SCHEDULE OF SPECIAL INSPECTIONS
2018 IBC

Inspections & Testing	Continuous	Periodic	Y / N	Reference Standard or Compliance Document	Agent
1704.4 Proper Registration:					
1. Special inspector to keep record of special inspections and final inspection reports to the building official and to the Registered Design Professional in responsible charge	●		Y	IBC 1704.2.4	1
1704.2.5 Inspection of Fabricated Items					
1. Work done in fabricator shop requires inspection unless the fabricator is registered and approved in accordance with 1704.2.5.1. Where fabricator is approved, **provide fabricator certificate of compliance.**		●	Y	1704.2.5	2
2. As completion of fabrication, submit certificate of compliance to building site at stating the work was performed in accordance with the approved construction documents.		●	Y	1704.2.5.1	1
1704.4 Contractor Responsibility					
1. Each contractor responsible for the construction of a main wind- or seismic force resisting system, designated seismic system or C.W.U. of seismic-resisting component listed in this statement of special inspections shall submit a written statement of responsibility.		●	Y	1704.4	9
1704.5 Submittals to the Building Official					
1. Certificates of compliance for the fabrication of structural load-bearing or lateral load-resisting members or assemblies on the premises of a registered and approved fabricator in accordance with Section 1704.2.5.1	●		Y	1704.5 1704.2.5.1	3,4
2. Certificates of compliance for the seismic qualification of nonstructural components, supports and attachments in accordance with Section 1704.13.2	●		N	1704.5 1705.13.2	3,4
3. Certificates of compliance for designated seismic systems in accordance with Section 1705.13.3	●		N	1704.5 1705.13.3	3,4
4. Reports of preconstruction tests for shotcrete in accordance with Section 1908.6	●		N	1704.5, 1908.5	2,4
5. Certificates of compliance for cast-wet shear cast and prestressed in accordance with Section 2207.1	●		Y	1704.5, 2207.5	3,4
6. Reports of material properties verifying compliance with the requirements of AWS D1.4 for weldability as opposed in Section 26.5.4. of ACI for the reinforcing bar in concrete complying with a standard other than ASTM A 706 that is to be welded.	●		N	1704.5, AWS D1.4 26.6.4 of ACI 318 ASTM A 706	2,4

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7. Reports of mill tests in accordance with Section 2303.4 for cold-formed steel framing complying with ASTM A 1011 used in moment-resisting steel, reduced flexural or axial forces in the special moment frames, special structural walls or in coupling beams connecting special structural walls of seismic force-resisting systems or structures assigned to Seismic Design Category D, E or F.		●	N	1704.5 26.2.2.5 of ACI 318 ASTM A 615	3,4
1704.6 Statement of Observation:					
The owner shall employ a registered design professional to perform structural observation. Prior to commencement of observation, the structural observer shall submit to the building official a written statement identifying frequency and extent of structural observations.				1704.6	
1. Seismic		●	N	1704.6.1	4
2. Wind		●	N	1704.6.2	4
1705.2 Steel Construction:					
Structural steel inspections and non-destructive testing shall be in accordance with the quality assurance inspection requirements of AISC 360-16.				1705.2.1 AISC 360-16	
Prior to Welding (AISC 360-16 Table N5.4-1):					
1. Welding procedure specifications (WPS) available	●		Y	AISC 360-16 Table N5.4-1	1,4
2. Manufacturer certifications for welding consumables	●		Y		1,4
3. Material identification (type/grade)		●	Y		3,4
4. Welder identification system		●	Y		3,4
5. Fit-up of groove welds (including joint geometry)		●	Y		2,3
a. Joint preparation					
b. Dimensions (Alignment, root open, root face, bevel)					
c. Cleanliness (Condition of steel surfaces)					
d. Tacking (tack weld quality and location)					
e. Backing type and fit (if applicable)					
6. Configuration and finish of access holes		●	Y		3
7. Fit-up of fillet welds		●	Y		2,3
a. Dimensions (Alignment, root open, root face, bevel)					
b. Cleanliness (Condition of steel surfaces)					
c. Tacking (tack weld quality and location)					
During Welding (AISC 360-16 Table N5.4-2):					
1. Use of qualified welders		●	Y	AISC 360-16 Table N5.4-2	1,2

Inspections & Testing	Continuous	Periodic	Y / N	Reference Standard or Compliance Document	Agent
2. Control and handling of welding consumables		●	Y		2
a. Packaging					
b. Exposure control					
3. No welding over cracked tack welds	●		Y		2
4. Environmental conditions	●		Y		2
a. Wind speed within limits					
b. Precipitation and temperature					
5. WPS followed		●	Y		3
a. Settings on welding equipment					
b. Travel speed					
c. Selected welding materials					
d. Shielding gas type/flow rate					
e. Preheat applied					
f. Interpass temperature maintained (min/max)					
g. Proper position (F, V, H, Oh)					
h. Welding of filler metals avoided unless approved					
6. Welding techniques		●	Y		2
a. Root pass and final cleaning					
b. Each pass within profile limitations					
c. Each pass meets quality requirements					
After Welding (AISC 360-16 Table N5.4-3):					
1. Welds cleaned		●	Y	AISC 360-16 Table N5.4-3	1,2
2. Size, length, and location of welds	●		Y		1,2
3. Weld meets visual acceptance criteria	●		Y		1,2
a. Crack prohibition					
b. Weld/base-metal fusion					
c. Crater cross section					
d. Weld profiles					
e. Weld size					
f. Undercut					
g. Porosity					
4. Arc strikes	●		Y		1,2

Inspections & Testing	Continuous	Periodic	Y / N	Reference Standard or Compliance Document	Agent
5. K-area	●		Y		2
6. Backing removed and weld tabs removed (if required)	●		Y		2
7. Repair activities	●		Y		1,4
8. Document acceptance or rejection of welded joint or member	●		Y		
9. Placement of nondestructive or continuous field welds (if required) per AISC 341-16)	●		N		2
10. Backing removed, weld tabs removed (as) finished, and field welds applied (if required) per AISC 341-16)	●		N		2
Nondestructive Testing (AISC 360-16 Section N3.2):					
a. Rotor Calibration, Pattern Ultrasonic Testing on 10% of CJP groove welds in butt, T- and corner joints subject to transverse applied tension loading, in materials 5/16 inch less than or greater		●	N	AISC 360-16 Section N3.5	1,2
b. Rotor Calibration, Pattern Ultrasonic Testing on all CJP groove welds in butt, T- and corner joints subject to transverse applied tension loading, in materials 5/16 inch less than or greater		●	Y		1,2
c. Access holes - Perform Magnetic Particle Testing or Liquid Penetrant Testing where the flange thickness exceeds 2 inches for rolled shapes, or when the weld thickness exceeds 2 inches for built-up shapes.		●	N		1,2
d. Welded Joints Subject to Fatigue	●		N		1,2
Nondestructive Testing (AISC 341-16 Section J6.2):					
1. K-area	●		N	AISC 341-16 Section J6.2	2
2. CJP Groove weld	●		N		2
3. Lamellar tearing	●		N		2
4. Beam cope and access hole	●		N		2
5. Kaiteweld beam-section repair	●		N		2,4
6. Weld tab removal	●		N		2
Prior to Bolting (AISC 360-16 Table N5.6-1):					
1. Manufacturer's certifications available for fastener materials		●	Y	AISC 360-16 Section N5.6-1	3,4
2. Fasteners marked in accordance with ASTM requirements		●	Y		3,4
3. Proper fasteners selected for joint detail		●	Y		3,4
4. Proper bolting patten selected for joint detail		●	Y		2,4
5. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements		●	Y		2,4
6. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used (Not required for snug tight bolts)		●	N		1,2
7. Proper storage provided for bolts, nuts, washers and other fastener components		●	Y		1,2

Inspections & Testing	Continuous	Periodic	Y / N	Reference Standard or Compliance Document	Agent
During Bolting (AISC 360-16 Table N5.6-2):					
Those inspections are not required for snug-tight joints. Those inspections are not required for pretensioned joints and slip-critical joints, when the installer is using the turn-of-nut method with matchmarking (as follows). The direct-tension indicator method, or the twist-off-type tension-control bolt method					
1. Fastener assemblies, of suitable condition, placed in all holes and washers (if required) are positioned as required		●	N	AISC 360-16 Section N5.6-2	2
2. Joint brought to the snug-tight condition prior to pretensioning operation		●	N		2
3. Fastener components not turned by the wrench prevented from rotating		●	N		2
4. Fasteners are pretensioned in accordance with the RCSC specification, progressing systematically from the most rigid point toward the free edges		●	N		1,2
After Bolting (AISC 360-16 Table N5.6-3):					
1. Document acceptance or rejection of bolted connections		●	Y	AISC 360-16 Table N5.6-3	1,2
Other Inspection Tasks (AISC 360-16 Section N5.7):					
1. Verify compliance of fabricated steel with the details shown on the approved erection drawings, including braces, stiffeners, member locations and joint details		●	Y	AISC 360-16 Section N5.6-7	1,2
2. Verify compliance of the erected steel frame with the details shown on the approved erection drawings, including braces, stiffeners, member locations and joint details		●	Y		1,2
3. Examination of welds and other embedments supporting structural steel		●	Y		1,2
a. Verify the thickness, grade, type and length of the weld or rod or embedded iron					
b. Verify the extent of depth of embedment into the concrete					
4. AISC requirements, if applicable (ref. AISC 341-16)		●	N		1,2
a. Concrete and finish					
b. Dimensional tolerances					
5. Protected zone - no holes and unapproved attachments made by fabricator or erector, as applicable (ref. AISC 341-16)		●	N		2
6. K-Area - Protected zone - no holes and unapproved attachments made to the reapproved container, as applicable (ref. AISC 341-16)		●	N		4
1705.2.2 Cold-Formed Steel Deck					
1. Special inspections as specified with SMACC 2017 Standard for Quality control and Quality assurance for installation of steel deck		●	Y	1705.2.2	4

Inspections & Testing	Continuous	Periodic	Y / N	Reference Standard or Compliance Document	Agent
Inspections as follows:					
1. Verify compliance with the approved submittals and project specifications		●	Y		4
2. At the start of masonry construction, verify					
a. Proportions of site-prepared mortar		●	Y		2
b. Construction of mortar joints		●	Y		2
c. Grade and size of prestressing tendons and anchorages		●	N		2
d. Location of reinforcement, connectors, prestressing tendons and anchorages		●	Y		2
e. Prestressing technique		●	N		2
f. Properties of thin-set mortar for AAC masonry. Periodic inspection is required after the first 5000 square feet of AAC masonry.)	●	●	N		2
3. Prior to grouting, verify:					
a. Grout space is clean		●	Y		2
b. Grade, type and size of reinforcement and anchor bolts, and prestressing tendons and anchorages		●	Y		2
c. Placement of reinforcement and connectors, and prestressing tendons and anchorages		●	Y		2
d. Proportions of site-prepared grout and prestressing grout for bonded tendons		●	Y		2
e. Construction of mortar joints		●	Y		2
4. During masonry construction, verify					
a. Size and location of structural elements			Y		1,2
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames, or other construction			Y		1,2
c. Welding of reinforcement	●		Y		1,2
d. Preparation, construction, and protection of masonry during cold weather (Temperature below 40° F) or hot weather (Temperature above 90°F)		●	Y		2
e. Application and measurement of prestressing force	●		N		2
f. Placement of grout and prestressing grout for bonded tendons is in compliance		●	Y		2
g. Placement of AAC masonry units and construction of thin-bed mortar joints. (Continuous inspection is required for the first 5000 square feet of AAC masonry. Periodic inspection is required after the first 5000 square feet of AAC masonry.)	●	●	N		2
5. Observe preparation of grout specimens, mortar specimens, and/or prisms		●	Y		2
Level C Quality Assurance (Table 7):					
Tests as follows:					
1. Verify f'm and f'cue in accordance with TMS 602-16/ACI 530.1-16/ASCE 6-16 Specification Article 1.4B prior to construction, and for every 5000 square feet during construction		●	N		2
2. Verify prism tests in accordance with TMS 602-16/ACI 530.1-16/ASCE 6-16 (Specification Article 1.4B) prior to construction, except where specifically exempted		●	N		2
3. Verify grout slump & core test of test area		●	N		2

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1705.6 Wood Construction					
1. Inspect prefabricated wood structural elements in accordance with Section 1704.2.5		●	N	1705.5	1
2. High load diaphragms		●	N	1705.11 High-load Diaphragms	1,2
a. Verify sheathing grade and thickness					
b. Verify nominal size of framing members and adjoining panel edges					
c. Verify nail or staple diameter and length					
d. Verify number of fastener lines					
e. Verify spacing between fasteners in each line and at panel edges					
3. Shearwalls		●	N		1,2
a. Verify sheathing grade and thickness					
b. Verify nominal size of framing members and adjoining panel edges					
c. Verify nail or staple diameter and length					
d. Verify number of fastener lines					
e. Verify spacing between fasteners in each line and at panel edges					
f. Location and sized of hold-downs					
4. Verify nailing, bolting, anchoring and fastening of:		●	N		1,2
a. Drag struts and collectors					
b. Braces					
c. Hold-downs					
5. Metal plate connected wood trusses spanning 60 feet or greater:					
a. Verify temporary installation restraint/bracing installed in accordance with approved truss design drawings		●	N		1,2
b. Verify permanent individual truss member restraint/bracing installed in accordance with the approved truss drawings		●	N		1,2
1705.8 Soils:					
1. Verify materials below shallow foundation are adequate to achieve the required bearing capacity		●	Y	Table 1705.6	2
2. Verify excavation was extended to proper depth and have reached proper material		●	Y		2
3. Perform classification and testing of compacted fill materials		●	Y		2
4. Verify use of proper materials, densities and lift thicknesses during placement and compaction of compacted fill	●		Y		2
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly		●	Y		2

Inspections & Testing	Continuous	Periodic	Y / N	Reference Standard or Compliance Document	Agent
1705.13 Seismic and Wind Resistance Concrete					
1. Perform inspections in accordance with ACI 318-19 and 1705.3		●	N	AWC 12.6	1,2
1705.19 Concrete Foundations and Tooth Systems (SDPWS)					
1. Perform inspections in accordance with project specifications and 1705.19		●	N		1,2
2702.2.17 Post-installed Concrete Anchors and Dowels					
1. Perform inspections in accordance with project specifications and 1705.17		●	Y	1705.17.1, 1705.17.2	1,4
1705.15 Seismic Control					
1. Perform testing in accordance with project specifications and 1705.15		●	N		1,7
Inspection Agency					
1. Special Inspection Engineer of Record - SIR					
2. Inspection and Testing Agency - TAI					
3. Steel Fabricator's Quality Control Inspector - SQC					
4. Structural Engineer of Record - SER					
5. Mechanical Engineer of Record - MER					
6. Electrical Engineer of Record - MER					
7. Seismic Control Inspector - SCI					

Inspections & Testing	Continuous	Periodic	Y / N	Reference Standard or Compliance Document	Agent
Inspections for Deep Foundation Systems:					
1. Verify pile sizes and lengths		●	N	Table 1705.7	2
2. Observe pile driving operations and determine if any pile shows signs of damage or requires additional reinforcement required. Report any damaged piles to the Structural Engineer of Record (SER)		●	N		2
3. Maintain complete and accurate records for each pile driven		●	N		2
4. Observe drilling operations		●	N		2
a. Verify pile locations					
b. Verify excavation equipment used					
c. Verify pile dimensions					
d. Verify tip elevations					
e. Verify final excavation					
f. Verify final installation torque					
g. Other tasks as required by the project specifications					
1705.11 Wind Resistance					
1. Provide inspections when required by 1705.11		●	N		1,4
a. Structural wood				1705.11.1	
b. CFS light frame construction				1705.11.2	
c. Wind resisting components				1705.11.3	
1705.12 Seismic Resistance					
1. Maintain complete and accurate records for each element		●	N		1,4
a. Structural steel				1705.12.1	
b. Structural wood				1705.12.2	
c. CFS light frame construction				1705.12.3	
d. Designated seismic systems				1705.12.4	
e. Architectural components				1705.12.5	
f. Plumbing, Mechanical, Electrical components				1705.12.6	
1705.13 Testing and Qualification for Seismic Resistance					
1. Test and qualify seismic resistance in accordance with 1705.13 and the project specifications		●	N		1,4
1705.14 Structural Steel Protection (Intumescent) (SFRM)					
1. Inspect sprayed fire-resistant materials in accordance with 1705.14 and the project specifications		●	N		1,2
a. Condition of substrate					
b. Thickness of application					
c. Density					
d. Bond strength/ adhesion/cohesion					
e. Condition of finished application					

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COA 3983
10/30/2020

MARION COUNTY LEC
591492
MARION COUNTY
2715 EAST HWY 76, MULLINS, SC 29574

PROJECT NO: 591492
DATE: OCTOBER 30, 2020

DATE	REVISIONS DESCRIPTION

SCHEDULE OF SPECIAL INSPECTIONS

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