



City of Hesperia BUILDING AND SAFETY DIVISION

Plan Requirements for Single Family Residences

A. General Requirements – (3 Sets of Plans)

- Single-family residence requires approved plans and a permit **prior** to starting the work.
- Complete sets of plans shall be submitted for review and approved prior to permit issuance. Plans shall be clear, legible, and of sufficient size (suggested size, 24 in x 36 in.; suggested scale, 1/4 in. = 1 ft.).
- Plans are to be drawn in ink and signed by the person who prepared them. Anyone can prepare plans for one and two story, single-family residential structures, provided that all the prescriptive requirements are followed per the California Residential Code. Any portion that does not meet the prescriptive standards must be designed and stamped by a California registered professional (Architect or Engineer).

B. Specific Requirements

- Plot Plan:
 - Indicate the size and location of the proposed Single Family Residence. The plan is to include: lot dimensions; street name(s); the distance from the property lines; septic system location; overhead or under-ground utility lines; existing or proposed accessory structures; and a North arrow. Dimensions should be as accurate as possible.
- Foundation Plan:
 - o Size and placement of anchor bolts, reinforcing steel, and when used, the model number and manufacture of all required hold-down devices.
 - o Dimensioned plan of the foundations and pad footings.
 - o Extent and thickness of concrete slab.
- Wood Floor Framing Plan:
 - o Dimensioned floor plan of foundations, pad footings, and piers.
 - o Size, location, direction and spacing of girders, joists and posts (brace posts over 30" long in two directions).
 - o Location of crawl holes and screened vents, location and size of under floor furnace, passageway to the furnace, and switched light at the furnace.
- Floor Plan:
 - o Dimensioned floor plan for each floor showing use of room(s).
 - o Door and window sizes, locations and types; size of headers over the openings.
 - o Locations of heating fireplace and wood stove locations.
 - Plumbing Items:
 - Location of plumbing fixtures and public or private sewer system.
 - Dimensioned isometric drawing for gas lines: layout of the piping including all gas appliances with BTU ratings, regulators, manifolds and, valves.
 - HVAC/ Mechanical Items
 - Show location of mechanical equipment.
 - Indicate exhaust fan types and locations.
 - Electrical Items:
 - Show location of electrical outlets, fixtures and panels.
 - Show compliance for future electrical vehicle charging
 - Show lighting compliance with current energy codes.
 - Load schedule when 400 amp panel or larger is to be used.

- **Roof Plan:**
 - o Show and label all ridges, hips and valleys.
 - o Show locations of chimney or other roof elements.
 - o Show roof diaphragm specifications.
 - o Show locations of vaulted or raised ceiling areas.
 - o Show rafter and truss spans.
- **Framing Plan:**
 - o Locations of all shear panels with shear panel schedule.
 - o Size of all beams and headers over the openings.
 - o Show locations, size and spacing of rafters, ridge boards, ridge beam, rafter ties, ceiling joists and points of bearing.
 - o Size, spacing and directions of floor joists or floor truss layout and details, and ceiling joists.
- **Cross-sections, with dimension (suggested scale ½ inch = 1 foot):**
 - o For the various footings, under floor conditions and construction.
 - o Show the typical construction to be used. Size, spacing and lumber species and grades, nail and bolt size, spacing. Roof purlins and supporting members. Detail connections.
 - o Framing elevations of shear walls including hold down details, plywood thickness, and nailing schedules.
 - o On two story buildings, include floor and roof framing cross-sections and layouts.
- **Elevations (all directions):**
 - o Exterior wall finishes and locations and extent of all shear walls and/or bracing.
 - o Type of roofing and pitch of the roof.
 - o Complete set of vertical dimensions, including basements or cellars.
 - o Elevations shall show the true site conditions with respect to grade elevations at all sides.
 - o Location of all windows and doors in the perimeter.

C. Plan Attachments:

- **Energy Compliance:**
 - Provide two complete sets of registered Title 24 Energy Calculations.
- **Manufacturer Truss Calculations (when required):**
 - Two complete, clear and legible sets of truss details, which include a truss layout and details for each truss to be used.
- **Structural Calculations (when required):**
 - Two complete, clear and legible sets of calculations, which include:
 - Seismic and Wind requirements.
 - Lateral analysis.
 - Foundation design
 - Beam and Header calculations
 - Floor and Roof Diaphragm calculations
 - Stamped & signed by licensed Engineer or Architect

D. Required Separate Submittal:

- **Fire Sprinkler Plans :**
Residential fire sprinklers shall be in accordance with NFPA 13D or Section R313.3 of the California Residential Code.
- **Grading Plans :**
See grading plan requirement handout.