



# CITY OF CYPRESS

## Building Division

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### **REROOF WITH HEAVIER ROOFING MATERIALS**

#### CBC 2013 STRUCTURAL DESIGN REQUIREMENT

#### Reroof with heavier roofing materials (over 5.9 psf)

Please provide the following design requirements on structural calculations and plans

#### **General**

1. Show Basis of Design on the plans: (CBC 1603)
  - a. Roof live load.
  - b. Earthquake design data:
    - i) Risk Category
    - ii) Seismic Importance Factor
    - iii) Mapped  $S_s$  and  $S_1$ .
    - iv) Site class.
    - v) Seismic design category.
    - vi) Basic seismic-force-resisting system(s).
    - vii) Design base shear
    - viii)  $C_s$ ,  $R$ .
    - ix) Analysis procedure used.
2. Codes:
  - a. 2013 CBC and as amended by City Ordinance.
  - b. ICC – ESR report # and copy.
3. Wood design:
  - a. CBC Chapter 2303 and NDS 2012:
  - b. Specify & detail framing connections on the plans.

#### **Seismic Design**

4. Seismic forces per CBC 1613 and ASCE 7-10.
5. Seismic design shall be based on Chapter 13 formula 13.3-1. See ASCE 7-10 Section C11.2 for clarification.
6. Check additional seismic load per CBC Section 3403.4 Exception. If existing lateral elements meet this exception then existing lateral elements do not have to be upgraded i.e. “permitted to remain unaltered”.