

SPECIAL INSPECTIONS CATAWBA COUNTY

(SICC-2009)

2009 Edition

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Administered by

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CHAPTER 10 WOOD

SICC-1001 GENERAL

SICC-1001.1 Scope. The requirements of this chapter and NCBC-1704.6 shall apply when construction includes wood building elements as listed in SICC-302.6.

NCBC-1704.6 Wood construction. Special inspections of the fabrication process of wood structural elements and assemblies shall be in accordance with Section 1704.2. Special inspections of site built assemblies shall be in accordance with this section.

NCBC 1704.6.1 High-load diaphragms. High-load diaphragms designed in accordance with Table 2306.3.2 shall be installed with special inspections as indicated in Section 1704.1. The special inspector shall inspect the wood structural panel sheathing to ascertain whether it is of the grade and thickness shown on the approved building plans. Additionally, the special inspector must verify the nominal size of framing members at adjoining panel edges, the nail or staple diameter and length, the number of fastener lines and that the spacing between fasteners in each line and at edge margins agrees with the approved building plans.

SICC-1001.2 Wood erection. Wood prefabricated structural elements shall be subject to special inspections during erection as required by SICC-1004.

SICC-1002 FABRICATION AND ERECTION DOCUMENTS

SICC-1002.1 Preparation of fabrication and erection documents A RDP with experience in the design of prefabricated wood elements and assemblies shall prepare, sign and seal fabrication and erection documents for prefabricated wood elements. The fabrication and erection documents shall include, but are not limited to: design drawings and calculations, connection details, supports, rigging requirements and lifting procedures, and erection bracing and details. Permanent bracing systems for lateral stability shall be detailed and included in the fabrication and erection documents. Details for welded or bolted connections shall clearly indicate the seismic-resisting elements of buildings of Seismic Design Category C, D, E or F. Details for bolted connections shall clearly indicate the amount of tensioning required and the ASTM specifications for the nuts, bolts and washers.

SICC-1002.2 Review and approval. The wood prefabricated elements' fabrication and erection documents shall be submitted to the **AR**, **SER** for review and approval prior to wood prefabricated elements' fabrication and/or erection, as appropriate. The **GC** shall provide **SER**-approved fabrication and erection documents for use by the **SIER** to conduct special inspections during construction.

SICC-1002.2.1 AR and SER review and approval. The **AR** and the **SER** shall review the fabrication and erection documents for compliance with the architectural and structural design of the building and the County approved construction documents.

a. Structural glue-laminated members and sandwich panels. The **GC** shall provide **AR/SER**-approved fabrication and erection documents for use by the **SIER** to conduct special inspections during construction.

b. Prefabricated trusses. The **GC** shall provide **AR/SER**-approved fabrication and erection documents for use by the **SIER** to conduct special inspections of the trusses. This set shall bear the original seal and signature of the **RDP** responsible for truss design.

c. **Prefabricated wood I-joists.** The **GC** shall provide **AR/SER**-approved fabrication and erection documents for use by the **SIER** to conduct special inspections during construction.

SICC-1003 INSPECTION OF WOOD FABRICATORS

SICC-1003.1 Wood fabricators. The **SIER** shall provide special inspection of the wood fabricator and fabrication procedures, and of the fabricated items, as required by NCBC-1704.2. Glue-laminated members and sandwich panels shall bear the mark of an approved agency.

a. **Certification.** The fabricator may demonstrate to the **SIER** that the requirements of NCBC-1704.2 have been met by furnishing evidence of compliance with the Wood Truss Council of America's Quality Control Program, or its equivalent.

b. **Fabricator approval.** The **SIER** shall verify in writing to **CCBSD** that the fabricator is properly implementing the fabrication and quality control procedures outlined above. Verification may be on a job basis or by inspection within the previous twelve months.

SICC-1004 INSPECTION OF WOOD ELEMENTS

SICC-1004.1 Erection. The **SIER** shall perform special inspections of wood building elements during erection as required by the NCBC for conformance with **AR/SER** approved documents. The **SIER** shall verify the following:

SICC-1004.2 Connections. All connections of the seismic-resisting elements of buildings assigned to Seismic Category C, D, E, or F are in accordance with **AR/SER** approved documents and applicable sections of the NCBC. Special inspections shall include nailing, bolting, structural gluing or other fastening of the wood elements of the structural seismic-resisting system of all buildings, regardless of height, assigned to Seismic Design Category C, D, E or F, as required by **NCBC-1707.3**.

NCBC 1707.3 Structural wood. Continuous special inspection during field gluing operations of elements of the seismic-force-resisting system. Periodic special inspections for nailing, bolting, anchoring and other fastening of components within the seismic-force-resisting system, including braces, wood shear walls, wood diaphragms, drag struts, braces, sheer panels and hold-downs.

SICC-1005 COMPLETION OF WOOD CONSTRUCTION

Upon completion of wood construction, including connections, the **SIER** shall submit a completion letter to **CCBSD**. The **SIER** shall also indicate the date of completion on the final report of special inspections for wood construction.

Wood Construction (Council of American Structural Engineer's Guide)

Item	Scope
1. Fabricator Certification/ Quality Control Procedures	<i>Inspect shop fabrication and quality control procedures for wood truss plant.</i>
2. Material Grading	<i>Verify species, moisture content, structural grade.</i>
3. Connections	<i>To include structural connections such as truss hangers, plates, joists, girders etc.</i>
4. Framing and Details	<i>Per plans and fabrication drawings.</i>
5. Diaphragms and Shearwalls	<i>Inspect size, configuration, blocking and fastening of shearwalls and diaphragms. Verify panel grade and thickness.</i>
6. Prefabricated Wood Trusses	<i>Inspect the fabrication of wood trusses.</i>
7. Permanent Truss Bracing	<i>Inspect bracing per designer approved fabrication documents, truss component sheets.</i>
8. Other:	

