

# SPECIAL INSPECTION PROCEDURE IBC CHAPTER 17, 2015 EDITION

## **When Required**

All projects that require a SC Licensed Architect or Engineer per SC Architectural and Engineering Registration Law.

## **Overview**

The program consists of the following forms, which must be filled out and submitted to the building department by the SC Design Professional in Responsible Charge, Contractor and Individuals and Firms performing special inspections.

The forms are as follows:

*Owners Acknowledgement and Identification of the Design Professional in Responsible Charge*

*Earthquake and Wind Design Data Form*

*Contractor's Statement of Responsibility*

*The Individual and Firms Performing Special Inspections*

*The Statement "Schedule" of Special Inspections*

(All above forms shall be submitted at the time of application for Plan Review)

*Final Report of Special Inspections*

(Shall be submitted at the time of structural completion)

## **Owners Acknowledgement and Identification of the Design Professional in Responsible Charge**

The Owner shall provide the appropriate information and sign the form to acknowledge that he/she is the owner of the project and that he/she has contracted with the Design Professional in Responsible Charge to administer special inspections. This form also provides the general information about the project and identifies the SC Design Professional in Responsible Charge as required in IBC Section 107.1. This form is submitted as a condition for permit issuance and as a commitment to Special Inspections.

## **Earthquake and Wind Design Data Form**

This form is to be completed by the Structural Engineer and must be consistent with the Structural Analysis on the construction documents.

## **Contractor's Statement of Responsibility**

This form is to be filled out by the contractor.

## **The Individual and Firms Performing Special Inspections**

The qualifications for the inspector will be specific to the inspection performed. The minimum qualifications will be as listed by the SCDLLR Qualification Requirements for Special Inspectors, or as approved by the Building Official. The forms will be reviewed by the City of Gaffney Community Development Department for completeness.

## **Statement "Schedule" of Special Inspections**

This form is to be completed by the Design Professional in Responsible Charge. It is a complete list of all required inspections. A "Y" is to be entered in each box where inspections are required for the project and a "N" where they are not.

## **Final Report of Special Inspections**

The SC Design Professional in Responsible Charge shall review all field reports for all inspections performed. The Final Report of Special Inspections shall then be completed, sealed and signed by the Design Professional in Responsible Charge.

## **Field Reports**

All field reports generated from the inspections must be kept on the jobsite in a binder with the City of Gaffney approved drawings and contain the following information:

- The project name and Permit Number
- The project address
- The name address and phone number of the individual/firm performing the inspection and generating the report
- The IBC Section referenced on the Statement "Schedule" of Special Inspections. The criteria for each inspection must be performed as outlined (periodic or continuous).

**OWNERS ACKNOWLEDGEMENT AND  
IDENTIFICATION OF THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE**

Project: \_\_\_\_\_ Application No. \_\_\_\_\_

Project location: \_\_\_\_\_

Project Owner: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

I hereby acknowledge that I am the owner of the project referenced above and I have contracted with the design professional listed below to act as my agent in contracting and coordinating the required special inspections for the project.

\_\_\_\_\_  
Owners Signature

\_\_\_\_\_  
Date

SC Registered Design Professional in Responsible Charge:

Name: \_\_\_\_\_ License Number: SC \_\_\_\_\_

Firm (optional): \_\_\_\_\_

Phone: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

This *Owners Acknowledgement and Identification of the Design Professional in Responsible Charge* is submitted as a condition for permit issuance in accordance with the Special Inspection requirements of the International Building Code, Chapter 17. It includes a Schedule of Special Inspection Services applicable to this project as well as the name of the Special Inspector(s) and the identity of other approved agencies that are to be retained for conducting these inspections.

The Special Inspector shall keep records of all inspections and shall furnish inspection reports to the Design Professional in Responsible Charge and the Building Official. Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Design Professional in Responsible Charge and the Building Official. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections and correction of any discrepancies noted in the inspections shall be submitted prior to issuance of a Certificate of Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

Design Professional in  
Responsible Charge:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Reviewed by Code Official

\_\_\_\_\_  
Type or print name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Individual Seal

Firm Seal

# Earthquake and Wind Design Data Form

IBC Section 1609 Wind Loads and Section 1613 for Earthquake Loads

Project \_\_\_\_\_ Application No. \_\_\_\_\_

IBC Section 1603.1.5 "The following information related to seismic loads shall be shown, regardless of whether seismic loads govern the design of the lateral-force-resisting system of the building":

1. Risk Category \_\_\_\_\_ Importance Factor \_\_\_\_\_  
IBC 1604.5 (IBC Table 1604.5) 2010 ASCE 7, Table 1.5-2
2. Mapped spectral response accelerations  $S_S$  \_\_\_\_\_ and  $S_1$  \_\_\_\_\_.  
USGS website, <http://earthquake.usgs.gov/>, IBC1613.3.1
3. Site Class: \_\_\_\_\_  
IBC Section 1613.3.2 - Verify by soil test 1803.2, 2010 ASCE 7, Table 20.3-1
4. Spectral Response Coefficients  $S_{DS}$  \_\_\_\_\_,  $S_{D1}$  \_\_\_\_\_.  
IBC Table 1613.3.3(1) and 1613.3.3(2), (Equations 16-39 and 16-40)
5. Seismic Design Category \_\_\_\_\_  
IBC Section 1613.3.5 and IBC Tables 1613.3.5(1) and 1613.3.5(2) Note: Most severe shall apply.
6. Basic Seismic Force Resisting System \_\_\_\_\_
7. Design Base Shear \_\_\_\_\_ Seismic Response Coefficient(s)  $C_S$  \_\_\_\_\_  
ASCE 7 Section 12.8.1.1, (equation) 12.8-2
8. Response Modification Factor(s), R \_\_\_\_\_
9. Analysis procedure used \_\_\_\_\_

IBC Section 1603.1.4 "The following information related to winds loads shall be shown, regardless of whether wind loads govern the design of the lateral-force-resisting system of the building":

1. Ultimate Design Wind Speed (3 Second Gusts)  $V_{ult}$  \_\_\_\_\_ and (Nominal)  $V_{asd}$  \_\_\_\_\_  
IBC Section 1609.3.1 (Equation 16-33)
2. Risk Category \_\_\_\_\_ IBC 1604.5 (IBC Table 1604.5)
3. Wind Exposure \_\_\_\_\_ IBC Section 1609.4.3
4. Applicable Internal Pressure Coefficient \_\_\_\_\_
5. Design wind pressures to be used for exterior component and cladding materials (psf) \_\_\_\_\_

A SC Licensed Engineer to affix seal on this document and provide phone number.

Name \_\_\_\_\_  
 Firm \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Email \_\_\_\_\_

Individual Seal	Firm Seal
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# Contractor Statement of Responsibility

Project \_\_\_\_\_ Application No. \_\_\_\_\_

**IBC 1704.4 Contractor(s) responsibility:** For the construction of a seismic-force-resisting system, designated seismic system, wind or seismic resisting component listed the Statement of Special Inspections.

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

Contractor's Name: \_\_\_\_\_

Contractors Phone Number: \_\_\_\_\_

Contractor's E-Mail Address: \_\_\_\_\_

Contractor's License Number: \_\_\_\_\_

Contractors Address: \_\_\_\_\_

\_\_\_\_\_

1. I hereby acknowledge that I have read and am aware of the special requirements contained in the Statement of Special Inspections.

2. I hereby acknowledge that control will be exercised to obtain conformance with the construction documents reviewed by the Building Official.

3. The reports will be put in a 3 ring binder that is kept on the jobsite with the City Reviewed Plans/Documents. The documents in the binder shall be kept in the order referenced in the "Statement of Special Inspections"

4. Upon entry of the "Final Report of Inspections" the Special Inspection Binder shall be delivered to:

City of Gaffney  
Community Development Department  
201 N. Limestone St., 2nd Floor  
Gaffney, SC 29340

5. Control of this process will be exercised by:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Position in the Organization: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name

**INDIVIDUALS AND FIRMS PERFORMING SPECIAL INSPECTIONS**  
(MUST BE LICENSED OR REGISTERED WITH SCDLLR)

Project \_\_\_\_\_ Application No. \_\_\_\_\_

SPECIAL INSPECTOR PHONE / EMAIL	LICENSE / REG #	CLASSIFICATION(S)
1 _____		
2 _____		
3 _____		
4 _____		
5 _____		
6 _____		
7 _____		
8 _____		
9 _____		
10 _____		
11 _____		
12 _____		

**SPECIAL INSPECTORS REGISTRATION CLASSIFICATIONS**

- |   |  |                               |
|---|--|-------------------------------|
| (RC) Reinforced Concrete  | (PTC) Post-tension Cables                    | (SR) Seismic Resistance       |
| (SW) Welding  | (FP) Sprayed Fire Resistive Material         | (RB) Retention Basins         |
| (HSB) High Strength Bolting   | (EIFS) Exterior Insulation and Finish System | (DF) Deep Foundations         |
| (SF) Steel Frame  | (SC) Smoke Control                           | (SM) Structural Masonry       |
| (NDT) Non-destructive Testing   | (PCF) Pre-cast Fabrication                   | (MRW) Modular Retaining Walls |
| (EW) Earth Work which includes Excavation and Filling, and, Verification of Soils |  |                               |

# STATEMENT "Schedule" OF SPECIAL INSPECTIONS

2015 IBC SECTION 1704.3

Project \_\_\_\_\_ Application No. \_\_\_\_\_

Design Professional \_\_\_\_\_ License No. \_\_\_\_\_

Category	Item #	Verification & Inspection	Continuous	Periodic	Req. Y / N	Reference Standard or Compliance Document	IBC Reference	Special Inspector
<b>1704.2.4 Report Requirement</b>								
Rep.	1	Special Inspector to keep record of special inspections and furnish inspection reports to the building official and to the Registered design professional in responsible charge.	•	--			1704.2.4	
<b>1704.2.5 Inspection of Fabricated Items</b>								
Fab.	1	Work done in fabricator shop requires inspector unless the fabricator is registered and approved according to IBC 1704.2.5.1. Where fabricator is approved, <b>provide fabricator certification document.</b>	--	•			1704.2.5 Document Required	
Fab.	2	At completion of fabrication, submit certificate of compliance to building official stating the work was performed in accordance with the approved construction documents.	--	•			1704.2.5.1 Document Required	
<b>1704.3 Statement of Special Inspections</b>								
Rep.		A registered design professional in responsible charge shall prepare a statement of special inspections	--	•			1704.3 (THIS DOCUMENT)	
<b>1704.4 Contractor Responsibility</b>								
Rep.		Each contractor responsible for the construction of a main wind- or seismic force resisting system, designated seismic system or a wind- or seismic-resisting component listed in the statement of special inspections shall submit a written statement of responsibility.	--	•			1704.4 (Page 4 Document required)	
<b>1704.5 Submittals to the Building Official</b>								
Rep.		In addition to the submittal reports of special inspections and tests in accordance with Section 1704.2.4, reports and certificates shall be submitted by the owner or owner's authorized agent to the building official for each of the following.	•	--			1704.5	
Rep.	1	Certificates of compliance for the fabrication of structural, load-bearing or lateral load-resisting members or assemblies on the premises of a registered and approval fabricator in accordance with Section 1704.2.5.1	•	--		Section 1704.2.5.1 (Fabricator)	1704.5	
Rep.	2	Certificates of compliance for the seismic qualification of nonstructural components, supports and attachments in accordance with Section 1705.13.2	•	--		Section 1705.13.2	1704.5	

Category	Item #	Verification & Inspection	Continuous	Periodic	Req Y / N	Reference Standard or Compliance Document	IBC Reference	Agent
Rep.	3	Certificates of compliance for designated seismic systems in accordance with Section 1705.1.3.3	•	--		Section 1705.1.3.3 and 1704.3.2	1704.5 and 1704.3.2	
Rep.	4	Reports of preconstruction tests for shotcrete in accordance with Section 1908.5	•	--		Section 1908.5	1704.5	
Rep.	5	Certificates of compliance for open web steel joist and joist girders in accordance with Section 2207.5	•	--		Section 2207.5	1704.5	
Rep.	6	Reports of material properties verifying compliance with the requirements of AWS D1.4 for weldability as specified in Section 26.5.4. of ACI 318 for reinforcing bar in concrete complying with a standard other than ASTM A 706 that are to welded	•	--		AWS D1.4 Section Section 26.5.4 of ACI 318 ASTM A 706	1704.5	
Rep.	7	Reports of mill tests in accordance with Section 20.2.2.5 of ACI 318 for reinforcing bars complying with ASTM A 615 and used to resist earthquake-induced flexural or axial forces in the special moment frames, special structural walls or coupling beams connecting special structural walls of seismic force-resisting systems in structures assigned to Seismic Design Category B, C, D, E, or F	•	--		Section 20.2.2.5 of ACI 318 ASTM A 615	1704.5	
<b>1704.6 Structural Observation</b>								
Rep.		The owner shall employ a registered design professional to perform structural observation. Prior to commencement of observation, the structural observer shall submit to the building official a written statement identifying frequency and extent of structural observations.	--	•		Seismic Design Category D, E or F only	1704.6	
<b>1705.2.1 Steel Construction Inspection</b>								
Stl.	1	Structural Steel shall be in accordance with the quality assurance inspection requirements of AISC 360	--			AISC 360	1705.2.1	
<b>1705 Steel Construction other than Structural Steel Inspection</b>								
Stl.	1	Material verification of high-strength bolts, nuts and washers				ASTM Standards	1705.2	
Stl.	1a	Identification markings to conform to ASTM standards specified in the approved construction documents	--	•		AISC 360, Section A3.3 and applicable ASTM material standards	1705.2	
Stl.	1b	Manufacturer's certificate test reports	--	•			1705.2	
Stl.	2	Inspection of welding						
	2a.	Cold-formed steel deck						
Stl. (str)	2a (1)	Floor and roof deck welds	--	•		AWS D1.3	1705.3	

Category	Item #	Verification & Inspection	Continuous	Periodic	Req Y / N	Reference Standard or Compliance Document	IBC Reference	Agent
	2b	Reinforcing steel		--			1705.3	
Stl. (reinf)	2b (1)	Verification of weldability of reinforcing steel other than ASTM A 706		•		AWDS D1.4 ACI 318: 3.5.2	1705.2	
Stl (reinf)	2b (2)	Reinforcing steel-resisting flexural and axial forces	•	--		AWDS D1.4 ACI 318: 3.5.2	1705.2	
Stl. (reinf)	2b (3)	Shear reinforcement	•	--		AWDS D1.4 ACI 318: 3.5.2	1705.2	
Stl. (reinf)	2b (4)	Other reinforcing steel	--	•		AWDS D1.4 ACI 318: 3.5.2	1705.2	
<b>1705.2.3 Inspection of Open-web Steel Joist and Joist Girders</b>								
Stl.	1	Installation of open-web steel joist and joist girders				SJI specification listed in Section 2207.1	Table 1705.2.3	
Stl.	1a	End connections – welding or bolted	--	•			Table 1705.2.3	
Stl.	1b	Bridging – horizontal or diagonal				SJI specification listed in Section 2207.1	Table 1705.2.3	
Stl.	1b (1)	Standard bridging	--	•			Table 1705.2.3	
Stl.	1b (2)	Bridging that differs from the SJI specifications listed in Section 2207.1	--	•			Table 1705.2.3	
<b>1705.3 Concrete Construction</b>								
Conc.	1	Inspection of reinforcing steel including prestressing tendons, and placement	--	•		ACI 318 Ch. 20, 25.2, 25.3, 26.5.1-26.5.3, 35 and IBC 1905	1705.3	
Conc.	2	Reinforcing bar welding					Table 1705.3	
Conc.	2a	Verify weldability of reinforcing bars other than ASTM A 706	--	•		IBC 1905 AWS D1.4 ACI 318: 26.5.4	Table 1705.3	
Conc.	2b	Inspect single-pass welds, maximum 5/6"	--	•			Table 1705.3	
Conc.	2c	Inspect all other welds	--	•			Table 1705.3	
Conc.	3	Inspection of anchors cast in concrete	--	•		IBC 1905 ACI 318: 17.8.2	Table 1705.3	
Conc.	4	Inspection of anchors post-installed in hardened concrete members						
Conc.	4a	Adhesive anchors installed in horizontally or upwardly inclined	•	--		ACI 318: 17.8.2.4	Table 1705.3	
Conc.	4b	Mechanical anchors and adhesive anchors not defined in 4a	--	•		ACI 318: 17.8.2	Table 1705.3	
Conc.	5	Verifying use of required design mix	--	•		ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3, Table 1705.3	



Category	Item #	Verification & Inspection	Continuous	Periodic	Req Y / N	Reference Standard or Compliance Document	IBC Reference	Agent
Conc.	6	Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete	•	--		ASTM C172 ASTM C31 ACI 318: 26.4.5, 26.12	1908.10 & Table 1705.3	
Conc.	7	Inspection of concrete and shotcrete placement for proper application techniques	•	--		ACI 318: 26.4.5	1908.6, 1908.7, 1908.8, Table 1705.3	
Conc.	8	Verify maintenance of specified curing temperature and techniques	--	•		ACI 318: 26.4.7 – 26.4.9	1908.9 & Table 1705.3	
Conc.	9	Inspection of pre-stressed concrete						
Conc.	9a	Application of pre-stressing forces	•	--		ACI 318: 26.9.2.1 ACI 318: 26.9.2.3	Table 1705.3	
Conc.	9b	Grouting of bonded pre-stressing tendon	•	--			Table 1705.3	
Conc.	10	Inspect erection of precast concrete members	--	•		ACI 318: Ch. 26.8	Table 1705.3	
Conc.	11	Verification of 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	--	•		ACI 318: 26.10.2	Table 1705.3	
Conc.	12	Inspect formwork for shape, location and dimensions of the concrete member being formed	--	•		ACI 318: 26.10.1(b)	Table 1705.3	
<b>1705.4 Masonry Construction</b>								
Mas.		Masonry construction shall be inspected and verified per standards	--	•		TMS 402/ACI 530/ASCE 5 and TMS 602/ACI 530.1/ASCE 6	1705.4	
Mas.	1	Empirically design masonry, glass unit masonry and masonry veneer in Risk Category IV	•	--		Section 2109, 2110 or Chapter 14, Section 1604.5, shall comply with TMS 402/ACI 530/ ASCE 5 Level B Quality Assurance	1705.4.1	
Mas.	2	Vertical masonry foundation elements	--	•		IBC Section 1705.4	1705.4.2	
<b>1705.5 Wood Construction</b>								
Wd	1	High-Load Diaphragms	--	•		IBC Sec. 2306.2, Sec 1704.2, approved construction drawings	1705.5.1	
Wd	2	Metal-plate-connected wood trusses spanning 60 feet or greater	--	•		Approved truss submittal package (bracing)	1705.5.2	
<b>1705.6 Soils</b>								
Soil	1	Verify materials below shallow foundations are adequate to achieve the design bearing capacity	--	•			Table 1705.6	
Soil	2	Verify excavations are extended to proper depth and have reached proper material	--	•			Table 1705.6	
Soil	3	Perform classification and testing of compacted fill materials	--	•			Table 1705.6	
Soil	4	Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill	•	--			Table 1705.6	

Category	Item #	Verification & Inspection	Continuous	Periodic	Req Y / N	Reference Standard or Compliance Document	IBC Reference	Agent
Soil	5	Prior to placement of compacted fill, observe sub-grade and verify that site has been prepared properly	--	•			Table 1705.6	
<b>1705.7 Driven Deep Foundation</b>								
Drv	1	Verify element materials, sizes and lengths comply with the requirements	•	--			Table 1705.7	
Drv	2	Determine capacities of test elements and conduct additional load tests, as required	•	--			Table 1705.7	
Drv	3	Inspect driving operations and maintain complete and accurate records for each element	•	--			Table 1705.7	
Drv	4	Verify placement locations and plumbness, confirm type and size of hammer, record number of blows per foot of penetration, determine required penetrations to achieve design capacity, record tip and butt elevations and document any damage to foundation element	•	--			Table 1705.7	
Drv	5	For steel elements, perform additional inspections in accordance with Section 1705.2	--	--			Sec. 1705.7 & Table 1705.7	
Drv	6	For concrete elements and concrete filled elements, perform additional inspections in accordance with Section 1705.3	--	--			Sec. 1705.7 & Table 1705.7	
Drv	7	For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	--	--			Table 1705.7	
<b>1705.8 Cast-In-Place Deep Foundation</b>								
CIP	1	Inspect drilling operations and maintain complete and accurate records for each element	•	--			Table 1705.8	
CIP	2	Verify placement locations and plumbness; confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end bearing strata capacity. Record concrete or grout volumes	•	--			Table 1705.8	
CIP	3	For concrete elements, perform additional inspections in accordance with Section 1705.3	--	--			Sec. 1705.3 & Table 1705.8	
<b>1705.9 Helical Pile Foundations</b>								
HPF	1	Installation of helical pile foundations	•	--		Approved Geotechnical report and registered design professional	1705.9	
<b>1705.10 Special Inspections for Fabricated Items</b>								
Fab		Special inspections of fabricated items shall be performed in accordance with Section 1704.2.5					1705.10	
<b>1705.11 Special Inspections for Wind Resistance</b>								
Wind		Wind Requirements for buildings and structures per 1705.11					1705.11	
Wind	1	Structural Wood	•	--			1705.11.1	
Wind	2	Cold-formed steel light-frame construction	--	•			1705.11.2	

Category	Item #	Verification & Inspection	Continuous	Periodic	Req Y / N	Reference Standard or Compliance Document	IBC Reference	Agent
Wind	3	Wind-resisting components. 1. Roof covering, roof deck and roof framing connections 2. Exterior wall covering and wall connections to roof and floor diaphragms and framing	--	•			1705.11.3	
<b>1705.12 Special Inspection for Seismic Resistance</b>								
Seis	1	Structural Steel seismic resistance shall be in accordance with Section 1705.12.1.1 or 1705.12.1.2 as applicable				Section 1705.12.1.1 Section 1705.12.1.2	1705.12.1	
Seis	1a	Seismic force-resisting systems of structural steel in the seismic force-resisting systems of buildings and structures assigned to Seismic Design Category B, C, D, E or F shall be performed in accordance with the quality assurance of requirements of AISC 341.	•	--		AISC 341	1705.12.1.1	
Seis	1b	Structural steel elements in the seismic force resisting systems of buildings and structures assigned to Seismic Design Category B, C, D, E or F other than those covered in Section 1705.12.1.1, including struts, collectors, chords and foundation elements, shall be performed in accordance with the quality assurance requirements of AISC 341	•	--		Section 1705.12.1.1 AISC 341	1705.12.1.2	
Seis	2	Structural wood for the seismic force-resisting systems of structures assigned to Seismic Design Category C, D, E or F					1705.12.2	
Seis	2a	Structural wood field gluing operations of elements of seismic force-resisting system	•	--			1705.12.2	
Seis	2b	Structural wood fastening for nailing, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels and hold downs	--	•			1705.12.2	
Seis	3	Cold-formed steel light-frame construction for seismic force resisting systems of structures assigned to Seismic Design Category C, D, E or F					1705.12.3	
Seis	3a	For welding operations of elements of the seismic force resisting system	--	•			1705.12.3	
Seis	3b	For screw attachment, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs	--	•			1705.12.3	
Seis	4	Designated seismic system verifications for structures assigned to Seismic Design Category C, D, E or F, the special inspector shall examine designated seismic systems requiring seismic qualification in accordance with Section 13.2.2 of ASCE 7 and verify that the label, anchorage and mounting conform to the certificate of compliance	--	•		Section 13.2.2 ASCE 7	1705.12.4	

Category	Item #	Verification & Inspection	Continuous	Periodic	Req Y / N	Reference Standard or Compliance Document	IBC Reference	Agent
Seis	5	Architectural Components in D, E, or F	--	•		D, E, F	1705.12.5	
Seis	5.1	Access Floors in D, E, or F	--	•		D, E, F	1705.12.5.1	
Seis	6	Plumbing, Mechanical and Electrical Components					1705.12.6	
Seis	6a	Anchorage of electrical equipment for emergency or standby power systems, in C, D, E or F	--	•			1705.12.6	
Seis	6b	Anchorage of other electrical equipment in E or F	--	•			1705.12.6	
Seis	6c	Installation and anchoring of piping systems designed to carry hazardous materials and associated mechanical units in C, D, E or F	--	•			1705.12.6	
Seis	6d	Installation of HVAC ductwork that will carry hazardous materials in C, D, E or F	--	•			1705.12.6	
Seis	6e	Installation of vibration isolation systems with clearance less than 0.25 inches between equipment support frame and restraint where indicated on construction documents in C, D, E or F	--	•			1705.12.6	
Seis	7	Storage Rack during anchoring storage racks 8 feet or greater in height in D, E or F	--	•			1705.12.7	
Seis	8	Seismic Isolation System	--	•			1705.12.8	
Seis	9	Cold-formed steel special bolted moment frames in the seismic force-resisting systems of structures assigned to seismic Design Category D, E or F	--	•			1705.12.9	
<b>1705.13 Testing for Seismic Resistance</b>								
Test	1	Structural Steel	•	--		Section 1705.13.1.1 Section 1705.13.1.2	1705.13.1	
Test	2	Seismic force-resisting systems	•	--		AISC 341	1706.13.1.1	
Test	3	Structural steel elements	•	--		AISC 341	1705.13.1.2	
Test	4	Seismic certification of nonstructural components and designated seismic systems	•	--		Per the registered design professionals requirements on the construction documents. Sec. 13.2 of ASCE 7	1705.13.2 and 1705.13.3	
Test	5	Seismically isolated structures	•	--		Sec. 17.8 of ASCE 7	1705.13.4	
<b>1705.14 Sprayed Fire Resistant Materials</b>								
FRM	1	Physical and visual tests: 1. Condition of substrates 2. Thickness of application 3. Density in pounds per cubic foot 4. Bond strength adhesion/cohesion 5. Condition of finished application	•	--			1705.14.1	
FRM	2	Structural member surface conditions in conformance with approved fire-resistance design and manufacturers instructions	•	--			1705.14.2	

Category	Item #	Verification & Inspection	Continuous	Periodic	Req Y / N	Reference Standard or Compliance Document	IBC Reference	Agent
FRM	3	Application per manufacturers instructions	•	--			1705.14.3	
FRM	4	Thickness	•	--		ASTM E605	1705.14.4	
FRM	4a	Minimum allowable thickness	•	--		ASTM E605	1705.14.4.1	
FRM	4b	Floor, roof and wall assemblies. Not less than four measurements for each 1,000 sq. ft. of the sprayed area in each story or portion thereof	--	•		ASTM E605	1705.14.4.2	
FRM	4c	Cellular decks. Thickness measurements shall be selected from a square area, 12 inches x 12 inches in size. A minimum of four measurements shall be made, located symmetrically within the square area	--	•		ASTM E605	1705.14.4.3	
FRM	4d	Fluted decks. Thickness measurements shall be selected from a square area, 12 inches x 12 inches in size. A minimum of four measurements shall be made, located symmetrically within the square area, including one of each of the following: valley, crest and sides	--	•		ASTM E605	1705.14.4.4	
FRM	4e	Structural members. Thickness testing shall be performed on not less than 25 percent of the structural members on each floor.	--	•		ASTM E605	1705.14.4.5	
FRM	4f	Beams and girders. Thickness measurements shall be made at nine locations around the beam or girder at each end of a 12-inch length	--	•		ASTM E605	1705.14.4.6	
FRM	4g	Joists and trusses. Thickness measurements shall be made at seven locations around the joist or truss at each end of a 12-inch length	--	•		ASTM E605	1705.14.4.7	
FRM	4h	Wide-flanged columns. Thickness measurements shall be made at twelve locations around the column at each end of a 12-inch length	--	•		ASTM E605	1705.14.4.8	
FRM	4i	Hollow structural section and pipe columns. Thickness measurements shall be made at minimum of four locations around the column at each end of a 12-inch length	--	•		ASTM E605	1705.14.4.9	
FRM	5	Density	--	•		ASTM E605	1705.14.4.9	
FRM	5a	From each floor, roof and wall assembly at the rate of not less than one sample for every 2,500 square feet or portion thereof of the sprayed area in each story	--	•		ASTM E605	1705.14.5	
FRM	5b	From beams, girders, trusses and columns at the rate of not less than one sample for each type of structural member for each 2,500 square feet of floor area or portion thereof in each story	--	•		ASTM E605	1705.14.5	
FRM	6	Bond strength (cohesive/adhesive)	--	•		ASTM E736	1705.14.6	
FRM	6a	Floor, roof and wall assemblies. Not less than one sample from each floor, roof and wall assembly for each 2,500 square feet of the sprayed area in each story or portion thereof	--	•		ASTM E736	1705.14.6.1	

Category	Item #	Verification & Inspection	Continuous	Periodic	Req Y / N	Reference Standard or Compliance Document	IBC Reference	Agent
FRM	6b	Structural members. Not less than one sample from each beam, girders, trusses, columns and other structural members for each type of structural member for each 2,500 square feet of the floor area in each story or portion thereof.	--	•		ASTM E736	1705.14.6.2	
FRM	6c	Primer, paint and encapsulate bond tests	--	•		ASTM E736	1705.14.6.3	
<b>1705.15 Mastic and Intumescent Fire Resistant Coatings</b>								
FRC	1	Verification and inspection of fire-resistance design designated in construction documents	--	•		AWCI 12-B	1705.15	
<b>1705.16 Exterior Insulation and Finish Systems (EIFS)</b>								
EIFS	1	Field application (Special inspection not required where EIFS is installed over water resistant barrier with drainage system or over masonry or concrete)	•	--			1705.16	
EIFS	2	Water-Resistive Barrier Coating	•	--		ASTM E2570	1705.16	
<b>1705.17 Fire-Resistant Penetrations and Joint</b>								
FRPJ	1	Verification in high-rise buildings or buildings assigned to Risk Category III or IV					1705.17	
FRPJ	1a	Penetration Firestops	•	--		ASTM E2174	1705.17.1	
FRPJ	1b	Fire-Resistant Joint System	•	--		ASTM E2393	1705.17.2	
<b>1705.18 Smoke Control</b>								
Smoke	1	Smoke Control Inspection prior to concealment	•	--			1705.18.1(1)	
Smoke	2	Smoke Control Testing prior to occupancy	--	•			1705.18.1(2)	
Smoke	3	Qualifications of Inspector	--	--			1705.18.2	