



STAFFORD COUNTY DEPARTMENT OF PUBLIC WORKS

BUILDING AND PERMITS DIVISION STATEMENT OF SPECIAL INSPECTIONS

VCC 2015/ CHAPTER 17

PROJECT: _____ AP# _____

ADDRESS: _____ VCC EDITION _____

CONSTRUCTION TYPE: _____

Height Stories	Total Area ft ²	Sprinkler (Y/N)	Fire Alarm (Y/N)	Occupancy Category 1 6 0 4 . 5	Seismic Des. Cat	Prepared Fill (Y/N)	Problem Soils (Y/N)
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OWNER: _____ PHONE: _____

ADDRESS: _____ E-MAIL: _____

ARCHITECT: _____ LICENSE # _____

STRUCTURAL ENGINEER: _____ LICENSE# _____

GEOTECHNICAL ENGINEER: _____ LICENSE# _____

GENERAL CONTRACTOR: _____ LICENSE# _____

SPECIAL INSPECTIONS

ENGINEER OF RECORD: _____ LICENSE# _____

INSPECTION AND TESTING AGENCY: _____

This statement of special inspections is submitted as a condition for permit issuance in accordance with the Virginia Construction Code. It includes a schedule of special inspection applicable to this project.

The special inspections engineer of record shall keep records of specified inspections and testing and shall furnish copies of inspections and testing reports to Stafford County, VA. Building Official and to the appropriate register design professional of record.

Discrepancies from the approved plans and specifications and code violations observed during the conduct of special inspection services shall be brought to the immediate attention of the contractor for correction, to the attention of the Stafford County Building Official, and to the appropriate deign professional of record.

A final completion report of special inspections documenting the specified special inspections and correction of any discrepancies and observed code violations noted in the inspection and testing reports shall be submitted to the Building Official prior to the final building inspection approved by County staff.

Prepared by _____ signature & date _____

Reviewed by Registered Design Professional: _____ signature & date _____

Building Owner's authorization: _____ signature & date _____

Building Official's acceptance: _____ signature & date _____

SPECIAL INSPECTION SCHEDULE

SCOPE OF SEVICE FOR VERIFICATION AND INSPECTION	Ref. Std.	IBC Ref.	Continuous (C) Periodic (P)	Start / Completion Date	Problem/ Corrective Action
Activity, Verification and Inspection]					
<p><u>STEEL CONSTRUCTION</u> 1. HIGH STRENGTH BOLTS, NUT & WASHERS a.)___Identification markings to conform to ASTM standards specified in the approved construction documents. b.)___Manufacturer’s certificate of compliance required.</p>	AISC 360, Sec A3.3/ Applicable ASTM Std.	1704.3	(P)		
<p>2. HIGH STRENGTH BOLTING a.)___Bearing-type connections. b.)___Slip critical connections</p>	AISC 360, Sec M2.5	1704.3	(P) (C) (P)		
<p>3. STRUCTURAL STEEL a.)___Identification markings to conform to ASTM standards specified in the approved construction documents. b.)___Manufacturer’s certified mill tests reports</p>	ASTM A 6 ASTM- A568	1704.3	(P)		
<p>4. Weld Filler a.)___Identification markings to conform to ASTM standards specified in the approved construction documents. b.)___Manufacturer’s certificate of compliance required.</p>	AISC 360, Sec A3.5		(P)		
<p>5. WELDING a.) Structural Steel: 1.___Complete and partial penetration groove welds 2.___Multipass fillet welds. 3.___Single pass fillet weld > 5/16” 4.___Single pass fillet welds <= 5/16” 5.___Floor and roof deck welds. b.) Reinforcing Steel: 1.___Verification of weldability of reinforcing steel other than ASTM A70. 2.___reinforcing steel-resisting flexural and axial forces intermediate and special moment frames and boundry elements of special reinforced concrete shear walls and shear reinforcement. 3.___Shear reinforcement 4. Other reinforcement</p>	AWS D1.1 AWS D1.3 AWS D1.4 ACI 318:/ 3.5.2	1703.3.	1.) (C) 2.) (C) 3.) (C) 4.) (P) 5.) (P) ---- 2.) (C) 3.) (C) ----		
<p>6. STEEL FRAME JOIST DETAILS a.)___Details such as bracing and stiffening b.)___Member locations. c.)___Application of joint details at each connection.</p>		1704.3	(P)		
<p>7. STEEL FABRICATION a.___Fabricator is AISC certified. b.___Verify that fabricator maintains detailed fabrication and quality control procedures</p>		1704.2			

SPECIAL INSPECTION SCHEDULE

SCOPE OF SEVICE FOR VERIFICATION AND INSPECTION	Ref. Std. Used	IBC Ref.	Continuous (C) Periodic (P)	Start / Completion Date	Problem/ Corrective Action
CONCRETE CONSTRUCTION]					
1. ___Reinforcing steel, including prestressing tendons, and placement.	ACI318:3.5 7.1-7.7	1704.4	1.)_(P)		
2. ___Reinforcing steel welding.	AWS D1.4	1704.4	2.)----		
3. Bolts installed in concrete.		1911.5	3.)- (C)		
4. ___Verifying use of required design mix	ACI 318 #4	1904.2	4.)- (P)		
5. ___At the time fresh concrete is sampled to fabricate specimens for strength tests, preform slump and air contents tests, and determine the temperature of the concrete.	ASTM c172 ASTM C31	1913.10	5.)- (C)		
6. ___Inspection of concrete and shotcrete placement for proper application techniques.	ACI 3.18 5.9, 5.10	1913.6 1913.7	6.)- (C)		
7. ___Inspections of maintenance of specified curing temperature and techniques.	ACI 3.18: 5.11-5.13	1913.9	7.)- (P)		
8. ___Inspection of prestressed concrete: a.)Application for prestressing force. b.)___Grouting of bonded prestressing tendons in the seismic - force resisting system.	ACI 3.18 18..20 18.4		8.a.)-(C) b.)-(C)		
9. ___Manufacture of precast/ tilt-up panels concrete members.			9.)- ---		
10. ___Erection of precast /tilt-up panels concrete member.	ACI318 #16		10.)- (P)		
11. ___Verification of in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	ACI 318: 6.2		11.)- (P)		
12. ___Inspect formwork shape, location and dimensions of the concrete member being formed.	ACI 3.18: 6.1.1		12.)- (P)		
13. ___Other					

SPECIAL INSPECTION SCHEDULE

SCOPE OF SERVICE FOR VERIFICATION AND INSPECTION	Ref. Std. Used	IBC Ref.	Continuous (C) Periodic (P)	Start / Completion Date	Problem/ Corrective Action
MASONRY CONSTRUCTION 1704.5					
MASONRY LEVEL 1 SPECIAL INSPECTIONS	ACI 530/ ASCE 5/ TMS 402	1704.5			
1. As masonry construction begins, ensure compliance:			1.)- (P)		
a. __ Proportions of site-prepared for mortar. b. Construction of mortar joints. c. Location of reinforcement, connectors d. prestressed technique. e. Grade and size of prestressing tendon and anchorage.			a.)- (P) b.)- (P) c.)- (P) d.)- (P) e.)- (P)		
2. The inspection shall verify:					
a. __ Size and location of structural elements. b. __ Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction. c. __ Specific size, grade and type of reinforcement. d. Welding of reinforcing bars. e. __ Protection of masonry during cold weather (below 40F) or hot weather (above 90F). f. __ Application and measurement of prestressing force.		2104.3 2104.4	a.)- (P) b.)- (P) c.)- (P) d.)- (C) e.)- (P) f.)- (P)		
3. Prior to grout, verify the following to ensure compliance:					
a. __ Grout space is clean. b. __ Placement of reinforcement and connectors and prestressing tendons and anchorage. c. __ Proportions of site-prepared grout and prestressing grout for bonded tendons. d. __ Construction of mortar joints.			a.)- (P) b.)- (P) c.)- (P) d.)- (P)		
4. Grout placement verified to ensure compliance with code and construction document provisions.			(C)		
5. Preparation of any required grout or mortar specimens, and/or prisms shall be observed.			(C)		
6. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.			(P)		

SPECIAL INSPECTION SCHEDULE

SCOPE OF SERVICE FOR VERIFICATION AND INSPECTION	Ref. Std. Used	IBC Ref.	Continuous (C) Periodic (P)	Start / Completion Date	Problem/ Corrective Action
MASONRY CONSTRUCTION 1704.5					
MASONRY LEVEL 2 SPECIAL INSPECTIONS	ACI 530/ ASCE 5/ TMS 402	1704.5			
1. From the beginning of masonry construction, the following shall be verified:					
a. __ Proportions of site-prepared mortar, grout and prestressing grout for bonded tendons. b. __ Placement of reinforcement, connectors and prestressing tendons and anchorages. c. __ Placement of masonry units and construction of mortar joints. d. Grout space prior to grouting e. Placement of grout. f. Placement of prestressed grout.			a.)- (P) b.)- (P) c.)- (P) d.)- (C) e.)- (C) f.)- (C)		
2. The inspection program shall verify:					
a. __ Size and location of structural steel. b. __ Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction. c. __ Specific size, grade and type of reinforcement. d. Welding of reinforcing bars. e. __ Protection of masonry during cold weather (below 40F) or hot weather (above 90F). f. __ Application and measurement of prestressing force.			a.)- (P) b.)- (P) c.)- (P) d.)- (C) e.)- (P) f.)- (P)		
3. __ Preparation of any required grout or mortar specimens and/or prism shall be observed.			(C)		
4. __ Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.					
5. Others					

SCOPE OF SERVICE FOR VERIFICATION AND INSPECTION	IBC Ref.	Continuous (C) Periodic (P)	Start / Completion Date	Problem/ Corrective Action
SOILS 1704.7	1704.7			
<ol style="list-style-type: none"> 1. Controlled fill placed under Site Permit. 2. Verify materials below footings are adequate to achieve the design bearing capacity. 3. Verify excavations are extended to proper depth and have reached proper material. 4. Perform classification and testing of controlled fill materials. 5. Verify use of proper materials, densities and lift thicknesses during placement and compaction of controlled fill. 6. Prior to placement of controlled fill, observe sub-grade and verify that the site has been prepared properly. 		<ol style="list-style-type: none"> 1.)- (---) 2.)- (P) 3.)- (P) 4.)- (P) 5.)- (C) 6.)- (P) 		
Footings and Foundations				
<ol style="list-style-type: none"> 1. Verify Subgrade bearing, footing depth, footing dimensions. 2. Verify installations of Drain tile-(gravity/ mechanical). 		<ol style="list-style-type: none"> 1.)- (P) 2.)- (P) 		
Pile Foundations	1704.8			
<ol style="list-style-type: none"> 1. Verify pile materials, sizes and length comply with requirements. 2. Determine capacities of test piles and the conduct additional load tests, as required. 3. Observe driving operations and maintain complete and accurate records as required. 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 pile damage. 5. For steel piles perform additional inspections in accordance with Section 1704.3 6. For concrete piles and concrete- filled piles, perform additional inspections in accordance with Section 1704.4. 7. For specialty piles, perform additional inspections as determined by registered designed professional in responsible charge. 8. For augered uncased piles and caisson piles, perform inspections in accordance with Section 1704.9. 		<ol style="list-style-type: none"> 1.)- (C) 2.)- (C) 3.)- (C) 4.)- (C) 5.)- (---) 6.)- (---) 7.)- (---) 8.)- (---) 		
Pier Foundations	1704.9			
<ol style="list-style-type: none"> 1. Observe drilling operations and maintain complete and accurate records for each pier. 2. Verify placement locations and plumbness, confirm pier diameters, bell diameters, length, embedment into bedrock and adequate end of bearing strata capacity. 3. For concrete piers, perform additional inspections in accordance with Section 1704.4. 4. For masonry piers, perform additional inspections in accordance with Section 1704.5. 		<ol style="list-style-type: none"> 1.)- (C) 2.)- (C) 3.)- (---) 4.)- (---) 		

SPECIAL INSPECTION SCHEDULE

SCOPE OF SERVICE FOR VERIFICATION AND INSPECTION	Ref. Std. Used	IBC Ref	Continuous (C) Periodic (P)	Start / Completion Date	Problem/ Corrective Action
SPRAYED FIRE-RESISTANT MATERIALS		1704.10.			
1. __ Verify structural member surface conditions. 2. __ Verify application of materials per manufacturer's instructions. 3. Verify thickness and density of applied materials. 4. Verify the bond strength of applied materials.			1.)-(P) 2.)-(C) (P) 3.)-(P) 4.)-(P)		
MASTIC AND INTUMESCENT FIRE-RESISTANT COATINGS		1704.11			
1. __ Verify structural member deck surface conditions. 2. __ Verify application of materials per manufacturer's instructions. 3. Verify thickness of applied materials. 4. Verify the bond strength/ adhesion of applied materials.			1.)-(P) 2.)-(C) (P) 3.)-(P) 4.)-(P)		
EXTERIOR INSULATION AND FINISH SYSTEMS (EIFS).		1704.12			
1. __ Install per County approved construction documents. 2. __ EIFS Contractor Card, prepared and signed by the EIFS installer after installation of the EIFS, must be attached to the Final Report of Special Inspections.			1.)-(---) 2.)-(---)		
SMOKE CONTROL SYSTEMS		1704.16			
1. __ Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified. 2. __ Please submit a detailed scope of services, including a protocol of inspections to comply with 1704.14			N/A		
5. Others					
At the time of these inspections, all items inspected were in accordance with the County approved building plans and the Virginia Uniform Statewide Building Code; a copy of the required building permit was posted on the construction site, the erosion and sedimentation was found to be controlled and properly installed or maintained in accordance with the following (Check appropriate) <input type="checkbox"/> Approved lot grading plan. <input type="checkbox"/> Approved lot grading plan and sound engineering practice. <input type="checkbox"/> Sound engineering practice (only retaining walls that do not require lot grading plans). <input type="checkbox"/> Sound engineering practice (additions, alterations/ repairs).					
1.)Special Inspections Engineer of Record: _____ <div style="display: flex; justify-content: space-between; width: 100%;"> Name company address </div> 2.)Inspection and Testing Agency: _____					

SPECIAL INSPECTION SCHEDULE

SCOPE OF SERVICE FOR VERIFICATION AND INSPECTION		
SPECIAL INSPECTIONS FOR EARTH RETAINING STRUCTURES		
TYPE OF RETAINING STRUCTURE	RETAINING STRUCTURE CONSTRUCTION MATERIALS <input type="checkbox"/> Earth Wall <input type="checkbox"/> Reinforced Earth with geogrid <input type="checkbox"/> Masonry <input type="checkbox"/> Sheet Pile <input type="checkbox"/> Cast in place concrete <input type="checkbox"/> Timber Pile <input type="checkbox"/> H-Pile <input type="checkbox"/> Other	
ACTIVITY	SCOPE OF SERVICE FOR VERIFICATION AND INSPECTION	Start/ Completion Date
Footing, Foundation	<input type="checkbox"/> Compacted Earth <input type="checkbox"/> Gravel 21A __ 57__ <input type="checkbox"/> Concrete reinforcement <input type="checkbox"/> Concrete <input type="checkbox"/> Pile on Caissons <input type="checkbox"/> Other (specify): _____	
Backfill Information	<input type="checkbox"/> Drains per plan <input type="checkbox"/> Compacted fill: On-site material ____, Off-site Material ____	
Guard Rail	<input type="checkbox"/> Per Approved Plan and in accordance with Virginia Uniform Statewide Construction Code and Design Engineering.	
Wall Geometry	<input type="checkbox"/> Batter per plan <input type="checkbox"/> Height per plan <input type="checkbox"/> Surcharge per plan <input type="checkbox"/> Slope of fill per plan	
Compaction Testing	<input type="checkbox"/> Per approved plan <input type="checkbox"/> Per geotechnical engineer's recommendation <input type="checkbox"/> Compaction test not needed	
Layout Information	<input type="checkbox"/> Per approved plan <input type="checkbox"/> Per approved revised site plan	
<p>At the time of these inspections, all items inspected were in accordance with the County approved building plans and the Virginia Uniform Statewide Building Code; a copy of the required building permit was posted on the construction site, the erosion and sedimentation was found to be controlled and properly installed or maintained in accordance with the following (Check appropriate)</p> <input type="checkbox"/> Approved lot grading plan. <input type="checkbox"/> Approved lot grading plan and sound engineering practice. <input type="checkbox"/> Sound engineering practice (only retaining walls that do not require lot grading plans). <input type="checkbox"/> Sound engineering practice (additions, alterations/ repairs).		
1.)Special Inspections Engineer of Record: _____ <div style="display: flex; justify-content: space-between; width: 100%; font-size: small;"> Name company address </div>		
2.)Inspection and Testing Agency: _____		

Special Inspections for Wood Construction

ALL COMMERCIAL BUILDINGS 2 STORIES AND GREATER

REQUIRED VERIFICATION AND INSPECTION					Inspections By	Date of Inspection	Comments and Corrections	
Task, Verification and Inspection		Frequency of Inspections		Reference Criteria				
		Continuous	Periodic	Ref. Std.				IBC Ref
No.	Wood Construction				1705.5	SIER		
1.	Verify fabrication of wood structural elements and assembly				1704.2.3			
1a. __	Verify fabrication of wood structural element Specify element: _____		X					
1b. __	Verify the assembly of structural elements		X					
1c. __	Verify fabrication of site-built assemblies	X	X					
1d. __	Verify all connectors and fasteners		X		2304.9			
2.	High-Load Diaphragms designed in accordance with Table 2306.2.1(2)				1705.5.1 2306.2.1(2)	SIER		
2a. __	Verify grade and thickness of wood structural sheathing as shown of approved construction plans.		X					
2b. __	Verify the nominal size of framing members at adjoining panel edges, the nail or staple diameter and length, the number of fastener lines and spacing between fasteners.		X					
3.	Metal-plate-connected wood trusses: Floor and Roof assemblies.				1705.5.2	SIER		
3a. __	Verify the temporary installation of roof and floor restraint bracing in accordance with the approved truss submittal package.		X					
3b. __	Verify the permanent installation of floor and roof truss restraint/bracing is in accordance with the approved truss submittal package.							
4.	SPECIAL CASES AS REQUIRED BY THE BUILDING OFFICIAL							

A SPECIAL INSPECTIONS ENGINEER OF RECORD PERIODIC INSPECTION REPORT IS REQUIRED TO BE ON FILE WITH THE COUNTY BEFORE CLOSE-INS/OR FINAL INSPECTION WILL BE PREFORMED.