

Schedule of Inspection and Testing Agencies

This Statement of Special Inspections / Quality Assurance Plan includes the following building systems:

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| <input checked="" type="checkbox"/> Soils and Foundations | <input type="checkbox"/> Spray Fire Resistant Material |
| <input checked="" type="checkbox"/> Cast-in-Place Concrete | <input type="checkbox"/> Wood Construction |
| <input checked="" type="checkbox"/> Precast Concrete | <input type="checkbox"/> Exterior Insulation and Finish System |
| <input checked="" type="checkbox"/> Masonry | <input type="checkbox"/> Mechanical & Electrical Systems |
| <input checked="" type="checkbox"/> Structural Steel | <input type="checkbox"/> Architectural Systems |
| <input type="checkbox"/> Cold-Formed Steel Framing | <input type="checkbox"/> Special Cases |

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. Structural Engineer of Record	<i>Desman Associates</i>	<i>18 Tremont Street – Suite 300 Boston, MA 02108 617-778-9882</i>
2. Geotechnical Engineer	<i>O'Reilly, Talbot & Okun Associates, Inc.</i>	<i>293 Bridge Street, Springfield, MA 01103 413-788-6222</i>
3. Construction Manager and Special Inspections Coordinator	<i>Daniel O'Connell's Sons</i>	<i>480 Hampden Street, Holyoke, MA 01040 413-540-1428</i>
4. Testing Agency	<i>TBD</i>	<i>TBD</i>
5. Soil Improvement	<i>TBD</i>	<i>100 Pound Road Cumberland, RI 02864 401-658-2990</i>
6. Plant Cast Pre-Cast	<i>QA/QC Dept of PCI-Certified Precast/Prestressed Concrete Manufacture</i>	<i>TBD</i>
7. Site Concrete, Welding and Precast (by owner's testing agent)	<i>TBD</i>	<i>TBD</i>

Note: The inspectors and testing agencies shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be inspected or tested. Any conflict of interest must be disclosed to the Building Official, prior to commencing work.

Qualifications of Inspectors and Testing Technicians

The qualifications of all personnel performing Special Inspection and testing activities are subject to the approval of the Building Official. The credentials of all Inspectors and testing technicians shall be provided if requested.

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge deems it appropriate that the individual performing a stipulated test or inspection have a specific certification or license as indicated below, such designation shall appear below the *Agency Number* on the Schedule.

PE/SE	Structural Engineer – a licensed SE or PE specializing in the design of building structures
PE/GE	Geotechnical Engineer – a licensed PE specializing in soil mechanics and foundations
EIT	Engineer-In-Training – a graduate engineer who has passed the Fundamentals of Engineering examination

American Concrete Institute (ACI) Certification

ACI-CFTT	Concrete Field Testing Technician – Grade 1
ACI-CCI	Concrete Construction Inspector
ACI-LTT	Laboratory Testing Technician – Grade 1&2
ACI-STT	Strength Testing Technician

American Welding Society (AWS) Certification

AWS-CWI	Certified Welding Inspector
AWS/AISC-SSI	Certified Structural Steel Inspector

American Society of Non-Destructive Testing (ASNT) Certification

ASNT	Non-Destructive Testing Technician – Level II or III.
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International Code Council (ICC) Certification

ICC-SMSI	Structural Masonry Special Inspector
ICC-SWSI	Structural Steel and Welding Special Inspector
ICC-SFSI	Spray-Applied Fireproofing Special Inspector
ICC-PCSI	Prestressed Concrete Special Inspector
ICC-RCSI	Reinforced Concrete Special Inspector

National Institute for Certification in Engineering Technologies (NICET)

NICET-CT	Concrete Technician – Levels I, II, III & IV
NICET-ST	Soils Technician - Levels I, II, III & IV
NICET-GET	Geotechnical Engineering Technician - Levels I, II, III & IV

Exterior Design Institute (EDI) Certification

EDI-EIFS	EIFS Third Party Inspector
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Other

Item	Agency # (Qualif.)	Scope
1. Shallow Foundations	2,4 PE/GE -or- NICET -CT III or IV	Inspect soils below footings for adequate bearing capacity and consistency with geotechnical report, prior to concrete placement. Verify extent of over-excavation where applicable. Inspect removal of unsuitable material and preparation of sub-grade prior to placement of controlled fill. Inspect placement and limits of any footing underlay materials and sub-grade preparation. Verify conformance with Geotechnical Report prepared by Update and details on S-00
2. Controlled Structural Fill	2,4 NICET – CT III or IV	Perform sieve tests (ASTM D422 & D1140) and modified Proctor tests (ASTM D1557) of each source of fill material. Inspect placement, lift thickness and compaction of controlled fill. Test density of each lift of fill by nuclear methods (ASTM D2922) Verify extent and slope of fill placement. Verify conformance with specification Division 31- “Earthwork” & 32- “Exterior Improvements”
3. Rigid Inclusions	TBD	Monitor single-element module test. Element test load to 150% of maximum design capacity. Monitor of Rigid inclusions installation in conformance with RI design parameters as prepared by TBD .
4. Rock Anchor Load Testing	2 N/A	
4. Other: Reports	2 & 4 PE - or- NICET-CT III or IV	Monitoring of testing lab and field inspection results to assure conformance during project, per construction documents and with Geotechnical Report prepared by O’Reilly, Talbot & Okun Associates, Inc. Notify Engineer of Record immediately of all discrepancies

Item	Agency # (Qualif.)	Scope
1. Mix Design	4 NICET III or IV	Review concrete batch tickets and verify compliance with approved mix design. Verify that water added at the site does not exceed that allowed by the mix design.
2. Material Certification	1 PE or NICET III or IV	Review concrete material certifications and certified mill test reports provided by the Contractor for conformance with Project Specifications.
3. Reinforcement Installation	4 PE or NICET III or IV	Inspect size, spacing, cover, positioning and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. Inspect bar laps and mechanical splices. Verify that bars are adequately tied and supported on chairs or bolsters
4. Post-Tensioning Operations	N/A	
5. Welding of Reinforcing	7 AWS-CWI	Visually inspect all reinforcing steel welds. Verify weldability of reinforcing steel. Inspect preheating of steel when required.
6. Anchor Rods	4 PE or NICET III or IV	Inspect size, positioning and embedment of anchor rods. Inspect concrete placement and consolidation around anchors.
7. Concrete Placement	4 PE or NICET III or IV	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated. (Continuous)
8. Sampling and Testing of Concrete	4 NICET III or IV	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064).
9. Curing and Protection	4 & 5 PE or NICET III or IV	Inspect curing, cold weather protection and hot weather protection procedures.
10. Other: Non Shrink Grout	4 & 5 ACI, NICET III or IV	Cast cubes and perform strength tests in conformance with ASTM C-109. Review curing and extreme weather precautions per manufactures recommendation.

Item	Agency # (Qualif.)	Scope
1. Plant Certification / Quality Control Procedures <input checked="" type="checkbox"/> Fabricator Exempt	1,4,5&6 PE ACI-CCI ICC-RCSI	Review plant operations and quality control procedures. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
2. Mix Design	1,4,5&6 ACI-CCI ICC-RCSI	Inspect concrete batching operations and verify compliance with approved mix design. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
3. Material Certification	1 & 6 P/E ACI-CCI	Review concrete material certifications provided by the Contractor for conformance with Project Specifications (Periodic). TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
4. Reinforcement Installation	6 ACI-CCI ICC-RCSI	Inspect size, spacing, position and grade of reinforcing steel. Verify that reinforcing bars are free of form oil or other deleterious materials. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
5. Prestress Operations	6 PCI Level II	Inspect placement, stressing, grouting and protection of prestressing tendons. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
6. Connections / Embedded Items	4 & 6	Inspect all precast embed items in the plant and on site for compliance with approved shop drawings. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
7. Formwork Geometry	6	Review for general compliance with approved shop drawings. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
8. Concrete Placement	6 ACI-CCI ICC-RCSI	Inspect placement of concrete. Verify that concrete conveyance and depositing avoids segregation or contamination. Verify that concrete is properly consolidated. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
9. Sampling and Testing of Concrete	6 ACI-CFTT ACI-STT	Test concrete compressive strength (ASTM C31 & C39), slump (ASTM C143), air-content (ASTM C231 or C173) and temperature (ASTM C1064). Obtain one set of four (4) standard cylinders for each compressive-strength test. Test on specimen at 7 days, two at 28 days and retain one in reserve – frequency of testing per PCI. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
10. Curing and Protection	6 ACI-CCI ICC-RCSI	Inspect curing, cold weather protection and hot weather protection procedures. TBD to make periodic inspections at plant as requested by Owner & Const Mgr.
11. Erected Precast Elements	4,5 & 7 NICET III or IV or, PE/SE	Inspect erection of precast concrete including member configuration, connections, welding and grouting. (Continuous)
12. Other: Grouting Procedures	4 NICET III or IV	Final review and sampling of non-shrink grout including but not limited to joints, column bases and shear walls. Cast cubes and perform strength tests in conformance with ASTM C-109

Item	Agency # (Qualif.)	Scope
1. Material Certification	1 & 4 NICET III or IV PE	Review submittals and masonry units for each type of unit specified. Verify components used in construction against approved material literature, samples, Project Specifications and ACI 318.
2. Mixing of Mortar and Grout	4 NICET III or IV PE	Inspect proportioning, mixing and retempering of mortar and grout. Inspect 25% of grout & mortar
3. Installation of Masonry	4 NICET III or IV PE	Inspect size, layout, bonding and placement of masonry units. Inspect methods for conformance with contract documents
4. Mortar Joints	4 NICET III or IV PE	Inspect construction of mortar joints including tooling and filling of head joints.
5. Reinforcement Installation	4 NICET III or IV PE	Inspect placement, positioning and lapping of reinforcing steel. Inspect welding of reinforcing steel.
6. Prestressed Masonry	N/A	
7. Grouting Operations	4 NICET III or IV PE	Inspect placement and consolidation of grout. Inspect masonry clean-outs for high-lift grouting.
8. Weather Protection	4 & 5 NICET III or IV PE	Inspect cold weather protection and hot weather protection procedures. Verify that wall cavities are protected against precipitation.
9. Evaluation of Masonry Strength	1 & 4 PE NICET III or IV	Test compressive strength of mortar and grout cube samples (ASTM C780). Test compressive strength of masonry prisms (ASTM C1314).
10. Anchors and Ties	4 PE NICET III or IV	Inspect size, location, spacing and embedment of dowels, anchors and ties.
11. Other:	N/A	

Item	Agency # (Qualif.)	Scope
1. Fabricator Certification/ Quality Control Procedures <input type="checkbox"/> Fabricator Exempt	1, 4 PE AWS/AISC- SSI ICC-SWSI	<i>Review shop fabrication and quality control procedures.</i>
2. Material Certification	1, 4 PE AWS/AISC- SSI ICC-SWSI	<i>Review certified mill test reports and identification markings on wide-flange shapes, high-strength bolts, nuts and welding electrodes</i>
3. Open Web Steel Joists	4 AWS/AISC- SSI ICC-SWSI	<i>Inspect installation, field welding and bridging of joists.</i>
4. Bolting	4 AWS/AISC- SSI ICC-SWSI	<i>Inspect installation and tightening of high-strength bolts. Verify that splines have separated from tension control bolts. Verify proper tightening sequence. Continuous inspection of bolts in slip-critical connections.</i>
5. Welding	4 AWS-CWI ASNT	<i>Visually inspect all welds. Inspect pre-heat, post-heat and surface preparation between passes. Verify size and length of fillet welds.</i> <i>Ultrasonic testing of all full-penetration welds.</i>
6. Shear Connectors	N/A	
7. Structural Details	4 AWS - CWI	<i>Inspect steel frame for compliance with structural drawings, including bracing, member configuration and connection details.</i>
8. Metal Deck	4 AWS-CWI	<i>Inspect welding and side-lap fastening of metal roof and floor deck.</i>
9. Other:	N/A	

Item	Agency # (Qualif.)	Scope
1. Member Sizes	4 AWS	Verify member sizes for conformance with the Contract Documents and approved shop drawings.
2. Material Thickness	4 AWS	Review the gage of materials and the section properties of the members for conformance with the Contract Documents and approved shop drawings
3. Material Properties	4 AWS	Review the material properties of the members for conformance with the Contract Documents and approved shop drawings.
4. Mechanical Connections	4 AWS	Inspect connections for conformance with the Contract Documents and approved shop drawings.
5. Welding 1707.4	4 AWS	Inspect welds for conformance with the Contract Documents and approved shop drawings.
6. Framing Details 1707.4	3,4 AWS	Field review of structural details for conformance with the Contract Documents and approved shop drawings.
7. Trusses	1 PE	Monitoring of testing lab and field inspection results to assure conformance during project per construction documents. Notify Engineer of Record immediately of all discrepancies.
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