



RESIDENTIAL PLAN REVIEW REQUIREMENTS

Note: This is not a complete list of code requirements, but are the items more commonly missed, or that have been changed by the new codes (2007 edition).

PLOT PLAN (dimensioned and scaled).

- Complete parcel size and dimensions.
- Alley location (if applicable).
- All buildings on the property (new and existing), including pool locations (if applicable).
- All building setbacks (side yard, rear yard, and front yard) and any easements.
- Location of all existing and proposed utilities (gas, electric, sewer, water).
- Flood Zone (if applicable).
- Flow line(s).

FLOOR PLAN (dimensioned and scaled)

- Label all room uses.
- Windows shall be sized for emergency egress as prescribed in CBC Section 1026.2 (5.7 square feet minimum **net clear** openable area with the exception of grade-floor openings which may be reduced to 5.0 square feet).
- Windows shall be sized for natural ventilation as prescribed in CBC Section 1203.4.1 (4% of the floor area of the room served) and natural light as prescribed in CBC Section 1205.2 (8% of the floor area of the room served). Mechanical ventilation may be substituted for natural ventilation as prescribed in CMC Chapter 4. Artificial light may be substituted for natural light as prescribed in CBC Section 1205.3.
- Interior spaces intended for human occupancy shall be provided with active or passive space-heating systems capable of maintaining a minimum indoor temperature of 68 degrees F at a point 3 feet above the floor per CBC Section 1204.
- Occupiable spaces, habitable spaces and corridors shall have a ceiling height of not less than 7 feet 6 inches. Bathrooms, toilet rooms, kitchens, storage rooms, and laundry rooms shall be permitted to have a ceiling height of not less than 7 feet per CBC Section 1208.2.

- Habitable spaces, other than kitchens, shall not be less than 7 feet in any plan dimension and not less than 50 sq. ft. Kitchens shall have a clear passageway of not less than 3 feet between counter fronts and appliances or counter fronts and walls per CBC Sections 1208.1 and 1208.3.
- Separation between the dwelling and an attached garage shall be per CBC 406.1.4.
- Openings between a private garage directly into a room used for sleeping purposes shall not be permitted per CBC Section 406.1.4.
- Skylights noted on plans and in conformance with CBC Section 2405.
- Glazing in hazardous locations shall be per CBC Section 2406.3.
- Smoke detectors shall be installed per CBC Section 907.2.10.
- Water heaters installed in bedrooms and bathrooms shall be installed per CPC Section 505 (in a closet or Direct Vent type).
- Requirements for PEX piping (if applicable).
- Heating equipment shall be installed per CMC Section 304.
- Water closet clearances shall be per CPC Section 407.6.
- Shower compartment minimum size is 1024 square inches and capable of encompassing a 30 inch circle per CPC Section 411.7.
- Electrical service shall be not less than 100 amperes (CEC Section 230.79(A), and shall have a rating not less than the total load to be carried (CEC Section 230.79). Provide load calc's.
- GFCI receptacles required in bathrooms, kitchen countertops, private garages and exterior per CEC Section 210.8.
- Convenience receptacle outlets shall be located and spaced per CEC 210.52.
- Combination type arc-fault circuit interrupters (AFCI's) are required at all branch circuits supplying outlets in bedrooms per CEC Section 210.12.

CONVENTIONAL CONSTRUCTION

- A California licensed architect or registered engineer must prepare a lateral analysis for the areas of the structure that do not comply with conventional light framing bracing as prescribed by CBC Section 2308. Structural calculations and plan sheets depicting structurally designed elements must bear the Registered Design Professional's stamp and wet signature with registration number and date.

- Professional design is required when combined roof and ceiling dead loads exceed 15 psf per CBC Section 2308.2 #3.
- Professional design is required when bearing wall floor-to-floor height exceeds 10 feet plus the height of floor framing not to exceed 16 inches per CBC Section 2308.2.
- An engineered lateral design is required for irregular portions of structures. Irregularities are described in CBC Section 2308.12.6.
- Braced wall panels shall start at not more than 8 feet from each end of a braced wall line (Seismic Design Categories D&E). Braced wall panels must be in line or offset from each other by not more than 4 feet. Braced wall line spacing shall not exceed 25 feet on center in both the longitudinal and transverse directions per CBC Section 2308.9.3 and 2308.12.
- Cripple walls with studs exceeding 14 inches in length are considered a story for the purposes of applying braced wall requirements per CBC Section 2308.2, 2308.9.4.1, and 2308.12.4.
- Braced wall lines shall be supported by continuous foundations per CBC Section 2308.3.4. An exception is made for structures with a maximum plan dimension not over 50 feet, where continuous foundations are required only at exterior walls.
- Openings in floor and roof diaphragms are restricted to not more than 50% of the distance between braced wall lines or an area not more than 25% of the area between orthogonal pairs of braced wall lines per CBC Section 2308.12.6 #6.
- Wood trusses shall be designed in accordance with CBC Section 2303.4. Provide stamped and wet-signed calc's.
- A balloon framed wall or tall stud calculations shall be per CBC Table 2308.9.1.
- Provide complete elevation drawings and wall construction details, including complete load path and shear transfer.
- Headers to be sized in accordance with CBC Table 2308.9.5.
- Stud size, height and spacing to be in accordance with CBC Table 2308.9.1.
- Attic ventilation shall be provided per CBC Section 1203.2.
- Under floor ventilation (if applicable) shall be in accordance with CBC Section 1203.3 and 1203.3.1.
- Provide complete foundation plans per CBC Section 1805.
- Footings shall be designed per CBC Section 1805.4.
- The minimum depth of footings below the undisturbed ground surface shall be 12 inches per CBC Section 1805.2.

- Anchor bolt plate washers shall be 3 inches by 3 inches by minimum .229 inches thickness in Seismic Design Categories D and E per CBC Section 2308.12.8. The hole in the plate washer is permitted to be diagonally slotted with a width up to 3/16 inch larger than the bolt diameter and a slot length not to exceed 1 3/4 inches, provided a standard cut washer is placed between the plate washer and the nut.
- The ground immediately adjacent to the foundation shall be sloped away from the building at a slope of not less than 5% for a minimum distance of 10 feet per CBC Section 1803.3.

STRUCTURAL ENGINEERING

- Provide correct live loads per CBC Table 1607.1.
- Building to be designed to withstand the minimum wind loads as prescribed in CBC Section 1609.
- Provide correct Seismic Design Category, permissible structural systems, limitations on height and irregularity, permitted lateral force procedure, and required level of strength and seismic detailing.
- Provide allowable foundation pressure and lateral sliding resistance per CBC Table 1804.2.
- Concrete to be designed in accordance with CBC Table 1904.2.2.
- Geotechnical soils report where required per CBC Sections 1802.2.1 thru 1802.2.7.

MISCELLANEOUS

- Provide stairway details (if applicable), including rise and run, landings, handrails and guardrails as prescribed in CBC Sections 1009, 1012, and 1013.
- State of California Title 24 Energy Calc's.
- Water and gas pipe sizing.