



# WESTERN ELECTRO - ACOUSTIC LABORATORY

A division of Veneklasen Associates, Inc.

TESTING • CALIBRATION • RESEARCH

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## SOUND TRANSMISSION LOSS TEST REPORT NO. TL07-673

CLIENT: **Veneklasen Associates, Inc.**  
1711 16th Street  
Santa Monica, California 90404

Page 1 of 2  
12 December 2007

TEST DATE: 1 November 2007

### INTRODUCTION

The methods and procedures used for this test conform to the provisions and requirements of ASTM E 90-04, *Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions*. Copies of the test standard are available at [www.astm.org](http://www.astm.org). The test chamber source and receiving room volumes are 204 and 148.4 cubic meters respectively. Western Electro-Acoustic Laboratory is accredited by NVLAP (National Voluntary Laboratory Accreditation Program) Lab Code 100256-0 for this test procedure. NVLAP is part of the United States Department of Commerce, National Institute of Standards and Technology (NIST). This test report relates only to the item(s) tested. Any advertising that utilizes this test report or test data must not imply product certification or endorsement by WEAL, NVLAP, NIST or the U.S. Government.

### DESCRIPTION OF TEST SPECIMEN


The test specimen was a wall assembly constructed from wood studs, isolation clips, and type X gypsum board. In this report, all wood stud dimensions are nominal. The studs were 2 x 4 wood spaced at 16 inches (406 mm) O.C. with a single head and sill plate. The frame was isolated from the test opening with 1/4 inch (6.4 mm) neoprene pads. 3-1/2 inch (88.9 mm) fiberglass batts were installed in the stud spaces. On the receiving room side, one layer of 5/8 inch (15.9 mm) thick type X gypsum board was screwed to the studs using drywall screws at 8 inches (203 mm) O.C. around the perimeter and 12 inches (305 mm) O.C. in the field. The gypsum board was oriented vertically. On the source room side, Pliteq GenieClip RST clips were screwed directly to the studs using #8 x 9/16 inch (14.3 mm) needlepoint wafer head screws at a vertical spacing of 24 inches (610 mm) and a horizontal spacing of 48 inches (1.22 m) O.C. 2-1/2 inch (63.5 mm) by 7/8 inch (22.2 mm), 25 gauge drywall furring channels were installed into the RST clips. The center of the top channel was 3 inches (76.2 mm) below the top of the wall and the center of the bottom channel was 3 inches (76.2 mm) above the bottom of the wall. One layer of 5/8 inch (15.9 mm) thick type X gypsum board was screwed to the channels using drywall screws at 12 inches (305 mm) O.C. The gypsum board was oriented vertically. On both sides, the joints and perimeter were sealed with a bead of caulk and metal foil tape. All screw heads were covered with metal foil tape. The overall dimensions of the wall assembly were 96 inches (2.44 m) wide by 96 inches (2.44 m) high by 6-1/2 inches (165 mm) thick. The overall weight of the assembly was estimated to be 396 lbs (180 kg) for a calculated surface density of 6.19 lbs./ft<sup>2</sup> (30.2 kg/m<sup>2</sup>).


### RESULTS OF THE MEASUREMENTS

One-third octave band sound transmission loss values are plotted and tabulated on the attached sheet. ASTM minimum volume requirements are met at 80 Hz and above. The Sound Transmission Class rating determined in accordance with ASTM E 413-04 was STC-57.

Approved:

Respectfully submitted,  
Western Electro-Acoustic Laboratory

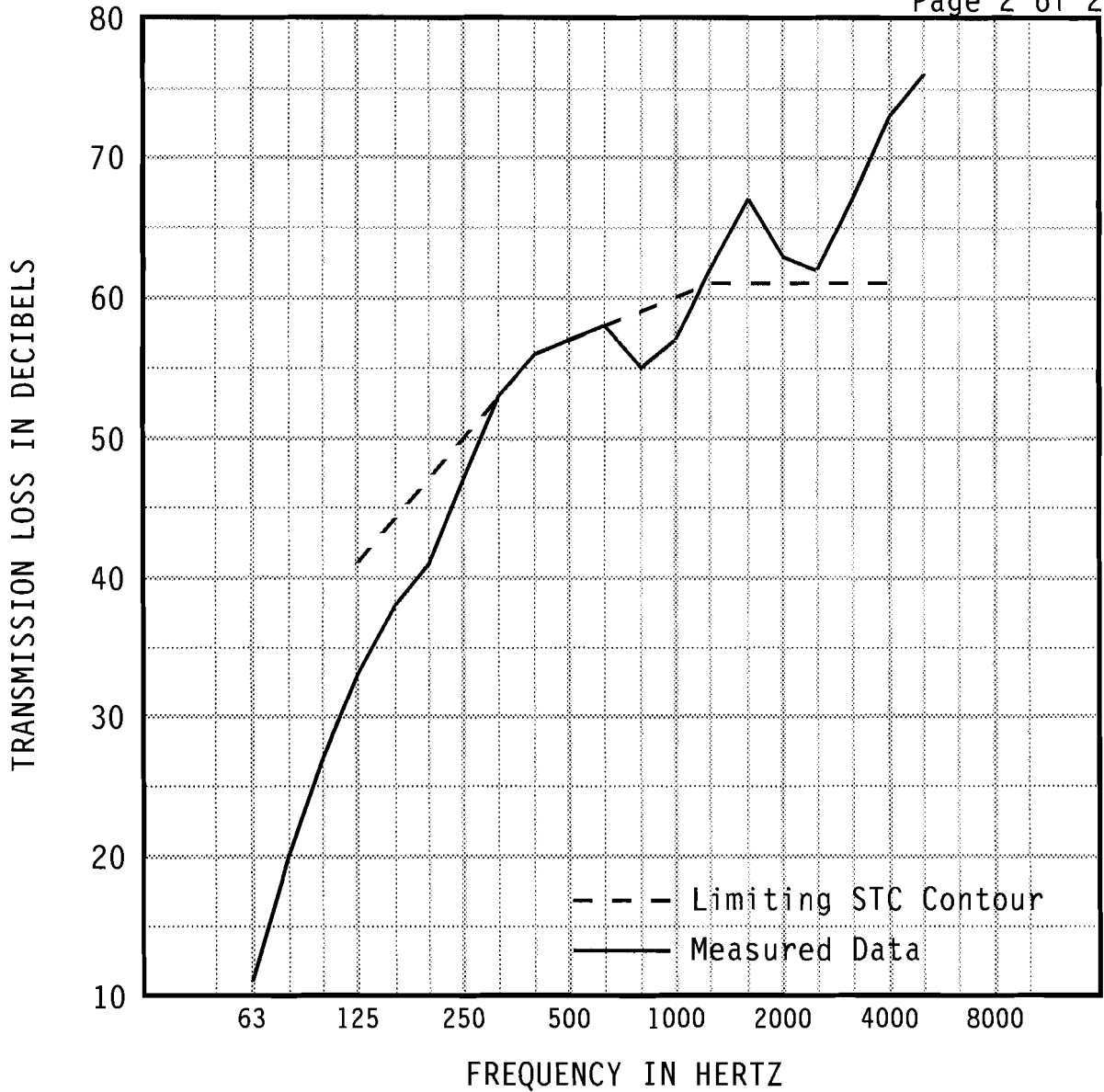
  
Gary E. Mange  
Laboratory Manager

  
Raul Martinez  
Acoustical Test Technician



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Report No. TL07-673



1/3 OCT BND CNTR FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB	11	20	27	33	38	41	47	53	56	57
95% Confidence in dB deficiencies	1.42	1.92	2.07	1.47	0.89	0.76	0.80	0.52	0.36	0.38
				(8)	(6)	(6)	(3)	(0)	(0)	(0)
1/3 OCT BND CNTR FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB	58	55	57	62	67	63	62	67	73	*76
95% Confidence in dB deficiencies	0.29	0.44	0.38	0.39	0.36	0.56	0.55	0.31	0.32	0.50
	(0)	(4)	(3)							

EWR 56	OITC 38	* Minimum estimate of transmission loss. Measurement limited by filler wall. Actual TL will be equal to or greater than value reported.	Specimen Area: 64 sq.ft. Temperature: 76.3 deg. F Relative Humidity: 34 % Test Date: 01 November 2007	STC 57 (30)
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