations Per CRC R402.2.• Per CRC R506.1, concrete slabs shall be a minimum of 3 1/2" thick and a vapor retarder is required per CRC R506.2.3.• Per CRC R403.1.4, the minimum depth of footings shall not be less than 12" below undisturbed ground surface, and at least 12" wide per CRC Table R403.1.• Per CRC R403.1.5, a stepped footing is required when the slope exceeds 1 vertical in 10 horizontal (1:10)• Per CRC R403.1.3.3, one #4 bar on top and bottom or a single #5 bar or two #4 bars in the middle third.• Anchor bolts shall be installed per CRC R403.1.6, 1/2 inch minimum diameter with 7 inch minimum embedment. |
|---|--|

MINIMUM CODE REQUIREMENTS FOR ADDITIONS AND ALTERATIONS OF SINGLE FAMILY DWELLINGS

- Per CRC R403.1.6.1 3"x3"x.229" steel plate washers are required on all anchor bolts in a braced wall line.
- Per CRC R312.1, guards shall be provided when stairs or landings are over 30" above grade. Openings shall not permit a 4" sphere to penetrate through. Guards shall be minimum 42" high, except when also serving as a handrail.
- Per CRC R806.2, the attic shall be provided with free ventilation that is at least 1/150th of the area of the space ventilated. The ventilated area may be reduced to 1/300th of the area of the space ventilated only if at least 40% -50% of the required ventilation is located no more than 3 feet below the ridge or highest point of the space *or* in climate zones 14 and 16 a vapor retarder is installed on the warm-in-winter side of the insulation. A 1" air gap between the insulation and the roof sheathing at vents is required.
- Per CRC R317.1, treated or naturally durable wood is required, for wood framing resting on concrete or masonry exterior foundation walls and are less than 8" from exposed ground, & sill plate materials.
- Per CRC R317.1, wood siding must be at least 6" above earth, unless it is treated wood or naturally durable.
- Per CRC R602.9, foundation cripple walls over 4 feet high are considered an additional story when sizing studs. If over 14" high, the cripple wall should be braced as for a first story. If 14" or less in height, the wall must be continuously sheathed or of solid blocking.
- Per CRC R317.1, ends of wood girders entering masonry or concrete walls should be provided with 1/2" air space on top, sides, and ends unless the girder is treated wood or of naturally durable wood.
- Per CRC R502.9, all post-to-beam/girder connections are required to be "positive" to resist lateral displacement.
- Construction shall conform to the provisions in the CRC (conventional construction) or the requirements of the CBC, if engineered.
- Nailing shall conform to the requirements of the CRC Table R602.3(1).
- Attic, under-floor and roof-mounted furnaces shall be installed, accessed, and provided with combustion air as required by the CMC.
- Per CPC 507.13, spark or gas-fired equipment in garage shall be elevated on minimum 18" non-combustible platform.
- Electric service requires minimum 100-amp panel with permanently labeled circuits and disconnects.
- Grounding and bonding – concrete encased electrode/water bond and gas piping bond per CEC.
- Provide at least one branch circuit for each 500 square feet of floor space.
- Per CEC 210.11(C)(2), install dedicated 20-amp circuit to laundry room for appliance outlets.
- Install disposal/dishwasher circuit.
- Per CEC 210.52(B)(3) install at least two small appliance circuits to serve kitchen counter outlets (note: may also serve kitchen, pantry, breakfast room, dining room).

- Per CEC 210.11(C)(3), install at least one 120-volt, 20 amp circuit to serve bathrooms.
- Per CEC 210.8(A), GFCI outlets required in bathrooms, kitchen-serving countertops, garage, basement, and exterior.
- Convenience outlets shall be located and spaced per CEC 210.52 where:
 - no point along the floor line is more than 6 feet from an outlet
 - no wall space 2 feet or more is without an outlet
 - outlets serving counter islands and peninsular spaces are required
 - laundry, exterior, garage, bathroom, and HVAC outlets are required
- Arc-fault circuit interrupters (AFCI) are required at all branch circuits supplying outlets in *kitchens*, family rooms, dining rooms, living rooms, parlors, libraries, dens, sunrooms, bedrooms, recreation rooms, closets, hallways, or similar rooms or areas per CEC 210.12(A).
- Building envelope, lighting, HVAC, and service water systems shall conform to the California Energy Standards and energy documentation provided (prescriptive method or computer performance method).
- Lighting shall comply with the latest energy conservation measures. All light fixtures and switches throughout the residence to be identified. See lighting table below:

Per CEC 150.0(k)1A, All luminaires must be high-efficacy in accordance with CEC Table 150.0-A	
RECESSED DOWNLIGHTS	• Must not contain screw based sockets • Must contain JA8-2019-E rated bulbs
ENCLOSED LUMINAIRES	• Must contain JA8-2019-E rated bulbs
JA8 LUMINAIRES	• All must be controlled by a dimmer or vacancy sensor
UNDER CABINET LIGHTING, EXHAUST FANS	• Must be switched separately from other lighting
BATHROOMS, GARAGES, LAUNDRY ROOMS, AND UTILITY ROOMS	• At least one luminaire must be controlled by a vacancy sensor
OUTDOOR LIGHTING	• Must be controlled by a manual on/off switch and also one of the following: ➢ Photocell with motion sensor ➢ Photocontrol and automatic time switch control ➢ Astronomical time clock ➢ Energy management control system