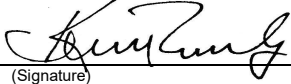


# Statement of Special Inspections

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Project: NCDOT Ocracoke Island Passenger Terminal  
Location: Ocracoke Island, North Carolina  
Owner's Representative: NCDOT – Sterling Baker  
Owner's Address: NCDOT, Raleigh, NC

This Statement of Special Inspections is submitted as a condition for permit issuance in accordance with the Special Inspection requirements of the 2012 North Carolina State Building Code. It includes a Schedule of Special Inspection Services applicable to this project as well as the name of the Special Inspector and the identity of other approved agencies intended to be retained for conducting these inspections. This Statement of Special Inspections was prepared by the following Designers of Record:

Structural	Kevin M. Roomsburg, P.E.		7-25-2017
	(Type or print name)	(Signature)	(Date)
Architectural	John K. Farkas, AIA		
	(Type or print name)	(Signature)	(Date)
Mechanical			
	(Type or print name)	(Signature)	(Date)
Other			
	(Type or print name)	(Signature)	(Date)

The Special Inspector shall keep records of all inspections and shall furnish inspection reports to the State Construction Office and the Designers of Record. 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 State Construction Office and the Designers of Record. The Special Inspections program does not relieve the Contractor of his or her responsibilities.

Interim reports shall be submitted to the State Construction Office, Owner, and the Designers of Record.

Interim Report Frequency: Monthly

A Final Report of Special Inspections documenting completion of all required Special Inspections and correction of any discrepancies should be submitted 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.

Owner's Authorization

Accepted for the SCO by:

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
Signature Date

## Schedule of Special Inspection Services

The following sheets comprise the required schedule of special inspections for this project. The construction divisions which require special inspections for this project are as follows.

- |   |   |
|---|---|
| <input type="checkbox"/> Structural Steel                   | <input type="checkbox"/> Sprayed Fire Resistant Material                            |
| <input type="checkbox"/> Cold-Formed Steel Framing          | <input type="checkbox"/> Intumescent Fire-Resistant Coatings                        |
| <input checked="" type="checkbox"/> Concrete Construction   | <input type="checkbox"/> Exterior Insulation & Finish System                        |
| <input type="checkbox"/> Masonry – Level 1 <sup>a</sup>     | <input type="checkbox"/> Smoke Control  |
| <input checked="" type="checkbox"/> Wood Construction       | <input type="checkbox"/> Retaining Walls Exceeding 5 Feet                           |
| <input type="checkbox"/> Soils                              | <input checked="" type="checkbox"/> Wind-Resisting Components (1705.4) <sup>b</sup> |
| <input checked="" type="checkbox"/> Driven Deep Foundations | <input checked="" type="checkbox"/> Wind Requirements (1706) <sup>c</sup>           |
| <input type="checkbox"/> Cast-in-Place Deep Foundations     | <input type="checkbox"/> Seismic Resistance <sup>d</sup>                            |
| <input type="checkbox"/> Helical Pile Foundations           |   |

a. Occupancy Category IV structures, as defined by 1604.5 of the North Carolina Building Code, may require Level 2 inspection of masonry construction. The SER shall review Code sections 1704.5.1 and 1704.5.3 and adjust the Schedule of Special Inspection Services as needed.

b. Special inspections for Wind Resistance are applicable to those areas defined by 1705.4 of the North Carolina Building Code. Wind Resistance Special Inspections are only effective if the 1704.1.2 base triggers apply.

c. Special Inspections for Wind Requirements are applicable to those areas defined by 1706.1 of the North Carolina Building Code. Wind Requirements are effective even if the 1704.1.2 base triggers do not apply.

d. Special Inspections for Seismic Resistance are applicable to those structures defined by 1707.1 of the North Carolina Building Code. Seismic Requirements are only effective if the 1704.1.2 base triggers apply.

Inspection Agents	Qualifications	Address
1. Special Inspector <b>TBD</b>	SI	
2. Structural Engineer of Record <b>Kevin M. Roomsburg, P.E.</b>	SER	<b>748 Lord Dunmore Drive Virginia Beach, VA 23464</b>
3. Testing Laboratory <b>TBD</b>	ITL	
4. Other		

Note: The inspection and testing agent shall be engaged by 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 State Construction Office, prior to commencing work.

Seismic Design Category:  A  B  C  D

Basic Wind Speed:  90-109mph  110-119mph  ≥120mph

Wind Exposure Category:  B  C  D

Schedule of Special Inspection Services  
**Structural Steel**

Item	Qualifications	Scope
1. Fabricator Certification/Quality Control Procedures	N/A N/A	<ul style="list-style-type: none"> <li>• Ensure fabricator meets the requirements of NCSBC 1704.2.2</li> <li>• Collect certificate of compliance from fabricator at completion of fabrication</li> </ul>
2. Welding	N/A N/A N/A N/A	<ul style="list-style-type: none"> <li>• Continuous inspection of complete and partial joint penetration welds, multipass fillet welds, plug and slot welds, and single-pass fillet welds &gt; 5/16" in accordance with NCSBC Table 1704.3</li> <li>• Periodic inspection of single-pass fillet welds ≤ 5/16"</li> <li>• Collect certificate of compliance for weld filler material</li> <li>• Identify use of approved filler material and in accordance with AWS D1.1</li> </ul>
3. Metal Deck	N/A N/A	<ul style="list-style-type: none"> <li>• Collect material data sheets for decking and connectors or fasteners</li> <li>• Periodic inspection of welds and / or mechanical fasteners</li> </ul>
4. Structural Details	N/A	<ul style="list-style-type: none"> <li>• Periodic inspection of steel framing and joint details</li> </ul>
5. Bolting	N/A N/A N/A N/A	<ul style="list-style-type: none"> <li>• Collect material data sheets for bolts, nuts, and washers</li> <li>• Collect certificate of compliance from bolt supplier</li> <li>• Periodic inspection of snug-tight, pretensioned, and slip critical joints in accordance with NCSBC Table 1704.3</li> <li>• Continuous inspection of pretensioned and slip-critical joints using turn-of-nut without matchmarking or calibrated wrench methods of installation</li> </ul>
6. Material Certification	N/A	<ul style="list-style-type: none"> <li>• Collect certified mill test reports</li> </ul>

Schedule of Special Inspection Services  
**Cold-Formed Steel Framing**

Item	Qualifications	Scope
1. Plant Certification/ Quality Control Procedures for Pre- Engineered Wall Panels Assembled Off-Job Site	N/A  N/A	<ul style="list-style-type: none"> <li>• Ensure wall panel fabricator meets the requirements of NCSBC 1704.2.2</li> <li>• Collect certificate of compliance from wall panel fabricator at completion of fabrication</li> </ul>
2. Mechanical Connections	N/A	<ul style="list-style-type: none"> <li>• Periodic inspection of all field connections including anchorage to the structural frame</li> </ul>
3. Welding	N/A	<ul style="list-style-type: none"> <li>• Periodic inspection of all field connections including anchorage to the structural frame</li> </ul>
4. Framing Details	N/A	<ul style="list-style-type: none"> <li>• Periodic inspection framing and details</li> </ul>
5. Cold-formed Steel Trusses	N/A	<ul style="list-style-type: none"> <li>• For trusses clear spanning 60 feet or more, verify that both temporary and permanent restraints and braces are installed in accordance with the approved truss submittal package.</li> </ul>

Schedule of Special Inspection Services  
**Concrete Construction**

Item	Qualifications	Scope
1. Mix Design/Material Certifications	1	<ul style="list-style-type: none"> <li>Collect mix designs and verify appropriate mix use during specific installation</li> </ul>
2. Reinforcement Installation	1/3 1 N/A	<ul style="list-style-type: none"> <li>Periodic inspection of reinforcing steel, including prestressing tendons and welded wire fabric</li> <li>Collection of certified mill test reports</li> <li>Continuous inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5b</li> </ul>
3. Concrete Placement/Monitoring Fresh Concrete, Sampling & prep of test samples	3 3 3 N/A 3 3	<ul style="list-style-type: none"> <li>Continuous inspection of cast-in-place concrete placement</li> <li>Continuous monitoring of sampling of fresh concrete, slump test, air content test, temperature of concrete and creation of strength test specimens</li> <li>Periodic inspection of formwork</li> <li>Periodic verification of concrete strength prior to removal of shores and forms from beams and structural slabs</li> <li>Continuous inspection of bolts to be installed in concrete prior to and during placement</li> <li>Periodic inspection of anchors installed in hardened concrete</li> </ul>
4. Curing & Protection	3	<ul style="list-style-type: none"> <li>Periodic inspections of curing techniques</li> </ul>
5. Structural Precast Concrete Members	N/A	<ul style="list-style-type: none"> <li>Periodic inspection of attachment of precast members</li> </ul>
6. Post-Tensioned Concrete Members	N/A N/A N/A	<ul style="list-style-type: none"> <li>Periodic verification of posttensioned concrete strength (<math>f'_{ci}</math>) prior to force transfer</li> <li>Continuous inspection of force application to prestressing tendons</li> <li>Continuous inspection of grouting procedures at bonded prestressing tendons included in the lateral force resisting system</li> </ul>

Schedule of Special Inspection Services  
**Masonry**

Item	Qualifications	Scope
1. Material Certification	N/A N/A N/A	<ul style="list-style-type: none"> <li>• Collect mix design for mortar</li> <li>• Collect mix design for grout</li> <li>• Certificates of Compliance for masonry constituents</li> </ul>
2. Mixing of Mortar & Grout	N/A N/A	<ul style="list-style-type: none"> <li>• Periodic inspection of site prepared mortar, site-prepared grout, and grout for bonded tendons</li> <li>• Continuous verification of slump flow and VSI as self-consolidating grout is delivered to the site</li> </ul>
3. Installation of Masonry	N/A N/A N/A	<ul style="list-style-type: none"> <li>• Periodic inspection of construction of mortar joints, prior to beginning masonry construction and during construction</li> <li>• Periodically verify the type, size, and location of anchors and their attachment to the structure</li> <li>• Periodically verify size and location of structural elements</li> </ul>
4. Reinforcement Installation	N/A N/A N/A N/A N/A	<ul style="list-style-type: none"> <li>• Verify location of reinforcement and connections to structure as construction begins</li> <li>• Continuous inspection of reinforcing steel welding in accordance with Table 1704.3, Item 5b</li> <li>• Prior to grouting periodically verify size, grade, and placement of reinforcement and connection of masonry to structural frame</li> <li>• Periodically verify prestressing technique</li> <li>• During construction, continuously monitor the application and measurement of prestressing force</li> </ul>
5. Grouting Operations	N/A N/A N/A	<ul style="list-style-type: none"> <li>• Prior to grouting, periodically verify conforming cleanliness of grout space and placement of the reinforcement and connectors</li> <li>• Continuous observation of the placement of all grout</li> <li>• Continuously observe the grouting of prestressing bonded tendons</li> </ul>
6. Weather Protection	N/A	<ul style="list-style-type: none"> <li>• Periodically verify protection techniques for construction of masonry below 40°F and above 90°F</li> </ul>
7. Observation of the Evaluation of Masonry Strength	N/A	<ul style="list-style-type: none"> <li>• Periodic observation of the preparation of grout specimens, mortar specimens and or prisms.</li> </ul>

Schedule of Special Inspection Services  
**Wood**

Item	Qualifications	Scope
1. Inspection of Fabricators	N/A	<ul style="list-style-type: none"><li>• Ensure fabricator meets the requirements of NCSBC 1704.2 verifying adequate quality control procedures for prefabricated wood structural elements and assemblies are in place</li></ul>
2. High-load diaphragms	N/A	<ul style="list-style-type: none"><li>• Periodic inspection of Table 2306.2.1(2) high-load diaphragm sheathing panels, fasteners, and framing members at adjoining panel edges.</li></ul>
3. Heavy Timber	1/3	<ul style="list-style-type: none"><li>• Periodic inspection to verify connections, member sizes and details are installed in accordance with the plans and approved submittal package.</li></ul>

Schedule of Special Inspection Services  
**Soils**

Item	Qualifications	Scope
1.Site Preparation	N/A	<ul style="list-style-type: none"> <li>• Determine that the subgrade has been prepared in accordance with the approved soils report and the construction document</li> </ul>
2. Fill Placement	N/A  N/A	<ul style="list-style-type: none"> <li>• Periodic classification and testing of compacted fill materials</li> <li>• Continuous observation of materials used, densities, and lift thickness ensuring compliance with the approved soils report and the construction documents</li> </ul>
3. Evaluation	N/A	<ul style="list-style-type: none"> <li>• Determine that the materials below shallow foundations are adequate to achieve the design bearing capacity</li> </ul>



Schedule of Special Inspection Services  
**Driven Deep Foundations** <sup>a b</sup>

Item	Qualifications	Scope
1. Material Verification	3	<ul style="list-style-type: none"> <li>• Continuously verify pile materials, sizes, and lengths comply with the construction documents</li> </ul>
2. Pile Testing	3	<ul style="list-style-type: none"> <li>• Continuously observe dynamic pile tests ensuring compliance with the construction documents</li> </ul>
3. Installation	3  3  3	<ul style="list-style-type: none"> <li>• Continuous observation of the driving operations</li> <li>• Continuously observe pile placement, location, plumbness, blow count, penetration, tip and butt elevations, and anomalies</li> <li>• Maintain complete and accurate records</li> </ul>

a. For steel elements, perform additional inspections in accordance with Section 1704.3 of the North Carolina Building Code and the companion Schedules included herein

b. For concrete elements and concrete-filled elements, perform additional inspections in accordance with Section 1704.4 of the North Carolina Building Code and the companion Schedules included herein

Schedule of Special Inspection Services  
**Cast-in-Place Deep Foundations <sup>a</sup>**

Item	Qualifications	Scope
1. Material Verification	N/A	<ul style="list-style-type: none"> <li>• Continuously verify pile materials comply with the construction documents</li> </ul>
2. Pile Testing	N/A	<ul style="list-style-type: none"> <li>• Continuously observe pile load tests and determine capacities of test elements ensuring compliance with the construction documents</li> </ul>
3. Installation	N/A N/A  N/A	<ul style="list-style-type: none"> <li>• Continuous observation of the drilling operations</li> <li>• Continuously verify pile placement, location, plumbness, diameters, lengths, rock embedment, end-bearing strata capacity, concrete or grout volumes, and anomalies</li> <li>• Maintain complete and accurate records</li> </ul>

a. For concrete elements and concrete-filled elements, perform additional inspections in accordance with Section 1704.4 of the North Carolina Building Code and the companion Schedules included herein

Schedule of Special Inspection Services  
**Helical Pile Foundations**

<b>Item</b>	<b>Qualifications</b>	<b>Scope</b>
1. Quality Control Procedures	N/A	<ul style="list-style-type: none"><li>• Collect Certificate of Compliance from fabricator</li></ul>
2. Installation of Helical Piles	N/A	<ul style="list-style-type: none"><li>• Continuously observe the installation equipment used, pile placement, location, tip elevations, final depth, and final installation torque</li></ul>

Schedule of Special Inspection Services  
**Sprayed On Fire Resistant Materials**

Item	Qualification	Scope
1. Preparation	N/A	<ul style="list-style-type: none"> <li>• Periodically inspect preparation of substrate prior to installation in accordance with approved fire resistance design and approved manufacturer's written instructions</li> </ul>
2. Application	N/A	<ul style="list-style-type: none"> <li>• Periodically inspect that substrate has minimum ambient temperature before and after application as specified by the fire resistance design and approved manufacturer's written instructions</li> <li>• Test thickness of sprayed on material per the instruction of Section 1704.12.4, the fire resistance design, and the approved manufacturer's written instructions</li> <li>• Periodically test Density of sprayed on material per fire resistance design and approved manufacturer's written instructions</li> <li>• Periodically test bond Strength to ensure a value greater than 150 pounds per square foot.</li> </ul>

Schedule of Special Inspection Services  
**Mastic and Intumescent Fire-Resistant Coatings**

<b>Item</b>	<b>Qualification</b>	<b>Scope</b>
1. Preparation	N/A	<ul style="list-style-type: none"><li>Periodically inspect preparation of substrate prior to installation in accordance with approved fire resistance design, approved manufacturer's written instructions, and the requirements of AWCI 12-B</li></ul>
1. Application	N/A	<ul style="list-style-type: none"><li>Periodically observe application of fire-resistant coatings ensuring compliance with approved fire resistance design, approved manufacturer's written instructions, and the requirements of AWCI 12-B</li></ul>

Schedule of Special Inspection Services  
**Retaining Walls Exceeding 5 Feet**

<b>Item</b>	<b>Qualification</b>	<b>Scope</b>
1.Retaining Systems	N/A	<ul style="list-style-type: none"><li>• All retaining walls exceeding 5 feet in height require special inspections. Refer to the applicable material schedules for explicit requirements</li></ul>
1. Application	N/A	<ul style="list-style-type: none"><li>• Periodic examination of backfill materials for compliance with the approved specifications</li><li>• Confirm that all subsoil drainage piping is undamaged, drains freely to the designated outlet or structure, and has been installed per the approved engineered design</li></ul>

Schedule of Special Inspection Services  
**Exterior Insulation and Finish Systems (EIFS)**

<b>Item</b>	<b>Qualifications</b>	<b>Scope</b>
1. Application	N/A	<ul style="list-style-type: none"><li>• Verify that EIFS is installed in conformance with project specifications</li><li>• For EIFS incorporating drainage over a water-resistive barrier, periodically confirm that the water-barrier and drainage strip are installed in conformance with project specifications</li></ul>

Schedule of Special Inspection Services  
**Smoke Control**

<b>Item</b>	<b>Qualifications</b>	<b>Scope</b>
1. Smoke Evacuation System	N/A	<ul style="list-style-type: none"><li>• During erection of ductwork and prior to concealment leak test and record locations of devices</li><li>• Upon completion of smoke control system perform pressure difference testing, flow measurements and detection and control verification</li></ul>



Schedule of Special Inspection Services  
**Wind-Resisting Components**

Item	Qualifications	Scope
1. Contractor Statement of Responsibility	1	<ul style="list-style-type: none"> <li>Prior to any work taking place, each contractor responsible for the construction of a wind-resisting material, system, or component shall submit a written statement of responsibility to the Special Inspector for distribution to the Building Official and Owner</li> </ul>
2. Wind-resisting components	1	<ul style="list-style-type: none"> <li>Inspect the wind-resisting materials, systems, components, and connections listed below ensuring all items are installed in conformance with the project documents</li> </ul>

**Main Wind-Force Resisting System(s):**

Timber columns

**Wind-Resisting Components Subject to Continuous Special Inspections:**

**Wind-Resisting Components Subject to Periodic Special Inspections:**

Timber connections.

Schedule of Special Inspection Services  
**Special Inspections for Wind Requirements**

Item	Qualifications	Scope
1. Structural Wood	N/A  1	<ul style="list-style-type: none"> <li>• Continuously observe field gluing operations pertinent to the main wind force-resisting system</li> <li>• Periodically inspect all nailing, anchoring, and fastening of components within the main windforce-resisting system</li> </ul>
2. Cold-Formed Steel Light-Frame Construction	N/A  N/A	<ul style="list-style-type: none"> <li>• Periodically inspect welding operations at elements of the main windforce-resisting system</li> <li>• Periodically inspect all screw attachment, bolting, anchoring, and fastening of components within the main windforce-resisting system</li> </ul>
3. Wind-resisting components	N/A	<ul style="list-style-type: none"> <li>• Periodically inspect the roof cladding and wall cladding components and connections listed below ensuring all items are installed in conformance with the project documents</li> </ul>

Structural Wood and Cold-Formed Steel Light-Frame Construction Main Wind-Force Resisting System(s) Subject to Special Inspections:

Timber connections.

Roof Cladding Components Subject to Periodic Special Inspections:

Wall Cladding Components Subject to Periodic Special Inspections:

Schedule of Special Inspection Services  
**Special Inspections for Seismic Resistance<sup>a</sup>**

Item	Qualifications	Scope
1. Contractor Statement of Responsibility	N/A	<ul style="list-style-type: none"> <li>• Prior to any work taking place, each contractor responsible for the construction of a seismic-resisting material, system, or component shall submit a written statement of responsibility to the Special Inspector for distribution to the Building Official and Owner</li> </ul>
3. Mechanical and electrical components	N/A	<ul style="list-style-type: none"> <li>• Collect manufacturer certificates and verify compliance with ASCE7 requirements for nonstructural components</li> <li>• Periodic inspection during the anchorage of electrical equipment used for emergency power systems</li> <li>• Periodic inspection of piping systems intended to carry flammable, combustible, or highly toxic contents and their associated mechanical units.</li> <li>• Periodic inspection during the installation of vibration isolation systems accommodating nominal clearances of ¼ inch or less</li> <li>• Periodic inspection of HVAC ductwork that will contain hazardous materials</li> </ul>
4. Seismic isolation system	N/A	<ul style="list-style-type: none"> <li>• Periodic inspection of isolator units and energy dissipation devices during fabrication and installation</li> <li>• Oversee testing program per ASCE7 requirements</li> </ul>
5. Structural Steel	N/A	<ul style="list-style-type: none"> <li>• Testing and inspection program per AISC 341 - Seismic Provisions for Structural Steel Buildings</li> </ul>

a. The Special Inspections listed reflect North Carolina code requirements for Seismic Design Category C. The SER shall review Code sections 1705 and 1707 and adjust the Schedule of Special Inspection Services for structures of greater seismic hazard.

Main Wind-Force Resisting System(s):

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Seismic-Resisting Components Subject to Continuous Special Inspections:

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Seismic-Resisting Components Subject to Periodic Special Inspections:

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