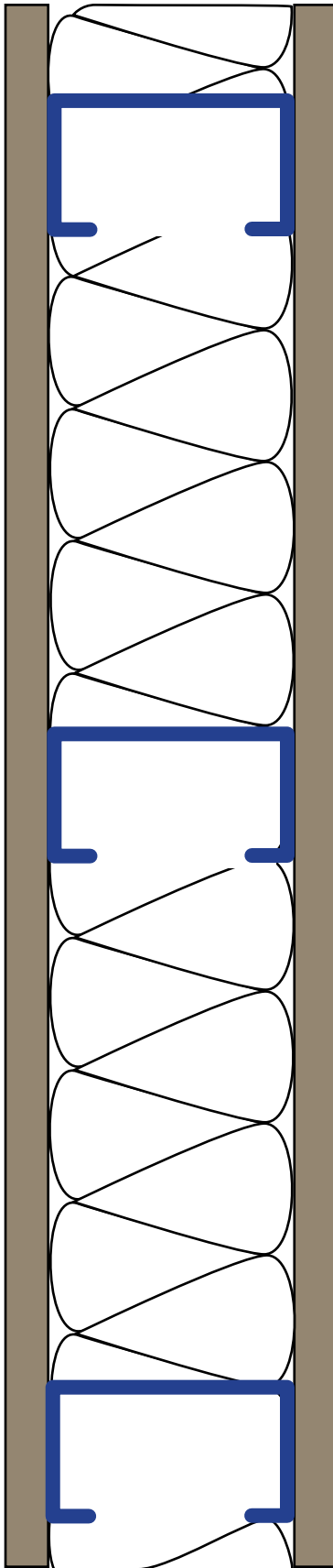


# 1/1 Layers - Wall Assembly



**2x4**

Sound Transmission Loss  
Test Report No. TL07-325

**STC - 40**

## **Construction** (Left to Right)

- 1 Layer 5/8" Gypsum Board
- 3 1/2" Batt Insulation
- 3 5/8" 20 Gauge Metal at 16" O.C.
- 1 Layer 5/8" Gypsum Board



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# WESTERN ELECTRO - ACOUSTIC LABORATORY

A division of Veneklasen Associates, Inc.

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## SOUND TRANSMISSION LOSS TEST REPORT NO. TL07-325

CLIENT: **Veneklasen Associates, Inc.**  
1711 16th Street  
Santa Monica, CA 90404  
TEST DATE: 14 May 2007

Page 1 of 2  
16 May 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 metal studs and type X gypsum board. The studs were 3-5/8 inch (92 mm) 20 gauge metal and were spaced horizontally at 16 inches (406 mm) O.C. The head and sill tracks were also 3-5/8 inch (92 mm) 20 gauge metal. The frame was isolated from the test opening with 1/4 inch (6.4 mm) neoprene pads. 3-1/2 inch (89 mm) thick R-13 fiberglass batts were installed in the stud space. On both sides, one layer of 5/8 inch (15.9 mm) thick type X gypsum board was screwed to the studs at 8 inches (203 mm) O.C. around the perimeter and 12 inches (305 mm) O.C. in the field. All gypsum board was oriented vertically. All joints and perimeters were sealed with a bead of caulking and metal foil tape. 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 4-7/8 inches (124 mm) thick. The overall weight of the assembly was estimated to be 354.5 lbs (161 kg) for a calculated surface density of 5.54 lbs./ft<sup>2</sup> (27.0 kg/m<sup>2</sup>).

### RESULTS OF THE MEASUREMENTS

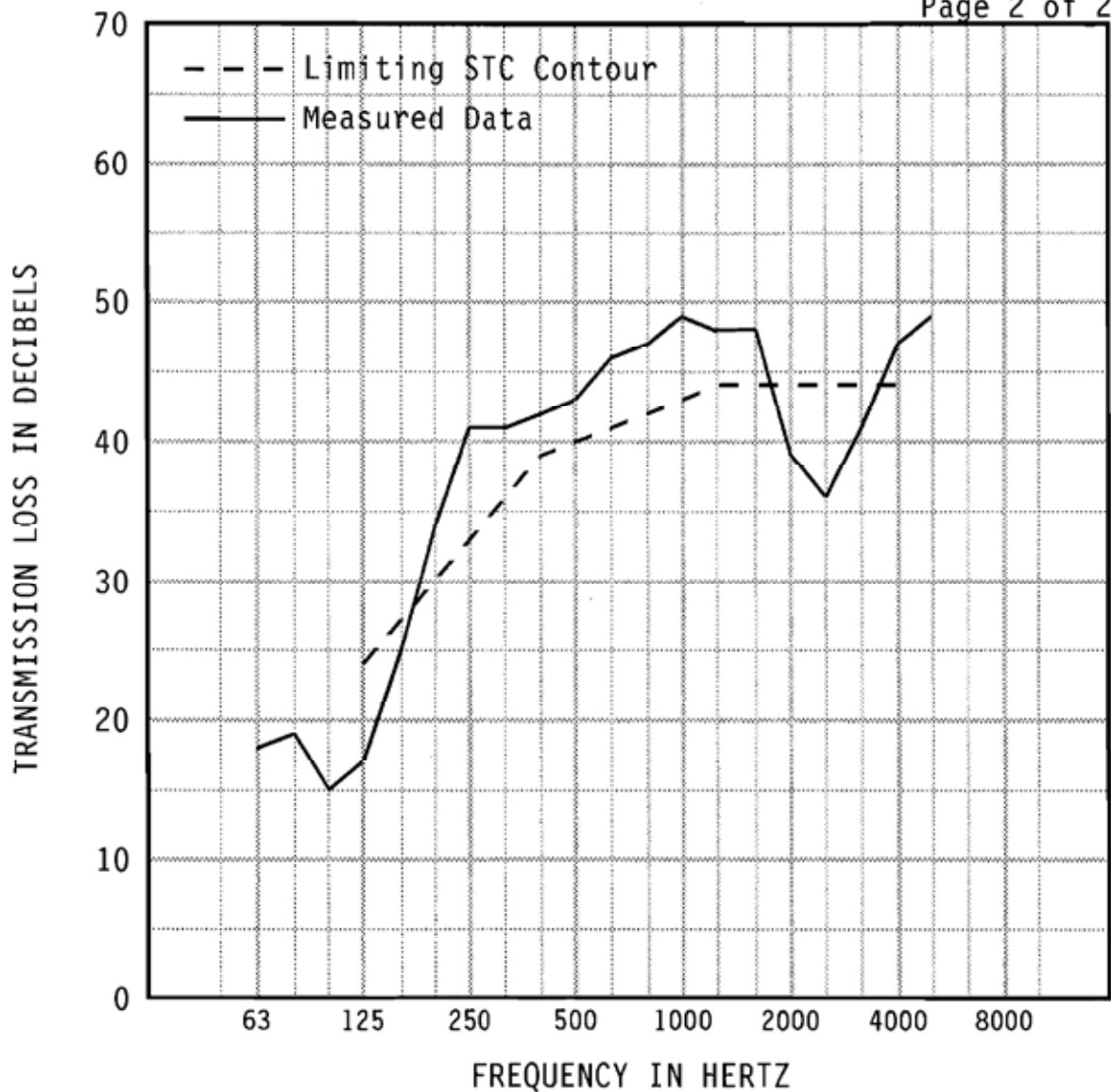
One-third octave band sound transmission loss values are plotted and tabulated on the attached sheet. ASTM minimum volume requirements are met at 80 Hz and above. The Sound Transmission Class rating determined in accordance with ASTM E 413-04 was STC-40.

Respectfully submitted,  
Western Electro-Acoustic Laboratory

  
Gary E. Mange  
Laboratory Director

# WESTERN ELECTRO-ACOUSTIC LABORATORY

Report No. TL07-325



1/3 OCT BND CNTR	FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB		18	19	15	17	25	34	41	41	42	43
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
					(7)	(2)					
1/3 OCT BND CNTR	FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB		46	47	49	48	48	39	36	41	47	49
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
							(5)	(8)	(3)		

EWR	OITC	Specimen Area: 64 sq.ft. Temperature: 72.1 deg. F Relative Humidity: 54 % Test Date: 14 May 2007	STC 40 (25)
43	28		

Report must be distributed in its entirety except with written authorization from Western Electro-Acoustic Laboratory



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