
PROCEDURES FOR STRUCTURAL OBSERVATION



Dept. of Community Development
330 W. 20th Ave.
San Mateo, CA 94403-1388

STRUCTURAL OBSERVATION means the visual observation of the structural system, for general conformance to the approved plans and specifications, at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspections required by UAC Section 302.5, CBC Section 1701 or other sections of the code.

Submission of the Inspection and Observation Program

UAC Section 302.5 provides that when special inspection or structural observation is required, an Inspection and Observation Program shall be submitted by the architect or engineer of record for approval *prior to* issuance of the building permit.

Information of the program shall be provided on the forms attached with this package. The program shall specify the items of work that require special inspection or structural observation, names of the special inspectors and structural observer of record, stages of construction at which structural observation is to occur.

All seismic resisting elements of a structural system shall be included in the scope of structural observation, if structural observation is required by sub-section 1, 2, 3 or 5 of Section 1702. If structural observation is required by sub-section 4 alone, it is up to the engineer or architect of record to designate the structural elements that need to be observed. Nothing should preclude the engineer or architect of record from including non-seismic resisting elements in the scope of structural observation.

The Inspection and Observation Program shall be made a part of the approved plans, and be placed in a conspicuous location such as on the first page of the plans or the first page of structural plans. Substitution of special inspectors or the structural observer subsequent to issuance of the permit may be processed as a revision to the approved plans.

The “Structural Observer of Record” and persons who perform the structural observation

The individual or firm who is responsible for the structural observation may be called the “Structural Observer of Record” for the project. Per CBC Section 1702, a structural observer of record must meet all the following three conditions:

- a. It must be a person or firm registered in California to practice engineering or architecture.
- b. It must have a direct contractual relationship with the owner to provide the structural observation service. It 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 person who actually performs structural observation in the field may be either the Structural Observer of Record, or an engineer or architect under the responsible control of the Structural Observer of Record.

Structural Observation – General Requirements

Structural Observation is required for all shear walls over 300 PLF.

The structural observer shall provide evidence of employment by the owner. A letter from the owner or a copy of the agreement for services shall be sent to the building inspector before the first site visit. The structural observer shall also inform the owner of the requirements for a preconstruction meeting and shall preside over this meeting

The owner or owner’s representative shall coordinate and call for a meeting between the engineer or architect responsible for the structural design, structural observer, contractor, affected subcontractors and deputy inspectors. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load systems of

the structure and to review scheduling of the required observations. A record of the meeting shall be included in the first observation report submitted to the building inspector

The structural observer shall prepare a report for each significant stage of construction observed. The original of the observation report shall be sent to the building inspector's office and shall be signed and sealed (wet stamp) by the responsible structural observer. One copy of the observation report shall be attached to the approved plans. The copy attached to the plans need not be sealed but shall be signed by the responsible structural observer or their designee. Copies of the report shall also be given to the owner, contractor, and deputy inspector.

A final observation report must be submitted which shows that all observed deficiencies were resolved and the structural system generally conforms with the approved plans and specifications prior to final approval of the work.

The structural observer shall send the original observation report to the following address:

City of San Mateo, Building Division
Attn: Plan Check
330 W. 20th Ave.
San Mateo, CA 94403

NOTE: When the owner elects to change the structural observer of record, the owner shall:

- A. notify the building inspector in writing before the next inspection,
- B. call an additional preconstruction meeting, and
- C. furnish the replacement structural observer with a copy of all previous observation reports.

The replacement structural observer shall approve the correction of the original observed deficiencies unless otherwise approved by plan check supervision. The policy of the Department shall be to correct any properly noted deficiencies without consideration of their source.

The engineer or architect of record shall develop all changes relating to the structural systems. The Building Division shall review and approve all changes to the approved plans and specifications.

Submission of Structural Observation or Special Inspection Reports

The Structural Observer of Record is responsible for submitting the observation report as required by CBC Section 1702. The person who actually performs the observation may fill out a draft report, noting any observed deficiencies. The draft report shall be reviewed, completed, stamped and signed by the Structural Observer of Record, who takes the responsibility for the report. Whenever a structural observation is performed by someone other than the Structural Observer of Record, that person's name and professional registration number shall be identified in the report.

Deficiencies observed must be reported in writing to the owner's representative, relevant special inspectors, the contractor and the building official. Whether or not any deficiency is observed, a structural observation report shall be submitted to the building official at each significant construction stage as designated in the Inspection & Observation Program. The jurisdiction's inspection approval at those stages shall not occur before receiving the report.

To facilitate the construction process, an inspector may conditionally approve an inspection based on a draft report prepared by the structural observer in the field, pending on submission of the report stamped and signed by the Structural Observer of Record.

**STRUCTURAL OBSERVATION REPORT
FORM**



Dept. of Community Development
330 W. 20th Ave.
San Mateo, CA 94403-1388

Report No. _____

STRUCTURAL OBSERVATION means the visual observation of the structural system, for general conformance to the approved plans and specifications, at significant construction stages and at completion of the structural system. Structural observation does not include or waive the responsibility for the inspections required by UAC Section 302.5, CBC Section 1701 or other sections of the code.

This report includes all construction work through _____ day of _____, 20____ Page No. _____ of _____

Project Address:		Structural Observer of Record (SOR):	Phone No. of SOR:
Building Permit No.:	Structural Observation performed by:	Professional Lic./Reg. No. of Observer:	Phone No. of Observer:

OBSERVED STRUCTURAL ELEMENTS AND THEIR CONNECTIONS

FOUNDATION	WALL	FRAMES	FLOOR	PORTION OBSERVED, IF NOT WHOLE
<input type="checkbox"/> Footing, Stem Walls, etc.	<input type="checkbox"/> Concrete	<input type="checkbox"/> Steel Moment Frame	<input type="checkbox"/> Concrete	
<input type="checkbox"/> Mat Foundation	<input type="checkbox"/> Masonry	<input type="checkbox"/> Steel Braced Frame	<input type="checkbox"/> Steel Deck	
<input type="checkbox"/> Caisson, Piles, Grade Beams	<input type="checkbox"/> Wood	<input type="checkbox"/> Concrete Moment Frame	<input type="checkbox"/> Wood	
<input type="checkbox"/> Retaining Foundation Hillside Special Anchors	<input type="checkbox"/> Other:	<input type="checkbox"/> Masonry Wall Frame	<input type="checkbox"/> Others:	
<input type="checkbox"/> Others:		<input type="checkbox"/> Others:		

OBSERVED DEFICIENCIES:

I DECLARE THAT THE FOLLOWING STATEMENTS ARE TRUE TO THE BEST OF MY KNOWLEDGE:

1. I AM THE ENGINEER OR ARCHITECT RETAINED BY THE OWNER TO BE IN RESPONSIBLE CHARGE FOR THE STRUCTURAL OBSERVATION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF SAN MATEO.
2. I, OR ANOTHER ENGINEER OR ARCHITECT WHO I HAVE DESIGNATED ABOVE AND IS UNDER MY RESPONSIBLE CHARGE, HAS PERFORMED THE REQUIRED SITE VISITS AT EACH SIGNIFICANT CONSTRUCTION STAGE TO VERIFY IF THE STRUCTURE IS IN GENERAL CONFORMANCE WITH APPROVED PLANS AND SPECIFICATIONS;
3. ALL DEFICIENCIES WHICH REMAIN TO BE CORRECTED HAVE BEEN INDICATED ABOVE;
4. I RECOMMEND THAT ACCEPTANCE OF THE STRUCTURAL SYSTEMS BY THE CITY OF SAN MATEO BE WITHHELD UNTIL ALL OBSERVED DEFICIENCIES ARE CORRECTED.

Engineer's/Architect's Seal
& Signature Here

SIGNATURE

DATE

**GENERAL NOTES FOR
STRUCTURAL OBSERVATION**



Dept. of Community Development
330 W. 20th Ave.
San Mateo, CA 94403-1388

THE FOLLOWING NOTES SHALL BE INCORPORATE AS PART OF THE GENERAL NOTES OF THE STRUCTURAL PLANS:

1. Structural observation is required for the structural system in accordance with policy adopted by the City of San Mateo. Structural observation is the visual observation of the elements and connections of the structural system at significant construction stages and the complete structure for general conformance to the approved plans and specifications. Structural observation does not waive the responsibility for the inspections required of the building inspector or the deputy inspector.
2. The owner shall employ a civil or structural engineer or architect to perform the structural observation. The engineer or architect shall be registered or licensed in the State of California. The Building Division recommends the use of the engineer or architect responsible for the structural design when they are independent of the contractor.
3. The structural observer shall provide evidence of employment by the owner. A letter from the owner or a copy of the agreement for services shall be sent to the building inspector before the first site visit. The structural observer shall also inform the owner of the requirements for a preconstruction meeting and shall preside over this meeting.
4. The owner or owner's representative shall coordinate and call for a meeting between the engineer or architect responsible for the structural design, structural observer, contractor, affected subcontractors and deputy inspectors. The purpose of the meeting shall be to identify the major structural elements and connections that affect the vertical and lateral load systems of the structure and to review scheduling of the required observations. A record of the meeting shall be included in the first observation report submitted to the building inspector.
5. The structural observer shall perform site visits at those steps in the progress of the work that allow for correction of deficiencies without substantial effort or uncovering of the work involved. At a minimum, the following significant construction stages require a site visit and an observation report from the structural observer.

Construction Stages	Elements/Connections to be Observed
a) _____	/ _____
b) _____	/ _____
c) _____	/ _____
d) _____	/ _____
e) _____	/ _____

6. The structural observer shall prepare a report on the Building Division's form for each significant stage of construction observed. The original of the observation report shall be sent to the Building Division and shall be signed and sealed (wet stamp) by the responsible structural observer. One copy of the observation report shall be attached to the approved plans. The copy attached to the plans need not be sealed but shall be signed by the responsible structural observer or their designee. Copies of the report shall also be given to the owner, contractor, and deputy inspector.
7. A final observation report must be submitted which shows that all observed deficiencies were resolved and the structural system generally conforms with the approved plans and specifications. The City of San Mateo, Building Division, will not accept the structural work without this final observation report and the correction of specific deficiencies noted during normal building and deputy inspection.
8. The structural observer shall send the original observation report to the following address:

 City of San Mateo, Building Division
 Attn: Plan Check
 330 W. 20th Ave.
 San Mateo, CA 94403
9. When the owner elects to change the structural observer of record, the owner shall:
 - a) Notify the building inspector in writing before the next inspection,
 - b) Call an additional preconstruction meeting, and
 - c) Furnish the replacement structural observer with a copy of all previous observation reports.

The replacement structural observer shall approve the correction of the original observed deficiencies unless otherwise approved by the Building Division. The policy of the Department shall be to correct any properly noted deficiencies without consideration of their source.

10. The engineer or architect of record shall develop all changes relating to the structural systems. The Building Division shall review and approve all changes to the approved plans and specifications.



**DESIGNATION OF THE
STRUCTURAL OBSERVER**

Dept. of Community Development
330 W. 20th Ave.
San Mateo, CA 94403-1388

PROJECT ADDRESS: _____ PERMIT APPL. NO.: _____

Description of Work: _____

Owner: _____ Architect: _____ Engineer: _____

STRUCTURAL OBSERVATION (only checked items are required)			
Firm or Individual to be responsible for the Structural Observation:			
Name: _____		Phone: () _____	Calif. Registration: _____
FOUNDATION	WALL	FRAME	DIAPHRAGM
<input type="checkbox"/> Footing, Stem Walls, Piers	<input type="checkbox"/> Concrete	<input type="checkbox"/> Steel Moment Frame	<input type="checkbox"/> Concrete
<input type="checkbox"/> Mat Foundation	<input type="checkbox"/> Masonry	<input type="checkbox"/> Steel Braced Frame	<input type="checkbox"/> Steel Deck
<input type="checkbox"/> Caisson, Piles, Grade Beams	<input type="checkbox"/> Wood	<input type="checkbox"/> Concrete Moment Frame	<input type="checkbox"/> Wood
<input type="checkbox"/> Stepp'g/Retain'g Foundation, Hillside Special Anchors	<input type="checkbox"/> Others: _____	<input type="checkbox"/> Masonry Wall Frame	<input type="checkbox"/> Others: _____
<input type="checkbox"/> Others: _____		<input type="checkbox"/> Others: _____	

DECLARATION BY OWNER

I, the Owner of the project, declare that the above listed firm or individual is hired **by me** to be the Structural Observer.

Signature _____ Date _____

DECLARATION BY ARCHITECT OR ENGINEER OF RECORD (required if S.O. is different from the A/E of Record)

I, the Architect or Engineer of record for the project, declare that the above listed firm or individual is designated by me to be responsible for the Structural Observation.

Signature _____ License No. _____ Date _____