

**ASC Adhesives for Roof Sheathing Attachment Project
HUD PATH Grant
August 9, 2006 Conference Call Summary**

Call Participants:

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Full contact list for all manufacturers participating in the program can be found at:
<http://www.ascouncil.org/news/newsroom/HUDgrant.cfm>

Discussion Points:

- The project scope is an investigation and characterization of using adhesives to fasten roof sheathing to roof framing (trusses, rafters) in new and existing residential roof assemblies, in assemblies where adhesives may be used alone or as a complement to mechanical fasteners (nails).
- ASC and Newport Partners presented slides on current findings in this research program. The content covered related research and commercial applications from universities and private groups, relevant building code issues, and a discussion of retrofit vs. new construction applications. Two current research projects: 1) NRC Canada work on adhesives in commercial buildings with high indoor relative humidity (RH) and 2) NSF-PATH research on acrylic adhesive tapes used in walls subject to shearing forces will have published results out soon as well. The slides are available through the project website which ASC maintains. Note that slides have been updated to include excerpts from relevant building codes as referenced:
<http://www.ascouncil.org/news/newsroom/HUDgrant.cfm>.
- Manufacturer members added several comments and insights regarding the use of adhesives for residential roofing application, including:
 - The issue of adhesives restricting the ability of sheathing panels to expand/contract with varying ambient humidity seems like an open question, given the research results that were presented. Limited studies (which we do not have) conclude this is a serious issue which can cause sheathing warping in new construction, while competing studies indicate that the movement restriction caused by adhesives is insignificant.
 - When comparing the use of adhesives in residential roof assemblies for new construction, the comparison system or “measuring stick” is simply increasing the nailing schedule for nailed-on sheathing. To gain industry acceptance, a system including adhesives would have to add value to the baseline approach – like better water-resistance for the roof or easier installation. Otherwise it is merely an extra step, and if it adds complication or requires greater worker skills then it won’t gain any traction.
 - For retrofit applications, potential drivers for the use of adhesives could come from the insurance industry or from building code requirements for existing structures. If insurance

coverage provides incentives for improved roof assembly strength in existing houses (built to less rigorous codes), this could open an opportunity for retrofit applications using adhesives to strengthen the sheathing-to-framing joint. This is particularly true if an existing home is not being re-roofed, which means that the only way to add uplift resistance is to access the roof deck from below – which is where adhesives have shown excellent performance benefits. Building codes could provide a similar opportunity, although codes are only likely to play a major part in the reconstruction of substantially damaged housing following a natural disaster. Newport Partners is investigating current activities in the insurance industry further.

- The biggest bottleneck to new applications like this is field labor. Anything that expedites or simplifies a roof installation job is good, and the converse holds as well. In the case of adhesives, simplifying and expediting may include pre-applied adhesives, tapes, or peel ‘n stick type products.
- ASC and Newport will hold a face-to-face meeting with participating manufacturers at the ASC Fall Convention in Nashville (October 15-18) at the Renaissance Nashville Hotel. The meeting will take place on **Tuesday, October 17 and run from 9:00 to 9:45 a.m.** immediately following the general breakfast. Room details TBD. All participants are encouraged to attend. To register, log onto www.ascouncil.org.

Follow-Up Items:

1. Newport to research insurance industry programs further.
2. ASC to finalize plans for a meeting at the ASC Fall Convention.
3. Newport will follow-up with NRC Canada and NSF-PATH to obtain soon-to-be-released research reports.