ACOUSTICS2008/3221 Measurements of existing modular construction classroom acoustics in the Midwestern United States

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Modular construction classrooms in the United States currently total more than 300,000 units, with 37% nationally of all public schools utilizing portable classrooms, according to the Modular Building Institute and a 2007 survey of Public School Principals conducted by the National Center for Education Statistics. Given this ever growing number there is a desire to improve their acoustics to meet ANSI S12.60-2002 guidelines for classroom acoustics. This paper gives a survey of existing acoustic conditions of re-locatable classrooms currently in use in the Midwestern United States. Data to be presented include reverberation times, interior/exterior noise reduction, and site noise measurements. The results of these measurements and additional qualitative surveys will aid in understanding the performance of modular classrooms and assist in drafting a standard for them to supplement the guidelines in ANSI S12.60-2002.