permit SONOMA

County of Sonoma
Permit & Resource Management Department

RESIDENTIAL STATEMENT OF SPECIAL INSPECTIONS**

CNI-033R

Name of Owner

Address

Permit Number

Job Description

This Statement of Special Inspections is submitted to outline the requirements of 2019 CBC Chapter 17. Included are:

A. Schedule of special inspections and tests applicable to this project:

1. Special inspections, per Section 1704 & 1705;
2. Special inspection for seismic resistance, per Sections 1704.3.2, 1705.12, 1705.13;
3. Structural observations, per Section 1704.6;
4. Material testing and/or load testing, per Sections 1706 through 1709.

B. List of the special inspector, testing agencies, and registered design professionals that will be retained to conduct the applicable tests, observations, and testing required;

C. Contractor's statement of responsibility, per Section 1704.4.

Prepared By

Registered Design Professional in Responsible Charge

License Number

Signature

Date

Owner's Authorization

Owner

Signature

Building Official Approval

**This form is for Residential Structures and Accessory U-Occupancies. The inspections listed in this form are intended to represent special inspections most common to residential projects, which include: wood frame structures, moment frames, pier and grade beam foundations, and geotechnical engineering. Form CNI-033, which includes all inspections from CBC Chapter 17, should be used for commercial permits and residential permits that include foundations other than shallow footings or pier and grade beams, permits to address code violations, alternate materials/methods, and construction materials other than wood or steel used to resist lateral loads (e.g., concrete and masonry). Special inspections and testing, and structural observations, shall be performed in accordance with the approved plans and specifications, this statement, approved testing procedures, applicable listing information for fabricated items, and CBC Section 17.

Special inspections and testing, and structural observations, shall be performed in accordance with the approved plans and specifications, this statement, approved testing procedures, applicable listing information for fabricated items, and CBC Section 17. The Schedule of Special Inspections summarizes the special inspections and tests required. Special inspectors shall refer to the approved plans and specifications for detailed special inspection requirements. Any additional tests or observations required by the approved plans, specifications, or required by the building official shall also be performed.

Interim reports will be submitted to the building official and the registered design professional in responsible charge, in accordance with CBC Section 1704.2.4. At the conclusion of work included in the permit, a report of special inspections and structural observations shall be submitted to the building inspector. The final report shall document:

A. Required special inspections;

B. Final results of structural testing;

C. Correction of discrepancies noted in inspections;

D. Written statement of structural observations, and identification of any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved.

This plan has been developed with the understanding that the building official shall:

A. Review and approve the qualifications of special inspectors who shall perform inspections;

B. Review submitted inspection reports;

C. Perform inspections as required by the locally adopted building codes.

Schedule of Inspections, Testing Agencies, and Inspectors

The following are the testing agencies, registered design professionals, and special inspectors that will be retained to conduct tests, inspections, and structural observations for this project:

	Responsibility	Firm	Address, telephone, e-mail
1.	Special Inspection (except for geotechnical)		
2.	Material Testing		
3.	Geotechnical Inspections		
4.	Structural Observations		

Special inspections can be performed by agencies approved by Permit Sonoma listed on CNI-014 Special Inspection Agency Recognition List. Special inspections may also be performed by the engineer of record where the engineer has submitted the appropriate certification during the plan check process (e.g. Structural Welding Special Inspector, Reinforced Concrete Special Inspector, etc.).

Seismic Requirements (Section 1704.3.2)

Identify the designated seismic systems and seismic-force-resisting systems subject to special inspections per CBC Section 1705.12. Identify any required testing and qualification for seismic resistance per CBC Section 1705.13

Summary of required special inspections, structural testing, and structural observations

Briefly describe required special inspections and structural observations for this project. Full schedule of inspections are those that are checked off on the following pages. Include additional sheets as necessary to identify frequency and extent of structural observations.

Special Inspections	Structural Observations

Schedule of Special Inspections

180BColumn headers:

181BC = Full-time observation of work by an approved special inspector while the work is being performed.
182BP = Intermittent observation of work by an approved special inspector where the work has been performed and at the completion of work.

183BBox Entries:

184BX = Denotes either "C" continuous or "P" periodic inspections, according to column placement.
185B-- = Denotes that an activity is either a one-time activity or its frequency is defined in some other manner.

186BNotes/Referenced Standards: Indicates the referenced standard applicable to the criteria, method, and frequency of the special inspection or testing required. Additional notes may be included in this box denoting frequency of inspections or the special inspection agency responsible for the particular inspection item.

187BAdditional details regarding inspections and tests are provided in the project specifications or notes on the drawings.

VERIFICATION AND INSPECTION

Table 1704.2.5 & 1705.10 - Fabricated Items	C	P	Check if Required	Notes/Referenced Standards
Fabrication and implementation	--	--	☐	
Fabricator approval and certificate of compliance	--	--	☐	CBC 1704.2.5.1

Table 1704.6 – Structural Observations	C	P	Check if Required	Notes/Referenced Standards
Prior to the commencement of observations, the structural observer shall submit to the building official a written statement identifying the frequency and extent of structural observations	--	--	☐	
At the conclusion of work included in the permit, the structural observer shall submit to the building official a written statement that the site visits have been made and identify any reported deficiencies which have not been resolved	--	--	☐	
Structural observations for structures	--	--	☐	CBC 1704.6.1
Structural observations for seismic resistance	--	--	☐	CBC 1704.6.2

Table 1705.1.1 – Special Cases	C	P	Check if Required	Notes/Referenced Standards
Construction materials and systems that are alternatives to materials and systems prescribed by the applicable code	--	--	☐	

Table 1705.2 – Steel Construction, Quality Assurance per AISC 360	C	P	Check if Required	Notes/Referenced Standards
A. Fabricator and erector documents (verify reports and certificates as listed in AISC 360, chapter N, paragraph 3.2 for compliance with construction documents. Includes structural steel, castings, forgings, fasteners, rods, welding, anchors, braces, stiffeners, member locations, joint details, etc.)		X	☐	AISC 360: Chapter N
B. Identification markings for structural steel materials conform to ASTM standards specified in the approved construction documents (e.g., structural shapes, castings, forgings, bolts, washers, nuts, rods, consumables for welding, anchors, etc.)		X	☐	AISC 360: A3
C. Embedments (verify diameter, grade, type, length, and depth of embedded item)		X	☐	AISC 360: N5.8
D. Verify compliance with details on the construction documents, such as braces, stiffeners, member locations, and proper application of joint details at each connection		X	☐	AISC 360: N5.8
E. Structural Steel Welding 1. Inspection Tasks **Prior** to Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1)	Random Basis (O) or Each Joint or Member (P) per applicable table	Same as prev.	☐	See form CNI-033A Statement of Special Inspections Steel Appendix.
2. Inspection tasks **During** Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)	Random Basis (O) or Each Joint or Member (P) per applicable table	Same as prev.	☐	See form CNI-033A Statement of Special Inspections Steel Appendix.
3. Inspection tasks **After** Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)	Random Basis (O) or Each Joint or Member (P) per applicable table	Same as prev.	☐	See form CNI-033A Statement of Special Inspections Steel Appendix.
4. Nondestructive Testing (NDT) of welded joints:				AISC 360: N5.5
a. Complete penetration groove welds 5/16” or greater in risk category III or IV		X	☐	N5.5b

b. Complete penetration groove welds 5/16" or greater in risk category II		X	☐	N5.5b
c. Welded joints subject to fatigue when required by AISC 360, App. 3, Table A-3.1		X	☐	N5.5c
d. Fabricator's NDT reports when fabricator performs NDT		X	☐	N5.5g
F. Inspection of High-Strength Bolting				
1. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 360, Table N5.6-1)	Random Basis (O) or Each Joint or Member (P) per applicable table	Same as prev.	☐	See N5.6 for exceptions based on installation method. See form CNI-033A Statement of Special Inspections Steel Appendix.
2. Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2) a. Pre-tensioned and slip critical joints b. Snug-tight joints	Random Basis (O) or Each Joint or Member (P) per applicable table	Same as prev.	☐ ☐	See N5.6 for exceptions based on installation method. See form CNI-033A Statement of Special Inspections Steel Appendix.
3. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3)	Random Basis (O) or Each Joint or Member (P) per applicable table	Same as prev.	☐	See N5.6 for exceptions based on installation method. See form CNI-033A Statement of Special Inspections Steel Appendix.

Table 1705.3 – Concrete Construction	**C**	**P**	**Check if Required**	**Notes/Referenced Standards**
A. Inspection reinforcement, including prestressing tendons, and verify placement		X	☐	ACI 318 Ch. 20, 25.2, 25.3, 26.5.1-26.5.3, CBC 1908.4
B. Reinforcing bar welding:				
1. Verify weldability of reinforcing bars other than ASTM A706		X	☐	AWS D1.4, ACI 318: 26.5.4, CBC 1708.3.1
2. Inspect single-pass fillet welds, maximum 5/16"		X	☐	AWS D1.4, ACI 318: 26.5.4, CBC 1708.3.1
3. Inspect all other welds	X		☐	AWS D1.4, ACI 318: 26.5.4, CBC

				1708.3.1
C. Inspect anchors cast in concrete		X	☐	ACI 318: 17.8.2
D. Inspect anchors post-installed in hardened concrete members (see footnote b. Table 1705.3):				
1. Adhesive anchors installed in horizontally or upwardly inclined orientations to resists sustained tension loads	X		☐	ACI 318: 17.8.2.4
2. Mechanical anchors and adhesive anchors not defined in 4.a		X	☐	ACI 318: 17.8.2
E. Verify use of required design mix		X	☐	ACI 318: Ch. 19, 26.4.3, 26.4.4, CBC 1904.1, 1904.2, 1908.2, 1908
F. Prior to concrete placement, fabricate specimens for strength tests, preform slump and air tests, and determine the temperature of the concrete	X		☐	ASTM C172, ASTM C31, ACI 318: 26.5, 26.12, CBC 1908.10
G. Inspect concrete and shotcrete placement for proper application techniques	X		☐	ACI 318: 26.5, CBC 1908.6, 1908.7, 1908.8
H. Verify maintenance of specified curing temperature and techniques		X	☐	ACI 318: 26.5.3-26.5.5, CBC 1908.9
I. Inspect prestressed concrete for:				
1. Application of prestressing forces;	X		☐	ACI 318: 26.9.2.1
2. Grouting of bonded prestressing tendons	X		☐	ACI 318: 26.9.2.3
J. Inspect erection of precast concrete members		X	☐	ACI 318: Ch. 26.9
K. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs		X	☐	ACI 318: 26.11.2
L. Inspect formwork for shape, location, and dimensions of the concrete member being formed		X	☐	ACI 318: 26.10.1(b)
M. Material tests in absence of sufficient data or documentation	--	--	☐	CBC 1705.3.2

Table 1705.6 – Verification and Inspection of Soils	**C**	**P**	**Check if Required**	**Notes/Referenced Standards**
A. Verify materials below shallow foundations are adequate to achieve the design bearing capacity		X	☐	
B. Verify excavations are extended to proper depth and have reached proper material		X	☐	
C. Perform classification and testing of compacted fill materials		X	☐	
D. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill	X		☐	

E. Prior to placement of compacted fill, observe subgrade and verify that site has been prepared properly	X		☐	

Table 1705.8 – Verification and Inspection of Cast-in-Place Deep Foundation Elements	C	P	Check if Required	Notes/Referenced Standards
A. Inspect drilling operations and maintain complete and accurate records for each element	X		☐	
B. Verify placement locations and plumbness, confirm element diameters, bell diameters, lengths, embedment into bedrock and adequate end-bearing strata capacity; record concrete or grout volumes	X		☐	
C. For concrete elements, perform additional inspections in accordance with Section 1705.3	--	--	☐	

Table 1705.9 – Helical Pile Foundations	C	P	Check if Required	Notes/Referenced Standards
A. Continuous inspection is required during installation of helical pile foundations. Record installation equipment used, pile dimensions, tip elevations, final depth, final installation torque, and other pertinent data as required. The approved geotechnical report and construction documents shall be used to determine compliance	X		☐	

Table 1705.12 – Verification and Inspection for Seismic Resistance	C	P	Check if Required	Notes/Referenced Standards
A. Structural Steel 1. Seismic force-resisting systems, 1705.12.1.1: Joint Details, Connection Details, Welding, Nondestructive Testing, High-strength Bolting, Composite Structures, Piling, etc.	See form CNI-033A Statement of Special Inspections Steel Appendix	Same as prev.	☐	CBC 1705.12.1, AISC 341: Chapter J Quality Control and Quality Assurance
2. Structural steel elements, 1705.12.1.2: Inspection of steel elements in the seismic force-resisting system not covered in 1705.12.1.1, including struts, collectors, chords, foundation elements, etc.	See form CNI-033A Statement of Special Inspections Steel Appendix	Same as prev.	☐	CBC 1705.12.1, AISC 341: Chapter J Quality Control and Quality Assurance
B. Structural Wood				CBC 1704.12.2
1. Inspection of field gluing operations of elements of the seismic-force-resisting system	X		☐	
2. Nailing, bolting, fastening, and other fastening of components within the seismic-force-resisting system, where the		X	☐	

fastener spacing of the sheathing is 4 inches or less on center				
C. Cold-formed steel special bolted moment frames			☐	

Table 1705.13 – Testing and Qualification for Seismic Resistance	C	P	Check if Required	Notes/Referenced Standards
A. Structural Steel: Nondestructive testing for Seismic force-resisting systems per 1705.13.1.1 and/or Structural steel elements per 1705.13.1.2	See form CNI-033A Statement of Special Inspections Steel Appendix	Same as prev.	☐	CBC 1705.13.1, AISC 341

CONTRACTOR RESPONSIBILITY

Per Section 1704.4, each contractor responsible for the construction of a main seismic-force-resisting system, designated seismic system or a seismic-resisting component listed in the Statement of Special Inspections shall submit a written statement of responsibility to the building official and the owner **prior to the commencement of work** on the system or component. The contractor's statement of responsibility shall contain acknowledgment of awareness of the special requirements contained in the Statement of Special Inspections.

Each contractor responsible for the construction of the applicable system or component as specified above shall use the following lines to enter their name, signature, company, license number, date, and particular system or component that they are taking responsibility for prior to commencement of work on the indicated system or component. A copy of this page shall be presented to the building official, and it is the contractor's responsibility to also provide the owner a copy of this document.

Name _____

Signature _____

Company _____

License Number _____ Date _____