



Informational Bulletin:

STRUCTURAL OBSERVATION

(Updated 03/20/17)

1. INTRODUCTION

This Information Bulletin stipulates the Division of Building and Safety policy and procedure in regards to Structural Observation as mandated by 2016 California Building Code (CBC) Section 1704.6, and describes the responsibilities of all parties involved in compliance with Structural Observation.

2. PURPOSE OF STRUCTURAL OBSERVATION

Structural Observation is the visual observation of the structural system by a Registered Design Professional (i.e. licensed engineer or architect) for general conformance with the approved construction documents. Structural Observation is intended to assist and supplement the work of the Building Official. Structural Observation by itself does not approved construction documents. It does not provide the quality assurance of continuous inspection by the Registered Deputy Inspector, nor does it include or waive the responsibility for progress or inspections by the Building Official.

3. DEFINITIONS

Structural Observation is the visual observation of the structural system by a registered design professional for general conformance to the approved construction documents. Structural Observation does not include or waive the responsibility for the inspection required by CBC Section 110, 1705 or other sections of this code.

Significant Construction Stages are the stages of construction identified by the Structural Observer as significant and require site Structural Observation.

Structural Observer is the engineer or architect responsible for the structural design, or a registered engineer or licensed architect designated by the engineer or architect responsible for the structural design to perform site Structural Observation required by CBC Section 1704.

Designated Observer is a registered engineer or licensed architect designated by the engineer or architect responsible for the structural design to perform site Structural Observation required by CBC Section 1704.

Structure is that which is built or constructed, an edifice or building of any kind, or any piece of work artificially built up or composed of parts joined together in some definite manner.

4. PROJECTS REQUIRING STRUCTURAL OBSERVATION

Structural Observation shall be provided for those structures included in Seismic Design Category D, E, or F, as determined in CBC Section 1613, where one or more of the following conditions exist:

- i. The structure is classified as Risk Category III or IV.
- ii. The height of the structure is greater than 75 feet (22860 mm) above the base as defined in ASCE.

- iii. The structure is assigned to Seismic Design Category E, is classified as I or II, and is greater than two stories above grade plane.
- iv. When so designed by the registered design professional responsible for the structural design.
- v. When such observation is specifically required by the Building Official.

5. DOCUMENTING STRUCTURAL OBSERVATION REQUIREMENTS

Prior to the issuance of a building permit, the architect or engineer responsible for the structural design of the building or structure shall specify Structural Observation at each construction stage identified in Section 110 on the "Structural Observation/Significant Construction Stages" form attached. The "General Notes for Structural Observation" included in this Information Bulletin shall be made part of the approved plans with all the significant construction stages identified. In addition, for repetitive work involving similar or identical construction, i.e., floor construction at multistory buildings, the architect or engineer shall specify the location and/or frequency of Structural Observation required therein on the plan.

The individual or firm responsible for performing the Structural Observation shall be employed by the owner. This information shall be specified either on the "Structural Observation/Significant Construction Stages" form if the Structural Observer is the engineer or architect of record for the structural design, or on the "Structural Observation Program and Designation of the Structural Observer" form attached if the Structural Observer is designated by the engineer or architect or record. Such individual or firm may be called the "Structural Observer of Record" for the project. The Structural Observer of record must meet the following three conditions:

- i. The Structural Observer must be a person or firm registered in California to practice engineering or architecture.
- ii. The Structural Observer must have a direct contractual relationship with the owner, or owner's representative, to provide the Structural Observation service.
- iii. The Structural Observer must be either the engineer or architect of record for the structural design, or another engineer or architect designated by the engineer or architect of record. The Architect or Engineer or Record shall complete the "Structural Observation Program and Designation of the Structural Observer" form when another engineer or architect is designated as "Structural Observer".

Note: The person who actually performs visual Structural Observation at the construction site in the field may be either the Structural Observer of Record, or a registered engineer or a licensed architect under the responsible charge of the Structural Observer of Record.

6. EXECUTION OF STRUCTURAL OBSERVATION

i. Performing Structural Observation and Submission of Structural Observation Reports

The Structural Observer shall perform Structural Observation(s) at the construction site in accordance with the Structural Observation Report Form and the approved plans. Upon completion of the Structural Observation at each construction stage, the Structural Observer of Record shall complete the "Structural Observation Report Form".

Observed deficiencies shall be reported in writing, to the owner, Registered Deputy Inspector, contractor, and the building inspector. The Structural Observer shall submit a "Structural Observation Report" form to the building inspector, at each significant construction stage, indicating that the site visits have been made, identifying any deficiencies, which, to the best of the Structural Observer's knowledge, have not been resolved, and whether the correction of the reported deficiencies needs to be verified by the structural engineer or architect of record or the designated Structural Observer.

A Structural Observation Report on "Structural Observation Report" form, by the Structural Observer, at each significant construction stage where deficiencies were reported, which states that all observed deficiencies have been resolved, is required before acceptance of the work by the Building Inspector.

A licensed engineer or registered architect, who works under the supervision of the Structural Observer of Record and actually performs the observation, may fill out the required "Structural Observation Report" form noting any observed deficiencies. The person working under the Structural Observer of Record, name and registration number shall be noted in the report. The report shall be reviewed, completed, stamped and signed by the Structural Observer of Record, who takes responsibility for the report.

At the conclusion of the work included in the permit, the Structural Observer shall submit to the building inspector a final Structural Observation on "Structural Observation Report" form. The Structural Observer shall state in writing; the site visits have been made and identify any reported deficiencies, and to the best of the Structural Observer's knowledge, have not been resolved, if any.

ii. **Repetitive Construction for Single-Family Wood-Framed structures**

The Structural Observer of Record may request a reduction in the scope of Structural Observation for any repeated single-family detached wood frame structure. Administrative approval will be considered for alternative quality control programs that meet the following minimum requirements:

- (1) The structure shall be repeated a minimum of three times. Repetitive structures also include reversed floor plans and allow non-structural changes in exterior elevations.
- (2) The Division of Building and Safety determines that the repeated structure is not unusual in its size, shape, or orientation.
- (3) The personnel responsible for the construction for the owner, contractor, and subcontractors shall remain constant during the phase or phases of construction considered.
- (4) The Building Inspector shall attend any pre-construction meetings.
- (5) The Structural Observer shall make a final observation visit of the construction site and report for each structure after any mechanical penetrations are in place and before approval of the rough framing and covering of the work.
- (6) The repeated construction does not result in deficient critical elements or their connections which would normally be reported under full Structural Observation.

Inspection by Building Inspector

Structural Observation does not include or waive the responsibility of the inspection required by the building code.