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October 2, 2015

Mr. Ken Bland
American Wood Council
222 Catoctin Circle SE
Leesburg, Virginia 20175

Subject: SwRI® Project No. 01.21428.01.001a

PRELIMINARY RESULTS (Consisting of 2 Pages)

Dear Mr. Bland,

On Wednesday September 30, 2015, Southwest Research Institute (SwRI), located in San Antonio, Texas conducted an ASTM E814 test of three firestop systems used for through-penetrations of cross-laminated timber (CLT) floor assemblies for the American Wood Council, located in Leesburg, Virginia. The test specimen consisted of 5-ply CLT, 6⁵/₈-in. thick, covered with two-layers of 5/8-in. type X gypsum board on the fire exposed side, as shown in Figure 1.



Figure 1: Test Assembly with Through-Penetrations.

The following through-penetration firestop systems were evaluated in the test:

- Hilti C-AJ-2109 (modified as follows: 1.5-in. O.D. closed PVC pipe; no steel sleeve; 3.5-in. long wood screws instead of anchor hooks specified in system details; pipe placed concentrically within hole; 2.5-in. sealant depth)
- Hilti C-AJ-2419 (modified as follows: no annular gap between the collar and the bundle of cables; the collar fitted snugly against the bundle of cables; 2.5 in. sealant depth)
- Hilti C-AJ-3096 (modified as follows: 1.5-in. O.D closed PVC pipe; no steel sleeve; 2.5-in. sealant depth)



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Preliminary test results are as follows: all three tested systems achieved 2-hour "F" and "T" Ratings. Figure 2 shows the exposed and unexposed sides of the test assembly post fire exposure and hose stream test.

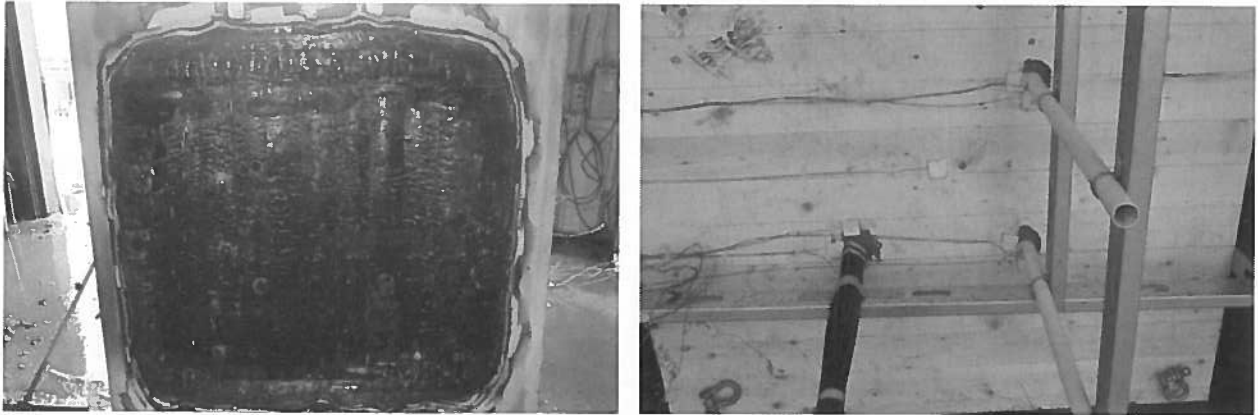


Figure 2: Exposed and Unexposed Side of Test Assembly Post Hose Stream Test.

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cc: N. Albracht (SwRI)