

## BUILDING AND SAFETY DIVISION

**DATE:** April 1, 1997

**TO:** All Structural Plan Check Staff  
All Building Inspection Staff  
All Supervisory Staff  
Engineers, Architects and Contractors

**FROM:** Jack Phillips, Building Official

**SUBJECT:** STRUCTURAL OBSERVATION - REVISITED, A YEAR LATER

In my original memorandum on structural observation, dated April 1, 1996, I outlined the policy and procedure for the enforcement of structural observation requirements. Since then, we have received comments from the Building Inspectors, Engineers, Architects, Contractors and other interested parties. Though overall comments were "program is good," there were a few comments stated below which would require changes in our enforcement procedure.

- a. State the structural observation program on the plans.
- b. Engineer of record changed during the construction.
- c. What structural elements to be observed at each visit?
- d. How to take care of structural deficiencies.
- e. Plan changes by the Engineer without Building Department approval.
- f. Coordination between the Contractor, Engineer and the Building Inspector - need a pre-construction meeting.
- g. Notify the owner for structural observation requirements.
- h. Create one structural observation report form for uniformity.

In order to accommodate these comments and to make the program run more smoothly, I have made the following changes in the enforcement procedure. These new changes in the procedure will become effective on April 1, 1997, a year later.

### Structural Observation Policy

Structural observation policy, as outlined on the following sheets, is the same as before with the exception of some editorial changes.

## **VENTURA COUNTY ICBO STRUCTURAL OBSERVATION**

The following policy is established to clarify when structural observation is required in accordance with Section 1702 item 4 of the UBC. The intent of this policy is to establish consistent standards for structural observation for those structures that are complex enough to benefit from field observation by the designer yet not overburden the smaller less complex structures with this added cost.

In addition to the structural observation specifically required in UBC Section 1702 item 1 (Essential Facilities and Large A Occupancies), item 2 (High Rise Structures) and item 3 (Any Structure Required by the Design Professional) the following new construction will require structural observation.

1. Concrete tilt-up, cast in place concrete and masonry wall buildings.
2. Commercial buildings not complying with conventional wood frame construction. Standard rigid frame metal buildings (Butler type) are exempt.
3. Multi-story, multi-residential buildings with more than four units. (1st building of each type in each phase).
4. Model homes in single family tracts in each phase.
5. Multi-story custom single family dwellings not complying with conventional construction provisions and over 3,000 sq. ft. in area.
6. Buildings constructed on hillsides (3:1 or greater slope). "U" occupancies and additions less than 500 sq. ft. in area are exempt.
7. Commercial and industrial buildings undergoing seismic retrofit.
8. Any cases of complex or unique construction when required by the Building Official.

The building official may waive the requirement for structural observation when the structural system does not warrant specific observation.

The plan checker will review each project individually based on the above policy and require that "structural observation" is clearly noted on the plans when required. The reporting required by the engineer or architect responsible for the structural design shall also be clearly specified. Structural observation shall occur prior to inspection by the building inspector.

## Enforcement Procedure

1. Owner shall employ the Engineer of Record or Architect of Record responsible for the structural design, or another Engineer or Architect designated by the Engineer of Record or Architect of Record responsible for the structural design to perform structural observation as defined in UBC Section 220. The Engineer or Architect shall submit a statement, in writing, to the building official stating that the site visits have been made and whether or not any observed deficiencies have been corrected to conform to the approved plans and specifications, or to revised details approved by the building official.
2. On the plans, Engineer/Architect of Record shall provide structural observation program in the following format and sequence per UBC 106.3.5.
  - a. Write **heading** "Structural Observation Program".
  - b. **Add this note:** "The owner shall employ the Engineer of Record or Architect of Record registered/ licensed in State of California who is responsible for the structural design, to do structural observation."
  - c. **Name:** Write the name, reg./lic. # of Engineer of Record or Architect of Record responsible for structural design.
  - d. **Designated name:** Write the name, reg./lic. # of Engineer or Architect designated by the Engineer of Record or Architect of Record to do structural observation.
  - e. **Add This Note:** "The Engineer or Architect responsible for the Structural Observation, the Contractor, and appropriate Subcontractors shall hold a pre-construction meeting to review the details of the structural system to be structurally observed."
  - f. **Foundation:** List the structural elements to be observed prior to placement of concrete in the foundation. If portions of structural elements are to be observed in two or three construction stages, identify clearly the structural elements to be observed at each stage.
  - g. **Roof Nailing:** List the structural elements of roof framing to be observed prior to roof covering.
  - h. **Exterior Framing prior to prewrap:** List exterior structural elements to be observed prior to prewrap.
  - i. **FINAL OBSERVATION:** List the structural elements to be observed at the final visit for the complete structural system.
3. During the course of construction, the Engineer/Architect shall visually review the structural system for general conformance with the approved plans. Any observed deficiencies shall be reported\*, in writing, to the owner's representative, to the contractor and to the Department.
4. Separate observations and reports are required for each element of the Structural Observation Program. The element observation reports must be received by this department before the Building and Safety inspection of that element.\*
5. Prior to covering the work, the structural system shall be inspected and approved by the Department Inspection staff assigned to the project. Such approval by the Department is required prior to covering. The Engineer/Architect performing the Structural Observation is not authorized to approve the covering of the structural system. His/her structural observations are advisory only and they do not in any way bind the Department or constitute a certification that the structural system will pass Department Inspection. Nor do they substitute for any required Division of Building and Safety inspections.

**Attachment:** \*Reporting form for "structural observation" is attached. Division of Building and Safety will accept report on this form only.

COUNTY OF VENTURA  
DIVISION OF BUILDING AND SAFETY  
STRUCTURAL OBSERVATION REPORT

DATE OF OBSERVATION: \_\_\_\_\_

PROJECT NAME: \_\_\_\_\_

PROJECT ADDRESS: \_\_\_\_\_

ENGINEER/ARCHITECT OF RECORD: \_\_\_\_\_ LIC./REG. # \_\_\_\_\_

DESIGNATED ENGINEER/ARCHITECT: \_\_\_\_\_

LIC./REG. # \_\_\_\_\_

DATE OF PRE-CONSTRUCTION MEETING : \_\_\_\_\_

STRUCTURAL ELEMENTS OBSERVED: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

LOCATION OF OBSERVED ELEMENTS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

DEFICIENCIES OBSERVED: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

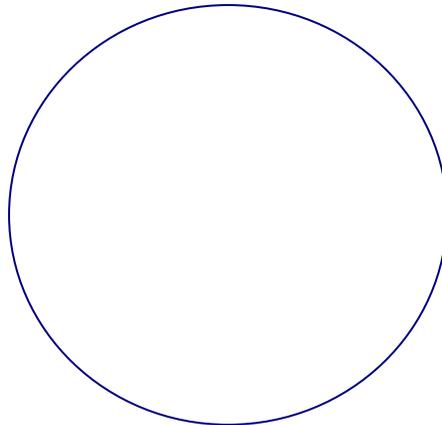
\_\_\_\_\_  
\_\_\_\_\_

DEFICIENCIES REQUIRING PLAN REVISIONS: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

DO DEFICIENCIES REQUIRE FOLLOW-UP STRUCTURAL OBSERVATIONS?    **YES / NO**

STRUCTURAL ELEMENTS OBSERVED IN GENERAL CONFORMANCE WITH THE APPROVED  
PLANS



STAMP AND SIGNATURE OF ENGINEER/ARCHITECT OF RECORD OR DESIGNATED  
ENGINEER/ARCHITECT IN THE CIRCLE

April 1, 1997

Page 5

Provide structural observation program in the following format and sequence per UBC 106.3.5.

- (a) Write **heading** "Structural Observation Program".
- (b) **Add this note:** "The owner shall employ the Engineer or Architect registered/licensed in State of California who is responsible for the structural design to do structural observation".
- (c) **Name:** Write the name, reg./lic. # of Engineer or Architect responsible for structural design.
- (d) **Designated name:** Write the name, reg./lic. # of the Engineer or Architect designated by the Engineer or Architect of Record to do structural observation.
- (e) **Foundation:** List the structural elements to be observed prior to placement of concrete in the foundation. If portions of structural elements are to be observed in two or three construction stages, identify clearly the structural elements to be observed at each stage.
- (f) **Roof nailing:** List the structural elements of roof framing to be observed prior to roof covering.
- (g) **Exterior Framing prior to prewrap:** List the exterior structural elements to be observed prior to prewrap.
- (h) **FINAL OBSERVATION:** List the structural elements to be observed at the final visit for the complete structural system