

SPECIAL INSPECTION PROCEDURE IBC CHAPTER 17, 2018 EDITION

When Required

All projects that require a SC Licensed Architect or Engineer per SC Architectural and Engineering Registration Law. The Special Inspection Inspections **Do Not** take the place of the required IBC Chapter 1 Inspections that are normally performed by the Greenville County Building Inspectors.

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)

All 17 pages of this document shall be placed in the Job Site Binder at the time of Permitting.

Owners Acknowledgement and Identification of the Design Professional in Responsible Charge (DPIRC)

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 Greenville County Plan Review 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 an "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 job-site in a binder with the County of Greenville 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).

Earthquake and Wind Design Data Form

IBC Section 1609 Wind Loads and Section 1613 for Earthquake Loads

Project Name: _____ 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 _____ Seismic Importance Factor (I_e) _____
IBC 1604.5 (IBC Table 1604.5) ASCE 7-16, Table 1.5-1
2. Mapped spectral response accelerations S_S _____ and S_T _____.
USGS website, <http://earthquake.usgs.gov/>, IBC1613.2.1
3. Site Class: _____
IBC Section 1613.2.2 - Verify by soil test 1803.2, ASCE 7-16, Table 20.3-1
4. Spectral Response Coefficients S_{DS} _____, S_{D1} _____.
IBC Table 1613.3.3(1) and 1613.3.3(2), (Equations 16-38 and 16-39)
5. Seismic Design Category _____
IBC Section 1613.2.5.1 and IBC Tables 1613.2.5(1) and 1613.2.5(2) Note: Most severe shall apply.
6. Basic Seismic Force Resisting System _____
7. Design Base Shear _____ Seismic Response Coefficient(s) C_S _____
ASCE 7-16 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. Basic Design Wind Speed V_{ult} _____ and Allowable _____
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) _____

SC Licensed Engineer

Name _____

Address _____

Phone _____

Email _____

Signature _____

| | |
|-----------------|----------|
| Individual Seal | COA Seal |
|-----------------|----------|

Contractor Statement of Responsibility

Project Name: _____ Application No. _____

Project Address: _____

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

Contractor's Name : _____ License#: _____

Contractors Address: _____

Contractors Phone Number: _____

Contractor's E-Mail Address: _____

Contractor's License Number: _____

1. The Special Inspection Inspections **Do Not** take the place of the required IBC Chapter 1 Inspections that are normally performed by the Greenville County Building Inspectors.
2. I hereby acknowledge that I have read all pages of this document and am aware of the special requirements contained in the Statement of Special Inspections.
3. I hereby acknowledge that control will be exercised to obtain conformance with the construction documents reviewed by the Building Official.
4. All reports including all pages of this Special Inspections Procedure shall be put in a 3 ring binder that is kept on the jobsite with the County Reviewed Plans/Documents. The documents in the binder shall be kept in the order the inspections are completed.
5. Upon completion of the "Final Report of Inspections" the Special Inspection Binder shall be delivered to:
Greenville County
Building Permit Office
301 University Ridge, Suite 4100
Greenville, SC 29601
6. Control of this process will be exercised by the on-site individual in charge of project:

Name: _____ Title: _____

Address: _____

Phone: _____ E-Mail Address: _____

Signature

Date

Print Name

INDIVIDUALS AND FIRMS PERFORMING SPECIAL INSPECTIONS

(MUST BE LICENSED OR REGISTERED WITH SCDLLR)

Project _____ Application No. _____

| SPECIAL INSPECTOR AND FIRM PHONE / EMAIL | SCLLR LICENSE / REG # | SCLLR 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

2018 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 |
|---|--------|--|------------|----------|------------|---|-----------------------------------|-------------------|
| 1704.2.4 Report Requirement | | | | | | | | |
| 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 | |
| 1704.2.5 Inspection of Fabricated Items | | | | | | | | |
| 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, provide fabricator certification document. | -- | • | | | 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 | |
| 1704.3 Statement of Special Inspections | | | | | | | | |
| Rep. | | A registered design professional in responsible charge shall prepare a statement of special inspections | -- | • | | | 1704.3 (THIS DOCUMENT) | |
| 1704.4 Contractor Responsibility | | | | | | | | |
| 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) | |
| 1704.5 Submittals to the Building Official | | | | | | | | |
| 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 | |
| 1704.6 Structural Observation | | | | | | | | |
| 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 | |
| 1705.2.1 Steel Construction Inspection | | | | | | | | |
| Stl. | 1 | Structural Steel shall be in accordance with the quality assurance inspection requirements of AISC 360 | -- | | | AISC 360 | 1705.2.1 | |
| 1705 Steel Construction other than Structural Steel Inspection | | | | | | | | |
| 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 | |
| 1705.2.3 Inspection of Open-web Steel Joist and Joist Girders | | | | | | | | |
| 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 | |
| 1705.3 Concrete Construction | | | | | | | | |
| 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 | |
| 1705.4 Masonry Construction | | | | | | | | |
| 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 | |
| 1705.5 Wood Construction | | | | | | | | |
| 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 | |
| 1705.6 Soils | | | | | | | | |
| 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 | |
| 1705.7 Driven Deep Foundation | | | | | | | | |
| 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 | |
| 1705.8 Cast-In-Place Deep Foundation | | | | | | | | |
| 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 | |
| 1705.9 Helical Pile Foundations | | | | | | | | |
| HPF | 1 | Installation of helical pile foundations | • | -- | | Approved Geotechnical report and registered design professional | 1705.9 | |
| 1705.10 Special Inspections for Fabricated Items | | | | | | | | |
| Fab | | Special inspections of fabricated items shall be performed in accordance with Section 1704.2.5 | | | | | 1705.10 | |
| 1705.11 Special Inspections for Wind Resistance | | | | | | | | |
| 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 | |
| 1705.12 Special Inspection for Seismic Resistance | | | | | | | | |
| 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 | |
| 1705.13 Testing for Seismic Resistance | | | | | | | | |
| 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 | |
| 1705.14 Sprayed Fire Resistant Materials | | | | | | | | |
| 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 | |
| 1705.15 Mastic and Intumescent Fire Resistant Coatings | | | | | | | | |
| FRC | 1 | Verification and inspection of fire-resistance design designated in construction documents | -- | • | | AWCI 12-B | 1705.15 | |
| 1705.16 Exterior Insulation and Finish Systems (EIFS) | | | | | | | | |
| 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 | |
| 1705.17 Fire-Resistant Penetrations and Joint | | | | | | | | |
| 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 | |
| 1705.18 Smoke Control | | | | | | | | |
| 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 | |

FINAL REPORT OF SPECIAL INSPECTIONS

Project Name: _____ Application No.: _____

Project address: _____

Project Owner: _____

Address: _____

SC Registered Design
Professional in Responsible Charge: _____ License: _____

Firm: _____ License: _____

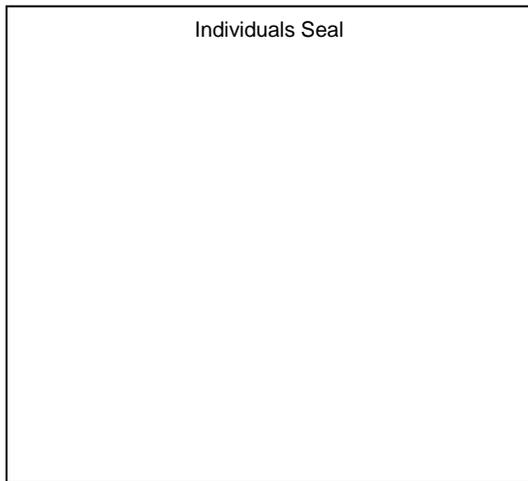
Address: _____

Phone: _____ Email: _____

To the best of my information, knowledge, and belief, the Special Inspections and/or Testing required for this project, and designated for this Agent in the *Statement of Special Inspections* submitted for permit, have been completed in accordance with the contract documents.

Field reports submitted prior to this *Final Report of Inspections* form a basis for, and are to be considered an integral part of this Final Report. All discrepancies that were outstanding in all of the Field reports have been corrected.

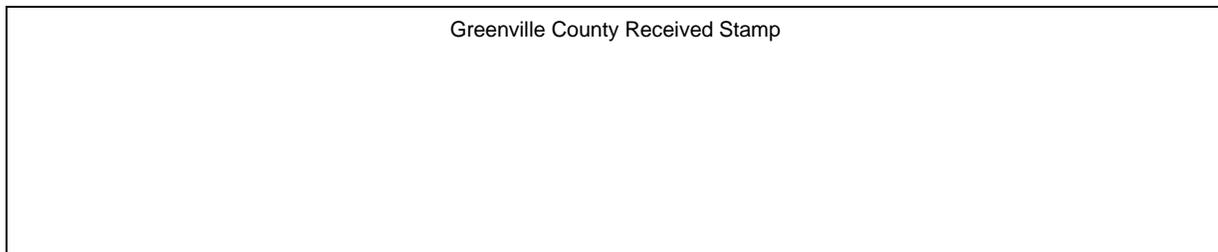
Individuals Seal



Firm/COA Seal



Greenville County Received Stamp



SCDLLR QUALIFICATION REQUIREMENTS FOR SPECIAL INSPECTORS

Any individual offering to perform special inspections or testing shall submit a registration or license issued by the South Carolina Building Codes Council, the South Carolina Board of Architectural Examiners or the South Carolina Board of Professional Engineers and Land Surveyors, for approval by the building official.

Except for professional engineers and architects registered in the State of South Carolina, special inspectors shall meet the following criteria. Work experience shall be related to the field for which the inspector is being qualified and may be obtained by for an engineering firm specializing in the field in which registration is being sought.

An individual shall meet a minimum of one of the requirements identified bellow, for each category in which approval is sought.

Reinforced Concrete (RC)

- (A) Current International Code Council (ICC) Reinforced Concrete Special Inspector, or,
- (B) Engineer in Training (EIT) with one year related experience under supervision of a Licensed PE

Prestressed Concrete (PC)

Pretension Tendons (PC1)

- (A) Current ICC Prestressed Concrete Special Inspector Certification
- (B) EIT with one year related experience including plan reading under supervision of a Licensed PE

Post-Tension Tendons (PC2)

- (A) Current Post-Tensioning Institute (PTI) Certification Level 1

Post-Tension Slabs-on-Ground (PTS)

- (A) Current PTI Certification Level 1

Welding (SW)

- (A) Current American Welding Society (AWS) Certified Welding Inspector
- (B) Current Canadian Welding Bureau Certified Welding Inspector

Nondestructive Testing of Welds (SN)

- (A) Current Nondestructive Testing Level II and/or Level III (MT, PT & UT)
 - (1) The applicant must be Level II certified by the American Society of Nondestructive Testing (ASNT) to perform Magnetic Particle Testing (MT) Liquid Penetrant Testing (PT) and Ultrasonic Testing (UT), or
 - (2) The applicant must be Level II certified by an ASNT Level III examiner to perform MT, PT and UT.

The Level III examiner shall be certified by ASNT and must submit a copy of his certification with the Level II certification.

High-Strength Bolting/ Steel Frame (SS)

- (A) Current ICC Structural Steel and Bolting Special Inspector

Structural Masonry (SM)

- (A) EIT with one year related experience including plan reading under supervision of a Licensed PE
- (B) Current ICC Structural Masonry Special Inspection

Sprayed Fire-Resistant Materials (FP)

- (A) Current ICC Spray-Applied Fireproofing Special Inspector

Deep Foundations (PDP)

- (A) Current National Institute for Certification in Engineering Technologies (NICET) Level II certification in geotechnical engineering technology/construction
- (B) EIT with one year related experience under supervision of a Licensed PE
- (C) Current SCDOT Foundation Inspector Certification

Excavation and Filling (EF)/Verification of Soils (VS)

- (A) Current NICET Level II certification in geotechnical engineering technology/construction
- (B) Current NICET Level II in Soils
- (C) EIT with one year related experience under supervision of a Licensed PE
- (D) Soils Special Inspector
- (E) Current SCDOT Earthwork, Drainage and Base Certification

Modular Retaining Walls (MRW)

- (A) EIT with one year related experience under supervision of a Licensed PE

Precast Concrete Erection (PCE) (Not a separate registration)

The special inspector shall be registered for Reinforced Concrete (RC) or Welding (SW) as required based on the type of inspection being performed.

Exterior Insulation and Finish System (EIFS)

- (A) EIT with one year related experience

Smoke Control (SC)

- (A) Current NICET N-II-FPAS
- (B) Current NICET N-II-FPFA
- (C) Current National Environmental Balancing Bureau
- (D) Current Associated Air Balance Council

Inspection of Fabricators Precast

- (A) Current ICC Reinforced Concrete Certification
- (B) Precast/Prestressed Concrete Institute Level II

Bar Joist

See welding/bolting requirements

Metal Building

See welding/bolting requirements

Structural Steel

See welding/bolting requirements

Lateral Force Resistance (SR)

- (A) EIT with two years related experience under supervision of a Licensed PE

Detention Basin (DB)

- (A) Professional land surveyor
- (B) EIT with two years related experience under supervision of a Licensed PE

Special Cases (XX)

BCC registration is limited to categories listed above. Special inspectors for special cases shall be approved by the jurisdictional building official.