

**NC Department of Insurance  
Office of the State Fire Marshal - Engineering Division  
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**2x Dimensional Lumber Not Acceptable as Heavy Timber Construction**

**Code:** 2012 Building Code  
**Section:** 602.4

**Date:** September 1, 2011

**Question:**

Can dimensional lumber that does not meet the dimensional requirements of Section 602.4 for sawn timber be mechanically or chemically fastened together to meet the minimum dimensional requirements of and be used for Type IV Heavy Timber (HT) construction?

**Answer:**

No. The expectation is that structural members constructed of mechanically or chemically fastened together dimensional lumber as described above will not react equally to a single sawn member under equal fire conditions.

An assembly that has been tested by an approved testing agency and is proven by that agency as equal to or better than HT is acceptable if approved by the local code enforcement official having jurisdiction.

A manufactured glulam member is acceptable if it meets the requirements of Section 602.4 of the NC Building Code.

**Keywords:**

Primary fire district, deck, porch, floor, wall, roof, column, truss, wood