

Special Inspection Manual

(REV. 5/21/19; 10/3/19)

City of Richmond
Department of planning Development and Review
Bureau of Permits and Inspections

From 2015 IBC (Note: 2012 IBC family of codes were allowed till 9/4/2019)

Adopted by Virginia Uniform Statewide Building Code

900 East Broad Street Room 110 Richmond, VA 23219 (804) 646-4169 FAX: (804) 696-1569

The purpose of this document is to familiarize the Owner, Engineer, Architect, Testing/Inspection Laboratory, and Contractor of the Special Inspections required by Chapter 17 of 2012 /2015 International Building Code, as adopted by the State of Virginia Uniform Statewide Building Code.

Chapter 17 of the 2012/2015 International Building Code (IBC) has specific requirements for Structural Tests and Special Inspections. These tests and inspections are in addition to the inspections required by VUSBC section 113. The special inspection does not waive the requirement for inspections by the building inspector. The contractor is responsible for scheduling all inspections required by VUSBC, with the Bureau of Permits and Inspections. These tests and inspections are to be made by an agency, inspector, testing lab, and fabricator shop approved by the Commissioner of Buildings.

The approved agency, inspector, testing lab, and fabricator shop must be employed by the owner or the registered design professional in responsible charge acting as the owner's agent.

This handout outlines the mandatory requirements and responsibilities of all parties involved with special inspection and construction. However, recognizing that there are many ways to evaluate construction quality and inspection, this handout is NOT intended to be a step-by-step procedural specification sufficient for all projects. Adjustments may be needed to satisfy a project's particular conditions.

It is hoped that by becoming more familiar with items which will be examined by the special inspector, all parties to the construction process can better prepare to foster quality control in the constructed project.

When special inspection required by VCC 2012/2015 edition, the registered design professional in responsible charge shall prepare a Statement of Special Inspections, for submittal by the permit applicant (see attached exhibit 2). This statement shall include the following:

1. The materials, systems, components, and work required to have special inspection

- 2. The type and extent of each inspection
- 3. The type and extent of each test
- 4. Identification as to whether it will be a continuous or periodic special inspection

This agreement applies to special inspections covered in Chapter 17 of the VCC. It does not waive any other inspections that do not fall under chapter 17. It is the permit holder's responsibility to call for all required inspections prior to concealment and prior to proceeding on with the work.

PRECONSTRUCTION MEETING

Prior to the issuance of a building permit, a preconstruction meeting shall be held at the building of Bureau of Permits and Inspections. The City of Richmond Plan Examiner Engineer II shall contact the Register Design Professional in responsible charge of the project, owner or owner agent to schedule the meeting time and location. The following are required to attend this meeting.

- 1. The Building Official, Plans Examiner, and Building Inspector
- 2. Owner or designated agent
- 3. The Registered Design Professional in Responsible Charge or representative.
- 4. Architect of Record or representative.
- 5. Structural Engineer of record or representative
- 6. Geotechnical Engineer of Record or representative
- 7. The General Contractor or representative.
- 8. Special Inspections Engineer of Record or representative
- 9. The Approved Agency or representative.

I DEFINITIONS AND PURPOSE

A. Approval of Special Inspection Agencies, Special Inspectors, Fabricator Shop and/or Testing labs:

Special Inspections Agencies, Special Inspectors, Fabricator Shop, and Testing Labs shall disclose any possible conflicts of interest. The Registered Design Professional in responsible charge shall pre-qualify the designated Special Inspection Agencies, Special Inspectors, Fabricator Shop, and Testing Labs, and submit their qualifications as part of the Statement of Special Inspections. The City of Richmond Bureau of Permits and Inspections shall approve the designated Special Inspection Agencies, Special Inspectors, Fabricator Shops, and Testing Labs, prior to any work being performed.

B. Duties and Responsibilities of the Project Owner:

1. Agree and sign the Special Inspection and Testing Agreement

2. Employ and Fund Special Inspections and Testing Services:

The project Owner is responsible for employing and funding the Special Inspection and Testing services. The Special Inspection Agencies, Special Inspectors and Testing Labs, shall not be in the employ of the contractor, a subcontractor or material supplier. In the case of an Owner who is also acting as the contractor; Special Inspection Agencies, Special Inspectors, and Testing Labs shall be employed as specified and approved by the Commissioner of Buildings, and Bureau of Permits and Inspections.

C. Duties and Responsibilities of the Engineer of Record

The engineer or architect of record has many duties and responsibilities related to special inspection and structural observation activities. These include the following:

1. Agree and sign the Special Inspection and Testing Agreement:

The Engineer or Architect of record shall complete the Special Inspection and Testing Agreement and submit with the Building Permit Application.

2. Identify the need for special inspections and structural observation services:

The project plans and-or specifications which are submitted to the building official shall clearly indicate the design parameters and material selection. The engineer or architect of record is the development team member who analyzes the critical elements of the design and determines where special inspection and structural observation is required in accordance with 2012/2015 VCC chapter 17. Special Inspection and Structural Observation Requirements. The engineer is responsible for submitting the special inspection and structural observation requirements form into the structural plan sets. Also one separate copy shall be submitted to the Bureau of Permits and Inspections Plan Examiner for office record.

3. Respond to field discrepancies

Material and design discrepancies which are not resolved in a timely manner or are about to be incorporated in the work must be brought to the attention of the engineer or architect of record and the office of the Commissioner of Buildings. Uncorrected field deficiencies observed by the special inspector must also be brought to their attention. The engineer or architect of record is instrumental in effecting the remedial process of deficiency correction. The engineer or architect of record is responsible for any design changes in addition to acknowledgment and approval of shop drawings which may detail structural information, and for submission of such changes to the Bureau of Permits and Inspections for approval.

4. Submit final completion report

The engineer of record shall submit an overall final completion report to The Bureau of Permits and Inspections stating that all items requiring special inspection and structural observation were performed in accordance with the approved plans, specifications, and applicable workmanship provisions of the VUSBC.

See Exhibit (5), Special Inspection Final Compliance Report and Exhibit (6), Structural Observation Final Compliance Report

D. Duties and responsibilities of the engineer responsible for the structural observation program

The owner shall employ the engineer or architect responsible for structural design, or another engineer or architect designated by the engineer or architect responsible for structural design, to perform structural observation as defined in IBC. Observed deficiencies shall be reported in writing to the owner's representative, special inspector, contractor, and the City of Richmond Bureau of Permits and Inspections. The structural observer shall submit to the Commissioner of Buildings a written statement declaring that the site visits have been made and identify any reported deficiencies that, to the best of the structural observer's knowledge, have not been resolved. See exhibits 5 and 6 structural observation final compliance report.

E. Duties and Responsibilities of the Special Inspector

1. Agree and sign the Special Inspection and Testing Agreement.

2. Special Inspector:

The special inspectors are individuals with highly developed, specialized skills who observe those critical building or structural features which they are qualified to inspect. Duties of special inspectors and/or inspection agencies include the following:

3. Observe and inspect all work for which they are responsible:

Special inspector shall inspect all work for conformance with the Bureau of Permits and Inspections approved plans and specifications and applicable of the code. The special inspector shall be on site at all times to observe construction operations that require continuous or periodic inspections as per tables 1705.2.3, 1705.3, 1705.6, 1705.7 and 1705.8 of VCC 2012/2015 edition. Work shall be inspected according to the approved construction documents, listed standards and nationally recognized testing methods.

4. Provide Timely Progress Report:

The special inspector should complete written inspection reports for each inspection visit and provide the report in a timely manner. The special inspector or inspection agency shall furnish these reports directly to the building official, engineer or architect of record and the general contractor. Special inspectors shall bring all non-conforming items to the immediate attention of the contractor. If any such item is not resolved in a timely manner or is about to be incorporated in the work, the engineer or architect of record and the building official shall be notified immediately. See exhibit 4. A copy of exhibit 4 shall be attached to every report done by the special inspector.

Special inspections reports are due within 48 hours of the inspection. The reports can be emailed or faxed to the Bureau of Permits and Inspections office.

5. Submit a Final Report.

Special inspectors or inspection agencies shall submit a final report that is sealed, signed and dated by the registered engineer or architect who is responsible for the special inspection to the Bureau of Permits and Inspections office stating that all items requiring special inspection and testing were constructed, to the best of their knowledge, in conformance with the approved design plans, specifications, approved change order and the applicable provision of the building code. See special inspection final report (EXHIBIT 5; 6 & 7.

This report shall be submitted no later than 30 days prior to application for a Certificate of Occupancy or Temporary Certificate of Occupancy.

F. Duties and Responsibilities of the Contractor:

1. Agree and sign the Special Inspection and Testing Agreement.

2. Notifying the Special Inspection Agency, Special Inspector, and Testing Lab.

The contractor or the holder of the Building Permit is responsible for notifying the Special Inspector, special inspection agency and Testing Lab regarding special inspections required by the Bureau of permits and Inspections. Adequate notice shall be provided so that the special inspector has time to become familiar with the project. The permit holder is responsible for calling for all required inspections both from the building inspector and the special inspector.

3. Provide access to approved Construction documents.

The contractor is responsible for providing the special inspector with access to approved plans, construction documents, and approved shop drawings.

4. Retain special inspection records at the job site:

The contractor is responsible for retaining at the job site all special inspection records submitted by the special inspector and testing labs, and providing these records for review by the Bureau of Permits and Inspections inspector upon request.

5. Obtain Bureau of Permits and Inspections approval prior to concealment:

The Contractor shall contact the Bureau of Permits and Inspections for required inspections and obtain approval prior to concealing any work requiring Special Inspections.

G. Duties and responsibilities of Bureau of the Permits and Inspections

The specific duties and responsibilities of the Bureau of Permits and Inspections relating to Special Inspections include the following:

1. Review and examine plans, specifications, structural observation, and contract documents for approval and compliance with the Code and Special Inspection Program Requirements:

The Bureau of Permits and Inspections is responsible for reviewing all submitted construction plans, specifications, forms related to the Special Inspection Program, and any other submitted documents for

compliance with Virginia Uniform Statewide Building Code. All items submitted must be reviewed and approved prior to issuance of the Building Permit. This includes the following:

- Check the qualifications of each Special Inspector, Special Inspection Agency, Testing Lab, and Fabricator Shop that is listed on the Statement of Special Inspections in accordance with The City of Richmond's Qualification Standard for Special Inspections.
- Check that all parties involved in the Special Inspection Program have completed their portion of the Special Inspection and Testing Agreement.
- Issue the Building Permit with the approved Statement of Special Inspections, Special Inspection and testing Agreement, and permit conditions attached to the approved plans that will be kept on the job site.
- Determine if pre-construction meeting is required to review the Special Inspection Program with all appropriate members of the construction team.

2. Monitor Special Inspection and Testing Activities:

The Bureau of Building Permits and Inspections will monitor work requiring Special Inspection and Testing Activities at the jobsite to assure that the designated qualified Special Inspectors are performing their duties when work requiring Special Inspection is in progress.

3. Review Special Inspection Progress Reports:

The Bureau of Permits and Inspections will review the submitted Special Inspection progress reports and perform field inspections to verify conformance to the approved plans, construction documents, and specifications prior to concealing any work related to the Special Inspections

4. Perform Final Inspection and Issue Certificate of Occupancy:

The Bureau of Permits and Inspections will approve all site inspections as partial inspection, and will not perform a final inspection nor approve the final inspection until the final Special Inspection Report has been reviewed and approved by the office of the Commissioner of Buildings.

ACKNOWLEDGMENTS



Exhibit (1)

Project Address	:	Plan I	Number:
I have read and agree to comply v	with the terms, conditions, and mand Testing A	• •	hey are outlined in the Special Inspectio
Owner:			
Print Name	Provide Signature	Date	Digital Signature
Register Design Professional in	Responsible Charge (Project I	Engineer or Architect	t of Record):
Print Name/Company	Provide Signature	Date	Digital Signature
Register Design Professional St	ructural Engineer:		
Print Name/Company	Provide Signature	Date	Digital Signature
Contractor:			
Print Name/Company	Provide Signature	Date	Digital Signature
Special Inspections, Testing Ago	encies/Laboratories, and Indep		ectors:
Print Name/Company	Provide Signature	* Date	Digital Signature
		*	
Print Name/company	Provide Signature	Date	Digital Signature
*This signature must be that of re	sponsible professional Engineer	within the Special Ins	pection Agency
Accepted By the City	of Richmond Bureau of Perm	its and Inspections	
Print Plan Reviewer Name	Provide signature	Date	
Print Name Special Inspection Manager (City Of Richmor	Provide Signature	Date	



City of Richmond Statement of Special Inspections Exhibit (2)

Type or print name	Signature	Date	_
Building Official Acceptance			
Type or print name	Signature	Date	_
Owner/ Representative Authoriza	ation		
Type or print name	Signature	Date	Digital Signature
Prepared by:			
professionals. Discrepancies found f correction, the City of Richmond Co	from the approved construction of ode Official, as well as the appropriate of the appropriate of the appropriate of the appropriate of the approximation of the approximation of the approved construction of the approximation o	documents shall be brought to copriate design professional of agreed upon by the Building	to the code official and appropriate design the immediate attention of the contractor fo record. Daily, weekly, and monthly report Official. A final report of special inspection ertificate of occupancy.
	atewide Building Code. It includ	les a schedule of special inspec	ce with Chapter 17 of the IBC 2012/2015 a etions (Exhibit #xx) applicable to this projectections.
General Contractor:			
Special Inspector Engineer of	of Record:		
Geotechnical Engineer of Re	ecord:		
Structural Engineer of Reco	rd:		
Architect of Record:			
Applicant Address:			
Permit Applicant:			
Plan Number:	Code I	Edition:	
Project Address:			



Special Inspection Daily Report

City of Richmond Bureau of Permits and Inspections
Exhibit (4)

Permit No:		Date:
Project Name and Address:		
Inspection Type: Continuous	☐ Periodic	Frequency:
☐ Inspection Approved ☐ Insp		
To the best of my knowledge, work in	nspected was in acco	ordance with the Bureau of Permits Inspections approved plans, of VCC 2012/ 2015 Edition Except as noted above
Signed:	Inspection	Agency:
Print full name	Time of Ir	aspection:

Completion Report for Special Inspection of a Particular Construction Item

City of Richmond Bureau of Permits and Inspections Exhibit (5)

Pern	mit No:	Project Address:
Special Inspections	s Engineer of Record:	
Construction Item	:	
completed. The buildocuments and the inspections for this	lding elements subjected to Virginia Uniform Statewi particular construction item	nd Special Inspections for construction item specified for this permit have been cial inspections have been found to be in compliance with project construction Building Code. All discrepancies discovered during the conduct of special vere brought to the attention of appropriate registered design professional of Official for resolution and have been corrected and approved.
Submitted by Spec	cial Inspections Engineer:	SIER P. E. Seal & Signature
Signature	Date	
Type or Print Nan	ne	
Reviewed By: Registered Desig	n Professional of Record	Building Official:
		g
Signature	Date	Signature Date
Type or Print Nan	ne	Type or Print Name

Structural Observation Final Completion Report



City of Richmond Bureau of Permits and Inspections
Exhibit (6)

Date:		
Ms. Richa Bansal		
Engineer II Plans Examiner		
900 East Broad Street		
Richmond, VA 23219		
Project Address:	Permit No:	_
In accordance with Chapter 17 of Virginia Co following items:	onstruction Codes 2012/2015 edition, I have provided s	structural observation for the
	bstantiating reports, it is my professional judgment that oved plans, specifications, and applicable workmanshi	
6° 1	Stamp of Engineer/Architect of Record	
Signed:	Performing structural observation	
Type or Print Name		

Final Report of Special Inspections

City of Richmond Bureau of Permits and Inspections
Exhibit (7)

	Permit Number:	
RICHMOND	Project Address	
VIRGINIA	Special Inspections Eng	ineer of Record:
Pursuant to the requi	rements of the City of Richn	nond Special Inspections Program, I submit this final report of the item listed
above for approval	. Inspection Report number	red to, and test Report number to, all submitted
and reviewed prior	to this Final Report, form	a basis for, and are to be considered an integral part of this report.
nspections have be project specification prought to the atter Code Official for re	een found to be in compliants. All discrepancies discrepancies discrepancies discrepancies and have been co	**
Submitted by Spec	cial Inspections Engineer	of Record:
		Stamp of Engineer/Architect of Record
		Performing structural observation
Signature	Date	
Гуре or Print Name	2	
Reviewed by:		Accepted by:
Register Design Pro	ofessional of Record:	Building Official:

Signature

Date

Date

Signature



Request for City of Richmond Certificate of Occupancy
Dept. of Planning and Development Review
Bureau of Permits and Inspections
900 E. Broad Street, Room 110 (City Hall)
Richmond Virginia 23219
804 646 4169 * Fax 804 646 1569
www.richmondgov.com

Please complete this form and return to our office at least two (2) weeks prior to your final building inspection. There is no fee required with this form for Building Permit Certificate of Occupancy.

Job/Property Location:	
Building Permit No.:	
Projected Occupancy Date:	

This form does not schedule your final building inspection. You should call 311 or this office at 646-4169 to schedule your final inspection upon completion of the work.

As you prepare your final building inspection, please be aware of the following items:

- All trade permits need to be completed prior to requesting the building final. These can include, but are not limited to: electrical, mechanical (HVAC), plumbing, gas piping, sprinkler and elevator permits.
- Any required special inspection reports should also be submitted to this office. These must be signed/sealed by the engineer or architect who inspected the work.
- Any re-inspection fees and/or permit fees for increase in cost of work owed to the city shall be paid.
- Additionally, please be aware of the following:
- Any zoning requirements, including parking, signs, landscaping, etc., need to be completed. The Zoning Administration Office may be reached at 646-6340.
- Any public works requirements including site work, grading & seeding, work-in-street, etc., need to be completed. The Permits & Engineering Services Division may be reached at 646-5155 or 646-6440.
- Any public utilities requirements need to be completed. The Department of Public Utilities may be reached at 646-8544.
- Any health inspections, if needed, please contact the Health Department directly. (804) 205-3912.

PARTIAL or TEMPORARY CERTIFICATE OF OCCUPANCY

Minimum Requirements

Building

- 1. Complete and submit a C.O. application ("H-CO" form) and pay the required fee.
- 2. Submit two (2) sets of plans showing all areas to be occupied and egress paths to a public way.
- 3. All Structural work must be complete with a final inspection.
- 4. Certifications from special inspectors must be submitted by the owner and approved by the City.
- 5. Emergency vehicles including police, fire and ambulances must have acceptable access to the building.
- 6. Sufficient means of egress as required by the building code, for both ambulatory and handicapped individuals, shall exist to serve the areas being occupied and they must be fully complete and approved by the City. Occupants shall not be permitted to exit through areas that do not have a Certificate of Occupancy.
- 7. Posting of prominent warning signs to occupants and construction personnel that exits and egress ways shall be maintained at all times.
- 8. The occupant of the building shall develop an emergency fire plan, which must be accepted by the tenant management and approved by the Fire Marshal.
- 9. The means of egress from the areas to be occupied must be adequate, accessible, pressurized where required by code and must have all of the required egress and exit lighting installed.
- 10. Final inspections must be approved by the City for the areas to be occupied. All work in the areas to be occupied must be complete and approved by the City.

Sprinklers

- 1. All fire hydrants serving the building must be operable and accepted by the Department of Fire and Emergency Services.
- 2. In existing buildings all fire protection systems, including standpipe and alarm systems, must be complete, fully operable, tested and approved by the City. If the building has a central monitoring system or a fireman's communication system for fire emergencies, it must be fully complete, tested and approved by the City and accepted by the Department of Fire and Emergency Services.
- 3. In new buildings all standpipes must be in place and working and the sprinkler system must be tested and approved one floor above and one floor below the floor to be occupied.
- 4. All fire suppression systems within the building must be fully complete, tested and approved by the City.

Fire Alarm System

- 1. The fire alarm systems, including smoke detectors and the pull stations must be installed, tested and approved by the City for the entire building.
- 2. A signed agreement is required that all fire alarms will be reported to 911 unless advance notice is given that the system is being worked on.

Electrical

- 1. The electrical systems serving the area to be occupied must be complete and approved by the City.
- 2. The standby power system for the building must be installed, tested and approved by the City.
- 3. Areas to be occupied shall pass a light test showing that the egress lighting meets the building code requirement for one-foot candle.

Heating, Ventilation and Air Conditioning

- 1. The heating, ventilation and air conditioning system serving the area to be occupied must be complete and approved by the City.
- 2. Stair pressurization tests for stairs required for egress must be tested and the City must approve the test.
- 3. Smoke evacuation systems in areas to be occupied must be tested and approved by the City

Plumbing

- 1. All plumbing serving the area to be occupied must be complete, tested and approved by the City.
- 2. The sanitary sewer connection and lateral into the building must be complete, tested and approved by the City.
- 3. The City must accept chlorination reports.
- 4. The City must accept Backflow prevention test reports.
- 5. Backflow preventers devices must have an approved final inspection

Sidewalks

1. Sidewalks, driveways and all work in the right-of-way must be completed and approved by the City.

Handicap Access

- 1. The access into the building, the path of travel to the occupied area and the plumbing fixtures to serve the area being occupied shall be complete and approved by the City.
- 2. Handicapped parking spaces shall be provided with signs installed.

Zoning

- 1. In cases where parking is required, that number of spaces needed to satisfy the parking demand for a partial use of the building must be provided. These spaces must be paved and striped. If the property is subject to any special zoning approval, you must comply with any conditions of that approval.
- 2. If the parking is not paved or landscaping is not complete, a partial CO can be given for up to a 120-day period if there is sufficient reason due to seasonal problems (e.g. asphalt plant closed in winter months or heat of the summer will not allow planting).
- A letter from the architect or engineer is required that states how long it will take to complete the work and the
 estimated cost of the remaining work. A bond may be required, depending on the value, to guarantee
 completion of the work.

FINAL CERTIFICATE OF OCCUANCY ISSUANCE

Building

- Fill out the Certificate of Occupancy Request form at least thirty (30) days prior to the date you want you certificate of occupancy
- All fees must be paid prior to the certificate of occupancy being printed or a final building inspection being approved
- All work must be complete and a final inspection approved unless a partial certificate of occupancy is being requested. (See Partial)
- For a partial Certificate of Occupancy you must fill out a separate application on an "H-CO" permit application form and pay fee. (See Partial)
- All approved plans must be on-site and available. Approved plans means the most current set bearing the City's approval stamps.
- Fees
- 1. For projects \$500,000 and above a fee audit will be performed
- 2. A completion report is required to be filled out by the general contractor
- 3. Other projects may be audited on a case by case basis
- 4. All permits will be listed and the building permit holder will have to provide final cost figures for each permit holder
- 5. The City will determine if any additional fees are due and provide the building permit holder with the list of fees.
- 6. This normally takes a week from the time the City receives the final contract amounts.
- 7. The general contractor or owner must supply:
 - a. Final contract price for the entire project
 - b. Breakout prices for each individual permit
 - c. Cost of any owner furnished equipment
 - d. Architectural and engineering costs can be excluded
 - e. Fees may be paid in one check or by individual checks.
 - f. If individual checks are to be used, the general contractor is responsible for getting them together and bring them in together

Zoning

- The permit holder must request a zoning final inspection (299) once all of the site work is complete, including required landscaping and parking improvements (paving and striping) is complete
- All approved plans must be on site and available. Approved plans means the most current set bearing the City's approval stamps.

Health

Check with the Health Department as far in advance as possible to give them time to do their inspection and to give you time to make any needed corrections.

<u>Trades (Electrical/Plumbing/Mechanical/Elevator)</u>

- All trade permits must have a final inspection prior to requesting a building final inspection.
- If a partial certificate of occupancy is desired, the trade permits must show a partial final inspection for the area to be occupied.

Permits and Services

- A final inspection (369) of all site work (final grading, paving & seeding) must be requested.
- Call for a final inspection on storm sewer plumbing permit

Public Works

- A final inspection (390) of all work in street permits must be requested.
 - Check with the Public Works Department as far in advance as possible to give them time to do their inspection and to give you time to make any needed corrections.
- Be sure all repairs relating to City streets, sidewalks, medians and other property are completed and are acceptable to DPW
- Call in for a Public Works final inspection on their "V" permit
- Make sure you have no encroachments that have not been approved

Public Utilities

- Check with the Public Utilities Department as far in advance as possible to give them time to do their inspection and to give you time to make any needed corrections.
- Be sure all repairs relating to City utility lines are completed and are acceptable to DPU
- Make sure all backflow preventer's have been inspected and approved by the plumbing division and by DPU

Required Inspections are as follows:

Type of Permit	Partial Final (No CO)	Partial Final (w/ CO)	Temporary C.O (H permit)	Final
Building Permit				
Building	190	191	399	199
Zoning			299	299
Water Resources		369		369
DPU		992		992
DPW		372		391
Sign				899
Electrical	590	591	591	599
Plumbing	690	691	691	699
Gas		691	691	699
Sprinkler		491	491	499
Fire Alarm		591	591	599
Mechanical	490	491	491	499
Works (V Permits)		390		390
Elevator				799



Application for Permit Extension

Dept. of Planning and Development Review Bureau of Permits and Inspections

Contact Name:	
Phone #:	Date:
Permit Number:	
Project Address:	
	To Whom It May Concern: n on the above building permit due to the following reasons:
	Extension Request Fee: \$25.00
<u>BUREAU OF</u>	F PERMITS AND INSPECTION USE ONLY
Open Violations:	Violation Inspector:
Different Code?	If yes, date of Last Inspection:
Date Extended:	Extended By:
Date Received:	Amount Paid: Receipt #:

Fee

Fees are based on the total cost of a permit's scope of work including material, labor, subcontracts, job expenses, overhead and profit. If a subcontractor obtains a permit for his work the fee is based on his scope of work including material, labor, subcontracts, job expenses, overhead and profit.

For building permits the building permit fee will not have to cover work covered by another permit such as plumbing, mechanical or electrical work. If the owner furnishes material the cost of the material must be included in the permit cost basis. Fees will be adjusted as follows:

- A. New permits
 - a. Fees will be based on the fee schedule in effect on the date the customer comes in to pay or the date we receive a mailed, faxed or emailed application for a new permit
- B. Amended permits
 - a. The fees will be based on the fee schedule in effect on the day payment is made
- C. Plan review on revised plans where the permit has been issued
 - a. For permits under \$500,000 in value a 10% fee will be assessed on each plan review after the permit has been issued. The fee is 10% of the original fee or \$30.00 whichever is greater
 - b. For permits \$500,000 and more, the 10% revision fee will be charged only on the first revision after the permit has been issued
 - c. Fees will be based on the fee schedule in effect on the day of payment
- D. Amended cost and plan review
 - a. On permits that have been issued where the scope of work changed and the contract amount increased, an amended fee will be charged. The fee increase will be based on the fee schedule in effect on the day payment is made
 - b. The 10% review fee is the same as outlined above in item C
- E. Audits
 - a. All projects valued at \$500,000 or more will require an audit.
 - b. The building inspector will not approve the final inspection until the fees have been paid
 - c. The City will not issue a certificate of occupancy until all fees have been paid
 - d. The owner or prime contractor shall submit a final completion affidavit and a spreadsheet showing final contract amounts broken down by permits
 - e. Projects valued at less than \$500,000 will be audited as time and staffing permit
 - f. Fees will be based on the fee schedule in effect on the day payment is made
 - g. Decreases in fees will be based on the fee schedule in place when the permit was issued



City of Richmond

Bureau of Permits and Inspections 900 E. Broad Street Richmond, VA 23219

Special Inspection Manager (Name, initial & Date)

COMPLETION REPORT

TO THE COMMISSIONER OF BUILDINGS:

City ordinance Sec. 14-6 requires that the owner, or authorized agent of the owner, shall report to the Commissioner of Buildings the entire final value of work requiring a permit. This report shall include the entire actual cost to the owner of erecting, installing, enlarging, extending, repairing or altering such structure. In addition, City ordinances require the filing of an application for a Certificate of Occupancy. This report must be signed and witnessed. Permit fees will be adjusted on the basis of this report.

Owner:	
Contractor:	
Property Address:	
Permit Number	
I certify that the total value of the work to the owner, including material permit was:	erial, labor, subcontracts, overhead and profit, completed under this
And I certify that the attached breakdown of final contract amounts	by permit number is accurate.
Signed by contractor or owner:	Date:
Title:(Officer of corporation or managing partner of partnership)	
Signed by Owner:	Date:

The work above includes the building, modular building foundations and site work, site mechanical-electrical-plumbing-sprinkler work, building plumbing, electrical, mechanical, sprinkler, refrigeration and all trade work: equipment, installation, overhead and profit to contractors and subcontractors. It also includes the value of owner furnished equipment.

Preconstruction Meeting

Building Inspector will facilitate the Preconstruction Meeting

Special Inspection meeting if required, contact

Ms. Richa Bansal: richa.bansal@richmondgov.com Ph. #: 804.646.5484

Partial or Temporary. C.O. requirements

Electrical Inspection requirements:

Rough-in inspection (fire stop must be come complete at that time or no approval)
Light schedule and Test
Generator schedule and Test
Fire Alarm schedule and Test

Low Voltage schedule and Test

Security schedule and Test

Va. Power (to set meter) schedule

Final inspection

Plumbing Inspection requirements:

Rough-in inspection (fire stop must be come complete at that time or no approval)

Elevator (sump pump test if required) schedule and Test

Storm water /Roof schedule and Test

Gas schedule and Test

Backflow schedule and Test

Bacterial water test (send or give report to inspector) schedule and Test

Exterior sanitary inspection to property line only schedule and Test

Final inspection

Elevator Inspection requirements:

Rough-in inspection Third Party Final inspection Third Party

Mechanical Inspection requirements:

Rough-in inspection (fire stop must be come complete at that time or no approval)

Sprinkler schedule and Test

Fire pump schedule and Test

Fire alarm schedule and Test

Final inspection

Building Inspection requirements:

Footing inspection if required if not Special Inspections
Foundation inspection if required if not Special Inspections
Slab inspection if required if not Special Inspections
Framing inspection if required if not Special Inspections
Insulation inspection if required if not Special Inspections
Sill inspection if required if not Special Inspections
Veneer inspection if required if not Special Inspections
Sign inspection if required if not Special Inspections
Final inspection

Zoning Inspection requirements:

Site inspection (initial) Final inspection

Health Inspection requirements:

Site inspection (initial) Final inspection

Public Works Inspection requirements: DPWContact that Department for requirements and inspections

Public Utilities Inspection requirements: DPU
Contact that Department for requirements and inspections

Water Resource Inspection requirements:

Contact that Department for requirements and inspections



City of Richmond

Department of Planning & Development Review Permits & Inspections

Minimum Permit Requirements for New Buildings, Alterations, Renovations to Existing Buildings and Tenant Up-Fits

The following checklist contains the *minimum essential building code information required on plans* prior to processing the building permit application. This is a basic pre-submittal checklist that will reduce the number of plans placed on hold due to incomplete plans. *While providing all of the information needed will not guarantee approval of your plans, it will expedite the overall process and increase the likelihood that your plans will be approved on the first submission.* Please review these items and ensure that your plans are complete prior to submission. Please address any questions to the Department of Planning & Development Review, Bureau of Permits and Inspections at 900 East Broad St. (Rm # 110) Richmond, Virginia 23219, office# (804-646-4169).

Required Documents for Permit Application:

- Completed Building Permit Application, filled out in its entirety and application fee's paid. Any additional changes, addition or deletion of work shall be re-submitted and a Completed Plan Intake Sheet filled out in its entirety and revision fee's paid.
- The City of Richmond has adopted and is currently using the **2015 Virginia Construction Code (VCC)** {which is derived from the International Building Code (IBC 2015)}, 2015 Virginia Mechanical Code, 2015 Virginia Plumbing Code, 2015 Virginia Energy Conservations Code, 2015 Virginia Fuel Gas Code, 2014 National Electric Code, 2009 OR 2012 American National Standards Institute Accessibility Code and the 2015 Virginia Residential Code. These codes are available from the International Code Council (ICC).
- Construction Documents should note the edition of the VCC or Model Code that the project was designed under. If it is not noted on the Construction Documents then the plans shall be reviewed under the current edition of the VCC.
- Registered Design Professionals may also use other Model Codes such as 2015 Virginia Existing Building Code.
- Minimum of (2) sets of plans are required to begin a Building Permit review. Additional Plans shall be submitted for each individual department that is required to review the permit. The additional separate sets of plans are for the follow independent departments' review.
 - 1. Zoning
 - 2. Public Works
 - 3. Utilities
 - 4. Planning
 - 5. Water Resources
 - 6. Health

Note: The Building permit, which is required to begin construction, shall not be issued, until each individual department associated with the building permit has been accepted and approved.

- Provide specifications as needed, if they contain building code information not provided on the plans.
- NOTICE: BUILDING PERMIT APPROVAL DOES NOT INCLUDE ANY REVIEW OF THE MECHANICAL, PLUMBING, ELECTRICAL OR OTHER TRADE PLANS. Mechanical, Plumbing and Electrical plans, intended for construction may be included with the construction documents and reviewed for coordination only.

- Mechanical, Plumbing and Electrical plans shall be submitted <u>separately</u> under their respected trade permits. If no Mechanical, Plumbing or Electrical work is to be performed then that must be clearly stated on the Building Permit Application sheet and plans.
- If asbestos abatement will occur. The asbestos abatement shall be performed as per the requirements of the "clean Air Act" national emission standards for hazardous air pollutant (NESHAPS) and (OSHA) standards for construction. Provide a completed Asbestos Certification Form per 2012/2015 Virginia Building Code section 110.3.
- **Geotechnical Report**. Required for new land disturbance, new construction of footings and paved motorways. It is important to know whether the soil type present in new construction sites exhibits shrink-sell characteristics before construction begins. When soils shrink and swell, uneven pressure is exerted on foundations. This can result in the formations of cracks in a foundation.
 - o Shrink-Swell soils are the primary unsuitable soils that we must deal with.
 - o A perched water table is a layer of water that is trapped near the ground surface.
 - o Fill soils are soils that have been placed by man. Fill soils can be found anywhere in the city.
 - o Marine clays are soils that have high bearing pressure when undisturbed. However, when disturbed by moisture they become highly unstable and can lead to catastrophic failures
 - Other unsuitable soils
- **Site plan**. Required for new and existing buildings when any exterior work or any change in use occurs. The contractor must file separate permits for signage.
 - o Show outline of building.
 - o Displaying property lines, building location, utility and site access
 - o Show any streets and alleys and pedestrian right-of-ways
 - o Are there any encroachments onto City of Richmond property within the scope of this work
 - o Provide a point to point photometric site plan showing property line
- Statement of Special Inspections or Third Party Inspections request. The purpose of these documents is to familiarize the Owner, Engineer, Architect, Testing/Inspection Laboratory, and Contractor of the Special Inspections required by Chapter 17 of 2012/2015 International Building Code, as adopted by the State of Virginia Uniform Statewide Building Code. Chapter 17 of the 2012/2015 International Building Code (IBC) has specific requirements for Structural Tests and Special Inspections. These tests and inspections are in addition to the inspections required by VUSBC section 113. The special inspection does not waive the requirement for inspections by the building inspector. The contractor is responsible for scheduling all inspections required by VCC, with the Bureau of Permits and Inspections. These tests and inspections are to be made by Third Party agency, inspector, testing lab, and fabricator shop approved by the Commissioner of Buildings. The approved agency, inspector, testing lab, and fabricator shop must be employed by the owner or the registered design professional in responsible charge acting as the owner's agent.
- MSDS (Material Safety Data Sheet) shall be submitted if hazardous materials will be stored in the building or space.
 Provide a list of the hazardous materials, with hazard classifications noted, that will be stored or used in or surrounding the building.

Building Plan Review Requirements:

General

- A Virginia Professional seal (signed and dated) is required on the building plans in accordance with The Code of Virginia §54.1-402 or if prepared by a registered design professional with no seal maybe accepted under certain criteria. In such structures that do not require an A/E seal (see charts B & C), of The Code of Virginia §54.1-402.
- Construction documents and copies of, shall be neat, legible and all of the same size. No Free Hand Drawn plans shall be accepted. (Plans hand drawn to scale with a straight edge may be accepted)
- Construction documents shall be either 22" x 34" (D size) or 34" x 44" (E size). Other sizes may be approved by the Building Official upon request.
- Construction documents shall be at least 1/8" scale or larger. Standard architectural scales are required and all lettering shall be at least 1/8" in height. All electrical/mechanical rooms etc. shall be a minimum of ½" scale or larger.
- Each sheet shall be numbered
- Each sheet shall have a completed title block.
- List the name, company, address, and telephone number of the person who prepared the plans, the owner, owner agent, and contractor.

- Provide a key plan showing the overall building identifying the area for scope of work.
- The property address, building or street name shall be provided.
- Building code edition used.
- Floor plans must be complete, dimensioned, and drawn to scale indicating the use of each room
- If a change of occupancy, note the previous tenant and use of the space if known.
- Use of the building/space and Occupancy Group classification (VCC Chapter 3)
- If it is a mixed use building, note the method of treating mixed uses (VCC 302): Non-separated mixed use, separated mixed use (provide area square footage).
- Construction type (VCC Chapter 6).
- Occupant load (VCC 1004).
- Building height and number of stories.
- Multiple Buildings on the same site shall be submitted under <u>separate permits</u>. Multiple Buildings classified as one building on a site may be grouped into one permit.
- Indicate if building/space is equipped with any fire protection systems (sprinklers, alarms, or hood suppression).
- If the alteration involves a change of use, provide the method of compliance with height and area limitations (VCC Table 503), including calculations supporting height and/or area increases per VCC 504 and 506.
- Clearly identify new and existing construction.
- The location of all exits, exit signs, and egress lights should be clearly labeled on the plans.
- Provide a door schedule for all new and existing doors in areas where the means of egress system is affected by the alteration. The door schedule shall include the following:
 - o Door size
 - Lock type
 - o Hardware type (locks, latches, handles, closers, operating devices, access control systems)
 - o Door fire rating expressed in hours, if rated
- Provide typical wall sections or descriptions of partition types and construction materials to be used in wall construction (stud types, wall sheathing, insulation materials, and termination).
- All fire rated walls, new and existing, must be labeled as to type (fire partition, fire separation assembly, fire wall, smoke partition) and provide the design numbers and specifications (U.L., Gypsum Association, etc.) for all fire rated assemblies. Provide complete full height cross sections of all fire rated assemblies proposed for construction that identifies all materials used in the assembly and complete support and termination details.
- Provide UL design numbers, details and specifications for all through penetration fire stopping details.
- New and altered elements of existing buildings shall meet the energy code requirements
- Show all plumbing fixtures and label them new or existing.
- If there is a "change of use" for the space/building, the following existing fixtures are required: Water closets, Lavatories, Drinking fountains, Service sinks. They must be shown on the plan. Even if no work is being performed.
- All altered toilet rooms/restrooms must be fully dimensioned including fixture clearances.
- Any new restaurant/ food service use, the cooking equipment plan and all hoods must be shown and itemized.
- Show all the engineering details required in this checklist on the plans; providing this information in the specifications only is not sufficient.
- A legend shall be provided for all symbols.
- All spaces and rooms shall be labeled as to their use.

Structural

- A Virginia Professional seal (signed and dated) is required on the building plans per The Code of Virginia (§54.1-402) for all work.
- Identify all walls and other structural framing that will be affected by an alteration. If framing or foundation systems will be altered, provide complete foundation and framing plans with design loads listed. Framing plans should provide beam, joist, rafter and truss sizes and layouts. Foundation plans should show footing depths, sizes, and design bearing capacity.

Disapproval and Comments

 After review of the Permit and Construction Documents, if code deficiencies are found, they must be forwarded to the designer for correction.

- Code Sections must be cited for items that must be corrected.
- Plan Review Comments shall be issued in written form.

Revisions

- City of Richmond, Dept. Permits and Inspections, will not take revisions without a signed intake form. Revisions shall include a pre-signed intake form or a representative shall appear in-person to sign off on the drawings that are submitted.
- When design changes are made, plans must be reviewed again to ensure continued compliance with code requirements.
- All revisions shall be clouded, highlighted, marked or labeled.

Code Modifications

- Code Modifications are granted when some aspect of the proposed project cannot meet code.
- The ability to grant Code Modifications is an option provided to the Building Official in the VUSBC.
- Code Modifications do not omit or wave a code section, it provides an alternative that meets the intent of the code.
- Code Modifications typically involve conditions in an existing building where alterations are taking place.
- Code Modifications shall be submitted at the Permits and Inspection Front Counter. There is a fee that shall be paid before the code modification is processed. When it is processed it will be routed to the Building Commissioner for review.
- Code Modifications are approved by the Building Commissioner. If there are questions regarding the code modification, the Building Commissioner will discuss and seek additional information regarding questions related to the code modification request.

Mechanical Plan Review

Mechanical application shall be filled out and submitted for review when any installation of heating, cooling, refrigeration and ventilation equipment is performed. http://www.richmondgov.com/planninganddevelopmentreview/forms/MechanicalAPP.pdf

Plumbing Plan Review

Provide Construction documents for review per City of Richmond Requirements for new installations and remodeling of building plumbing systems. Provide two sets of plans of the same quality and detail as normally provided by an engineer shall be submitted for review. http://www.richmondgov.com/planninganddevelopmentreview/forms/Plumbing Checklist.pdf

Electrical Plan Review

Provide Construction documents for review per City of Richmond Requirements for electrical work performed on private property either inside or outside of a building. Provide two sets of plans of the same quality and detail as normally provided by an engineer shall be submitted for review.



Electrical_Handout 2012_2015.pdf

Contact information

Call the City of Richmond 311 call center to reach the Bureau of Permits and Inspections. The City of Richmond, Department of Community Development's web page is at: www.ci.richmond.va.us/departments/communitydev/

The International Code Council website is: www.iccsafe.org

The Virginia Department of housing and Community Development website is: www.dhcd.virginia.gov

Schedule of Chapter 17 Inspections

Name of Firm:	Date: Project Address			Plan Number					
Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17	
Soils see table 1705.6									
Verify material below shallow foundations are					Х	1705.6			
adequate to achieve the design bearing capacity.									
2. Verify excavations are extended to proper depth and					Х	1705.6			
have reached proper material									
3.Perform classification and testing of compacted fill					Х	1705.6			
material									
4. Verify use of proper materials, densities and lift						1705.6			
thickness during placement and compaction of				X					
compacted fill.				^					
5.Prior to placement of compacted fill, observe					Х	1705.6			
subgrade and verify that site has been prepared									
properly									
Structural Steel									
Quality control	In plant inspection					1705.2	AISC 360		
1. Bolts, nuts, washers	Markings meets ASTM standards					1705.2	AISC 360-10		
1. Botts, Hats, Washers									
a. Marking	Markings versus certificate of compliance	!			Х	1705.2	AISC 335; LRFD		
b. certificate of compliance					Х	1705.2	AISC 335; LRFD		
2. High strength bolting	Field inspection					1705.2	AISC 360 M2.5		

Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17
a. bearing type connections	Field inspection				Х	1705.2	AISC 360 M2.5	
b. slip critical connections	Field inspection				Х	1705.2	AISC 360 M2.5	
3. Material verification	Material markings versus certifications					1705.2	ASTM A6, A568	
a. conforms to ASTM standards						1705.2	ASTM A6, A568	
b. certified mill test reports						1705.2	ASTM A6, A568	
4. Verification of weld filler materials						1705.2		
a. markings conform to AWS specification in construction documents	Field inspection					1705.2	AISC 360	
b. manufacturer's certificate of compliance						1705.2.1		
5. Inspection of welding	Field inspection					1705.2		
a. structural steel						1705.2		
1. penetrations of welds				х		1705.2.1	AWS D1.1	
2. multi-pass fillet welds				Х		1705.2	AWS D1.1	
3. Single pass welds >5/16"				Х		1705.2	AWS D1.1	
4. Single pass welds <5/16					Х	1705.2	AWS D1.1	
5. Floor & roof deck welds					Х	1705.2	AWS D1.3	
b. Reinforcing Steel						1705.2		
1. verification of weldability					X	1704.5 item6	AWS D1.4; ACI 318:26.6.4	
2. Flexural & axial forces						1705.2	AWS D1.4; ACI 318:3.5.2	

Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17
3. shear reinforcement				X		1705.2	AWS D1.4; ACI 318:3.5.2	
4. Other reinforcement					Х	1705.2	AWS D1.4; ACI 318:3.5.2	
6. Steel Frame Joint inspections						1705.2.1		
a. bracing & stiffening						1705.2		
b. member locations						1705.2		
c. joint details at connections					Х	1705.2		
Structural steel - installation					Х	1705.2.1	ASTM A6, A568	
Structural steel – size of each member					Х	1705.2.1	ASTM A6, A568	
Location of members	Field inspection – per approved construction documents				Х	1705.2.1	ASTM A6, A568	
Bearing of members	Field inspection – per approved construction documents				Х	1705.2.1	ASTM A6, A568	
Bolts, nuts, washers - installation	In place inspections				Х	1705.2.1	AISC 335; LRFD	
Torque of bolts	Field verify				Х	1705.2.1	AISC 335; LRFD	
Connections	Field verify				Х	1705.2.1	AISC 335; LRFD	
Structural details	Inspection in field				Х	1705.2.1		
Deep Driven Foundation see table 1705.7								
Verify pile materials, sizes and lengths comply with requirements and construction documents	Field inspection – per approved construction documents				X	1705.7		
Determine capacities of test piles and conduct additional load tests as required	Field inspection – per approved construction documents				Х	1705.7		

Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17
Observe driving operations and maintain complete and accurate records for each pile	Field inspection – per approved construction documents				X	1705.7		
4. Verify placement locations and plumbing 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 pile damage	Field inspection — per approved construction documents			X		1705.7		
5. for steel piles, perform additional inspections in accordance with section 1705.2	Field inspection — per approved construction documents					1705.7		
6. For concrete piles and concrete filled piles, perform additional inspections in accordance with section 1705.3	Field inspection — per approved construction documents					1705.7		
7. For specialty piles, perform additional inspections as determined by the registered design professional in responsible charge	Field inspection – per approved construction documents					1705.7		
Pier and Curtain Wall Foundations see 1809.10								
Drilling	Observe drilling and placement							1809.10
Placement	Verify placement, size, location, adequate bearing							1809.10
Materials	For concrete elements, perform additional inspections in accordance with section 1705.3.						ACI 318	1809.10
Masonry see 1705.4								
Drilling	Observe drilling and placement					1705.4		
Placement	Verify placement, size, location, adequate bearing					1705.4		

Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17
Materials	Review products supplied versus material submitted				X	1705.4	ACI 318	
Acceptance test					Х	1705.4	ACI 530	
Strength	Testing & review of strength				Х	1705.4	ACI 530	2105.2.1 2105.2.2
Reinforcing in walls	Field inspection – per approved construction documents				Х	1705.4	ACI 318:3.5,7.1-7.7	1910.4
Placement of anchors	Field inspection – per approved				X	1705.4	ACI 318:8.1.3,21.2.8	1908.5 1909.1
Mortar and grout placement	construction documents				Х	1705.4	ASTM C 270	2103.9
Mortar joints	Field inspection – per approved				Х	1705.4	ACI 530	
Grout strength	construction documents				Х	1705.4	ASTM C 476	2103.13
Mortar type	Field inspection – per approved				Х	1705.4	ASTM C 270	2103.9
Grade of reinforcing	construction documents				Х	1705.4	ACI 530	
Cold weather construction	Field inspection – per approved				Х	1705.4	ACI 530	2104.3
Shallow Foundation section 1809								
Location of footing	Field inspection of footing – per approved plans?							1809.6
Depth and Width of Footing	Field inspection of footing– per Approved plans?							1809.4
Strength of footing PSI	Laboratory testing— per approved plans?							
Stepped Footing	Field inspection of footing							1809.3
Frost protection	Field inspection of footing							1809.5

Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17
Prescriptive Footing for Light –frame construction	Field inspection of footing							1809.7
Plain Concrete Footing	Field inspection of footing							1809.8
Concrete Construction see Table 1705.3								
1.Inspection of reinforcing steel, including prestressing tendons, and placement.	Field inspection including proper size and placement				Х	1705.3	ACI 318:3.5 7.1- 7.7	1910.4
2. Reinforcing steel welding						1705.2.2 item 2b	AWS D1.4 ACI318:3.5.2	
3.Inspection of anchors cast-in concrete where allowable loads have been increased or where strength design is used						1705.3	ACI 318: 8.1.8,21.2.8	1908.5 1909.1
4.Inspection of anchors post-installed in hardened concrete members					Х	1705.3	ACI 318: 3.8.6, 8.1.8,21.2.8	1909.1
5. Verifying use of required design mix					X	1705.3	ACI 318: CH 4,5.2- 5.4	1904.2 1910.2 1910.3
6.At the time fresh concrete is sampled to fabricate specimens for strength tests, perform slump and air content tests and determine the temperature of the concrete					х	1705.3	ASTM C 172 ASTM C 31 ACI 318:5.6,5.8	1910.10
7. Inspection of concrete and shotcrete placement for proper application techniques.				X		1705.3	ACI 318:5.9,5.10	1910.6 1910.7 1910.8
8. Inspection for maintenance of specified curing temperature and techniques.					X	1705.3	ACI 318: 5.11-5.13	1910.9
9.Inspection of pre-stressed concrete						1705.3		
Application of pre-stressed forces				X		1705.3	ACI 318:18.20 ACI 318:18.18.4	

Grouting of bonded pre-stressed tendons in the				Х		1705.3	ACI 318:18.20 ACI	
seismic-force resisting system						17.00.0	318:18.18.4	
Seisific-force resisting system								
Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17
10.Erection of precast concrete members						1705.3	ACI 318: CH16	
11.Verification of in-situ concrete strength prior to stressing of tendons in posttensioned concrete and prior to removal of shores and forms from beams and structural slabs					X	1705.3	ACI 318:6.2	
12.Inspect formwork for shape location and dimensions of the concrete member being formed, shoring and reshoring					X	1705.3 VCC	ACI 318:6.1.1	
Cast- In-Place Deep Foundation Elements								
Verification/Inspection see table 1705.8								
Observe drilling operations and maintain complete and accurate records for each element.			Х			1705.8		
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			X			1705.8		
3.For concrete elements perform additional inspections in accordance with section 1705.3						1705.3		
Helical Piers				X		1705.9		
Slabs (ground or elevated)								
Thickness	Field inspection — per approved construction documents					1705.3		Section 1910
Rebar sizes	Field inspection – per approved construction documents					1705.3		

Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17
Rebar spacing	Field inspection – per approved construction documents					1705.2.2.1.2	AWS D1.4 ACI 318	
Rebar location in slab	Field inspection – per approved construction documents					1705.2.2.1.2	ACI 318	
Floor penetrations	Field inspection – per approved construction documents					1705.2.2.1.2		Section 714
STEEL Construction see Table 1705.2.2								
Material verification of cold-formed steel deck:					х	1705.2.2		
a. Marking					х	1705.2.2	Applicable ASTM material standards	
b. certificate of compliance					х	1705.2.2		
2. Inspection of Welding:					х	1705.2.2		
a. Cold-formed steel deck						1705.2.2		
1.)Floor and roof deck welds					х	1705.2.2	AWS D1.3	
b. Reinforcing steel:						1705.2.2		
1.)Verification of weldability of reinforcing steel other than ASTM A 706					х	1705.2.2	AWS D1.4 ACI 318: 3.5.2	
2.)Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames and boundary elements of special structural walls of concrete and shear reinforcement	Markings meets ASTM standards			х		1705.2.2	AWS D1.4 ACI 318: 3.5.2	
3.) Shear reinforcement	Markings versus certificate of compliance			х		1705.2.2	AWS D1.4 ACI 318: 3.5.2	
4.) Other reinforcing steel	Field inspection				X	1705.2.2	AWS D1.4 ACI 318: 3.5.2	

Work Type	Description	y/n	Firm	Continuous	Periodic	Chapter 17	Other Standard	Non Chapter 17
Wood								
Fabrication/quality control	Review submittals and installation					1704.2.5		
High load diaphragms	Inspection of sheathing, framing size nail and staple size, number of fasteners, and spacing of fasteners					1705.5.1		
Structural wood						1705.5 1705.11.1		
Fire resistive wood								2303.2
Fire resistive wood marking	Paint once on site on the sides so that it can be identified when cut and MFG markings aren't visible					1703.5		2303.1.8.1
Fire Resistance								
Spray on materials	Review surface conditions, applications, thickness				х	1705.13		722.5.2.2 722.5.1.3
Fire resistant coatings	Review surface conditions, applications, thickness				Х	1704.11 1705.13.4		
Thermal and Sound -Insulating	Review applications							Section 720
Special Cases	Review surface preparations and applications					1705.1.1		
Smoke Control See section 909						1705.18		
Duct testing for leaks	Prior to concealment							909.5.2
Pressure and flow testing	Prior to completion							906.6,909.6.1,909. 6.2



SPECIAL INSPECTION MEETING

DATE OF SI MEETING:	TIME / LOCATION:
PROJECT ADDRESS:	PLAN #:
PROJECT DESCRIPTION:	CODE YEAR:
SPECIAL INSPECTION MANAGER:	

,	Firm Name	SIGNATURE	Telephone Number	Contact name	Email
1					
2					
3					
4					
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11					
12					
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