STATEMENT OF SPECIAL INSPECTIONS

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/17/17

PROJECT: ecomaine – Scalehouse Building

LOCATION: 64 Blueberry Rd, Portland, ME 04102

PERMIT APPLICANT: ecomaine

APPLICANT'S ADDRESS: 64 Blueberry Rd, Portland, ME 04102

ARCHITECT OF RECORD: Don Dyer, Colby Company Engineering

STRUCTURAL ENGINEER OF RECORD: Brian Beaulieu, Colby Company Engineering

MECHANICAL ENGINEER OF RECORD: Emily Pinyard, Colby Company Engineering

ELECTRICAL ENGINEER OF RECORD: Matt Lyle, Colby Company Engineering

REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: Brian Beaulieu, PE,

This Statement of Special Inspections is submitted in accordance with Section 1704.3 of the 2012 International Building Code. It includes a *Schedule of Special Inspection Services* applicable to the above-referenced Project as well as the identity of the individuals, agencies, or firms intended to be retained for conducting these inspections. If applicable, it includes *Requirements for Seismic Resistance* and/or *Requirements for Wind Resistance*. This Statement of Special Inspections encompasses the following disciplines:
☒Structural ☐Mechanical/Electrical/Plumbing ☐Architectural ☐Other:

Are *Requirements for Seismic Resistance* included in the *Statement of Special Inspections*?	☐ Yes	☒ No
Are *Requirements for Wind Resistance* included in the *Statement of Special Inspections*?	☐ Yes	☒ No

The Special Inspector(s) shall keep records of all inspections and shall furnish interim inspection reports to the Building Official and to the Registered Design Professional in Responsible Charge at a frequency agreed upon by the Design Professional and the Building Official prior to the start of work. Discrepancies shall be brought to the immediate attention of the Contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the Building Official and the Registered Design Professional in Responsible Charge prior to completion of that phase of work. A *Final Report of Special Inspections* documenting required special inspections and corrections of any discrepancies noted in the inspections shall be submitted to the Building Official and the Registered Design Professional in Responsible Charge at the conclusion of the project.

Frequency of interim report submittals to the Registered Design Professional in Responsible Charge:

__Weekly __Bi-Weekly __Monthly Other; specify: Provided as available

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Statement of Special Inspections Prepared by:

Brian Beaulieu, PE
Type or print name

Signature 5/16/17
Date

Preparer's Seal

STATE OF MAINE
BRIAN J. BEAULIEU
No. 12004
LICENSED
PROFESSIONAL ENGINEER

Building Official's Acceptance:

Signature Date

Permit Number:

Frequency of interim report submittals to the Building Official:

__Monthly __Bi- Monthly X Upon Completion Other; specify:_____

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SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1704.2.5 Inspection of Fabricators					
Verify fabrication/quality control procedures	In-plant review (3)	N			
1705.1.1 Special Cases (work unusual in nature, including but not limited to alternative materials and systems, unusual design applications, materials and systems with special manufacturer's requirements)	Submittal review, shop (3) and/or field inspection	N			
1705.2 Steel Construction					
1. Fabricator and erector documents (Verify reports and certificates as listed in AISC 360, chapter N, paragraph 3.2 for compliance with construction documents)	Submittal Review	Y	Each submittal	1	
2. Material verification of structural steel	Shop (3) and field inspection	N			
3. Embedments (Verify diameter, grade, type, length, embedment. See 1705.3 for anchors)	Field inspection	N			
4. Verify member locations, braces, stiffeners, and application of joint details at each connection comply with construction documents	Field inspection	Y	Periodic	1	
5. Structural steel welding:					
a. Inspection tasks Prior to Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-1)		N			
b. Inspection tasks During Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-2)		N			
c. Inspection tasks After Welding (Observe, or perform for each welded joint or member, the QA tasks listed in AISC 360, Table N5.4-3)		N			
d. Nondestructive testing (NDT) of welded joints: *see Commentary*					
1) Complete penetration groove welds 5/16" or greater in *risk category* III or IV	Shop (3) or field ultrasonic testing - 100%	N			
2) Complete penetration groove welds 5/16" or greater in *risk category* II	Shop (3) or field ultrasonic testing - 10% of welds minimum	N			
3) Thermally cut surfaces of access holes when material t > 2"	Shop (3) or field magnetic Partical or Penetrant testing	N			
4) Welded joints subject to fatigue when required by AISC 360, Appendix 3, Table A-3.1	Shop (3) or field radiographic or Ultrasonic testing	N			
5) Fabricator's NDT reports when fabricator performs NDT	Verify reports	N			
6. Structural steel bolting:	Shop (3) and field inspection				
a. Inspection tasks Prior to Bolting (Observe, or perform tasks for each bolted connection, in accordance with QA tasks listed in AISC 360, Table N5.6-1)		N			

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b.Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)					
1) Pre-tensioned and slip-critical joints					
a) Turn-of-nut with matching markings		N			
b) Direct tension indicator		N			
c) Twist-off type tension control bolt		N			
d) Turn-of-nut without matching markings		N			
e) Calibrated wrench		N			
2) Snug-tight joints					
c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3)		Y	Onsite inspection of bolting by CCE	1	
7. Inspection of steel elements of composite construction prior to concrete placement in accordance with QA tasks listed in AISC 360, Table N6.1		N			
1705.2.2 Steel Construction Other Than Structural Steel					
1. Material verification of cold-formed steel deck:		N			
a. Identification markings	Field inspection				
b. Manufacturer's certified test reports	Submittal Review				
2. Connection of cold-formed steel deck to supporting structure:	Shop (3) and field inspection	N			
a. Welding					
b. Other fasteners (in accordance with AISC 360,Section N6)					
1) Verify fasteners are in conformance with approved submittal					
2) Verify fastener installation is in conformance with approved submittal and manufacturer's recommendations					
3. Reinforcing steel	Shop (3) and field inspection				
a. Verification of weldability of steel other than ASTM A706		N			
b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, boundary elements of special concrete structural walls and shear reinforcement		N			
c. Shear reinforcement		N			
d. Other reinforcing steel		N			
4. Cold-formed steel trusses spanning 60 feet or greater		N			
a. Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection				
1705.3 Concrete Construction					
1. Inspection of reinforcing steel installation (see 1705.2.2 for welding)	Field inspection	Y	Periodic	1	
2. Inspection of prestressing steel installation	Shop (3) and field inspection	N			

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PROJECT ecomaine Scalehouse Project - Blueberry Lane, Portland, ME

MATERIAL / ACTIVITY	SERVICE	APPLICABLE TO THIS PROJECT			
		Y/N	EXTENT	AGENT*	DATE COMPLETED
3. Inspection of anchors cast in concrete where allowable loads have been increased per section 1908.5 or where strength design is used	Field inspection	N			
4. Inspection of anchors and reinforcing steel post-installed in hardened concrete: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	Field inspection	Y	Periodic or as required by the research report issued by an approved source	1	
5. Verify use of approved design mix	Shop (3) and field inspection	Y	Periodic	1	
6. Fresh concrete sampling, perform slump and air content tests and determine temperature of concrete	Shop (3) and field inspection	Y	Continuous	2	
7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection	N			
8. Inspection for maintenance of specified curing temperature and techniques	Shop (3) and field inspection	Y	Periodic	1	
9. Inspection of prestressed concrete:	Shop (3) and field inspection	N			
a. Application of prestressing force			Continuous		
b. Grouting of bonded prestressing tendons in the seismic-force-resisting system			Continuous		
10. Erection of precast concrete members		N			
a. Inspect in accordance with construction documents	Field inspection		In accordance with construction documents		
b. Perform inspections of welding and bolting in accordance with Section 1705.2	Field inspection		In accordance with Section 1705.2		
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	Review field testing and laboratory reports	N			
12. Inspection of formwork for shape, lines, location and dimensions	Field inspection	Y	Periodic	1	
13. Concrete strength testing and verification of compliance with construction documents	Field testing and review of laboratory reports	Y	Periodic	2	
1705.4 Masonry Construction					
(A) Level A, B and C Quality Assurance:					
1. Verify compliance with approved submittals	Field Inspection	Y	Each submittal	1	
(B) Level B Quality Assurance:					
1. Verification of f'm and f'_{AAC} prior to construction	Testing by unit strength method or prism test method	Y	Each submittal	1	

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MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
(C) Level C Quality Assurance:					
1. Verification of f'm and f'_{AAC} prior to construction and for every 5,000 SF during construction	Testing by unit strength method or prism test method	N			
2. Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site	Field inspection	N			
3. Verify placement of masonry units	Field Inspection	Y	Periodic	1	
(D) Levels B and C Quality Assurance:					
1. Verification of Slump Flow and Visual Stability Index (VSI) of self-consolidating grout as delivered to the project	Field testing	N			
2. Verify compliance with approved submittals	Field inspection	Y	Periodic	1	
3. Verify proportions of site-mixed mortar, grout and prestressing grout for bonded tendons	Field Inspection	N			
4. Verify grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages	Field Inspection	Y	Periodic	1	
5. Verify construction of mortar joints	Field Inspection	Y	Periodic	1	
6. Verify placement of reinforcement, connectors, and prestressing tendons and anchorages	Field Inspection	Y	Periodic	1	
7. Verify grout space prior to grouting	Field Inspection	Y	Periodic	1	
8. Verify placement of grout and prestressing grout for bonded tendons	Field Inspection	N			
9. Verify size and location of structural masonry elements	Field Inspection				
10. Verify type, size, and location of anchors, including details of anchorage of masonry to structural members, frames, or other construction.	Field inspection	Y	Periodic	1	
11. Verify welding of reinforcement (see 1705.2.2)	Field inspection	N			
12. Verify preparation, construction, and protestion of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)	Field inspection	N			
13. Verify application and measurement of prestressing force	Field Inspection	N			

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MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
14. Verify placement of AAC masonry units and construction of thin-bed mortar joints (first 5000 SF of AAC masonry)	Field inspection	N			
15. Verify placement of AAC masonry units and construction of thin-bed mortar joints (after the first 5000 SF of AAC masonry)	Field inspection	N			
16. Verify properties of thin-bed mortar for AAC masonry (first 5000 SF of AAC masonry)	Field inspection	N			
17. Verify properties of thin-bed mortar forAAC masonry (after the first 5000 SF of AAC masonry)	Field inspection	N			
18. Prepare grout and mortar specimens	Field testing	N			
19. Observe preparation of prisms	Field inspection	N			
1705.5 Wood Construction					
1. Inspection of the fabrication process of wood structural elements and assemblies in accordance with Section 1704.2.5	In-plant review (3)				
2. For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans	Field inspection				
3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each line and at edge margins agree with approved building plans	Field inspection				
4. Metal-plate-connected wood trusses spanning 60 feet or greater: verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection				
1705.6 Soils					
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Field inspection				
2. Verify excavations are extended to proper depth and have reached proper material.	Field inspection				
3. Perform classification and testing of controlled fill materials.	Field inspection				
4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	Field inspection				
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly	Field inspection				

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MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.7 Driven Deep Foundations					
1. Verify element materials, sizes and lengths comply with requirements	Field inspection				
2. Determine capacities of test elements and conduct additional load tests, as required	Field inspection				
3. Observe driving operations and maintain complete and accurate records for each element	Field inspection				
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 damage to foundation element	Field inspection				
5. For steel elements, perform additional inspections per Section 1705.2	See Section 1705.2				
6. For concrete elements and concrete-filled elements, perform additional inspections per Section 1705.3	See Section 1705.3				
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	Field inspection				
8. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing				
1705.8 Cast-in-Place Deep Foundations					
1.Observe drilling operations and maintain complete and accurate records for each element	Field inspection				
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes	Field inspection				
3. For concrete elements, perform additional inspections in accordance with Section 1705.3	See Section 1705.3				
4. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing				
1705.9 Helical Pile Foundations					
1. Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque and other data as required.	Field inspection				
2. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing				

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MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.10.1 Structural Wood Special Inspections For Wind Resistance					
1. Inspection of field gluing operations of elements of the main windforce-resisting system	Field inspection				
2. Inspection of nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection				
1705.10.2 Cold-formed Steel Special Inspections For Wind Resistance					
1.Inspection during welding operations of elements of the main windforce-resisting system	Shop (3) and field inspection				
2.Inspections for screw attachment, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection				
1705.10.3 Wind-resisting Components					
1. Roof cladding	Shop (3) and field inspection				
2. Wall cladding	Shop (3) and field inspection				
1705.11.1 Structural Steel Special Inspections for Seismic Resistance					
Inspection of structural steel in accordance with AISC 341	Shop (3) and field inspection				
1705.11.2 Structural Wood Special Inspections for Seismic Resistance					
1. Inspection of field gluing operations of elements of the seismic-force resisting system	Field inspection				
2. Inspection of nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection				
1705.11.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance					
1. Inspection during welding operations of elements of the seismic-force-resisting system	Shop (3) and field inspection				
2. Inspections for screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection				
1705.11.4 Designated Seismic Systems Verification					
Inspect and verify that that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with Section 1705.12.3	Field inspection				

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MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.11.5 Architectural Components Special Inspections for Seismic Resistance					
1. Inspection during the erection and fastening of exterior cladding and interior and exterior veneer	Field inspection				
2. Inspection during the erection and fastening of interior and exterior nonbearing walls	Field inspection				
3. Inspection during anchorage of access floors	Field inspection				
1705.11.6 Mechanical and Electrical Components Special Inspections for Seismic Resistance					
1. Inspection during the anchorage of electrical equipment for emergency or standby power systems	Field inspection				
2. Inspection during the anchorage of other electrical equipment	Field inspection				
3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units	Field inspection				
4. Inspection during the installation and anchorage of HVAC ductwork that will contain hazardous materials	Field inspection				
5. Inspection during the installation and anchorage of vibration isolation systems	Field inspection				
1705.11.7 Storage Racks Special Inspections for Seismic Resistance					
Inspection during the anchorage of storage racks 8 feet or greater in height	Field inspection				
1705.11.8 Seismic Isolation Systems					
Inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system	Shop and field inspection				
1705.12.1 Concrete Reinforcement Testing and Qualification for Seismic Resistance					
1. Review certified mill test reports for each shipment of reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special moment frames, special structural walls, and coupling beams connecting special structural walls	Review certified mill test reports				

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PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
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MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
2. Verify reinforcement weldability of ASTM A615 reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special moment frames, special structural walls, and coupling beams connecting special structural walls	Review test reports				
1705.12.2 Structural Steel Testing and Qualification for Seismic Resistance					
Test in accordance with the quality assurance requirements of AISC 341	Shop (3) and field testing				
1705.12.3 Seismic Certification of Nonstructural Components					
Review certificate of compliance for designated seismic system components.	Certificate of compliance review				
1705.12.4 Seismic Isolation Systems					
Test seismic isolation system in accordance with ASCE 7 Section 17.8	Prototype testing				
1705.13 Sprayed Fire-resistant Materials					
1. Verify surface condition preparation of structural members	Field inspection				
2. Verify application of sprayed fire-resistant materials	Field inspection				
3. Verify average thickness of sprayed fire-resistant materials applied to structural members	Field inspection				
4. Verify density of the sprayed fire-resistant material complies with approved fire-resistant design	Field inspection and testing				
5. Verify the cohesive/adhesive bond strength of the cured sprayed fire-resistant material	Field inspection and testing				
1705.14 Mastic and Intumescent Fire-Resistant Coatings					
Inspect mastic and intumescent fire-resistant coatings applied to structural elements and decks	Field inspection				
1705.15 Exterior Insulation and Finish Systems (EIFS)					
1. Verify materials, details and installations are per the approved construction documents	Field inspection				
2. Inspection of water-resistive barrier over sheathing substrate	Field inspection				

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1705.16 Fire-Resistant Penetrations and Joints					
1. Inspect penetration firestop systems	Field testing				
2. Inspect fire-resistant joint systems	Field testing				
1705.17 Smoke Control Systems					
1. Leakage testing and recording of device locations prior to concealment	Field testing				
2. Prior to occupancy and after sufficient completion, pressure difference testing, flow measurements, and detection and control verification	Field testing				

*** INSPECTION AGENTS**

FIRM	ADDRESS	TELEPHONE NO.
1. COLBY COMPANY ENGINEERING	47A YORK STREET, PORTLAND, ME	207-553-7753
2. Contractor's Retained 3rd Party ACI Approved Agent	TBD	TBD
3.		
4.		

Notes: 1. The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the Special Inspector(s) and/or inspected or testing agencies may be subject to the approval of the Building Official and/or the Design Professional.

2. The list of Special Inspectors may be submitted as a separate document, if noted so above.

3. Special Insepctions as required by Section 1704.2.5 are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.2

4. Observe - represents these tasks being checked on a random basis, operations need not be delayed pending these inspections. Perform - represents these tasks being checked for each welded joint, bolted connection, or steel element.

5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the AHJ. Refer to AISC 360, N7.

Are *Requirements for Seismic Resistance* included in the *Statement of Special Inspections*? **No**

Are *Requirements for Wind Resistance* included in the *Statement of Special Inspections*? **No**

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STRUCTURAL ENGINEER OF RECORD: Brian Beaulieu, Colby Company Engineering

MECHANICAL ENGINEER OF RECORD: Emily Pinyard, Colby Company Engineering

ELECTRICAL ENGINEER OF RECORD: Matt Lyle, Colby Company Engineering

REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE: Brian Beaulieu, PE,

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☒Structural ☐Mechanical/Electrical/Plumbing ☐Architectural ☐Other:

Are *Requirements for Seismic Resistance* included in the *Statement of Special Inspections*?	☐ Yes	☒ No
Are *Requirements for Wind Resistance* included in the *Statement of Special Inspections*?	☐ Yes	☒ No

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Frequency of interim report submittals to the Registered Design Professional in Responsible Charge:

__Weekly __Bi-Weekly __Monthly Other; specify: Provided as available

The Special Inspection program does not relieve the Contractor of the responsibility to comply with the Contract Documents. Jobsite safety and means and methods of construction are solely the responsibility of the Contractor.

Statement of Special Inspections Prepared by:

Brian Beaulieu, PE
Type or print name

Signature 5/16/17
Date

Preparer's Seal

STATE OF MAINE
BRIAN J. BEAULIEU
No. 12004
LICENSED
PROFESSIONAL ENGINEER

Building Official's Acceptance:

Signature Date

Permit Number:

Frequency of interim report submittals to the Building Official:

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b.Inspection tasks During Bolting (Observe the QA tasks listed in AISC 360, Table N5.6-2)					
1) Pre-tensioned and slip-critical joints					
a) Turn-of-nut with matching markings		N			
b) Direct tension indicator		N			
c) Twist-off type tension control bolt		N			
d) Turn-of-nut without matching markings		N			
e) Calibrated wrench		N			
2) Snug-tight joints					
c. Inspection tasks After Bolting (Perform tasks for each bolted connection in accordance with QA tasks listed in AISC 360, Table N5.6-3)		Y	Onsite inspection of bolting by CCE	1	
7. Inspection of steel elements of composite construction prior to concrete placement in accordance with QA tasks listed in AISC 360, Table N6.1		N			
1705.2.2 Steel Construction Other Than Structural Steel					
1. Material verification of cold-formed steel deck:		N			
a. Identification markings	Field inspection				
b. Manufacturer's certified test reports	Submittal Review				
2. Connection of cold-formed steel deck to supporting structure:	Shop (3) and field inspection	N			
a. Welding					
b. Other fasteners (in accordance with AISC 360,Section N6)					
1) Verify fasteners are in conformance with approved submittal					
2) Verify fastener installation is in conformance with approved submittal and manufacturer's recommendations					
3. Reinforcing steel	Shop (3) and field inspection				
a. Verification of weldability of steel other than ASTM A706		N			
b. Reinforcing steel resisting flexural and axial forces in intermediate and special moment frames, boundary elements of special concrete structural walls and shear reinforcement		N			
c. Shear reinforcement		N			
d. Other reinforcing steel		N			
4. Cold-formed steel trusses spanning 60 feet or greater		N			
a. Verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection				
1705.3 Concrete Construction					
1. Inspection of reinforcing steel installation (see 1705.2.2 for welding)	Field inspection	Y	Periodic	1	
2. Inspection of prestressing steel installation	Shop (3) and field inspection	N			

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/17/17

SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
3. Inspection of anchors cast in concrete where allowable loads have been increased per section 1908.5 or where strength design is used	Field inspection	N			
4. Inspection of anchors and reinforcing steel post-installed in hardened concrete: Per research reports including verification of anchor type, anchor dimensions, hole dimensions, hole cleaning procedures, anchor spacing, edge distances, concrete minimum thickness, anchor embedment and tightening torque	Field inspection	Y	Periodic or as required by the research report issued by an approved source	1	
5. Verify use of approved design mix	Shop (3) and field inspection	Y	Periodic	1	
6. Fresh concrete sampling, perform slump and air content tests and determine temperature of concrete	Shop (3) and field inspection	Y	Continuous	2	
7. Inspection of concrete and shotcrete placement for proper application techniques	Shop (3) and field inspection	N			
8. Inspection for maintenance of specified curing temperature and techniques	Shop (3) and field inspection	Y	Periodic	1	
9. Inspection of prestressed concrete:	Shop (3) and field inspection	N			
a. Application of prestressing force			Continuous		
b. Grouting of bonded prestressing tendons in the seismic-force-resisting system			Continuous		
10. Erection of precast concrete members		N			
a. Inspect in accordance with construction documents	Field inspection		In accordance with construction documents		
b. Perform inspections of welding and bolting in accordance with Section 1705.2	Field inspection		In accordance with Section 1705.2		
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	Review field testing and laboratory reports	N			
12. Inspection of formwork for shape, lines, location and dimensions	Field inspection	Y	Periodic	1	
13. Concrete strength testing and verification of compliance with construction documents	Field testing and review of laboratory reports	Y	Periodic	2	
1705.4 Masonry Construction					
(A) Level A, B and C Quality Assurance:					
1. Verify compliance with approved submittals	Field Inspection	Y	Each submittal	1	
(B) Level B Quality Assurance:					
1. Verification of f'm and f'_{AAC} prior to construction	Testing by unit strength method or prism test method	Y	Each submittal	1	

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/17/17

SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
(C) Level C Quality Assurance:					
1. Verification of f'm and f'_{AAC} prior to construction and for every 5,000 SF during construction	Testing by unit strength method or prism test method	N			
2. Verification of proportions of materials in premixed or preblended mortar, prestressing grout, and grout other than self-consolidating grout, as delivered to the project site	Field inspection	N			
3. Verify placement of masonry units	Field Inspection	Y	Periodic	1	
(D) Levels B and C Quality Assurance:					
1. Verification of Slump Flow and Visual Stability Index (VSI) of self-consolidating grout as delivered to the project	Field testing	N			
2. Verify compliance with approved submittals	Field inspection	Y	Periodic	1	
3. Verify proportions of site-mixed mortar, grout and prestressing grout for bonded tendons	Field Inspection	N			
4. Verify grade, type, and size of reinforcement and anchor bolts, and prestressing tendons and anchorages	Field Inspection	Y	Periodic	1	
5. Verify construction of mortar joints	Field Inspection	Y	Periodic	1	
6. Verify placement of reinforcement, connectors, and prestressing tendons and anchorages	Field Inspection	Y	Periodic	1	
7. Verify grout space prior to grouting	Field Inspection	Y	Periodic	1	
8. Verify placement of grout and prestressing grout for bonded tendons	Field Inspection	N			
9. Verify size and location of structural masonry elements	Field Inspection				
10. Verify type, size, and location of anchors, including details of anchorage of masonry to structural members, frames, or other construction.	Field inspection	Y	Periodic	1	
11. Verify welding of reinforcement (see 1705.2.2)	Field inspection	N			
12. Verify preparation, construction, and protestion of masonry during cold weather (temperature below 40°F) or hot weather (temperature above 90°F)	Field inspection	N			
13. Verify application and measurement of prestressing force	Field Inspection	N			

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/17/17

SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
14. Verify placement of AAC masonry units and construction of thin-bed mortar joints (first 5000 SF of AAC masonry)	Field inspection	N			
15. Verify placement of AAC masonry units and construction of thin-bed mortar joints (after the first 5000 SF of AAC masonry)	Field inspection	N			
16. Verify properties of thin-bed mortar for AAC masonry (first 5000 SF of AAC masonry)	Field inspection	N			
17. Verify properties of thin-bed mortar forAAC masonry (after the first 5000 SF of AAC masonry)	Field inspection	N			
18. Prepare grout and mortar specimens	Field testing	N			
19. Observe preparation of prisms	Field inspection	N			
1705.5 Wood Construction					
1. Inspection of the fabrication process of wood structural elements and assemblies in accordance with Section 1704.2.5	In-plant review (3)				
2. For high-load diaphragms, verify grade and thickness of structural panel sheathing agree with approved building plans	Field inspection				
3. For high-load diaphragms, verify nominal size of framing members at adjoining panel edges, nail or staple diameter and length, number of fastener lines, and that spacing between fasteners in each line and at edge margins agree with approved building plans	Field inspection				
4. Metal-plate-connected wood trusses spanning 60 feet or greater: verify temporary and permanent restraint/bracing are installed in accordance with the approved truss submittal package	Field inspection				
1705.6 Soils					
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	Field inspection				
2. Verify excavations are extended to proper depth and have reached proper material.	Field inspection				
3. Perform classification and testing of controlled fill materials.	Field inspection				
4. Verify use of proper materials, densities, and lift thicknesses during placement and compaction of controlled fill	Field inspection				
5. Prior to placement of controlled fill, observe subgrade and verify that site has been prepared properly	Field inspection				

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/17/17

SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.7 Driven Deep Foundations					
1. Verify element materials, sizes and lengths comply with requirements	Field inspection				
2. Determine capacities of test elements and conduct additional load tests, as required	Field inspection				
3. Observe driving operations and maintain complete and accurate records for each element	Field inspection				
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 damage to foundation element	Field inspection				
5. For steel elements, perform additional inspections per Section 1705.2	See Section 1705.2				
6. For concrete elements and concrete-filled elements, perform additional inspections per Section 1705.3	See Section 1705.3				
7. For specialty elements, perform additional inspections as determined by the registered design professional in responsible charge	Field inspection				
8. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing				
1705.8 Cast-in-Place Deep Foundations					
1.Observe drilling operations and maintain complete and accurate records for each element	Field inspection				
2. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, embedment into bedrock (if applicable) and adequate end-bearing strata capacity. Record concrete or grout volumes	Field inspection				
3. For concrete elements, perform additional inspections in accordance with Section 1705.3	See Section 1705.3				
4. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing				
1705.9 Helical Pile Foundations					
1. Verify installation equipment, pile dimensions, tip elevations, final depth, final installation torque and other data as required.	Field inspection				
2. Perform additional inspections and tests in accordance with the construction documents	Field Inspection and testing				

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/17/17

SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.10.1 Structural Wood Special Inspections For Wind Resistance					
1. Inspection of field gluing operations of elements of the main windforce-resisting system	Field inspection				
2. Inspection of nailing, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection				
1705.10.2 Cold-formed Steel Special Inspections For Wind Resistance					
1.Inspection during welding operations of elements of the main windforce-resisting system	Shop (3) and field inspection				
2.Inspections for screw attachment, bolting, anchoring and other fastening of components within the main windforce-resisting system	Shop (3) and field inspection				
1705.10.3 Wind-resisting Components					
1. Roof cladding	Shop (3) and field inspection				
2. Wall cladding	Shop (3) and field inspection				
1705.11.1 Structural Steel Special Inspections for Seismic Resistance					
Inspection of structural steel in accordance with AISC 341	Shop (3) and field inspection				
1705.11.2 Structural Wood Special Inspections for Seismic Resistance					
1. Inspection of field gluing operations of elements of the seismic-force resisting system	Field inspection				
2. Inspection of nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection				
1705.11.3 Cold-formed Steel Light-Frame Construction Special Inspections for Seismic Resistance					
1. Inspection during welding operations of elements of the seismic-force-resisting system	Shop (3) and field inspection				
2. Inspections for screw attachment, bolting, anchoring and other fastening of components within the seismic-force-resisting system	Shop (3) and field inspection				
1705.11.4 Designated Seismic Systems Verification					
Inspect and verify that that the component label, anchorage or mounting conforms to the certificate of compliance in accordance with Section 1705.12.3	Field inspection				

Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 05/17/17

SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.11.5 Architectural Components Special Inspections for Seismic Resistance					
1. Inspection during the erection and fastening of exterior cladding and interior and exterior veneer	Field inspection				
2. Inspection during the erection and fastening of interior and exterior nonbearing walls	Field inspection				
3. Inspection during anchorage of access floors	Field inspection				
1705.11.6 Mechanical and Electrical Components Special Inspections for Seismic Resistance					
1. Inspection during the anchorage of electrical equipment for emergency or standby power systems	Field inspection				
2. Inspection during the anchorage of other electrical equipment	Field inspection				
3. Inspection during installation and anchorage of piping systems designed to carry hazardous materials, and their associated mechanical units	Field inspection				
4. Inspection during the installation and anchorage of HVAC ductwork that will contain hazardous materials	Field inspection				
5. Inspection during the installation and anchorage of vibration isolation systems	Field inspection				
1705.11.7 Storage Racks Special Inspections for Seismic Resistance					
Inspection during the anchorage of storage racks 8 feet or greater in height	Field inspection				
1705.11.8 Seismic Isolation Systems					
Inspection during the fabrication and installation of isolator units and energy dissipation devices used as part of the seismic isolation system	Shop and field inspection				
1705.12.1 Concrete Reinforcement Testing and Qualification for Seismic Resistance					
1. Review certified mill test reports for each shipment of reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special moment frames, special structural walls, and coupling beams connecting special structural walls	Review certified mill test reports				

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Inspections Division
Approved with Conditions
Date: 05/17/17

SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
2. Verify reinforcement weldability of ASTM A615 reinforcement used to resist earthquake-induced flexural and axial forces in reinforced concrete special moment frames, special structural walls, and coupling beams connecting special structural walls	Review test reports				
1705.12.2 Structural Steel Testing and Qualification for Seismic Resistance					
Test in accordance with the quality assurance requirements of AISC 341	Shop (3) and field testing				
1705.12.3 Seismic Certification of Nonstructural Components					
Review certificate of compliance for designated seismic system components.	Certificate of compliance review				
1705.12.4 Seismic Isolation Systems					
Test seismic isolation system in accordance with ASCE 7 Section 17.8	Prototype testing				
1705.13 Sprayed Fire-resistant Materials					
1. Verify surface condition preparation of structural members	Field inspection				
2. Verify application of sprayed fire-resistant materials	Field inspection				
3. Verify average thickness of sprayed fire-resistant materials applied to structural members	Field inspection				
4. Verify density of the sprayed fire-resistant material complies with approved fire-resistant design	Field inspection and testing				
5. Verify the cohesive/adhesive bond strength of the cured sprayed fire-resistant material	Field inspection and testing				
1705.14 Mastic and Intumescent Fire-Resistant Coatings					
Inspect mastic and intumescent fire-resistant coatings applied to structural elements and decks	Field inspection				
1705.15 Exterior Insulation and Finish Systems (EIFS)					
1. Verify materials, details and installations are per the approved construction documents	Field inspection				
2. Inspection of water-resistive barrier over sheathing substrate	Field inspection				

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Inspections Division
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SCHEDULE OF SPECIAL INSPECTION SERVICES

PROJECT	ecomaine Scalehouse Project - Blueberry Lane, Portland, ME				
		APPLICABLE TO THIS PROJECT			
MATERIAL / ACTIVITY	SERVICE	Y/N	EXTENT	AGENT*	DATE COMPLETED
1705.16 Fire-Resistant Penetrations and Joints					
1. Inspect penetration firestop systems	Field testing				
2. Inspect fire-resistant joint systems	Field testing				
1705.17 Smoke Control Systems					
1. Leakage testing and recording of device locations prior to concealment	Field testing				
2. Prior to occupancy and after sufficient completion, pressure difference testing, flow measurements, and detection and control verification	Field testing				

*** INSPECTION AGENTS**

FIRM	ADDRESS	TELEPHONE NO.
1. COLBY COMPANY ENGINEERING	47A YORK STREET, PORTLAND, ME	207-553-7753
2. Contractor's Retained 3rd Party ACI Approved Agent	TBD	TBD
3.		
4.		

Notes: 1. The inspection and testing agent(s) shall be engaged by the Owner or the Owner's Agent, and not by the Contractor or Subcontractor whose work is to be tested. Any conflict of interest must be disclosed to the Building Official prior to commencing work. The qualifications of the Special Inspector(s) and/or inspected or testing agencies may be subject to the approval of the Building Official and/or the Design Professional.

2. The list of Special Inspectors may be submitted as a separate document, if noted so above.

3. Special Insepctions as required by Section 1704.2.5 are not required where the fabricator is approved in accordance with IBC Section 1704.2.5.2

4. Observe - represents these tasks being checked on a random basis, operations need not be delayed pending these inspections. Perform - represents these tasks being checked for each welded joint, bolted connection, or steel element.

5. NDT of welds completed in an approved fabricator's shop may be performed by that fabricator when approved by the AHJ. Refer to AISC 360, N7.

Are *Requirements for Seismic Resistance* included in the *Statement of Special Inspections*? **No**

Are *Requirements for Wind Resistance* included in the *Statement of Special Inspections*? **No**

DATE: