

Certification: Structural Masonry Special Inspector



Exam ID: 84

- 90 multiple-choice questions
- 3-1/2-hour limit
- Open book

Scope:

The Structural Masonry Special Inspector is responsible for enforcing the construction details contained in the approved plans and specifications for structural masonry elements of the building. The special inspector reviews the statement of special inspections and the approved plans and specifications, and verifies that structural masonry materials and placement of masonry, reinforcement, and grout are installed as shown and as specified in the approved plans and specifications. The special inspector is responsible for collecting samples of materials and for performing required tests. The special inspector is responsible for writing and submitting required reports, including reports of items that do not comply with the plans, to the building official, contractor, and/or registered design professional.

01	General Requirements	9%
0101	<u>Duties and Responsibilities</u> Review approved plans, specifications, and submittals for special inspection requirements. Comply with special inspection requirements of the enforcing jurisdiction in accordance with the applicable code, approved plans, and specifications.	3%
0102	<u>Notification of Discrepancies</u> Notify the contractor of deviations from approved plans and specifications. If the deviations are uncorrected, notify the architect or engineer of record and the building official of	3%
0103	<u>Inspection Reports</u> Submit progress reports to the architect or engineer of record and the building official, describing tests which were performed and compliance of work. Submit final summary report stating whether work requiring special inspection was in conformance with the approved plans and applicable provisions of the building code.	3%
02	Materials	16%
0201	<u>Material Verification</u> Verify that brick, block, cement, lime, aggregates, reinforcement, connectors, water, admixtures, and other materials are the type specified and approved. Verify that materials are properly stored.	3%
0202	<u>Mortar</u> Verify that mix proportions, material handling, and mixing are in accordance with code requirements.	3%

0203	<u>Grout</u>	3%
	Verify that grout is batched in accordance with approved mix.	
0204	<u>Testing</u>	4%
	Determine the required material strength's type and frequency of tests to be performed. Observe sampling, field testing, and fabrication of test specimens. Verify that masonry strength meets approved specifications.	
0205	<u>Specimen Handling and Protection</u>	3%
	Verify proper sample identification, site storage, protection, and transportation to the testing laboratory.	
03	Masonry Placement	21%
0301	<u>Masonry Units</u>	7%
	Verify that the condition of substrate is acceptable for placement, that mortar is properly placed, and that the masonry units are placed in accordance with the approved plans.	
0302	<u>Embedded Items</u>	6%
	Verify that the type, quantity, size, spacing, and location of embedded items are as specified.	
0303	<u>Movement Joints</u>	4%
	Verify that the location and preparation of movement joints are in accordance with the approved plans, specifications, and building code requirements.	
0304	<u>Protection</u>	4%
	Verify that the masonry is protected from temperature extremes and adverse weather conditions.	
04	Reinforcement and Connector Placement	30%
0401	<u>Size, Spacing, and Placement</u>	9%
	Verify that the reinforcing steel and connectors comply with required size, spacing, profile, condition, and quantity requirements, as indicated by both the approved plans and installation drawings.	
0402	<u>Tolerances, Clearances, and Coverage</u>	8%
	Verify that reinforcing steel and connectors are placed in the proper location within acceptable tolerances. Verify minimum coverage and clearance to masonry surfaces.	
0403	<u>Details</u>	7%
	Verify that hooks, bends, ties, stirrups, and supplemental reinforcement are fabricated and placed as specified.	
0404	<u>Splices</u>	6%
	Verify that required lap lengths, stagger, and offsets are provided. Verify installation of approved mechanical connections per manufacturer's instructions and/or evaluation reports.	

05	Grout Placement	24%
0501	<u>Pre-placement</u> Verify that grout spaces are free of obstructions and that cleanouts are provided as required.	9%
0502	<u>Placement</u> Verify that methods of conveying and placing grout avoid contamination and segregation and comply with time limits and grout lift requirements.	8%
0503	<u>Consolidation</u> Verify that grout is being properly consolidated and reconsolidated during placement.	7%