

SPECIAL INSPECTION PROCEDURE

IBC CHAPTER 17

When Required

All projects that require a SC licensed Architect or Engineer per SC Architectural and Engineering registration law.

Overview

The program consists of five forms, which must be filled out by the SC Design Professional in Responsible Charge and submitted to the building department. The *Statement of the Design Professional in Responsible Charge*, *Earthquake Design Data Form*, *Checklist of Required Special Inspection Reports*, & *The Statement of Special Inspections* must be submitted at the time of application for Plan Review. The *Final Report of Special Inspections* is to be placed at the jobsite with all the field reports upon completion of the project, and made available to the Building Inspector during or prior to the Final Building Inspection. The *Owners Acknowledgement of Special Inspections* must also be submitted at the time of application for plan review. The *Contractor's Statement of Responsibility for Seismic-Force-Resisting Systems* must be submitted prior to permitting.

Statement of Design Professional in Responsible Charge

This form provides the general information about the project and identifies the SC Design Professional in Responsible Charge as required in IBC Section 106.3.4.1. This form is submitted as a condition for permit issuance and as a commitment to Special Inspections.

Earthquake 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.

Checklist of Required Inspection Reports, The Statement of Special Inspections

These forms are to be filled out by the SC Design Professional in Responsible Charge by checking the boxes of the required inspections specific to the project. The names of the individuals or firms providing these inspections will be entered at this time. The qualifications for the inspector will be specific to the inspection performed. The minimum qualifications will be as listed by the South Carolina Building Code Council Special Inspection Policy document, or as approved by the Building Official. The forms will be reviewed by the Greenville County Plan Review Department for completeness. The Statement of Special Inspections is required for all projects.

Field Reports

These reports are the results of the required inspections and must be performed by the individuals/firms designated by the SC Design Professional in Responsible Charge.

All field reports generated from the inspections must be kept on the jobsite in a binder with the County of Greenville approved drawings and contain the following information: (A generic example form is included in this package).

- 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 or Table number of the inspection. The criteria for each inspection must be performed as outlined in the appropriate code section or table and as specified in *The Checklist of Special Inspections*. Some inspections are periodic, some are continuous, and others are performed only once. When tables are referenced all applicable criteria in the table must be addressed.

Final Report of Special Inspections

The SC Design Professional in Responsible Charge shall collect final inspection reports from all inspections requiring more than one inspection then fill out the *Final Report of Inspections*. This report is certifying that all required inspections have been performed and all corrections have been made. The report is then put with the field reports in the binder on the jobsite prior to requesting a Final Building Inspection. An updated *Checklist of Required Special Inspection Reports & The Statement of Special Inspections* including all names and addresses of firms that performed the inspections must also be provided.

Contractor's Statement of Responsibility for Seismic-Force-Resisting Systems

This form is to be filled out by the contractor.

Owners Acknowledgement of Special Inspections

This form is to be filled out by the owner of the project.

STATEMENT OF THE DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE

Project: _____ Application No. _____

Project location: _____

Project Owner: _____

Address: _____

SC Registered Design
Professional in Responsible Charge: _____

Firm (optional): _____

License Number: SC _____ Phone: _____ Fax: _____

Address: _____

Architect: _____

Firm (optional): _____

License Number: SC _____ Phone: _____ Fax: _____

Address: _____

Structural Engineer: _____

Firm (optional): _____

License Number: SC _____ Phone: _____ Fax: _____

Address: _____

This Statement 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. 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:

Type or print name

Signature Date

Accepted by: (Code Official)

Type or print name

Signature Date

Individual Seal

Firm Seal

Earthquake Design Data Form

Greenville County Application No. _____
IBC section 1613 for earthquake.

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. **Occupancy Category:** _____. **Importance Factor** _____

IBC 1604.5 (IBC table 1604.5)

2. **Mapped spectral response accelerations** S_S _____ and S_I _____.

USGS website, <http://earthquake.usgs.gov/> 2002 maps, IBC1613.5.1

3. **Site Class:** _____.

IBC section 1613.5.2 and IBC Table 1613.5.2 Verify by soil test 1802.4

4. **Spectral Response Coefficients** S_{DS} _____, S_{DI} _____.

IBC 1613.5.3(1) and 1613.5.3(2), (equations 16-37 through 16-38)

5. **Seismic Design Category** _____.

IBC sections 1613.2, 1613.5.6 and IBC Tables 1613.5.6(1) or 1613.5.6(2) Note: Most severe shall apply.

6. **Basic Seismic Force Resisting System(s)** _____
_____.

IBC 1613.2 Must conform with Section 12.2 of ASCE 7

7. **Design base shear** _____.

Total design lateral force or shear at the base.

8. **Seismic response coefficient(s)** C_S _____.

ASCE 7 section 9.5.5.2.1 (equation)

9. **Response modification factor(s), R** _____.

10. **Analysis procedure used**
_____.

Individual Seal	Firm Seal

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

Name _____ **Phone** _____
Firm _____ **Fax** _____

OWNERS ACKNOWLEDGEMENT OF SPECIAL INSPECTIONS

I hereby acknowledge that I am the owner of the project referenced below 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.

Application/Permit Number: _____

Project Name: _____

Project Address: _____

Owner's Name: _____

Owner's Address: _____

Owner's Phone Number: _____

SC Registered Design
Professional in Responsible Charge: _____

Firm (optional): _____

License Number: SC _____ Phone: _____ Fax _____

Address: _____

Signature

Date

Print Name

CHECKLIST OF REQUIRED SPECIAL INSPECTION REPORTS & FIRMS/INDIVIDUALS PERFORMING INSPECTIONS

Project _____ Application No. _____

Project location: _____

Fabricator ISO 9000 Lead Quality Assurance Auditor or AISC certification. IBC 1704.2

- Metal Building Fabrication**
Firm/Individual Name: _____ Phone: _____
Address: _____
- Precast Concrete Fabrication**
Firm/Individual Name: _____ Phone: _____
Address: _____
- Prefabricated Trusses (Wood Truss fabricator requires WTCA or TPI certification)**
Firm/Individual Name: _____ Phone: _____
Address: _____
- Steel Bar Joist Fabrication**
Firm/Individual Name: _____ Phone: _____
Address: _____
- Structural Steel Fabrication**
Firm/Individual Name: _____ Phone: _____
Address: _____

- Site Welding** IBC Table 1704.3.1
Firm/Individual Name: _____ Phone: _____
Address: _____

- Steel Frame** IBC Table 1704.3.2
Firm/Individual Name: _____ Phone: _____
Address: _____

- High Strength Bolts** IBC Table 1704.3.3
Firm/Individual Name: _____ Phone: _____
Address: _____

- Concrete** IBC Table 1704.4
Firm/Individual Name: _____ Phone: _____
Address: _____

- Masonry** IBC Table 1704.5.1 and IBC Table 1704.5.3
Firm/Individual Name: _____ Phone: _____
Address: _____

- Wood Construction** IBC 1704.6 and IBC 2306.3.2
Firm/Individual Name: _____ Phone: _____
Address: _____

- Soils** IBC Sections 1704.7 and Table 1704.7
Firm/Individual Name: _____ Phone: _____
Address: _____

- Fill Placement** IBC Table 1704.7 and IBC 1803.5
Firm/Individual Name: _____ Phone: _____
Address: _____

Pile Foundations IBC 1704.8
Firm/Individual Name: _____ Phone: _____
Address: _____

Pier Foundations IBC Section 1704.9
Firm/Individual Name: _____ Phone: _____
Address: _____

Sprayed Fire Resistance Materials IBC Section 1704.10.1 through 1704.10.5
Firm/Individual Name: _____ Phone: _____
Address: _____

Mastic and Intumescent Fire-Resistant Coatings IBC Section 1704.11
Firm/Individual Name: _____ Phone: _____
Address: _____

Exterior Insulation and Finish Systems (EIFS) IBC Section 1704.12
Firm/Individual Name: _____ Phone: _____
Address: _____

Special Cases IBC Section 1704.13
Firm/Individual Name: _____ Phone: _____
Address: _____

Special Inspection for Smoke Control IBC Section 1704.14.1 through 1704.14.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Special Inspections for Seismic Resistance IBC Section 1707.1

Structural Steel IBC Section 1707.2
Firm/Individual Name: _____ Phone: _____
Address: _____

Structural Wood IBC Section 1707.3
Firm/Individual Name: _____ Phone: _____
Address: _____

Cold Formed Steel Framing IBC Section 1707.4
Firm/Individual Name: _____ Phone: _____
Address: _____

Pier Foundations IBC Section 1707.5
Firm/Individual Name: _____ Phone: _____
Address: _____

Storage Racks and Access Floors IBC Section 1707.6
Firm/Individual Name: _____ Phone: _____
Address: _____

Architectural Components IBC Section 1707.7
Firm/Individual Name: _____ Phone: _____
Address: _____

Mechanical and Electrical Components IBC Section 1707.8
Firm/Individual Name: _____ Phone: _____
Address: _____

Structural Observations IBC Section 1709
Firm/Individual Name: _____ Phone: _____
Address: _____

THE STATEMENT OF SPECIAL INSPECTIONS & FIRMS/INDIVIDUALS DRAFTING STATEMENT

Project _____ Application No. _____

Project location: _____

Statement of Special Inspections IBC Section 1705.1

- he Statement of Special Inspections Prepared by the Design Professional In Responsible Charge.** IBC Section 1705.2, 1705.3, 1705.4 **Statement to be attached for review.**

Firm/Individual Name: _____ Phone: _____
Address: _____

- Contractor Statement of Responsibility for Seismic System** IBC Section 1706
Complete forms on page 9.

Firm/Individual Name: _____ Phone: _____
Address: _____

CHECKLIST OF REQUIRED TESTING & FIRMS/INDIVIDUALS PERFORMING TESTS

- Masonry** IBC Sections 1708.1.1 through 1708.1.4

- Level 1 Quality Assurance** IBC Table 1704.5.1, 1708.1.3 Or

Firm/Individual Name: _____ Phone: _____
Address: _____

Or:

- Level 2 Quality Assurance** IBC Table 1704.5.3, 1708.1.4

Firm/Individual Name: _____ Phone: _____
Address: _____

- Reinforcing and Prestressing Steel** IBC Section 1708.3 as required by 1708.2

Firm/Individual Name: _____ Phone: _____
Address: _____

- Structural Steel** IBC Sections 1708.4 as required by 1708.2

Firm/Individual Name: _____ Phone: _____
Address: _____

- Mechanical and Electrical Equipment** IBC Section 1708.5 as required by 1708.2

Firm/Individual Name: _____ Phone: _____
Address: _____

(This section includes Sprinkler Systems)

Contractor Statement of Responsibility

IBC 1706 Contractor responsibility. Each contractor responsible for the construction of a seismic-force-resisting system, designated seismic system, wind or seismic resisting component listed the Statement of Special Inspections.

Application/Permit Number: _____

Project name: _____

Project Address: _____

Contractor's Name: _____

Contractor's License Number: _____

Contractors Address: _____

Contractors Phone Number: _____

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 approved by the Building Official.
- 3.) The procedures for exercising control within the contractor's organization are as follows:

The reports will be put in the jobsite 3 ring binder in reverse chronological order. Additional copies of the reports will be distributed by: _____ to the following individuals or firms:

Submitted on a _____ basis.

4. Control of this process will be exercised by:
Name: _____ Qualification: _____

Position in the Organization: _____

Signature

Date

Print Name

FINAL REPORT OF SPECIAL INSPECTIONS

Project: _____ Application No.: _____

Project location: _____

Project Owner: _____

Address: _____

SC Registered Design
Professional in Responsible Charge: _____

Firm (optional): _____

License No.: SC _____ Phone: _____ Fax: _____

Address: _____

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 *Checklist of Required Inspection Reports*, *Statement of Special Inspections* and the *Checklist of Required Testing* submitted for permit, have been completed in accordance with the contract documents.

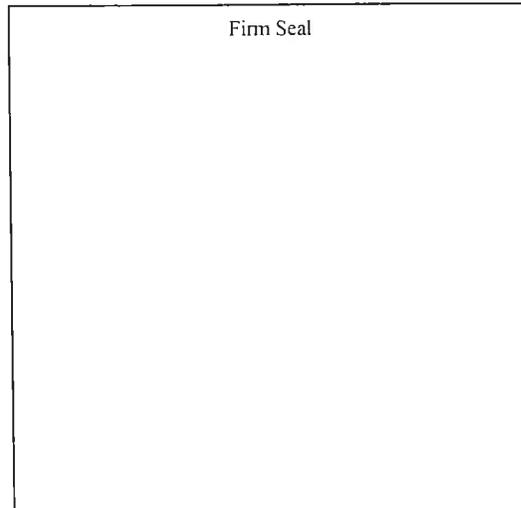
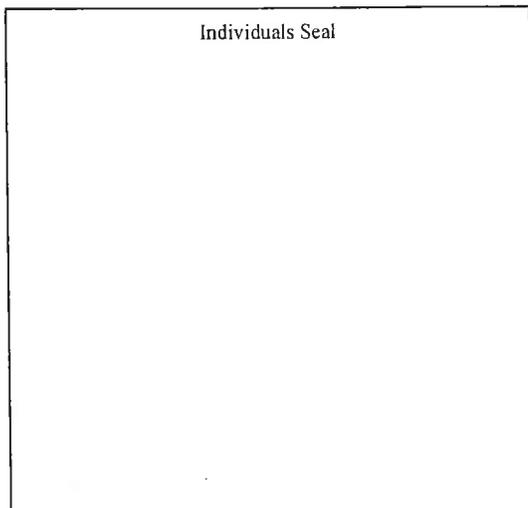
Field reports submitted prior to this *Final Report of Inspections* form a basis for, and are to be considered an integral part of this Final Report. All discrepancies that were outstanding in all of the Field reports have been corrected.

Prepared by:

Type or print name

Firm (optional)

Signature Date



SPECIAL INSPECTOR QUALIFICATIONS

INTRODUCTION

This policy sets forth the minimum qualification requirements for individuals and firms offering Special Inspection services. Nothing in this policy prevents the project owner or the registered design professional in responsible charge, acting as the owner's agent, from requiring qualifications above those identified herein.

An approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests and/or inspections.

Firms offering special inspection services for projects and fabrications located in South Carolina shall be licensed, registered, or certified by either; the South Carolina Board of Architectural Examiners, the South Carolina Contractors Licensing Board or the South Carolina Board of Professional Engineers and Land Surveyors in accordance with South Carolina Code of Laws, Title 40, Chapter 26.

Any questions or correspondence regarding special inspections should be directed to the building official for the jurisdiction in which the project will be located.

This Special Inspection Policy in no way relieves any participant from the proper performance of work according to contract documents and applicable codes, standards and regulations.

INSPECTION OF FABRICATORS

Fabrication and Implementation Procedures

ISO 9000 Lead Quality Assurance Auditor and meet the applicable special inspector qualification requirements identified herein

Fabricator Approval

ISO 9000 Lead Quality Assurance Auditor and meet the applicable special inspector qualification requirements identified herein

The following fabricator certifications are considered sufficient.

Metal Building Fabrication

Current American Institute of Steel Construction - Metal Building Systems Certification

Precast Concrete Fabrication

Current National Precast Concrete Association Plant Certification

Prefabricated Trusses

Current Truss Plate Institute Certification

Steel Bar Joist Fabrication

Current Steel Joist Institute Certification

Structural Steel Fabrication

Current American Institute of Steel Construction - Conventional Steel Building Structures

Current American Institute of Steel Construction - Complex Steel Building Structures

Current American Institute of Steel Construction - Simple Steel Bridges

Current American Institute of Steel Construction - Major Steel Bridges

QUALIFICATION OF SPECIAL INSPECTORS

The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the building official, for inspection of the particular type of construction requiring special inspection. The qualifications of all personnel new to an agency shall be approved by the building official before being assigned to any project.

Except for professional engineers and architects registered in the State of South Carolina, special inspectors shall meet at least one of the following requirements for each category in which approval is sought.

Steel Construction

Welding

Current American Welding Society (AWS) Certified Welding Inspector or

Current AWS Certified Welding Educator or

Current AWS Certified Welding Engineer or

Current American Welding Society/American Institute of Steel Construction (AWS/AISC) Certified Steel Structure Inspector

Nondestructive Testing of Welds

Current Nondestructive Testing Level II or III (Magnetic Particle Testing, Liquid Penetrate Testing, Ultrasonic Testing or Radiographic Testing)

(1) Level II personnel shall be qualified in accordance with the American Society of Nondestructive Testing (ASNT) document SNT-TC-1A (current edition). Level II certification as determined by a Level III examiner is required for each category.

or

(2) Level III Examiner shall be certified by ASNT unless all level II personnel have a current ASNT Central Certification Program certification. Only then will in-house designation of Level III nondestructive testing personnel be permitted.

Steel Frame Inspection

Current International Code Council (ICC) Structural Steel and Welding Certificate plus one year of related experience or

Current AWS/AISC Certified Steel Structure Inspector

High-Strength Bolting

Current ICC Structural Steel and Welding certificate with one year of related experience or
Current AWS/AISC Certified Steel Structure Inspector

Concrete Construction

Reinforced Concrete

Current ICC Reinforced Concrete Special Inspector or
Current American Concrete Institute (ACI) Concrete Field Testing Technician - Grade 1 Certification
or
South Carolina Engineer in Training (EIT) with one year related experience

Prestressed Concrete - Pretension tendons

Current ICC Reinforced Concrete Certification or
Current ACI Concrete Field Testing Technician Grade I Certification plus one year related experience
or
South Carolina EIT with one year related experience

Prestressed Concrete - Post-tension tendons

Current Post-Tensioning Institute (PTI) Certification or
South Carolina EIT with one year related experience

Prestressed Concrete - Post-Tension Slabs-on-Ground

Current PTI Certification or
South Carolina EIT with one year related experience

Precast Concrete Erection

IBC Table 1704.4 Items 1 & 3 through 10

Current ICC Reinforced Concrete Special Inspector or
Current ACI Concrete Field Testing Technician - Grade 1 Certification or
South Carolina EIT with one year related experience

IBC Table 1704.4 Item No. 2

Current AWS Certified Welding Inspector or
Current AWS Certified Welding Educator or
Current AWS Certified Welding Engineer or
Current AWS/AISC Certified Steel Structure Inspector

Masonry Construction

Current ICC Structural Masonry certificate and one year related experience or
South Carolina EIT with one year related experience

Wood Construction

Current ICC Building Inspector or
Current ICC Commercial Building Inspector or
Current ICC Commercial Combination Inspector or
Current ICC Combination Inspector or
Current ICC Residential Building Inspector or
Current ICC Residential Combination Inspector or
Current ICC Building Code Official or
Current ICC Certified Building Official or
Current ICC Master Code Professional or
South Carolina EIT with one year related experience

Soils

Site Preparation

Current National Institute for Certification in Engineering Technologies (NICET) Level II certification
in geotechnical engineering technology/construction or
South Carolina Registered Geologist or
South Carolina EIT with one year related experience or
South Carolina Geologist in Training (GIT) with one year related experience

During Fill Placement

Current NICET Level II certification in geotechnical engineering technology/construction or
South Carolina Registered Geologist or
South Carolina EIT with one year related experience or
South Carolina GIT with one year related experience

Evaluation of In-Place Density

Current NICET Level II certification in geotechnical engineering technology/construction or
South Carolina Registered Geologist or
South Carolina EIT with one year related experience or
South Carolina GIT with one year related experience

Pile Foundations

Current NICET Level II certification in geotechnical engineering technology/construction
South Carolina Registered Geologist or
South Carolina EIT with one year related experience or
South Carolina GIT with one year related experience

Pier Foundations

Current NICET Level II certification in geotechnical engineering technology/construction
South Carolina Registered Geologist or
South Carolina EIT with one year related experience or
South Carolina GIT with one year related experience

Wall Panels and Veneers

Current ICC Building Inspector or
Current ICC Commercial Building Inspector or
Current ICC Commercial Combination Inspector or
Current ICC Building Code Official or
Current ICC Certified Building Official or
Current ICC Master Code Professional or
South Carolina EIT with one year related experience

Sprayed Fire-Resistant Materials

Current ICC Spray-Applied Fire Proofing certificate or
South Carolina EIT with one year related experience

Smoke Control

South Carolina Professional Engineer with expertise in fire protection engineering, mechanical engineering and certification as air balancers by either:
Current National Environmental Balancing Bureau certified Testing, Adjusting and Balancing Supervisor or Current Associated Air Balance Council Test and Balance Engineer certification

Exterior Insulation And Finish System

Current ICC Building Inspector or
Current ICC Commercial Building Inspector or
Current ICC Commercial Combination Inspector or
Current ICC Building Code Official or
Current ICC Certified Building Official or
Current ICC Master Code Professional or
South Carolina EIT with one year related experience

Special Cases

Approval by the Building Official on a case-by-case basis