

RSIC-1 ACOUSTIC ASSEMBLY

WALL ASSEMBLY

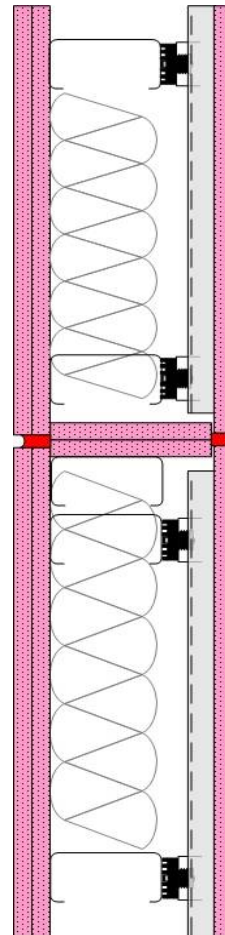
DIRECT FIX TO STEEL STUD



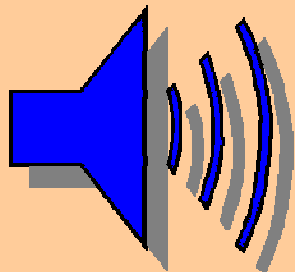
RSIC-V TSW 112107 TL07-643 STC 64

CONSTRUCTION

- * 2 layers 5/8" Firecode Gyp.
- * 3-5/8" Steel Stud at 24" oc
- * GFB Insulation nom. 6"
- * RSIC-1 @ 48" oc.
- * 7/8" Drywall Furrign Channel @ 24 oc
- * RSIC-1 Expansion Joint (GA Design)
- * 1 layer 5/8" Firecode Gyp.



WEAL Test 07-643 STC 64



STC 64

1 hour fire rating



UL U423, U419



SOUND TRANSMISSION LOSS TEST REPORT NO. TL07-643

CLIENT: **PAC International**
7310 Smoke Ranch Road Suite E
Las Vegas, NV 89128
TEST DATE: 16 October 2007

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29 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. 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 with an expansion control joint constructed from steel studs, isolation clips, and type "C" gypsum board. The studs were 3-5/8 inch (92 mm) 20 gauge metal and were spaced horizontally at 24 inches (610mm) 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. 6 inch (152 mm) unfaced fiberglass batts were installed in the stud spaces. A Gypsum Association "UL Expansion Control Joint" was installed in the middle of the test wall. The Expansion Control Joint consisted of two studs placed with a net clearance of two inches (50.8 mm) between flanges. Two layers of 5/8 inch (15.9 mm) thick Fire Code type "C" gypsum board were screwed to the web of one stud. The control joint gypsum board was cut 1/8 inch (3.2 mm) narrower than the total wall cavity width and did not contact the face gypsum board on either side of the wall cavity. On the receiving room side, two layers of 5/8 inch (15.9 mm) thick Fire Code type "C" gypsum board was screwed to the studs at 12 inches (305 mm) O.C. around the perimeter and in the field. The gypsum board was oriented vertically and a 1/2 inch (12.7 mm) gap was centered on the edges of the control joint gypsum board. The control joint was completely caulked with fire rated non-hardening caulking. On the source room side, RSIC-1 claws were screwed directly to the studs using #8 x 1-5/8 inch (41.3 mm) needlepoint wafer head screws at a vertical spacing of 24 inches (610 mm) and a horizontal spacing of 48 inches (1.22 mm) O.C. On each side of the expansion control joint, 2-1/2 inch (63.5 mm) by 7/8 inch (22.2 mm), 25 gauge drywall furring channels were installed into the RSIC-1 claws. One layer of 5/8 inch (15.9 mm) thick Fire Code type "C" gypsum board was screwed to the furring channels using 1-1/4 inch (31.8 mm) drywall screws at 12 inches (305 mm) O.C. The gypsum board was oriented vertically and a 1/2 inch (12.7 mm) gap was centered on the edges of the control joint gypsum board. The control joint was completely caulked with fire rated non-hardening caulking. 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 7-7/8 inches (200 mm) thick. The overall weight of the assembly was estimated to be 647 lbs (293.5 kg) for a calculated surface density of 10.1 lbs./ft² (49.3 kg/m²).

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RESULTS OF THE MEASUREMENTS

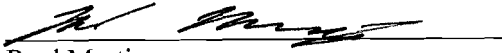
One-third octave band sound transmission loss values are plotted and tabulated on the attached sheet. ASTM minimum volume requirements are met at 80 Hz and above. The Sound Transmission Class rating determined in accordance with ASTM E 413-04 was STC-64.

Approved:



Gary E. Mange
Laboratory Manager

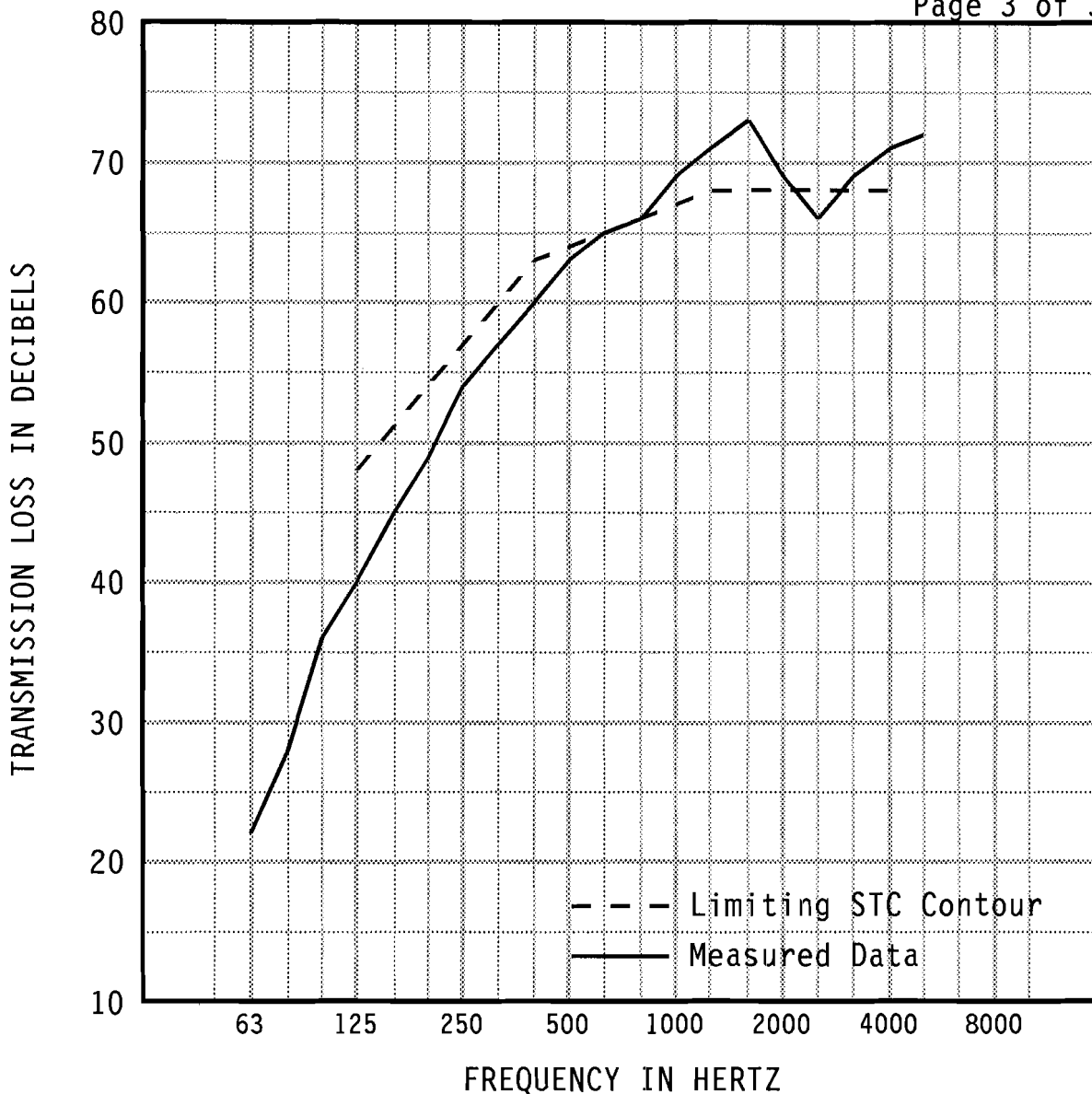
Respectfully submitted,
Western Electro-Acoustic Laboratory



Raul Martinez
Acoustical Test Technician

WESTERN ELECTRO-ACOUSTIC LABORATORY

Report No. TL07-643



1/3 OCT BND CNTR FREQ	63	80	100	125	160	200	250	315	400	500
TL in dB	22	28	36	40	45	49	*54	*57	*60	*63
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)	(5)	(3)	(3)	(3)	(1)
1/3 OCT BND CNTR FREQ	630	800	1000	1250	1600	2000	2500	3150	4000	5000
TL in dB	*65	*66	*69	*71	*73	69	66	69	71	72
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)	(0)					(2)			

EWR 63	OITC 46	* 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: 74.3 deg. F Relative Humidity: 47 % Test Date: 16 October 2007	STC 64 (31)
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