Project: 667 Congress St. Building
Date Prepared: 11/03/15 Rev1 date: 05/12/16

Structural Statement of Special Inspections

Project: *667 Congress St. Apartments*

Location: *667 Congress St. Portland, ME*

Owner: *Redfern Properties*

This *Statement of Special Inspections* encompass the following discipline: **Structural**

This *Statement of Special Inspections* is submitted as a condition for permit issuance in accordance with the Special Inspection and Structural Testing requirements of the Building Code. It includes a schedule of Special Inspection services applicable to this project as well as the name of the Structural Special Inspection Coordinator (SSIC) and the identity of other approved agencies to be retained for conducting these inspections and tests.

The Structural Special Inspection Coordinator shall keep records of all Structural inspections and shall furnish inspection reports to the Building Code Official (BCO) and the Structural Registered Design Professional in Responsible Charge (SRDP). Discovered discrepancies shall be brought to the immediate attention of the Contractor for correction. If such discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Structural Registered Design Professional in Responsible Charge. The Special Inspection program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the Building Official and the Structural Registered Design Professional in Responsible Charge at an interval determined by the SSIC and the BCO.

A *Final Report of Special Inspections* documenting completion of all required Special Inspections, testing and correction of any discrepancies noted in the inspections shall be submitted to the BCO prior to issuance of a Certificate of Use and Occupancy.

Job site safety and means and methods of construction are solely the responsibility of the Contractor.

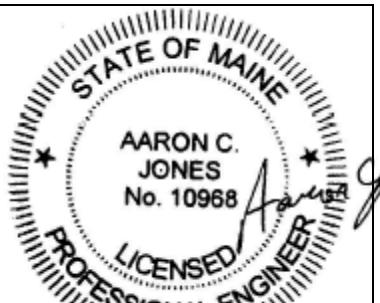
Interim Report Frequency: ☐ *Upon request of Building Official* _____ or ☐ per attached schedule.

Prepared by:

Aaron C Jones, P.E.

(type or print name of the Structural Registered Design Professional in Responsible Charge)

Signature Date



Design Professional Seal

Owner's Authorization:

Signature Date

Building Code Official's Acceptance:

Signature Date

Structural Statement of Special Inspections (Continued)

List of Agents

Project: *667 Congress St. Apartments*

Location: *667 Congress St. Portland, ME*

Owner: *Redfern Properties*

This *Statement of Special Inspections* encompass the following discipline: **Structural**

(Note: *Statement of Special Inspections* for other disciplines may be included under a separate cover)

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

- ☒ Soils and Foundations
- ☒ Cast-in-Place Concrete
- ☐ Precast Concrete System
- ☒ Masonry Systems
- ☒ Structural Steel
- ☐ Wood Construction
- ☐ Special Cases

Special Inspection Agencies	Firm	Address, Telephone, e-mail
1. STRUCTURAL Special Inspections Coordinator (SSIC)	*Structural Integrity Consulting Engineers, Inc.*	*77 Oak St. Portland Maine 207-774-4614*
2. Special Inspector (SI 1)	*R.W. Gillespie*	*86 Industrial Park Road Saco, Maine 207-286-8008*
3. Special Inspector (SI 2)		
4. Testing Agency (TA 1)		
5. Testing Agency (TA 2)		
6. Other (O1)		

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.

Structural Schedule of Special Inspections

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 to the Special Inspector for their records. *NOTE VERIFICATION THAT QUALIFIED INDIVIDUALS ARE AVAILABLE TO PERFORM STIPULATED TESTING AND/OR INSPECTION SHOULD BE PROVIDED PRIOR TO SUBMITTING STATEMENT. AGENT QUALIFICATIONS IN SCHEDULE ARE SUGGESTIONS ONLY; FINAL QUALIFICATIONS ARE SUBJECT TO THE DISCRETION OF THE REGISTERED DESIGN PROFESSIONAL PREPARING THE SCHEDULE.*

Key for Minimum Qualifications of Inspection Agents:

When the Registered Design Professional in Responsible Charge or Special Inspector of Record deems it appropriate that the individual performing a stipulated test or inspection have a specific certification, license or experience as indicated below, such requirement shall be listed below and shall be clearly identified within the schedule under the Agent Qualification Designation.

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

Experienced Testing Technician

ETT	Experienced Testing Technician – An Experienced Testing Technician with a minimum 5 years experience with the stipulated test or inspection

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.

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

Other

Project: 667 Congress St. Building
Date Prepared: 11/03/15 Rev1 date: 05/12/16

Structural Schedule of Special Inspections
SOILS & FOUNDATION CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.7, 1704.8, 1704.9	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Verify existing soil conditions, fill placement and load bearing requirements						
a. Prior to placement of prepared fill, determine that the site has been prepared in accordance with the approved soils report.	Y	P	IBC 1704.7.1	SI1	PE/GE, EIT or ETT	Y
b. During placement and compaction of fill material, verify material being used and maximum lift thickness comply with the approved soils report.	Y	P	IBC 1704.7.2	SI1	PE/GE, EIT or ETT	Y
c. Test in-place dry density of compacted fill complies with the approved soils report.	Y	P	IBC 1704.7.2	SI1	PE/GE, EIT or ETT	Y
2. Pile foundations:						
c. Record installation of each pile and results of load test. Include cutoff and tip elevations of each pile relative to permanent reference.	Y	C			PE/GE, EIT or ETT	Y

Structural Schedule of Special Inspections
CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.4	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5B	Y		Welding of Reinf Not Allowed		AWS-CWI	Y
2. Verifying use of required design mix	Y	P	ACI 318: Ch 4, 5.2-5.4		PE/SE or EIT	Y
3. At time fresh concrete is sampled to fabricate specimens for strength test, perform slump and air content test and temperature	Y	C	ASTM C 172 ASTM C 31 ACI 318: 5.6, 5.8		ACI-CFTT or ACI-STT	Y
4. Inspection of concrete and shotcrete placement for proper application techniques	Y	C	ACI 318: 5.9, 5.10		PE/SE or EIT	Y
5. Inspection for maintenance of specified curing temperature and techniques	Y	P	ACI 318: 5.11-5.13		PE/SE or EIT	Y
6. Erection of precast concrete members	Y	P	ACI 318: Ch 16		PE/SE or EIT	Not Required

Project: 667 Congress St. Building
Date Prepared: 11/03/15 Rev1 date: 05/12/16

Structural Schedule of Special Inspections

MASONRY CONSTRUCTION – LEVEL 1 (NON-ESSENTIAL FACILITY)

VERIFICATION AND INSPECTION IBC Section 1704.5	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. As masonry construction begins, the following shall be verified to ensure compliance:						
a. Proportions of site-prepared mortar.	Y	P	ACI530.1, 2.6A		PE/SE or EIT	Y
b. Construction of mortar joints.	Y	P	ACI530.1, 3.3B		PE/SE or EIT	Y
c. Location of reinforcement and connectors.	Y	P	ACI530.1, 3.4, 3.6A		PE/SE or EIT	Y
2. The inspection program shall verify:						
a. Size and location of structural elements.	Y	P	ACI530.1, 3.3G		PE/SE or EIT	Y
b. Type, size and location of anchors, including other details of anchorage of masonry to structural members, frames or other construction.	Y	P	ACI530, 1.2.2(e), 2.1.4, 3.1.6		PE/SE or EIT	Y
c. Specified size, grade and type of reinforcement.	Y	P	ACI530, 1.12, ACI530.1, 2.4, 3.4		PE/SE or EIT	Y
d. Welding of reinforcing bars.	Y	C	AC530, 2.1.10.6.2, 3.2..4 (b)		AWS-CWI	Y
e. Protection of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F).	Y	P	IBC 2104.3, 2104.4; ACI530.1, 1.8C, 1.8D		PE/SE or EIT	Y
3. Prior to grouting, the following shall be verified to ensure compliance:						
a. Grout space is clean.	Y	P	ACI530.1, 3.2D		PE/SE or EIT	Y
b. Placement of reinforcement and connectors.	Y	P	ACI530, 1.12, ACI530.1, 3.4		PE/SE or EIT	Y
c. Proportions of site-prepared grout.	Y	P	ACI530.1, 2.6B		PE/SE or EIT	Y
d. Construction of mortar joints.	Y	P	ACI530.1, 3.3B		PE/SE or EIT	Y
4. Grout placement shall be verified to ensure compliance with code and construction document provisions.	Y	C	ACI530.1, 3.5		PE/SE or EIT	Y
5. Preparation of any required grout specimens, mortar specimens and/or prisms shall be observed.	Y	C	IBC 2105.2.2, 2105.3; ACI530.1, l.4		PE/SE or EIT	Y
6. Compliance with required inspection provisions of the construction documents and the approved submittals shall be verified.	Y	P	ACI530.1, 1.5		PE/SE or EIT	Y

Project: 667 Congress St. Building
Date Prepared: 11/03/15 Rev1 date: 05/12/16

Structural Schedule of Special Inspections - STEEL CONSTRUCTION

VERIFICATION AND INSPECTION IBC Section 1704.3	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Material verification of high-strength bolts, nuts and washers:						
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	Y	S	Applicable ASTM material specifications; AISC 335, Section A3.4; AISC LRFD, Section A3.3		PE/SE or EIT	Y
b. Manufacturer's certificate of compliance required.	Y	S			PE/SE or EIT	Y
2. Inspection of high-strength bolting						
a. Bearing-type connections.	Y	P	AISC LRFD Section M2.5 IBC Sect 1704.3.3		AWS/AISC-SSI	Y
b. Slip-critical connections.	Y	C or P (method dependent)			AWS/AISC-SSI	Y
3. Material verification of structural steel (IBC Sect 1708.4):						
a. Identification markings to conform to ASTM standards specified in the approved construction documents.	Y	S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4		PE/SE or EIT	Y
b. Manufacturers' certified mill test reports.	Y	S	ASTM A 6 or ASTM A 568 IBC Sect 1708.4		PE/SE or EIT	Y
4. Material verification of weld filler materials:						
a. Identification markings to conform to AWS specification in the approved construction documents.	Y	S	AISC, ASD, Section A3.6; AISC LRFD, Section A3.5		PE/SE or EIT	Y
b. Manufacturer's certificate of compliance required.	Y	S			PE/SE or EIT	Y
5. Submit current AWS D1.1 welder certificate for all field welders who will be welding on this project.	Y	S	AWS D1.1		PE/SE or EIT	Y
6. Inspection of welding (IBC 1704.3.1): a. Structural steel:						
1) Complete and partial penetration groove welds.	Y	C	AWS D1.1		AWS-CWI	Y
2) Multipass fillet welds.	Y	C			AWS-CWI	Not Used
3) Single-pass fillet welds> 5/16”	Y	C			AWS-CWI	Not Used
4) Single-pass fillet welds< 5/16”	Y	P			AWS-CWI	Y
5) Floor and deck welds.	Y	P	AWS D1.3		AWS-CWI	Y
b. Reinforcing steel (IBC Sect 1903.5.2):						
1) Verification of weldability of reinforcing steel other than ASTM A706.	Y	C				Y
2) Reinforcing steel-resisting flexural and axial forces in intermediate and special moment frames, and boundary elements of special reinforced concrete shear walls and shear reinforcement.		C	AWS D1.4 ACI 318: 3.5.2		AWS-CWI	Not Used
3) Shear reinforcement.		C			AWS-CWI	Not Used
4) Other reinforcing steel.		P			AWS-CWI	Not Used
7. Inspection of steel frame joint details for compliance (IBC Sect 1704.3.2) with approved construction documents:						
a. Details such as bracing and stiffening.	Y	P			PE/SE or EIT	Y
b. Member locations.	Y	P			PE/SE or EIT	Y
c. Application of joint details at each connection.	Y	P			PE/SE or EIT	Y

Project: 667 Congress St. Building
Date Prepared: 11/03/15 Rev1 date: 05/12/16

Structural Schedule of Special Inspection Services

FABRICATION AND IMPLEMENTATION PROCEDURES – STRUCTURAL STEEL

VERIFICATION AND INSPECTION IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Fabrications Procedures: Review of fabricator's written procedural and quality control manuals and periodic auditing of fabrication practices by an approved special inspection agency. At the completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents. -OR- 2. AISC Certification	Y	S	Fabricator shall submit one of the two qualifications		PE/SE or EIT	Y
3. At completion of fabrication, the approved fabricator shall submit a certificate of compliance to the building code official stating that the work was performed in accordance with the approved construction documents.	Y	S	IBC 1704.2.2		PE/SE or EIT	Y

Structural Schedule of Special Inspection Services

SPRAYED FIRE-RESISTANT MATERIALS

VERIFICATION AND INSPECTION IBC Section 1704.2	Y/N	EXTENT: CONTINUOUS, PERIODIC, SUBMITTAL, OR NONE	COMMENTS	AGENT	AGENT QUALIFICATION	TASK COMPLETED
1. Prior to application, verify surface preparation is in accordance with the written instructions of the approved manufacturer.	Y	P	IBC 1704.12		PE/SE or EIT	Y
2. Verify substrate temperature before and after application is in accordance with the written instructions of the approved manufacturer.	Y	P	IBC 1704.12		PE/SE or EIT	Y
3. Verify ventilation of area before and after application is in accordance with the written instructions of the approved manufacturer.	Y	P	IBC 1704.12		PE/SE or EIT	Y
4. Measure average thickness per 1,000SF of sprayed area in each story or portion thereof.	Y	P	ASTM E605, IBC 1704.12.4		PE/SE or EIT	Y
5. Determine density per 2,500SF of sprayed area as defined in IBC reference.	Y	P	ASTM E605, IBC 1704.12.5		PE/SE or EIT	Y
6. Determine cohesive/adhesive bond strength in accordance with ASTM E736 and IBC-09 Section 1704.12.6.	Y	P	ASTM E736, IBC 1704.12.6		PE/SE or EIT	Y

Quality Assurance Plan – Seismic and Wind

QUALITY ASSURANCE FOR SEISMIC RESISTANCE CHECK LIST [IBC 1705]

Seismic Design Category C

☐ **FOR SEISMIC DESIGN CATEGORY C OR HIGHER:**

Structural:

☐ The seismic-force-resisting systems

- ☒ Steel Braced Frames and associated connections/anchorage
- ☐ Steel Moment Frames and associated connections
- ☐ Shear walls: ☐ CMU ☐ Wood ☐ Concrete ☒ Diaphragms: ☒ Floor ☒ Roof
- ☐ Other: Ordinary Brick Masonry Shear Walls

QUALITY ASSURANCE FOR WIND RESISTANCE CHECK LIST [IBC 1706]

Wind Exposure Category C

REQUIRED	NOT REQUIRED	NOT APPLICABLE	QUALITY ASSURANCE PLAN REQUIREMENTS (A Quality Assurance Plan is required where indicated below)
☐	☐	☒	In wind exposure Categories A and B, where the 3-second-gust basic wind speed is 120 miles per hour (mph) (52.8 *m/sec)* or greater.
☐	☐	☒	In wind exposure Categories C and D, where the 3-second-gust basic wind speed is 110 mph (49 *m/sec)* or greater.

Prepared by:

Signature Date

Building Code Official's Acceptance:

Signature Date

Structural Statement of Special Inspections (Continued)

Final Report of Special Inspections (SSIC/SI 1)

[To be completed by the Structural Special Inspections Coordinator (SSIC/SI 1). Note that all Agent's Final Reports must be received prior to issuance.]

Project: *667 Congress St. Apartments*

Location: *667 Congress St. Portland, ME*

Owner: *Redfern Properties*

Owner's Address: *P.O. Box 8816 Portland, ME 04104*

Architect of Record: *Ryan Senatore* (name) — *Ryan Senatore Architecture* (firm)

Structural Registered Design Professional in Responsible Charge: *Aaron C. Jones* (name) — *Structural Integrity* (firm)

To the best of my information, knowledge and belief, the Special Inspections required for this project, and itemized in the *Statement of Special Inspections* submitted for permit, have been performed and all discovered discrepancies have been reported and resolved.

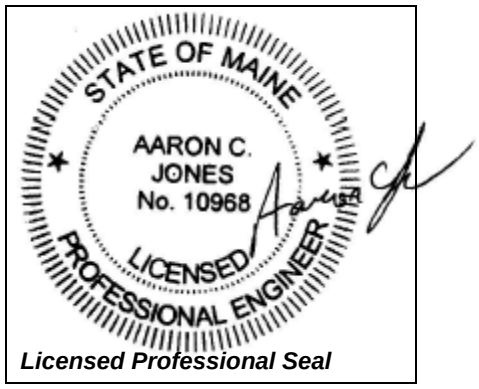
Interim reports submitted prior to this final report form a basis for and are to be considered an integral part of this final report.

Respectfully submitted,
Structural Special Inspection Coordinator

Aaron C. Jones, PE, SEBC
(Type or print name)

Structural Integrity Consulting Engineers, Inc.
(Firm Name)

Signature — 4/11/17 Date



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