

Internet & E-mail:

www.staufusa.com

info@staufusa.com

February 25, 2011

To Whom It May Concern:

RE: Independent Confirmation of Stauf SMP-960 One-Step Sound Abatement

On January 11, 2011, Stauf's SMP-960 One-Step Wood Floor Adhesive was field tested for sound abatement at the Colony Arcade Hotel in New York City. This standard test was performed to determine if SMP-960 met the strict sound codes required by the City of New York for residential, high-rise structures. Testing was performed by the licensed, nationally recognized firm, Cerami & Associates, of New York.

Cerami & Associates independent field testing proved that Stauf SMP-960 One-Step, applied on the 9<sup>th</sup> Floor over an 8" concrete sub floor, exceeded New York City's required Apparent Sound Transmission Class (ASTC) criteria. Concurrent testing showed that it also exceeded the required Field Impact Insulation Class (FIIC) criteria.

The Stauf ratings were:

FIIC Rating 46 dB (decibels) ASTC Rating 46 dB (decibels)

The Stauf SMP-960 One-Step decreased the sound and impact transmission significantly and allowed the building to meet the City's strict sound codes. The bare concrete was measured prior to testing and the FIIC rating was an unacceptable 41 dB. Excerpts of the official test report pertaining to the use of Stauf SMP-960 One-Step are enclosed.

Further questions about this unique product, the testing, and additional documentation may be obtained by contacting Mr. Wolfgang Stauf, President, at the phone number or e-mail listed below.

Toll-Free: 1-866-GLUE USA

1-901-820-0101

Telephone: 1-901-820-0007

Fax:

Sincerely,

Wolfgang Stauf, President STAUF USA, LLC

**Enclosure** 



Founder

Vito V. Cerami (1923-1987)

Executive Board

Victoria J. Cerami John D. Longman Stephen G. Lindsey

Partners

Alan M. Bjornsen Patricia M. Scanlon January 21, 2011

Ms. Amy Bloomberg A&D Specifiers Representative

New York, NY 10018

Ref: Colony Arcade Hotel

STC-IIC Test Report C&A Job #19282

Dear Ms. Bloomberg:

On Tuesday, January 11, 2011, we visited 63 West 38<sup>th</sup> Street to conduct acoustical testing of the existing floor structure at the Colony Arcade Hotel. We performed testing of the floor structure alone, as well as with a variety of floor underlayments. The following presents our findings.

## 1.0 ACOUSTICAL CRITERIA

In describing the acoustical performance of floor/ceiling assemblies with respect to airborne noise control, we refer to the Sound Transmission Class (STC) which is a single number rating of the noise reduction qualities of that construction. New York City building code requires a performance rating of STC-50 for floor/ceiling assemblies separating dwelling units. Note that STC refers to a laboratory rating, while Apparent Sound Transmission Class (ASTC) refers to a field measured rating.

Impact Insulation Class (IIC) refers to impact noise transmission. New York City building code requires a performance rating of IIC-50. Note that IIC refers to a laboratory rating, while Field Impact Insulation Class (FIIC) is a field measured rating.

New York City building code states that field tests cannot fail by more than five points for both airborne and impact noise ratings, thus the criteria are ASTC-45 and FIIC-45.

## 2.0 TEST PROCEDURES

We conducted two site visits on January 11 and January 21, 2011 to inspect existing conditions, to test existing performance of the concrete slab, and to test mockup installations of various underlayment materials. We performed our test of a typical slab between the 8<sup>th</sup> and 9<sup>th</sup> floors. A small amount of flanking was observed through piping penetrations in the slab, but testing was done remote from the penetrations.

To measure Sound Transmission Class (STC) broadband "pink" or "static" noise was played through a loudspeaker on the 9<sup>th</sup> floor, and the noise levels were measured in

## Cerami & Associates, Inc.



both the source room (9th floor) and the receiver room (8th floor) to determine the amount of sound energy that is lost through the slab.

For Impact Isolation Class (IIC), a mechanical tapping machine with a prescribed number and weight of impact hammers was placed on the  $9^{th}$  floor and turned on. The resulting noise on the  $8^{th}$  floor was measured to determine the assembly's ability to absorb impact.

## 3.0 EXISTING CONDITIONS AND TEST RESULTS

It is our understanding the slab thickness is approximately 8 in. thick on each of the 12 floors. The measured rating of the 9th floor concrete slab was ASTC-46. This meets the minimum requirement of ASTC-45. Attached Figure 1 presents a plot of this result.

Table 1 : FIIC Test Results (unglued)		
Test Assembly	FIIC	∆ (Increase over bare
		concrete)
Concrete	41	

Table 2 : FIIC Test Results (glued)		
Test Assembly	FIIC	∆ (Increase over bare concrete)
Concrete	41	
Concrete + Wood	46	+5

Note that during our testing, the floor slab was uneven, allowing small gaps between the wood, underlayments, and concrete in the unglued condition. We also observed residue from a previous adhesive on top of the concrete. Glue was applied while we were on site and only set for approximately 10 minutes before testing. Any of these factors may yield slightly different results than in the finished or ideal conditions.

As shown in Tables 1 and 2, all of the tested assemblies except the bare concrete meet the minimum requirement of FIIC-45. An increase in performance is shown when wood is applied to concrete with sound reducing glue SMP960:

This concludes the summary of our acoustical testing.

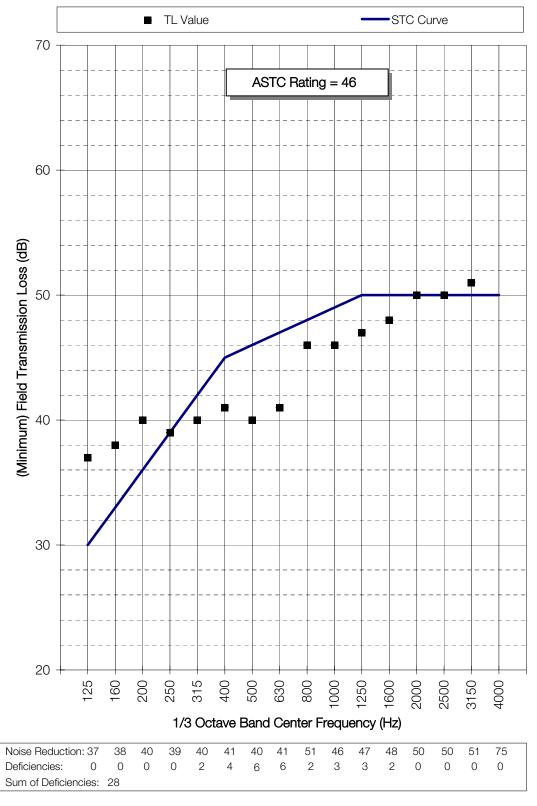
Best regards,

Kelly actor

Kelly Aston Associate



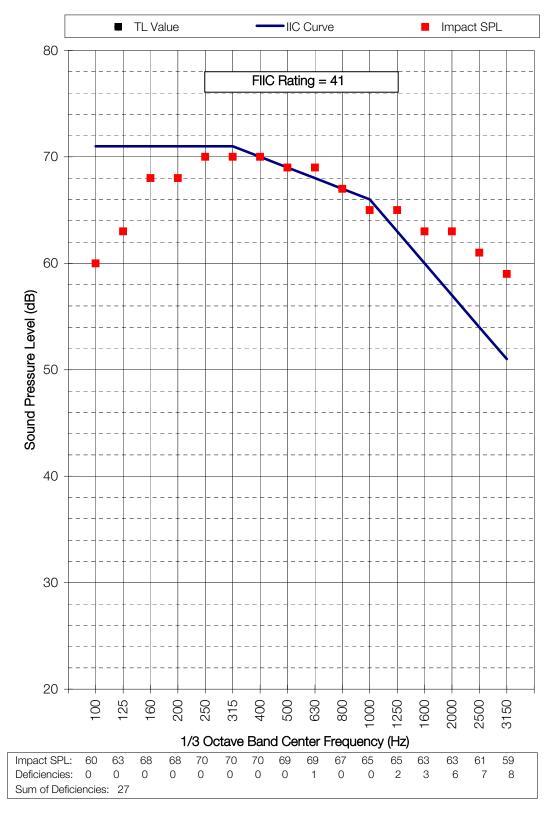
Figure 1: Measured (Minimum) ASTC at Colony Arcade Hotel 9th Floor Concrete Slab



Cerami & Associates, Inc. 1-ASTC.xls, ASTC Plot



Figure 2: Measured FIIC at Colony Arcade Hotel 9th Floor Concrete Slab





Cerami & Associates, Inc.

Figure 9: Measured FIIC at Colony Arcade Hotel 9th Floor Wood glued to Concrete

