

City of Casa Grande Special Inspections Guidelines

Based on the 2012 International Building Code

City of Casa Grande Special Inspections Guidelines

Preface

The City of Casa Grande Special Inspections Guidelines are intended to assist all parties involved in building projects in City of Casa Grande to successfully comply with the special inspections requirements of the City of Casa Grande Minimum Building Code, (2012 International Building Code in conjunction with City of Casa Grande Amendments), hereafter referred to as the Building Code. These parties include owners, design professionals, contractors and special inspectors.

Disclaimer and Notice:

While the information presented in the report is believed to be correct, the City of Casa Grande (the City) assume no responsibility for its accuracy or for the opinions expressed herein. The material presented in this publication should not be used or relied upon for any specific application without competent examination and verification of its accuracy, suitability, and applicability by qualified professionals. The City has compiled this publication with care, but the City has not investigated, and the City expressly disclaims any duty to investigate, any product, service, process, procedure, design, or the like that may be described herein. The appearance of any technical data or editorial material in this publication does not constitute endorsement, warranty, or guaranty by the City of any product, service, process, procedure, design, or the like. The City does not warrant that the information in the publication is free of errors, and the City does not necessarily agree with any statement or opinion in this publication. The entire risk of the use of any information in this publication is assumed by the user.

Inspection Requirements Notice:

Special Inspections do not relieve the general contractor, owner, or other parties of the City inspections as required by the City of Casa Grande Building and Technical Administrative Code and the various construction codes and technical documents.

Contents

City of Casa Grande Special Inspections Guidelines	i
Preface.....	i
Disclaimer and Notice:	i
Inspection Requirements Notice:	i
Contents	ii
Forward.....	3
1704.2 Special inspections.....	3
1704.3 Statement of special inspections	3
IBC Section 1704.3 Content of the Statement of Special Inspections.....	4
Special Inspection Responsibilities.....	5
Owner Responsibilities	5
Design Professional in Responsible Charge Responsibilities.....	5
Building Official or Authority Having Jurisdiction Responsibilities	5
Special Inspectors Responsibilities.....	5
Contractor/Construction Manager/Design Builder Responsibilities	6
Special Inspections Step-by-step Time-line.....	7
Pre-Construction Meeting Checklist.....	8
Special Inspections Program Instructions	9
Overview:.....	9
Statement of Special Inspections	9
Special Inspector Designation.....	9
Schedule of Special Inspection Services.....	9
Final Report of Special Inspections	10
Statement of Special Inspections	11
Special Inspector Designation for Projects under 5000 SQFT	Error! Bookmark not defined.
Statement of Special Inspections Requirements for Seismic Resistance.....	13
Statement of Special Inspections Requirements for Wind Resistance	14
Final Report of Special Inspections	15
Contractor’s Statement of Responsibility	16
Fabricator’s Certificate of Compliance.....	17
Special Inspections Daily Report.....	18
Special Inspection Interim Report	19
Special Inspection Discrepancy Notice	20
Special Inspector Sign-in Sheet	21
Special Inspections Pre-Construction Meeting Checklist.....	22
Schedule of Special Inspection Services.....	24
Commentary on Schedule of Special Inspection Services.....	38
Suggested Minimum Special Inspector Qualifications.....	44

Forward

The City of Casa Grande Special Inspections Guidelines are to assist all parties involved in building projects in City to successfully comply with the special inspections requirements of the Building Code. These parties include owners, design professionals, contractors and special inspectors.

Special Inspection is the monitoring of the materials and workmanship critical to the integrity of the building structure. It is a review of the work of the contractors and their employees to ensure that the approved plans and specifications are being followed and that the relevant codes and referenced standards are being observed. The Special Inspection process is in addition to the inspections conducted by the Building Official or authority having jurisdiction and the Structural Observations by the Design Professional.

Special inspections and tests are required to be performed by qualified, independent agents with special expertise. Minimum qualifications for each type of inspection and test are included in this Document. In cases where the complexity of the inspection or testing activity warrants additional expertise, the Design Professional may specify, or the Building Official may require, more stringent qualifications. These qualifications are required to be reviewed and signed-off by the Building Official.

Special Inspections are required to be provided on all professionally designed projects not meeting the exception for certain residential occupancies per International Building Code (IBC) Section 1704. This section provides minimum requirements for special inspections, the statement of special inspections, contractor responsibility and structural observations. Special Inspections are NOT third party inspections instead of required, city performed inspections. All City and Code required inspections SHALL be requested by the construction manager and passed by city inspectors before proceeding with construction.

1704.2 Special inspections

Where application is made for construction as described in this section, the owner or the *registered design professional in responsible charge* acting as the owner's agent shall employ one or more *approved agencies* to perform inspections during construction on the types of work listed under Section 1705. These inspections are in addition to the inspections identified in Section 110.

Exceptions:

1. *Special inspections* are not required for construction of a minor nature or as warranted by conditions in the jurisdiction as *approved by the Building Official*.
2. Unless otherwise required by the *Building Official*, *special inspections* are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
3. Special inspections are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.

1704.3 Statement of special inspections

Where special inspection or testing is required by Section 1705, the registered design professional in responsible charge shall prepare a statement of special inspections in accordance with Section 1704.3 for submittal by the applicant in accordance with Section 1704.2.3.

Exception: The statement of special inspections is permitted to be prepared by a qualified person approved by the Building Official for construction not designed by a registered design professional.

The Firm and Special Inspector(s) shall provide documentation to the Building Official to show compliance with **IBC Section 1703.1.1 Independence**. “An approved agency shall be objective, competent and independent from the contractor responsible for the work being inspected. The agency shall also disclose possible conflicts of interest so that objectivity can be confirmed.”

Documentation shall be provided to show compliance with IBC Section **1704.2.1 Special inspector qualifications**. “The special inspector shall provide written documentation to the building official demonstrating his or her competence and relevant experience or training. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of *special inspection* activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code.”

IBC Section 1704.3 Content of the Statement of Special Inspections

The Statement of Special Inspection Services shall identify the following items:

1. The materials, systems, components, and work required to have special inspection or testing by the Building Official or by the registered design professional responsible for each portion of the work.
2. The type and extent of each special inspection.
3. The type and extent of each test.
4. Additional requirements for special inspection or testing for seismic or wind resistance as specified in Sections 1705.10, 1705.11 and 1705.12. .
5. For each type of special inspection, identification as to whether it will be continuous special inspection or periodic special inspection.

Where Section 1705.11 or 1705.12 specifies special inspection, testing or qualification for seismic resistance, the statement of special inspections shall identify the designated seismic systems and seismic force-resisting systems that are subject to special inspections. 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 to the Building Official and the owner prior to the start of work on the system or component. The contractor’s statement of responsibility shall contain recognition of the special requirements contained in the statement of special inspection.

Under certain high seismic and wind conditions the Statement of Special Inspections shall also include additional special inspection and testing requirements for seismic and/or wind resistance where required by Building Code Sections 1705 and 1707. Once engaged for a project, each contractor responsible for the construction of a seismic or wind resistant system or component listed in the Statement of Special Inspections shall submit a written statement of responsibility to the Building Official and to the owner prior to the commencement of work on the system or component.

The Schedule of Special Inspection Services must be maintained during the course of a construction project and reflect any changes. For example the Schedule shall be revised if a Special Inspection Agency changes during the course of the construction or if a change in a building material or technique requires a change in the Special Inspection requirements.

Structural Observations by a registered structural design professional for certain high seismic or wind conditions shall also be provided where required.

At the completion of work and prior to issuing the Certificate of Occupancy, a Final Report of Special Inspections shall be submitted to the Building Official. This report shall document the completion of all required special inspections and testing.

This Guideline describes the responsibilities and provides forms for all phases and all parties of the Special Inspection process.

Special Inspection Responsibilities

Owner Responsibilities

The Owner or the Registered Design Professional in Responsible Charge (hereafter referred to as the Design Professional) acting as the Owner's agent shall:

1. Engage the Special Inspector(s)
2. Submit to the Building Official a list of the individuals, approved agencies or firms intended to be retained for conducting special inspections.
3. Assure that the Code required inspections are requested and passed before continuing with construction past the point of inspection.

Design Professional in Responsible Charge Responsibilities

The Design Professional shall:

1. Where engaged as the Owner's Agent, perform the duties noted above.
2. Prepare the Special Inspection program, assisted by the structural engineer of record.
3. Submit to the Building Official the Statement of Special Inspections.
4. Respond to identified field discrepancies.

Building Official or Authority Having Jurisdiction Responsibilities

The Building Official shall:

1. Be provided a Statement of Special Inspections prior to issuance of building permit.
2. Be provided a list of the individuals with the agencies or firms intended to be retained for conducting special inspections.
3. Review the qualified special inspectors, firms and agencies in accordance with the Building Code.
4. Determine if fabricators qualify as approved fabricators in accordance with the Building Code.
5. Be provided Special Inspection interim reports, certificates, and statements of responsibility.
6. Be provided a Final Report of Special Inspections prior to issuance of a Certificate of Occupancy or Completion.

Special Inspectors Responsibilities

The Special Inspectors (SI) shall:

1. Notify the contractor of their presence and responsibilities at the job site.
2. Sign the 'Special Inspector sign-in sheet'.
3. Observe assigned work for conformance with the plans and specifications.
4. Report nonconforming items to the immediate attention of the contractor for correction.
5. Write a discrepancy report about each nonconforming item containing:
 - a. Description and exact location.
 - b. Reference to applicable drawings and specifications.
 - c. Resolution or corrective action taken and the date.

6. Provide timely reports in a daily format and furnish these reports directly to the Design Professional and the contractor. The reports should at a minimum:
 - a. Describe the special inspection and tests made, with specific locations.
 - b. Indicate nonconforming items and their resolution.
 - c. List unresolved items and parties notified.
 - d. Itemize any changes authorized by the Design Professional.
7. Initial and date the "Date Completed" box in the Schedule of Special Inspections Services as the inspection and testing activities are completed
8. After completing all Special Inspections with all discrepancies corrected, submit a final signed report stating that all required special inspections and testing were fulfilled and reported and that any outstanding discrepancies have been corrected.

Contractor/Construction Manager/Design Builder Responsibilities

The Contractor/Construction Manager/ Design Builder shall:

1. Submit a Statement of Responsibility where required by the Statement of Special Inspections.
2. Notify the Special Inspector(s) when special inspections are needed.
3. Coordinate the scheduling and timely notification of the specific individuals needed for the Special Inspection.
4. Provide direct access to the approved plans and specifications for the project.
5. Submit Fabricator's Certificates of Compliance for approved fabricators.
6. Provide safe access to the work to be inspected and deliver samples for testing when needed.
7. Assure that the City Building Inspector has performed each required inspection before proceeding.

Special Inspections Step-by-step Time-line

The following is a suggested time-line for a project with special inspections. Some elements may not be applicable to all projects.

1. The Design Professional shall prepare the Special Inspection program with the assistance of the structural engineer of record.
2. The Owner or the Design Professional in Responsible Charge acting as the Owner's agent shall engage the Special Inspector(s).
3. The Design Professional shall submit to the Building Official the Statement of Special Inspections, which shall include the Schedule of Special Inspection Services. Where required the Statement of Special Inspections shall include additional special inspection and testing requirements for seismic and/or wind resistance.
4. The Owner or the Design Professional acting as the Owner's agent shall submit to the Building Official a list of the individuals, approved agencies or firms intended to be retained for conducting special inspections.
5. The Building Official shall approve the qualifications of the Special Inspectors and agencies in accordance with the Building Code and the City of Casa Grande Administrative Code.
6. Where required by the Statement of Special Inspections, each contractor responsible for the construction or fabrication of a system or component described in the requirements for Wind or Seismic Resistance shall submit a Statement of Responsibility.
7. The Contractor shall notify the Special Inspector(s) when work is ready for inspection.
8. The Special Inspector(s) shall inspect the work per the Schedule of Special Inspection Services and provide a daily report detailing the inspection and any deficiencies. The Special Inspector(s) shall issue interim reports to the Design Professional and the Building Official as noted in the Statement of Special Inspections.
9. The Design Professional shall, as needed, respond to any discrepancies identified by the Special Inspector(s).
10. Each approved fabricator that is exempt from Special Inspection of shop fabrication and implementation procedures per section 1704.2.5 of the Building Code must submit Fabricator's Certificate of Compliance at the completion of fabrication.
11. The Contractor shall remedy deficient work as construction progresses and prior to final inspection.
12. The Contractor shall submit Fabricator's Certificates of Compliance for the approved fabricators.
13. The Special Inspector(s) shall prepare and sign a Final Report of Special Inspections at the completion of the project.
14. The Building Official shall not issue a Certificate of Occupancy until the Final Report of Special Inspections has been issued.

Pre-Construction Meeting Checklist

	Project Name	Date
	The roles and responsibilities of the parties shall be discussed (see Special Inspection Guidelines – Special Inspection Responsibilities)	
	The Statement of Special Inspections shall be reviewed noting if the Requirement for Wind or Seismic Resistance applies to the project and the frequency of the required interim report submittals.	
	If applicable, the Contractor shall be directed to provide the Statement of Responsibility.	
	The Special Inspection documents/forms shall be discussed and who must complete them. <ul style="list-style-type: none"> o Daily Reports – SI(s) o Discrepancy Notice – SI(s) o Discrepancy Log -SI(s) / DPIRC o Test Results – SI(s) o Fabricator's Certificate of Compliance – GC o Final Report of Special Inspection -SI(s) 	
	All SI documents must be made available to the Building Inspector in an approved format. Paper copies must be maintained at the site for all Daily SI Field Reports and Daily Logs.	
	If, structural members are being fabricated off site, verify that the Fabricator conforms to the requirements set forth in IBC Section 1704.2.5.2. At the conclusion of the Fabricator's work, the Fabricator shall submit Fabricator's Certificate of Compliance to SI. Otherwise fabricated work must be inspected at the Fabricator's shop per IBC Section 1704.2.5.	
	A Special Non-Conforming Work Log (Discrepancy Log) on failed tests or inspections including mitigating actions and date items passed are required to be kept onsite until the Project completion.	
	It shall be emphasized that the role of the Special Inspector is to verify that construction and construction materials are in compliance with the Construction Documents. The SI cannot approve or accept any deviation or change to the Construction Documents, only the Design Professional can approve or accept deviations or changes to the Construction Documents.	
	Review procedures for Non-Conforming work.	

General Notes:

1. This checklist of Special Inspection agenda items is to be included in the agenda of the Pre-Construction Meeting.
2. Prior to the Pre-Construction Meeting the Owner or Design Professional in Responsible Charge (DPIRC) acting as the Owner's agent shall engage the Special Inspector(s) (SI).
3. Prior to the Pre-Construction Meeting the Design Professional In Responsible Charge (DPIRC) must have prepared and submitted to the Building Official the Statement of Special Inspections, which shall include the Schedule of Special Inspection Services.
4. Prior to the Pre-Construction Meeting the Owner or the Design Professional acting as the Owner's agent shall submit to the Building Official a list of the individuals, approved agencies or firms intended to be retained for conducting special inspections.
5. Prior to the Pre-Construction Meeting the Building Official shall approve the qualifications of the Special Inspectors and agencies.
6. Required attendees should include: Owner's representative, Design Professional, Contractor (GC), Building Official, Special Inspector representative and Structural Engineer of Record.
7. Special Inspections Pre-Construction meeting is conducted by the A/E team with meeting minutes distributes within five (5) business days. Minutes shall include: written summary of items discussed, the Statement of Special Inspections, and attendee list with contact info for all parties required to attend.

Special Inspections Program Instructions

The following are general requirements and instructions for processing the Special Inspection Program forms.

Overview:

The program consists of several forms that shall be filled out and submitted to the Building Official.

1. The Statement of Special Inspections, Special Inspector Designation, and the Schedule of Special Inspections Services forms are submitted for review prior to permit issuance. These documents shall be maintained in a central location at the project site.
2. The Schedule of Special Inspection Services will need to be accessed on a regular basis by the special inspector(s) for the project.
3. The Final Report of Special Inspections is submitted at the completion of construction. Several other forms that may be utilized are also included.

Statement of Special Inspections

This form provides the general project information. It identifies the project location, the project architect, the project structural engineer, and the registered design professional in responsible charge, referred to in the forms and hereafter as the Design Professional. Depending on the project organization, the Design Professional could be the project architect, a project engineer, or an independent third party representing the Owner. In accordance with section 1704.1.1 of the Building Code, the Design Professional is responsible for preparation of the special inspection program and would complete the "Prepared by" section of this form.

This form establishes the frequency interim reports should be furnished. For complex projects, the Design Professional, or Building Official may attach a separate schedule listing the required report frequency. Additionally, the Building Official can request reports at a different frequency than the Design Professional. A copy of this form should be kept at the project site with the Schedule of Special Inspection Services.

For large projects that are divided into multiple bid packages (foundation package, structural frame package, building package, etc.) the special inspection program submitted with each partial bid package would only contain the special inspection requirements for the scope of work associated with that bid package.

Special Inspector Designation

This form provides for the Designation of Special Inspector Design Professional in Responsible Charge by Owner in compliance with Section 1704 of the International Building Code and names the assigned person(s) to inspect the designated work along with their qualifications, certifications, and complete contact information.

Schedule of Special Inspection Services

This form provides a detailed and itemized list of which special inspection activities are required for the specific project and which individuals, firm, or agency will be performing the special inspection services associated with each required task. The project title should be inserted at the top of the form. The form lists the various tasks required by Chapter 17 of the Building Code and provides a column for the Design Professional to identify with a "yes" or "no" which items apply to the specific project. There may be tasks that are not listed on the form due to oversight or additional

requirements of the specific project. The list should NOT be viewed as exhaustive. If specific tasks not listed are required they are to be added on additional sheets as necessary.

The "Extent" column is where the Design Professional can provide additional information or detail regarding the scope of the special inspections. This column identifies which items require continuous inspection and which require periodic inspection as defined by the Building Code. For periodic inspections, the frequency of inspection can be identified here or it could be included in the project construction documents. Exceptions to a special inspection task may be noted in this column. Special instructions regarding how to perform inspections may also be included here. For more complex projects, this may be addressed by referring to another project document, such as the project specifications.

Multiple special inspectors may exist on one project. For example, a testing agency may perform the special inspection duties associated with testing welds, a registered structural engineer may perform special inspection duties associated with inspecting steel connections for conformance with the Construction Documents, and an architect may perform the special inspection duties associated with construction of the EIFS system. The multiple special inspectors are identified and numbered at the end of the form. The number next to the individual, firm, or agency's name would be listed in the schedule under the column heading "Agent" for the task that individual, firm, or agency will perform. In some instances, it may be desirable to have more than one special inspector involved in the same task. In this instance, the numbers for both parties would be listed adjacent to that task.

For example, inspection by a structural engineer may be specified for complex concrete reinforcing steel. The only column not filled in on the schedule at the time it is submitted should be the "Completed" column. When an individual special inspection task in the schedule is completed for the last time on the project and the special inspector performed their final review, inspection, or test of that item for the project, the special inspector shall initial and date the cell in the "Completed" column adjacent to the task. At the conclusion of the project, a copy of the Schedule of Special Inspection Services form with the Special Inspector's initials and date in the "Completed" column for each task relevant to the project shall be submitted to the Design Professional and the Building Official with the Final Report of Special Inspections. Projects requiring special Requirements for Seismic and/or Wind Resistance should be identified at the end of the form for cross reference to the Statement of Special Inspections. A commentary with specific requirements for each Material / Activity in the Schedule is included for assistance in completing the inspection program.

Final Report of Special Inspections

This form is submitted when all the special inspection requirements for a project have been fulfilled. Each special inspector corresponding to an agent number in the Schedule of Special Inspection Services will be required to complete a copy of this form for submittal to the Design Professional and the Building Official for their scope of work. The special inspection program will not be considered complete until forms from all agents have been submitted, received, and reviewed.

Statement of Special Inspections Requirements for Seismic Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Seismic Design Category: _____

Statement of Special Inspection for Seismic Resistance Required Yes No

Description of seismic force-resisting system subject to special inspection and testing for seismic resistance: (Required for Seismic Design Categories C, D, E or F)

Description of designated seismic systems subject to special inspection and testing for seismic resistance:
(Required for architectural, electrical and mechanical systems and their components that require design in accordance with Chapter 13 of ASCE 7, have a component importance factor, I_p , greater than one and are in Seismic Design Categories C, D, E or F.)

Description of additional seismic systems and components requiring special inspections and testing:
(Required for systems noted in IBC Section 1705.11, cases 3, 4 & 5 in Seismic Design Categories C, D, E or F.)

Statement of Responsibility:

Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

Statement of Special Inspections Requirements for Wind Resistance

See the Schedule of Special Inspections for inspection and testing requirements

Nominal Design Wind Speed (V_{ASD}): _____ m.p.h.

Wind Exposure Category: _____

Statement of Special Inspection for Wind Resistance Required

Yes No

(Required in wind exposure Category B, where the Nominal Design Wind Speed (V_{ASD}) is 120 miles per hour or greater.
Required in wind exposure Category C or D, where the Nominal Design Wind Speed (V_{ASD}) is 110 miles per hour or greater)

Description of main wind force-resisting system subject to special inspection for wind resistance:

Required for systems noted in IBC Section 1705.10.1 and 1705.10.2

Description of wind force-resisting components subject to special inspection for wind resistance:

Required for systems and components noted in IBC Section 1705.10.3

Statement of Responsibility:

Each contractor responsible for the construction or fabrication of a system or component described above must submit a Statement of Responsibility.

Final Report of Special Inspections

PROJECT: _____

LOCATION: _____

PERMIT APPLICANT: _____

APPLICANT'S ADDRESS: _____

ARCHITECT OF RECORD: _____

STRUCTURAL ENGINEER OF RECORD: _____

MECHANICAL ENGINEER OF RECORD: _____

ELECTRICAL ENGINEER OF RECORD: _____

RDP IN RESPONSIBLE CHARGE: _____

To the best of my information, knowledge, and belief, which are based upon observations and/or diligent supervision of our inspection services for the above-referenced Project, I hereby state that the special inspections or testing required for this Project, and designated for this Agent in the Schedule of Special Inspection Services, have been completed in accordance with the Contract Documents.

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Job-site safety and means and methods of construction are solely the responsibility of the Contractor.

Interim reports submitted prior to this final report and numbered to form a basis for, and are to be considered an integral part of this final report. The following discrepancies that were outstanding since the last interim report dated _____ have been corrected:

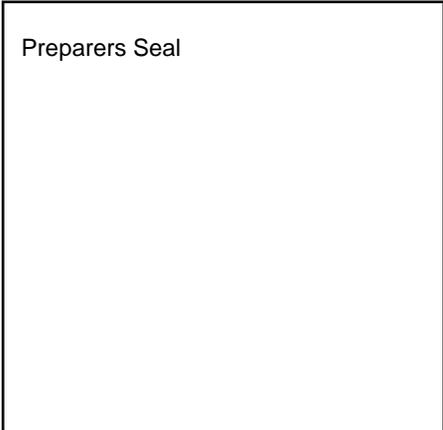
(Attach 8 1/2"x11" continuation sheet(s) if required to complete the description of corrections)

Prepared By:

Special Inspection Agent's Firm

Type or print Agent's Name

Signature Date



Contractor's Statement of Responsibility

Each contractor responsible for the construction or fabrication of a main wind or seismic force-resisting system, designated seismic system, or wind or seismic-resisting component listed in the Statement of Special Inspections, Requirements for Seismic or Wind Resistance, must submit a Statement of Responsibility.

Project: _____

Contractor's Name: _____

Address: _____

License #: _____

Description of building systems and components included in Statement of Responsibility:

Contractor's Acknowledgment of Special Requirements

I hereby acknowledge that I have received, read, and understand the Statement of Special Inspections and Special Inspection program:

I hereby acknowledge that control will be exercised to obtain conformance with the approved construction documents.

Name and Title (type or print)

Signature

Date

Contractor's Provisions for Quality Control

Procedures for exercising control within the contractor's organization, the method and frequency of reporting and distribution of reports is attached to this Statement.

Identification and qualifications of the person(s) exercising such control and their position(s) in the organization are attached to this Statement

Special Inspections Daily Report

Date: _____

Project Name: _____

Address: _____

Inspection Type(s): _____

Coverage Type
Time beginning Inspection: _____

Continuous

Periodic
Time Ending Inspection: _____

Describe Inspections Made, including locations: _____

List Tests Made: _____

List Items Requiring Corrections, Corrections of Previously Listed Items and previously Listed Uncorrected Items
Provide Copies of Discrepancy Notices

Comments: _____

TO THE BEST OF MY KNOWLEDGE, WORK INSPECTED WAS IN ACCORDANCE WITH THE APPROVED DESIGN DRAWINGS, AND SPECIFICATIONS, EXCEPT AS NOTED ABOVE.

Printed Full Name: _____

Note "By SPECIAL INSPECTOR" or
Provide Name of Testing Agency: _____

Signature

Date

Certification Number: _____

Add additional pages as required to show all inspections / tests performed on this date.
One copy of this report to remain at job site with the contractor for review upon request.

Page _____ of _____

Special Inspection Interim Report

Project Name: _____

Address: _____

Inspection Type(s): _____

Coverage Type

Continuous

Periodic

Describe Inspections Made, including locations: _____

List Tests Made: _____

Total Inspection	Date	_____	_____	_____	_____	_____	_____	_____
Time Each Day	Hours	_____	_____	_____	_____	_____	_____	_____

List Items Requiring Corrections, Corrections of Previously Listed Items and previously Listed Uncorrected Items
Provide Copies of Discrepancy Notices:

Comments:

TO THE BEST OF MY KNOWLEDGE, WORK INSPECTED WAS IN ACCORDANCE WITH THE APPROVED
DESIGN DRAWINGS, AND SPECIFICATIONS, EXCEPT AS NOTED ABOVE.

Printed Full Name: _____

Note "By SPECIAL INSPECTOR" or
Provide Name of Testing Agency: _____

Signature

Date

Certification Number: _____

Add additional pages as required to show all inspections / tests performed on this date.
One copy of this report to remain at job site with the contractor for review upon request.

Page _____ of _____

Special Inspection Discrepancy Notice

No. _____

Project Name: _____

Address: _____

Inspection Type(s): _____

Coverage Type

Continuous

Periodic

Area(s) Inspected: _____

Notice Delivered to:

Engineer/Architect

Contractor

Owner

Make the following corrections and secure inspection approval prior to proceeding with this phase of the work.

Printed Full Name: _____

Note by "SPECIAL INSPECTOR" or

Provide Name of Testing Agency: _____

Signature

Date

Certification & Number: _____

Add additional pages as required to show all discrepancies and locations.

One copy of this report is to remain at job site with the contractor for review upon request.

Page _____ of _____

Special Inspections Pre-Construction Meeting Checklist

General Notes:

1. This checklist of Special Inspection agenda items is to be included in the agenda of the Pre-Construction Meeting.
2. Prior to the Pre-Construction Meeting the Owner or Design Professional in Responsible Charge (DPIRC) acting as the Owner's agent shall engage the Special Inspector(s) (SI).
3. Prior to the Pre-Construction Meeting the Design Professional in Responsible Charge (DPIRC) must have prepared and submitted to the Building Official the Statement of Special Inspections, which shall include the Schedule of Special Inspection Services.
4. Prior to the Pre-Construction Meeting the Owner or the Design Professional acting as the Owner's agent shall submit to the Building Official a list of the individuals, approved agencies or firms intended to be retained for conducting special inspections.
5. Prior to the Pre-Construction Meeting the Building Official shall approve the qualifications of the Special Inspectors and agencies.
6. Required attendees should include: Owner's representative, Design Professional, Contractor (GC), Building Official, Special Inspector representative and Structural Engineer of Record.
7. Special Inspections Pre-Construction meeting is conducted by the A/E team with meeting minutes distributed within five (5) business days. Minutes shall include: written summary of items discussed, the Statement of Special Inspections, and attendee list with contact info for all parties required to attend.

Agenda items to be discussed:

1. The roles and responsibilities of the parties shall be discussed (see City of Casa Grande Special Inspection Guidelines – Special Inspection Responsibilities)
2. The Statement of Special Inspections shall be reviewed noting if the Requirement for Wind or Seismic Resistance apply to the project and the frequency of the required interim report submittals.
3. If applicable, the Contractor shall be directed to provide the Statement of Responsibility.
4. The Special Inspection documents/forms shall be discussed and who must complete them.
 - a) Daily Reports – SI(s)
 - b) Discrepancy Notice – SI(s)
 - c) Discrepancy Log - SI(s) / DPIRC
 - d) Test Results – SI(s)
 - e) Fabricator's Certificate of Compliance – GC
 - f) Final Report of Special Inspection - SI(s)
5. All SI documents must be made available to the Building Inspector in an approved format. Paper copies must be maintained at the site for all Daily SI Field Reports and Daily Logs.
6. If, structural members are being fabricated off site, the SI shall verify that the Fabricator conforms to the requirements set forth in IBC Section 1704.2.2. At the conclusion of the Fabricator's work, the Fabricator shall submit Fabricator's Certificate of Compliance to SI.
7. A Special Non-Conforming Work Log (Discrepancy Log) on failed tests or inspections including mitigating actions and date items passed are required to be kept on-site until the Project completion.
8. It shall be emphasized that the role of the Special Inspector is to verify that construction and construction materials are in compliance with the Construction Documents. The SI cannot approve or accept any deviation or change to the Construction Documents, only the Design Professional can approve or accept deviations or changes to the Construction Documents.
9. Review procedures for Non-Conforming work.

Special Inspector Designation for Large Projects under the 2012 ICC Codes

A. Project Identification

Project: _____ Date: _____

Address: _____

Permit number _____

B. Designation of Special Inspector Design Professional in Responsible Charge by Owner

As the owner of this project, in compliance with the International Building Code Section 1704 as adopted requiring the employment of a Special Inspector, I do hereby designate the Architect or Engineer named below to be in responsible charge of the Special Inspections Program.

Original Signature of Owner _____

Print Name _____

C. Special Inspection Responsibility Certificate

In accordance with Chapter 17 of the International Building Code as adopted the following list of inspections are the required Special Inspections with the assigned special inspectors for each inspection. As Registered Design Professional in Responsible Charge, I certify that I am familiar with and hereby assume full responsibility for the Special Inspection Program for this project.

Print Name _____ Arizona Registration Number _____ Date _____

Firm Name: _____

Street Address: _____

City: _____ State: _____ Zip: _____ Phone No: _____

Fax: _____ Email: _____

RDP's Seal

Frequency of interim report submittals to the Building Official:

Weekly Bi-Weekly Monthly Other - specify: _____

Accepted by Building Official _____

Date _____

Schedule of Special Inspection Services

PROJECT:

MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT?			
		Y / N	EXTENT	AGENT*	DATE COMPLETED
1704.2.5 Inspection of Fabricators					
Verify fabrication/quality control procedures	In-plant review (3)		Periodic		
1705.1.1 Special Cases (work unusual in nature, including but not limited to alternative materials and systems, unusual design applications, materials and systems with special manufacturer's requirements)	Submittal review, shop (3) and/or field inspection				
1705.2 Steel Construction					
1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, chapter N, paragraph 3.2 for compliance with construction documents)	Submittal Review		Each submittal		
2. Material verification of structural steel	Shop (3) and field inspection		Periodic		
3. Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors)	Field inspection		Periodic		
4. Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents	Field inspection		Periodic		
5. Structural steel welding:					
a. Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1)	Shop (3) and field inspection		Observe or Perform as noted (4)		
b. Inspection tasks During Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)	Shop (3) and field inspection		Observe (4)		
c. Inspection tasks After Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)	Shop (3) and field inspection		Observe or Perform as noted (4)		
d. Nondestructive testing (NDT) of welded joints:	<i>see Commentary</i>				

1) Complete penetration groove welds 5/16" or greater in <i>risk category III or IV</i>	Shop (3) or field ultrasonic testing - 100%		Periodic		
2) Complete penetration groove welds 5/16" or greater in <i>risk category II</i>	Shop (3) or field ultrasonic testing - 10% of welds minimum		Periodic		
3) Thermally cut surfaces of access holes when material $t > 2"$	Shop (3) or field magnetic Particle or Penetrant testing		Periodic		
4) Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1	Shop (3) or field radiographic or Ultrasonic testing		Periodic		
5) Fabricator's NDT reports when fabricator performs NDT	Verify reports		Each submittal (5)		
6. Structural steel bolting:	Shop (3) and field inspection				
a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 360, Table N5.6-1)			Observe or Perform as noted (4)		
b. Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)			Observe (4)		
1) Pre-tensioned and slip-critical joints					
a) Turn-of-nut with matching markings			Periodic		
b) Direct tension indicator			Periodic		
c) Twist-off type tension control bolt			Periodic		
d) Turn-of-nut without matching markings			Continuous		
e) Calibrated wrench			Continuous		
2) Snug-tight joints			Periodic		
c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3)			Perform (4)		
7. Inspection of steel elements of composite construction prior to concrete placement in accordance with QA tasks listed in AISC 360, Table N6.1	Shop (3) and field inspection and testing		Observe or Perform as noted (4)		
1705.2.2 Steel Construction Other Than Structural Steel					
1. Material verification of cold-formed steel deck:					
a. Identification markings	Field inspection		Periodic		
b. Manufacturer's certified test reports	Submittal Review		Each submittal		
2. Connection of cold-formed steel deck to supporting structure:	Shop (3) and field inspection				

a. Welding			Periodic		
b. Other fasteners (in accordance with AISC 360, Section N6)					
1) Verify fasteners are in conformance with approved submittal			Periodic		
2) Verify fastener installation is in conformance with approved submittal and manufacturer's recommendations			Periodic		
3. Reinforcing steel	Shop (3) and field inspection				
a. Verification of weldability of steel other than ASTM A706			Periodic		
b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, boundary elements of special concrete structural walls and shear reinforcement			Continuous		
c. Shear reinforcement			Continuous		
d. Other reinforcing steel			Periodic		
4. Cold-formed steel trusses spanning 60 feet or greater					
a. Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection		Periodic		
1705.3 Concrete Construction					
1. Inspection of reinforcing steel installation (see 1705.2.2 for welding)	Shop (3) and field inspection		Periodic		
2. Inspection of prestressing steel installation	Shop (3) and field inspection		Periodic		
3. Inspection of anchors cast in concrete where allowable loads have been increased per section 1908.5 or where strength design is used	Shop (3) and field inspection		Periodic		
4. Inspection of anchors and reinforcing steel post-installed in hardened concrete: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	Field inspection		Periodic or as required by the research report issued by an approved source		
5. Verify use of approved design mix	Shop (3) and field inspection		Periodic		

6. Fresh concrete sampling, perform slump and air content tests and determine temperature of concrete	Shop (3) and field inspection		Continuous		
7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection		Continuous		
8. Inspection for maintenance of specified curing temperature and techniques	Shop (3) and field inspection		Periodic		
9. Inspection of prestressed concrete:	Shop (3) and field inspection				
a. Application of prestressing force			Continuous		
b. Grouting of bonded prestressing tendons in the seismic-force-resisting system			Continuous		
10. Erection of precast concrete members					
a. Inspect in accordance with construction documents	Field inspection		In accordance with construction documents		
b. Perform inspections of welding and bolting in accordance with Section 1705.2	Field inspection		In accordance with Section 1705.2		
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	Review field testing and laboratory reports		Periodic		
12. Inspection of formwork for shape, lines, location and dimensions	Field inspection		Periodic		
13. Concrete strength testing and verification of compliance with construction documents	Field testing and review of laboratory reports		Periodic		
1705.4 Masonry Construction					
(A) Level A, B and C Quality Assurance:					
Verify compliance with approved submittals	Field Inspection		Periodic		
(B) Level B Quality Assurance:					
Verification of f'_m and f'_{AAC} prior to construction	Testing by unit strength method or prism test method		Periodic		

(C) Level C Quality Assurance:					
1. Verification of f'_m and f'_{AAC} prior to construction and for every 5,000 SF during construction	Testing by unit strength method or prism test method		Periodic		
2. Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site	Field inspection		Continuous		
3. Verify placement of masonry units	Field Inspection		Periodic		
(D) Levels B and C Quality Assurance:					
1. Verification of Slump Flow and Visual Stability Index (VSI) of self-consolidating grout as delivered to the project	Field testing		Continuous		
2. Verify compliance with approved submittals	Field inspection		Periodic		
3. Verify proportions of site-mixed mortar, grout and prestressing grout for bonded tendons	Field Inspection		Periodic		
4. Verify grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages	Field Inspection		Periodic		
5. Verify construction of mortar joints	Field Inspection		Periodic		
6. Verify placement of reinforcement, connectors, and prestressing tendons and anchorages	Field Inspection		Level B - Periodic		
			Level C - Continuous		
7. Verify grout space prior to grouting	Field Inspection		Level B - Periodic		
			Level C - Continuous		
8. Verify placement of grout and prestressing grout for bonded tendons	Field Inspection		Continuous		
9. Verify size and location of structural masonry elements	Field Inspection		Periodic		

10. Verify type, size, and location of anchors, including details of anchorage of masonry to structural members, frames, or other construction.	Field inspection		Level B - Periodic		
			Level C - Continuous		
11. Verify welding of reinforcement (see 1705.2.2)	Field inspection		Continuous		
12. Verify preparation, construction, and protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)	Field inspection		Periodic		
13. Verify application and measurement of prestressing force	Field Inspection		Continuous		
14. Verify placement of AAC masonry units and construction of thin-bed mortar joints (first 5000 SF of AAC masonry)	Field inspection		Continuous		
15. Verify placement of AAC masonry units and construction of thin-bed mortar joints (after the first 5000 SF of AAC masonry)	Field inspection		Level B - Periodic		
			Level C - Continuous		
16. Verify properties of thin-bed mortar for AAC masonry (first 5000 SF of AAC masonry)	Field inspection		Continuous		
17. Verify properties of thin-bed mortar for AAC masonry (after the first 5000 SF of AAC masonry)	Field inspection		Level B - Periodic		
			Level C - Continuous		
18. Prepare grout and mortar specimens	Field testing		Level B - Periodic		
			Level C - Continuous		
19. Observe preparation of prisms	Field inspection		Level B - Periodic		
			Level C - Continuous		

1705.5 Wood Construction					
1. Inspection of the fabrication process of wood structural elements and assemblies in accordance with Section 1704.2.5	In-plant review (3)		Periodic		
2. For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans	Field inspection		Periodic		
3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each line and at edge margins agree with approved building plans	Field inspection		Periodic		
4. Metal-plate-connected wood trusses spanning 60 feet or greater: verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection		Periodic		
1705.6 Soils					
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Field inspection		Periodic		
2. Verify excavations are extended to proper depth and have reached proper material.	Field inspection		Periodic		
3. Perform classification and testing of controlled fill materials.	Field inspection		Periodic		
4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	Field inspection		Continuous		
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly	Field inspection		Periodic		
1705.7 Driven Deep Foundations					
1. Verify element materials, sizes and lengths comply with requirements	Field inspection		Continuous		
2. Determine capacities of test elements and conduct additional load tests, as required	Field inspection		Continuous		
3. Observe driving operations and maintain complete and accurate records for each element	Field inspection		Continuous		

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	Field inspection		Continuous		
5. For steel elements, perform additional inspections per Section 1705.2	See Section 1705.2		See Section 1705.2		
6. For concrete elements and concrete-filled elements, perform additional inspections per Section 1705.3	See Section 1705.3		See Section 1705.3		
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	Field inspection		In accordance with construction documents		
8. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing		In accordance with construction documents		
1705.8 Cast-in-Place Deep Foundations					
1. Observe drilling operations and maintain complete and accurate records for each element	Field inspection		Continuous		
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	Field inspection		Continuous		
3. For concrete elements, perform additional inspections in accordance with Section 1705.3	See Section 1705.3		See Section 1705.3		
4. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing		In accordance with construction documents		
1705.9 Helical Pile Foundations					
1. Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque and other data as required.	Field inspection		Continuous		
2. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing		In accordance with construction documents		

1705.10.1 Structural Wood Special Inspections For Wind Resistance					
1. Inspection of field gluing operations of elements of the main windforce-resisting system	Field inspection		Continuous		
2. Inspection of nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection		Periodic		
1705.10.2 Cold-formed Steel Special Inspections For Wind Resistance					
1. Inspection during welding operations of elements of the main windforce-resisting system	Shop (3) and field inspection		Periodic		
2. Inspections for screw attachment, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection		Periodic		
1705.10.3 Wind-resisting Components					
1. Roof cladding	Shop (3) and field inspection		Periodic		
2. Wall cladding	Shop (3) and field inspection		Periodic		
1705.11.1 Structural Steel Special Inspections for Seismic Resistance					
Inspection of structural steel in accordance with AISC 341	Shop (3) and field inspection		In accordance with AISC 341		
1705.11.2 Structural Wood Special Inspections for Seismic Resistance					
1. Inspection of field gluing operations of elements of the seismic-force resisting system	Field inspection		Continuous		
2. Inspection of nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection		Periodic		
1705.11.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance					
1. Inspection during welding operations of elements of the seismic-force-resisting system	Shop (3) and field inspection		Periodic		

2. Inspections for screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection		Periodic		
1705.11.4 Designated Seismic Systems Verification					
Inspect and verify that that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with Section 1705.12.3	Field inspection		Periodic		
1705.11.5 Architectural Components Special Inspections for Seismic Resistance					
1. Inspection during the erection and fastening of exterior cladding and interior and exterior veneer	Field inspection		Periodic		
2. Inspection during the erection and fastening of interior and exterior nonbearing walls	Field inspection		Periodic		
3. Inspection during anchorage of access floors	Field inspection		Periodic		
1705.11.6 Mechanical and Electrical Components Special Inspections for Seismic Resistance					
1. Inspection during the anchorage of electrical equipment for emergency or standby power systems	Field inspection		Periodic		
2. Inspection during the anchorage of other electrical equipment	Field inspection		Periodic		
3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units	Field inspection		Periodic		
4. Inspection during the installation and anchorage of HVAC ductwork that will contain hazardous materials	Field inspection		Periodic		
5. Inspection during the installation and anchorage of vibration isolation systems	Field inspection		Periodic		

1705.11.7 Storage Racks Special Inspections for Seismic Resistance					
Inspection during the anchorage of storage racks 8 feet or greater in height	Field inspection		Periodic		
1705.11.8 Seismic Isolation Systems					
Inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system	Shop and field inspection		Periodic		
1705.12.1 Concrete Reinforcement Testing and Qualification for Seismic Resistance					
1. Review certified mill test reports for each shipment of reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special moment frames, special structural walls, and coupling beams connecting special structural walls	Review certified mill test reports		Each shipment		
2. Verify reinforcement weldability of ASTM A615 reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special moment frames, special structural walls, and coupling beams connecting special structural walls	Review test reports		Each shipment		
1705.12.2 Structural Steel Testing and Qualification for Seismic Resistance					
Test in accordance with the quality assurance requirements of AISC 341	Shop (3) and field testing		Per AISC 341		
1705.12.3 Seismic Certification of Nonstructural Components					
Review certificate of compliance for designated seismic system components.	Certificate of compliance review		Each submittal		

1705.12.4 Seismic Isolation Systems					
Test seismic isolation system in accordance with ASCE 7 Section 17.8	Prototype testing		Per ASCE 7		
1705.13 Sprayed Fire-resistant Materials					
1. Verify surface condition preparation of structural members	Field inspection		Periodic		
2. Verify application of sprayed fire-resistant materials	Field inspection		Periodic		
3. Verify average thickness of sprayed fire-resistant materials applied to structural members	Field inspection		Periodic		
4. Verify density of the sprayed fire-resistant material complies with approved fire-resistant design	Field inspection and testing		Per IBC Section 1705.13.5		
5. Verify the cohesive/adhesive bond strength of the cured sprayed fire-resistant material	Field inspection and testing		Per IBC Section 1705.13.6		
1705.14 Mastic and Intumescent Fire-Resistant Coatings					
Inspect mastic and intumescent fire-resistant coatings applied to structural elements and decks	Field inspection		Periodic		
1705.15 Exterior Insulation and Finish Systems (EIFS)					
1. Verify materials, details and installations are per the approved construction documents	Field inspection		Periodic		
2. Inspection of water-resistive barrier over sheathing substrate	Field inspection		Periodic		
1705.16 Fire-Resistant Penetrations and Joints					
1. Inspect penetration firestop systems	Field testing		Per ASTM E2174		
2. Inspect fire-resistant joint systems	Field testing		Per ASTM E2393		
1705.17 Smoke Control Systems					
1. Leakage testing and recording of device locations prior to concealment	Field testing		Periodic		
2. Prior to occupancy and after sufficient completion, pressure difference testing, flow measurements, and detection and control verification	Field testing		Periodic		

	* INSPECTION AGENTS NAME	FIRM NAME	FIRM ADDRESS	TELEPHONE
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Notes:
 The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the Special Inspector(s) and/or testing agencies should be reviewed and approved by the Design Professional and shall be subject to the approval of the Building Official.
 The list of Special Inspectors may be submitted as a separate document, if noted so above.
 The Special Inspector shall provide written documentation to the Building Official demonstrating his or her competence and relevant experience or training.

Check "Yes" or "No" as appropriate. Sign and date this document below:
 The special inspector's qualifications and contact information are attached to this document. Yes No
 Inspection of fabricators is not required where the fabricator is approved in accordance with IBC Section 1704.2.2. Yes No
 Are Requirements for Seismic Resistance included in the Statement of Special Inspections? Yes No
 Are Requirements for Wind Resistance included in the Statement of Special Inspections? Yes No

Original Signature _____ Print Name _____ Arizona Reg. No. _____ Date _____

Preparer's Seal

Accepted by Building Official _____ Date _____

Commentary on Schedule of Special Inspection Services

MATERIAL / ACTIVITY	COMMENTARY
General	Other items may be added to the Schedule of Special Inspection Services at the discretion of the Design Professional and/or the Owner.
Definition: Special Inspection, Periodic	The part-time or intermittent observation of work requiring special inspection by an approved special inspector who is present in the area where the work has been or is being performed and at the completion of the work. May be allowed when compliance of the work or product can be determined after being incorporated into the structure.
Definition: Special Inspection, Continuous	The full-time observation of work requiring special inspection by an approved special inspector who is present in the area where the work is being performed.
Inspection of Fabricators	Required where structural load-bearing members are fabricated in a shop, except not required where fabricator is approved in accordance with section 1704.2.2. Where this exception is utilized, at the completion of fabrication, the fabricator shall submit a certificate of compliance stating that the work was performed in accordance with the approved construction documents.
Section 1703 Approvals	
1703.1 Approved agency.	An <i>approved agency</i> shall provide all information as necessary for the <i>Building Official</i> to determine that the agency meets the applicable requirements. This section further clarifies the requirements of the agency and personnel.
1703.2 Written approval.	Any material, appliance, equipment, system or method of construction meeting the requirements of this code shall be <i>approved</i> in writing after satisfactory completion of the required tests and submission of required test reports.
1703.3 Approved record.	For any material, appliance, equipment, system or method of construction that has been <i>approved</i> , a record of such approval, including the conditions and limitations of the approval, shall be kept on file in the <i>Building Official's</i> office and shall be open to public inspection at appropriate times.
1703.4 Performance.	Specific information consisting of test reports conducted by an <i>approved</i> testing agency in accordance with the appropriate referenced standards, or other such information as necessary, shall be provided for the <i>Building Official</i> to determine that the material meets the applicable code requirements.
1703.4.1 Research and investigation.	Sufficient technical data shall be submitted to the <i>Building Official</i> to substantiate the proposed use of any material or assembly. If it is determined that the evidence submitted is satisfactory proof of performance for the use intended, the <i>Building Official</i> shall approve the use of the material or assembly subject to the requirements of this code. The costs, reports and investigations required under these provisions shall be paid by the applicant.
1703.4.2 Research reports.	Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from <i>approved</i> sources.
1703.5 Labeling.	Where materials or assemblies are required by this code to be <i>labeled</i> , such materials and assemblies shall be <i>labeled</i> by an <i>approved agency</i> in accordance with Section 1703. Products and materials required to be labeled shall be labeled in accordance with the procedures set forth in Sections 1703.5.1 through 1703.5.4.
1703.6 Evaluation and follow-up inspection services.	Where structural components or other items regulated by this code are not visible for inspection after completion of a prefabricated assembly, the applicant shall submit a report of each prefabricated assembly. The report shall indicate the complete details of the assembly, including a description of the assembly and its components, the basis upon which the assembly is being evaluated, test results and similar information and other data as necessary for the <i>Building Official</i> to determine conformance to this code. Such a report shall be <i>approved</i> by the <i>Building Official</i> .
1703.6.1 Follow-up inspection.	The applicant shall provide for <i>special inspections</i> of fabricated items in accordance with Section 1704.2.5.
1703.6.2 Test and inspection records.	Copies of necessary test and inspection records shall be filed with the <i>Building Official</i> .
SECTION 1704 SPECIAL INSPECTIONS, CONTRACTOR RESPONSIBILITY AND STRUCTURAL OBSERVATIONS	
1704.1 General.	This section provides minimum requirements.
1704.2 Special Inspections	Where application is made for construction as described in this section, the owner or the <i>registered design professional in responsible charge</i> acting as the owner's agent shall employ one or more <i>approved agencies</i> to perform inspections during construction on the types of work listed under Section 1705. These inspections are in addition to the inspections identified in Section 110. Exceptions: <ol style="list-style-type: none"> 1. <i>Special inspections</i> are not required for construction of a minor nature or as warranted by conditions in the jurisdiction as <i>approved</i> by the <i>Building Official</i>. 2. Unless otherwise required by the <i>Building Official</i>, <i>special inspections</i> are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1. 3. <i>Special inspections</i> are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light frame construction provisions of Section 2308.

1704.2.1 Special inspector qualifications.	The special inspector shall provide written documentation to the Building Official demonstrating his or her competence and relevant experience or training. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of <i>special inspection</i> activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code. The <i>registered design professional in responsible charge</i> and engineers of record involved in the design of the project may be permitted to act as the <i>approved agency</i> and their personnel permitted to act as the special inspector for the work designed by them, provided they qualify as special inspectors.
1704.2.2 Access for special inspection.	The construction or work for which special inspection is required shall remain accessible and exposed for special inspection purposes until completion of the all required inspections.
1704.2.3 Statement of special inspections.	The applicant shall submit a statement of <i>special inspections</i> in accordance with Section 107.1 as a condition for permit issuance. This statement shall be in accordance with Section 1704.3. Exception: A statement of <i>special inspections</i> is not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 230
1704.2.4 Report requirement.	Special inspectors shall keep records of inspections. The special inspector shall furnish inspection reports to the <i>Building Official</i> , and to the <i>registered design professional in responsible charge</i> . Reports shall indicate that work inspected was or was not completed in conformance to <i>approved construction documents</i> . Discrepancies shall be brought to the immediate attention of the contractor for correction. If they are not corrected, the discrepancies shall be brought to the attention of the <i>Building Official</i> and to the <i>registered design professional in responsible charge</i> prior to the completion of that phase of the work. A final report documenting required <i>special inspections</i> and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon prior to the start of work by the applicant and the <i>Building Official</i> .
1704.2.5 Inspection of fabricators.	Where fabrication of structural load-bearing members and assemblies is being performed on the premises of a fabricator's shop, <i>special inspection</i> of the fabricated items shall be required by this section and as required elsewhere in this code.
1704.3 Statement of special inspections.	Where <i>special inspection</i> or testing is required by Section 1705, the <i>registered design professional in responsible charge</i> shall prepare a statement of special inspections in accordance with Section 1704.3.1 for submittal by the applicant in accordance with Section 1704.2.3. Exception: The statement of <i>special inspections</i> is permitted to be prepared by a qualified person <i>approved</i> by the <i>Building Official</i> for construction not designed by a <i>registered design professional</i> .
1704.4 Contractor responsibility.	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 to the <i>Building Official</i> and the owner prior to the commencement of work on the system or component. The contractor's statement of responsibility shall contain acknowledgement of awareness of the special requirements contained in the statement of <i>special inspection</i> .
1704.5 Structural observations.	Where required by the provisions of Section 1704.5.1 or 1704.5.2, the owner shall employ a <i>registered design professional</i> to perform structural observations as defined in Section 1702. Prior to the commencement of observations, the structural observer shall submit to the <i>Building Official</i> a written statement identifying the frequency and extent of structural observations. At the conclusion of the work included in the permit, the structural observer shall submit to the <i>Building Official</i> a written statement that the site visits have been made and identify any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved.
1704.5.1 Structural observations for seismic resistance.	Structural observations shall be provided for those structures assigned to <i>Seismic Design Category</i> D, E or F where one or more of the following conditions exist: <ol style="list-style-type: none"> 1. The structure is classified as <i>Risk Category</i> III or IV in accordance with Table 1604.5. 2. The height of the structure is greater than 75 feet (22 860 mm) above the base. 3. The structure is assigned to <i>Seismic Design Category</i> E, is classified as <i>Risk Category</i> I or II in accordance with Table 1604.5, and is greater than two <i>stories above grade plane</i>. 4. When so designated by the <i>registered design professional</i> responsible for the structural design. 5. When such observation is specifically required by the <i>Building Official</i>.
1704.5.2 Structural observations for wind requirements.	Structural observations shall be provided for those structures sited where V_{asd} as determined in accordance with Section 1609.3.1 exceeds 110 mph (49 m/sec), where one or more of the following conditions exist: <ol style="list-style-type: none"> 1. The structure is classified as <i>Risk Category</i> III or IV in accordance with Table 1604.5. 2. The <i>building height</i> of the structure is greater than 75 feet (22 860 mm). 3. When so designated by the <i>registered design professional</i> responsible for the structural design. 4. When such observation is specifically required by the <i>Building Official</i>.
1705 Required Verification and Inspection	
1705.1 General.	Verification and inspection of elements of buildings and structures shall be as required by this section.
1705.1.1 Special cases.	<i>Special inspections</i> shall be required for proposed work that is, in the opinion of the <i>Building Official</i> , unusual in its nature, such as, but not limited to, the following examples: <ol style="list-style-type: none"> 1. Construction materials and systems that are alternatives to materials and systems prescribed by this code. 2. Unusual design applications of materials described in this code. 3. Materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in this code or in standards referenced by this code.

1705.2 Steel Construction	
1705.2 Steel construction.	The <i>special inspections</i> for steel elements of buildings and structures shall be as required in this section.
1705.2.1 Structural steel.	Special inspection for structural steel shall be in accordance with the quality assurance inspection requirements of AISC 360.
1705.2.2 Steel construction other than structural steel.	Special inspection for steel construction other than structural steel shall be in accordance with Table 1705.2.2 and this section.
1705.2.2.1 Welding.	Welding inspection and welding inspector qualification shall be in accordance with this section.
1705.2.2.1.1 Cold-formed steel.	Welding inspection and welding inspector qualification for cold-formed steel floor and roof decks shall be in accordance with AWS D1.3.
1705.2.2.1.2 Reinforcing steel.	Welding inspection and welding inspector qualification for reinforcing steel shall be in accordance with AWS D1.4 and ACI 318.
1705.2.2.2 Cold-formed steel trusses spanning 60 feet or greater.	Where a cold-formed steel truss clear span is 60 feet (18 288 mm) or greater, the special inspector shall verify that the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing are installed in accordance with the <i>approved</i> truss submittal package.
1705.3 Concrete Construction	
1705.3 Concrete construction.	The <i>special inspections</i> and verifications for concrete construction shall be as required by this section and Table 1705.3. Exception: <i>Special inspections</i> shall not be required for: <ol style="list-style-type: none"> 1. Isolated spread concrete footings of buildings three stories or less above <i>grade plane</i> that are fully supported on earth or rock. 2. Continuous concrete footings supporting walls of buildings three stories or less above <i>grade plane</i> that are fully supported on earth or rock where: <ol style="list-style-type: none"> 2.1. The footings support walls of light-frame construction; 2.2. The footings are designed in accordance with Table 1809.7; or 2.3. The structural design of the footing is based on a specified compressive strength, f'_c, no greater than 2,500 pounds per square inch (psi) (17.2 MPa), regardless of the compressive strength specified in the <i>construction documents</i> or used in the footing construction. 3. Nonstructural concrete slabs supported directly on the ground, including pre-stressed slabs on grade, where the effective pre-stress in the concrete is less than 150 psi (1.03 MPa). 4. Concrete foundation walls constructed in accordance with Table 1807.1.6.2. 5. Concrete patios, driveways and sidewalks, on grade.
1705.3.1 Materials.	In the absence of sufficient data or documentation providing evidence of conformance to quality standards for materials in Chapter 3 of ACI 318, the Building Official shall require testing of materials in accordance with the appropriate standards and criteria for the material in Chapter 3 of ACI 318. Weld-ability of reinforcement, except that which conforms to ASTM A 706, shall be determined in accordance with the requirements of Section 3.5.2 of ACI 318.
1705.4 Masonry construction.	
1705.4 Masonry construction.	Masonry construction shall be inspected and verified in accordance with TMS 402/ACI 530/ASCE 5 and TMS 602/ACI 530.1/ASCE 6 quality assurance program requirements. Exception: <i>Special inspections</i> shall not be required for: <ol style="list-style-type: none"> 1. Empirically designed masonry, glass unit masonry or masonry veneer designed by Section 2109, 2110 or Chapter 14, respectively, where they are part of structures classified as <i>Risk Category</i> I, II or III in accordance with Section 1604.5. 2. Masonry foundation walls constructed in accordance with Table 1807.1.6.3(1), 1807.1.6.3(2), 1807.1.6.3(3) or 1807.1.6.3(4). 3. Masonry fireplaces, masonry heaters or masonry chimneys installed or constructed in accordance with Section 2111, 2112 or 2113, respectively.
1705.4.1 Empirically designed masonry, glass unit masonry and masonry veneer - Risk Category IV.	The minimum <i>special inspection</i> program for empirically designed masonry, glass unit masonry or masonry veneer designed by Section 2109, 2110 or Chapter 14, respectively, in structures classified as <i>Risk Category</i> IV, in accordance with Section 1604.5, shall comply with TMS 402/ACI 530/ASCE 5 Level B Quality Assurance.
1705.4.2 Vertical masonry foundation elements.	<i>Special inspection</i> shall be performed in accordance with Section 1705.4 for vertical masonry foundation elements.
Table 1705.3	Requirements for Inspection of cast-in-place and post-installed anchors
1705.5 Wood Construction	
For high-load diaphragms, Verification of grade and thickness of structural panel sheathing.	High-load diaphragms designed in accordance with Section 2306.2 shall be installed with <i>special inspections</i> as indicated in Section 1704.2. The special inspector shall inspect the wood structural panel sheathing to ascertain whether it is of the grade and thickness shown on the <i>approved</i> building plans. Additionally, the special inspector must verify the nominal size of framing members at adjoining panel edges, the nail or staple diameter and length, the number of fastener lines and that the spacing between fasteners in each line and at edge margins agrees with the <i>approved</i> building plans.
Verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each	

line and at edge margins agrees w/plans.	
1705.6 Soils	
Perform classification and testing of controlled fill materials	<p>1803.5.8 Compacted fill material. Where shallow foundations will bear on compacted fill material more than 12 inches (305 mm) in depth, a geotechnical investigation shall be conducted and shall include all of the following:</p> <ol style="list-style-type: none"> 1. Specifications for the preparation of the site prior to placement of compacted fill material. 2. Specifications for material to be used as compacted fill. 3. Test methods to be used to determine the maximum dry density and optimum moisture content of the material to be used as compacted fill. 4. Maximum allowable thickness of each lift of compacted fill material. 5. Field test method for determining the in-place dry density of the compacted fill. 6. Minimum acceptable in-place dry density expressed as a percentage of the maximum dry density determined in accordance with Item 3. 7. Number and frequency of field tests required to determine compliance with Item 6. <p>Special Inspections are not required for placement of controlled fill 12-inches deep or less; however it is recommended.</p>
Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill.	
Prior to placement of controlled fill, observe sub-grade and verify that site has been prepared properly.	
1705.7 Driven deep foundations.	
1705.7 Driven deep foundations.	<i>Special inspections</i> shall be performed during installation and testing of driven deep foundation elements as required by Table 1705.7. The <i>approved instruction documents</i> prepared by the <i>registered design professionals</i> shall be used to determine compliance.
1705.8 Cast-in-place deep foundations.	
1705.8 Cast-in-place deep foundations.	<i>Special inspections</i> shall be performed during installation and testing of cast-in-place deep foundation elements as required by Table 1705.8. The <i>approved geotechnical report</i> , and the <i>construction documents</i> prepared by the <i>registered design professionals</i> , shall be used to determine compliance.
1705.9 Helical pile foundations.	
1705.9 Helical pile foundations.	<i>Special inspections</i> shall be performed continuously during installation of helical pile foundations. The information recorded shall include installation equipment used, pile dimensions, tip elevations, final depth, final installation torque and other pertinent installation data as required by the <i>registered design professional in responsible charge</i> . The <i>approved geotechnical report</i> and the <i>construction documents</i> prepared by the <i>registered design professional</i> shall be used to determine compliance.
1705.10 Special inspections for wind resistance.	
1705.10 Special inspections for wind resistance.	<i>Special inspections</i> itemized in Sections 1705.10.1 through 1705.10.3, unless exempted by the exceptions to Section 1704.2, are required for buildings and structures constructed in the following areas: <ol style="list-style-type: none"> 1. In wind Exposure Category B, where V_{asd} as determined in accordance with Section 1609.3.1 is 120 miles per hour (52.8 m/sec) or greater. 2. In wind Exposure Category C or D, where V_{asd} as determined in accordance with Section 1609.3.1 is 110 mph (49 m/sec) or greater.
1705.11 Special inspections for seismic resistance.	
1705.11 Special inspections for seismic resistance.	<i>Special inspections</i> itemized in Sections 1705.11.1 through 1705.11.8, unless exempted by the exceptions of Section 1704.2, are required for the following: <ol style="list-style-type: none"> 1. The seismic force-resisting systems in structures assigned to <i>Seismic Design Category C, D, E or F</i> in accordance with Sections 1705.11.1 through 1705.11.3, as applicable. 2. Designated seismic systems in structures assigned to <i>Seismic Design Category C, D, E or F</i> in accordance with Section 1705.11.4. 3. Architectural, mechanical and electrical components in accordance with Sections 1705.11.5 and 1705.11.6. 4. Storage racks in structures assigned to <i>Seismic Design Category D, E or F</i> in accordance with Section 1705.11.7. 5. Seismic isolation systems in accordance with Section 1705.11.8. <p>Exception: <i>Special inspections</i> itemized in Sections 1705.11.1 through 1705.11.8 are not required for structures designed and constructed in accordance with one of the following: <ol style="list-style-type: none"> 1. The structure consists of light-frame construction; the design spectral response acceleration at short periods, S_{DS}, as determined in Section 1613.3.4, does not exceed 0.5; and the building height of the structure does not exceed 35 feet (10 668 mm). 2. The seismic force-resisting system of the structure consists of reinforced masonry or reinforced concrete; the design spectral response acceleration at short periods, S_{DS}, as determined in Section 1613.3.4, does not exceed 0.5; and the building height of the structure does not exceed 25 feet (7620 mm). 3. The structure is a detached one- or two-family dwelling not exceeding two <i>stories above grade plane</i> and does not have any of the following horizontal or vertical irregularities in accordance with Section 12.3 of ASCE 7: <ol style="list-style-type: none"> 3.1. Torsional or extreme torsional irregularity. 3.2. Nonparallel systems irregularity. 3.3. Stiffness-soft story or stiffness-extreme soft story irregularity. 3.4. Discontinuity in lateral strength-weak story irregularity. </p>

1705.12 Testing and qualification for seismic resistance.	
1705.12 Testing and qualification for seismic resistance.	The testing and qualification specified in Sections 1705.12.1 through 1705.12.4, unless exempted from <i>special inspections</i> by the exceptions of Section 1704.2 are required as follows: <ol style="list-style-type: none"> 1. The seismic force-resisting systems in structures assigned to <i>Seismic Design Category C, D, E or F</i> shall meet the requirements of Sections 1705.12.1 and 1705.12.2, as applicable. 2. Designated seismic systems in structures assigned to <i>Seismic Design Category C, D, E or F</i> and subject to the certification requirements of ASCE 7 Section 13.2.2 shall comply with Section 1705.12.3. 3. Architectural, mechanical and electrical components in structures assigned to <i>Seismic Design Category C, D, E or F</i> and where the requirements of ASCE 7 Section 13.2.1 are met by submittal of manufacturer's certification, in accordance with Item 2 therein, shall comply with Section 1705.12.3. 4. The seismic isolation system in seismically isolated structures shall meet the testing requirements of Section 1705.12.4.
1705.13 Sprayed Fire-resistant Materials	
1705.13 Sprayed fire-resistant materials.	<i>Special inspections</i> for sprayed fire-resistant materials applied to floor, roof and wall assemblies and structural members shall be in accordance with Sections 1705.13.1 through 1705.13.6. <i>Special inspections</i> shall be based on the fire-resistance design as designated in the <i>approved construction documents</i> . The tests set forth in this section shall be based on samplings from specific floor, roof and wall assemblies and structural members. <i>Special inspections</i> shall be performed after the rough installation of electrical, automatic sprinkler, mechanical and plumbing systems and suspension systems for ceilings, where applicable.
1705.14 Mastic and Intumescent Fire-Resistant Coatings	
1705.14 Mastic and intumescent fire-resistant coatings.	<i>Special inspections</i> for mastic and intumescent fire-resistant coatings applied to structural elements and decks shall be in accordance with AWCI 12-B. <i>Special inspections</i> shall be based on the fire-resistance design as designated in the <i>approved construction documents</i> .
1705.15 Exterior Insulation and Finish System (EIFS)	
1705.15 Exterior insulation and finish systems (EIFS).	<i>Special inspections</i> shall be required for all EIFS applications. Exceptions: <ol style="list-style-type: none"> 1. <i>Special inspections</i> shall not be required for EIFS applications installed over a <i>water-resistive barrier</i> with a means of draining moisture to the exterior. 2. <i>Special inspections</i> shall not be required for EIFS applications installed over masonry or concrete walls.
1705.16 Fire-resistant penetrations and joints	
Fire-resistant penetrations and joints	In high-rise buildings or in buildings assigned to <i>Risk Category III or IV</i> in accordance with Section 1604.5, special inspections for through-penetrations, membrane penetration fire-stops, fire-resistant joint systems, and perimeter fire barrier systems that are tested and listed in accordance with Sections 714.3.1.2, 714.4.1.2, 715.3 and 715.4 shall be in accordance with Section 1705.16.1 or 1705.16.2.
1705.16.1 Penetration fire-stops.	Inspections of penetration fire-stop systems that are tested and listed in accordance with Sections 714.3.1.2 and 714.4.1.2 shall be conducted by an approved inspection agency in accordance with ASTM E 2174.
1705.16.2 Fire-resistant joint systems.	Inspection of fire-resistant joint systems that are tested and listed in accordance with Sections 715.3 and 715.4 shall be conducted by an approved inspection agency in accordance with ASTM E 2393.
[F] 1705.17 Special inspection for smoke control.	
[F] 1705.17.1 Testing scope.	The test scope shall be as follows: <ol style="list-style-type: none"> 1. During erection of duct-work and prior to concealment for the purposes of leakage testing and recording of device location. 2. Prior to occupancy and after sufficient completion for the purposes of pressure difference testing, flow measurements and detection and control verification.
[F] 1705.17.2 Qualifications.	<i>Special inspection</i> agencies for smoke control shall have expertise in fire protection engineering, mechanical engineering and certification as air balancers.
1706 Design Strengths of Materials	
1706.1 Conformance to standards.	The design strengths and permissible stresses of any structural material that are identified by a manufacturer's designation as to manufacture and grade by mill tests, or the strength and stress grade is otherwise confirmed to the satisfaction of the <i>Building Official</i> , shall conform to the specifications and methods of design of accepted engineering practice or the <i>approved</i> rules in the absence of applicable standards.
1706.2 New materials.	For materials that are not specifically provided for in this code, the design strengths and permissible stresses shall be established by tests as provided for in Section 1707.
1707 Alternative Test Procedure	
1707.1 General.	In the absence of <i>approved</i> rules or other <i>approved</i> standards, the <i>Building Official</i> shall make, or cause to be made, the necessary tests and investigations; or the <i>Building Official</i> shall accept duly authenticated reports from <i>approved agencies</i> in respect to the quality and manner of use of new materials or assemblies as provided for in Section 104.11. The cost of all tests and other investigations required under the provisions of this code shall be borne by the applicant.

1708 Test Safe Load

1708.1 Where required.	Where proposed construction is not capable of being designed by <i>approved</i> engineering analysis, or where proposed construction design method does not comply with the applicable material design standard, the system of construction or the structural unit and the connections shall be subjected to the tests prescribed in Section 1710. The <i>Building Official</i> shall accept certified reports of such tests conducted by an <i>approved</i> testing agency, provided that such tests meet the requirements of this code and <i>approved</i> procedures.
------------------------	--

1709 In-situ Load Tests

1709.1 General.	Whenever there is a reasonable doubt as to the stability or load-bearing capacity of a completed building, structure or portion thereof for the expected loads, an engineering assessment shall be required.
-----------------	--

1710 Pre-Construction Load Tests

1710.1 General.	In evaluating the physical properties of materials and methods of construction that are not capable of being designed by <i>approved</i> engineering analysis or do not comply with the applicable referenced standards, the structural adequacy shall be predetermined based on the load test criteria established in this section.
-----------------	--

1711 Materials and Test Standards

1711.1 Joist hangers.	Testing of joist hangers shall be in accordance with Sections 1711.1.1 through 1711.1.3, as applicable.
1711.2 Concrete and clay roof tiles.	Testing of concrete and clay roof tiles shall be in accordance with Sections 1711.2.1 and 1711.2.2, as applicable.

Suggested Minimum Special Inspector Qualifications

Category of Testing and Inspection	Minimum Qualifications (See key below table)		
	Shop Testing or Inspections	Field Testing or Inspections	Review Testing, Certifications & Lab Reports
1704.2.5 Inspection of Fabricators			
Precast Concrete	A, C, E		
Structural Steel Construction	C, F, G		
Wood Construction	A		
Cold Formed Metal Construction	A		
1705.2.1, 1705.10, 1705.11 & 1705.12 Steel Construction			
Verification of welding consumables, filler metals, procedure specifications, procedure qualification records, and personnel performance qualification records			C, F
Nondestructive testing of welding	G	G	
Inspection of welding	C, F	C, F	
Verification of fabricator and erector documents per AISC 360 Chapter N, paragraph 3.2			A, C
Material verification of weld filler materials			C, F
Inspection of high strength bolting and steel frame joint details		A, C	
Inspection of embedments		A, C, F	
Inspection of steel elements of composite structures		A, C, F	
Verification of reinforcing steel, cold formed steel deck, and trusses			A, C, F
Inspection of reinforcing steel, cold formed steel deck, and trusses		A, C	
1705.3 & 1705.12 Concrete Construction			
Reinforcing placement, cast-in-place bolts, post installed anchors, concrete & shotcrete placement and curing operations.		A, C, H	
Inspections of formwork for shape location and dimensions.		A, C, H	
Pre-stressing steel installation		A, C, D, E	
Erection of precast concrete members		A, C, H	
Concrete field sampling and testing		A, J	
Review certified plant reports			A, C
Verify use of required design mix		A, C, H, I, J	
Prestressed (pretensioned) concrete force application	A, C, E		
Post-tensioned concrete force application		A, C, D	
Review 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.		A, C, D, H	
Reinforcing steel weldability, reinforcing welding, weld filler material		C, F	
Testing of welding of reinforcing steel		G	

Suggested Minimum Special Inspector Qualifications

Category of Testing and Inspection	Minimum Qualifications (See key below table)		
	Shop Testing or Inspections	Field Testing or Inspections	Review Testing, Certifications & Lab Reports
1705.4 Masonry			
Verification of f_m and f_{ac}		A, C	
Motor joint construction, grout protection & placement, materials proportion, type/size/location of reinforcement, structural elements, anchorage and connectors.		A, C	
Sampling/testing of grout/mortar specimens		A, C	
Preparation of masonry prisms for testing of compressive strength of masonry, f_m and f_{ac}		A, C	
Inspection of the welding of reinforcing steel		C, F	
Testing of the welding of reinforcing steel		G	
1705.6 and 1804 Soils			
Observe site preparation, fill placement, and testing of compaction for compliance with the construction documents		A, C, I, K	
Observe and test bearing materials below shallow foundations for ability to achieve design bearing capacity		A, C, I, N (Level III)	
Review compaction testing for compliance with the construction documents			A
1705.5, 1705.10, 1705.11, & 1705.12 Wood Construction			
Observe structural panel sheathing, size of framing members, fastener diameter & length, number of fasteners, and placement of fasteners for compliance with construction documents.		A, C	
Observe truss member bracing/restraint, field gluing of elements. Observe bolting, anchoring, or other fastening of shear walls, diaphragms, drag struts, braces, and hold-downs.		A, C	
1705.7, 1705.8, 1705.9, & 1810 Pile and Pier Foundations			
Observe installation		A, K	
Observe load tests		A	
1705.13 Spray-applied Fire Resistant Materials			
Observe condition of substrates, application, thickness of application, density in pounds per cubic foot (kg/m^3), bond strength adhesion / cohesion and condition of finished application.		A, C	
1705.14 Mastic and Intumescent Fire-resistive Coatings			
Inspect in accordance with AWCI 12-B based on the fire-resistance design as designated in the approved construction documents.		A, C	
1705.15 Exterior Insulation and Finish System			
Inspect EFIS system per construction documents and manufacture's installation instructions.		A, B, C, O	
1705.16 Fire-resistant Penetrations and Joints			
Inspect in accordance with ASTM E 2174.		O	
Inspect in accordance with ASTM E 2393.		O	

Suggested Minimum Special Inspector Qualifications

Category of Testing and Inspection	Minimum Qualifications (See key below table)		
	Shop Testing or Inspections	Field Testing or Inspections	Review Testing, Certifications & Lab Reports
1705.17 Smoke Control			
During erection of ductwork and prior to concealment for leakage testing and recording of device location.		O*	
Prior to occupancy and after completion for pressure difference testing, flow measurements and detection & control verification.		O*	
1705.10, 1705.11 & 1705.12 Seismic and Wind Resistance (Not usually required in Casa Grande)			
Periodic inspection of fabrication, installation, and/or anchorage of building systems, and components		A	

KEY

A. Arizona Professional Engineer (AzPE) competent in the specific task area or a graduate of an accredited engineering/engineering technology program under the direct supervision of an AzPE
B. Arizona Registered Architect (AzRA) competent in the specific task area or a graduate of an accredited architecture/architecture technology program under the direct supervision of an AzRA
C. International Code Council (ICC) Special Inspector Certification specific to the testing/inspection category listed in the table above.
D. Post-tensioning Institute (PTI) certification, Level 2, bonded or unbonded as applicable
E. Pre-stressed Concrete Institute (PCI) Certified Inspector
F. American Welding Society (AWS) Certified Welding Inspector (CWI) or AWS Certified Associate Welding Inspector working under the direct on-site supervision of a CWI
G. American Society for Nondestructive Testing (ASNT) Level II certification or a Level III Certification if previously certified as a Level II in the particular material and testing methodology applicable to each category of testing and inspection listed in the table
H. American Concrete Institute (ACI) Concrete Construction Special Inspector
I. National Institute for Certification in Engineering Technology (NICET) Level II or higher certification specific to the particular material and testing methodology applicable to each category of testing and inspection listed in the table
J. ACI Concrete Field Testing Technician with Grade I certification
K. NICET Certified Engineering Technologist (CT)
O. Other Qualified Special Inspector as approved by the Chief Building Official
* <i>Special inspection</i> agencies for smoke control shall have expertise in fire protection engineering, mechanical engineering, and certification as air balancers.
Notes:
1. The Special Inspector should have the minimum qualifications listed for the applicable Category of Testing and Inspection
2. Materials testing shall be done at an Approved Testing Agency meeting the requirements of IBC Section 1703 and ASTM E329.