



# GLENN COUNTY PLANNING & PUBLIC WORKS AGENCY



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## ENGINEERED PLANS

**WHEN REQUIRED:** Engineering is required for all structures which don't conform to the Conventional Light-Frame Construction Provisions of the 2001 Uniform Building Code, Section 2320. This non-conforming category includes most structures without walls such as covered patios and carports. It also includes all metal, concrete, and masonry structures. Engineering is also required for all commercial buildings and all buildings with more than 2 stories.

**CALCULATIONS:** The design of all structures which don't conform to Conventional Light-Frame Construction Provisions must be proven adequate. This is done by submitting calculations which show that the proposed design can resist all relevant natural forces.

**QUALIFICATIONS TO PREPARE:** Engineered plans and accompanying calculations must be prepared by an Architect, Civil Engineer, or Structural Engineer licensed by the State of California, or by someone who is under their direct supervision, such as an employee. The Architect or Engineer must stamp and wet-sign the plans and calculations. A minimum of two copies of everything is required.

**DESIGN CRITERIA:**

- Wind – 85 MPH, Exposure C.
- Seismic Design Criteria (SDC) – Site Specific (varies)
- Soil bearing capacity – 1000 PSF unless a higher value is justified by a soil analysis.
- Roof live load 20 PSF in the valley.

**METAL BUILDINGS:** All metal buildings need to be engineered. Most metal building manufacturers supply engineering for the building but not for the foundation. If this is the case, a local Engineer or Architect must be retained to design the foundation.

**SPECIAL INSPECTION:** Section 1704 of the 2007 California Building Code lists several types of work which require a Special Inspector. These include, among other things, concrete foundations which requires concrete stronger than 2500 PSI, structural welding, and high-strength bolting. High-Strength bolting is not unusual in manufactured metal buildings. If any of these types of work need to be done, Section 1705.1 of the CBC requires the Design Professional to prepare a Special Inspection Program, to be submitted along with the plans and calculations. This Program must list all work requiring a Special Inspector and indicate who the Special Inspector will be. A Special Inspector must be hired by the owner or designer and must be acceptable to the Building Department.