ABSTRACT

Thesis: A Comparison of Residential Energy Efficiency Strategies between Historic Preservation and Building Science

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The National Park Service has provided guidance to the public for years regarding weatherization measures for historic houses. Some of this guidance advised against installing wall insulation, citing the potential for moisture condensation resulting in structural damage.

With the passage of the American Recovery and Reinvestment Act in 2009, a substantial investment was made in the 30 year old Weatherization Assistance Program, which provides federal funds for home weatherization. The program has used wall insulation with no reported problems and proven energy savings. Some State Historic Preservation Offices (who review federally funded actions) protested the use of wall insulation based on the NPS guidance, especially Preservation Brief #3.

This thesis describes the fundamental differences between the preservation community’s approach to energy efficiency as compared to the weatherization community’s approach, and addresses some concerns of historic preservation officials regarding perceived potential damage of some weatherization measures, including wall insulation.