Chapter 17 – Structural Tests and Special Inspections

Adopt and/or codify entire chapter as amended below:

<table>
<thead>
<tr>
<th>2001 CBC</th>
<th>PROPOSED ADOPTION</th>
<th>DSA-SS</th>
<th>PURPOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Adopt entire chapter without amendments</td>
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<tr>
<td></td>
<td>Adopt entire chapter with amendments listed below</td>
<td>X</td>
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<td></td>
<td>Adopt only those sections listed below</td>
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<tr>
<td>2337A</td>
<td>1704.6.2 CA</td>
<td>X</td>
<td>Revision of current amendments, which require special inspection of glue-laminated members and trusses to ensure conformance with construction documents.</td>
</tr>
</tbody>
</table>

Note: other amendment proposals for Chapter 17 are pending

Legend for Express Terms:

1. 2006 IBC model code language appears in Times Roman font.
2. DSA-SS amendments appear in Arial font, italicized and underlined.

Express Terms

1704.6 Wood construction. Special inspections of the fabrication process of prefabricated 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.

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.

1704.6.2 Additional Requirements. For public elementary and secondary schools, community colleges, and state essential services buildings, special inspection of wood structural members and assemblies is required as specified in this section, to verify conformance with approved drawings and specifications, and Title 24.

The special inspector shall furnish a verified report to the design professional in general responsible charge and the enforcement agency, in accordance with Title 24, Part 1, Section 4-336. The verified
report shall list all inspected members or trusses, and shall indicate whether or not the inspected members or trusses conform with approved drawings and specifications, and Title 24. Any non-conforming items shall be indicated on the verified report.

1704.6.2.1 Structural Glued Laminated Timber

Manufacture of all structural glued laminated timber shall be continuously inspected by a qualified special inspector approved by the enforcement agency.

The special inspector shall verify conformance of laminating lumber, adhesives, mechanical reinforcement, and preservative treatment. The special inspector shall observe the fabrication process, and shall inspect each finished member. Each inspected member shall be stamped by the special inspector with an identification mark. Prior to shipment, the special inspector shall verify conformance of sealing, wrapping or other requirements for protection of members.

**Exception:** Special inspection is not required for non-custom members of 5-1/8 inch maximum width and 15 inch maximum depth, manufactured and marked in accordance with ANSI/AITC A 190.1, Section 6.1.1 for non-custom members.

1704.6.2.2 Manufactured Trusses

The fabrication of trusses shall be continuously inspected by a qualified special inspector approved by the enforcement agency.

The special inspector shall verify conformance of materials, shall observe the fabrication process, and shall inspect each completed truss. Each inspected truss shall be stamped by the special inspector with an identification mark.

Conformance of structural glued laminated timbers with the project-specific requirements of the approved drawings has been determined on the basis of DSA’s special inspection provisions, which have been in Title 24 for over fifty years. DSA is not aware of any significant problems or failures resulting from these requirements. The cost of these special inspections has been reported to DSA to be approximately 5% of the cost of the inspected product.

The Field Act (Education Code, Section 17280-17317) and Essential Services Buildings Act (Health & Safety Code 16000-16023) requires comprehensive inspection of all construction by a project inspector, and by special inspectors for specialty work. These inspectors must verify that work conforms with Title 24 building standards and the construction documents.

DSA believes that inspection of these structural components, which are fabricated off-site, would be most effective if accomplished at the fabricator’s plant, rather than at the project site. Visual inspection at the project site can not provide for verification of all requirements of the approved drawings. In the event that non-conformance is determined by visual inspection at the project site, corrective action may adversely affect the project schedule to a much greater extent than if the inspection had occurred at the fabricator's plant.