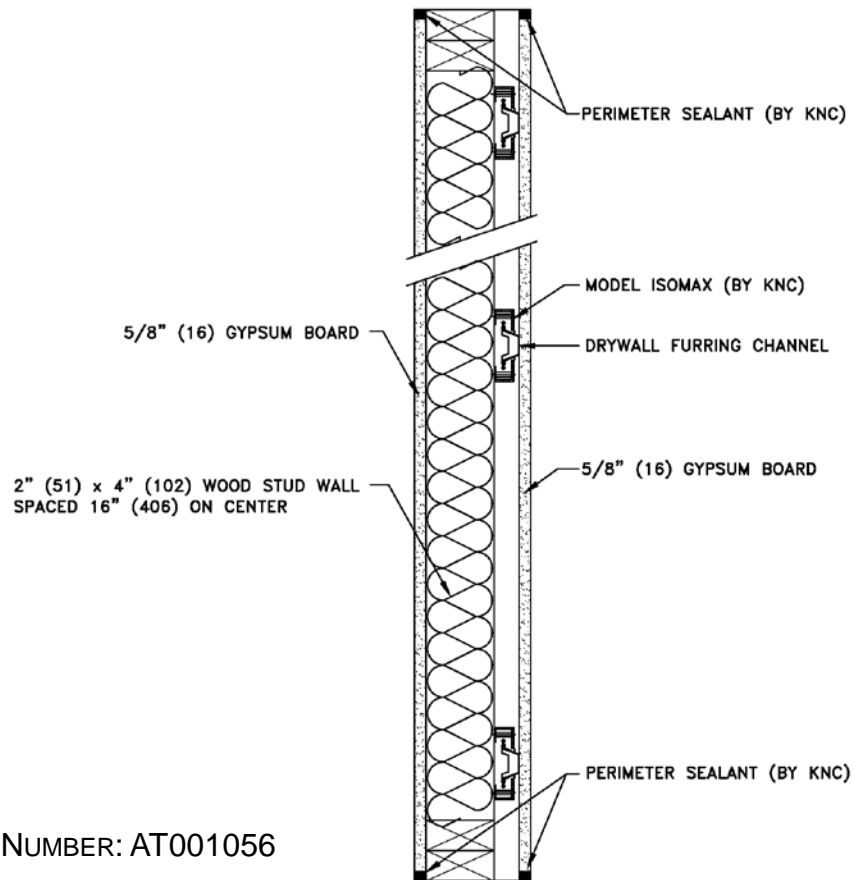


KINETICS NOISE CONTROL TEST REPORT #AT001056

- **KINETICS NOISE CONTROL PRODUCTS:**
 - ISOMAX CLIPS
- **ACOUSTICAL RATINGS:**
 - STC 57
- **TESTING AGENCY & REPORT NUMBER:**
 - RIVERBANK ACOUSTICAL LABORATORIES
 - RAL TL02-34



KINETICS DRAWING NUMBER: AT001056



6300 IRELAN PLACE, DUBLIN OH
PHONE: 800.959.1229
FAX: 614.889.0540
WEB: www.KINETICSNOISE.COM
EMAIL: ARCHSALES@KINETISNOISE.COM

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

FOR: Kinetics Noise Control

Sound Transmission Loss Test

RAL™-TL02-34

ON: Kinetics Wall Isolation Clip on
2 x 4 Timber Framing 16 Inches on Center
With Single Layer 5/8 Inch Gypsum Board Each Side

Page 1 of 4

CONDUCTED: 20 February 2002

TEST METHOD

Unless otherwise designated, the measurements reported below were made with all facilities and procedures in explicit conformity with the ASTM Designations E90-99 and E413-87, as well as other pertinent standards. Riverbank Acoustical Laboratories has been accredited by the U.S. Department of Commerce, National Institute of Standards and Technology (NIST) under the National Voluntary Laboratory Accreditation Program (NVLAP) for this test procedure. A description of the measuring technique is available separately.

DESCRIPTION OF THE SPECIMEN

The test specimen was designated by the client as Kinetics Wall Isolation Clips on 2 x 4 timber framing 16 inches on center with single layer 5/8 inch gypsum board each side. The overall dimensions of the specimen as measured were 4.27 m (168 in.) wide by 2.74 m (108 in.) high and 156 mm (6.125 in.) thick. The specimen was installed directly into the laboratory's 2.74 m (9 ft) by 4.27 m (14 ft) wood-lined steel frame and was sealed on the periphery (both sides) with a dense mastic.

The description of the specimen was as follows: The test specimen consisted of a two-by-four wood stud wall assembly with 159 mm (6.25 in.) thick R-19 fiberglass and a single layer of 16 mm (0.625 in.) Type X gypsum board on the receive side. Kinetics Wall Isolation Clips and hat track were used on the source side with a single layer of 16 mm (0.625 in.) Type X gypsum board. A more complete description follows.

Floor and Ceiling Plates: The two 89 mm (3.5 in.) wide by 38 mm (1.5 in.) thick and 4.27 m (168 in.) long SPF wood plates were attached to the top and bottom of the test frame with 16d nails on 610 mm (24 in.) centers.

Studs: The twelve 89 mm (3.5 in.) wide by 38 mm (1.5 in.) thick and 2.67 m (105 in.) long SPF wood studs and runners were spaced on 406 mm (16 in.) centers. The studs were attached to the frame with 8d nails.

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

Kinetics Noise Control

RAL™-TL02-34

20 February 2002

Page 2 of 4

Insulation: The cavities formed by the studs were friction fit with R-19 unfaced fiberglass insulation batts measuring 159 mm (6.25 in.) thick and 381 mm (15 in.) wide.

Kinetics Wall Isolation Clips and Hat Track: On the source side of the wall, Kinetics Wall Isolation Clips were attached to studs on 610 mm (24 in.) centers vertically and on 1.22 m (48 in.) centers horizontally. The bottom row of clips was installed 76 mm (3 in.) from the bottom of the test frame. Clips in subsequent rows were staggered 406 mm (16 in.) vertically from adjacent rows. All clips were attached to studs with two 51 mm (2 in.) long coarse thread drywall screws. A total of thirty clips were used. The hat track was 25 gauge roll-formed furring channel which measured 22 mm (0.875 in.) deep by 65 mm (2.56 in.) wide. Six rows of track were mounted to the clips and were overlapped 152 mm (6 in.) and double wire tied with 18 gauge tie wire as necessary.

Gypsum Wallboard: A single layer of 16 mm (0.625 in.) Type X gypsum board was applied vertically to the studs on the receive side of the wall. They were attached to the studs with 41 mm (1.625 in.) Type W bugle head drywall screws on 305 mm (12 in.) centers. A single layer of 16 mm (0.625 in.) Type X gypsum board was applied horizontally to the hat track on the source side of the wall. They were attached to the track with 25 mm (1 in.) Type S bugle head drywall screws on 305 mm (12 in.) centers. All joints were treated with an acoustical caulk in the joints and covered with aluminum faced tape. Screw heads were covered with tape.

The weight of the specimen as measured was 385.6 kg (851 lbs.), an average of 32.7 kg/m² (6.7 lbs/ft²). The transmission area used in the calculations was 11.7 m² (126 ft²). The source and receiving room temperatures at the time of the test were 22±1°C (71±1°F) and 58±2% relative humidity. The source and receive reverberation room volumes were 179m³ (6,298 ft³) and 177 m³ (6,255 ft³), respectively.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

Kinetics Noise Control

RAL™-TL02-34

20 February 2002

Page 3 of 4

TEST RESULTS

Sound transmission loss values are tabulated at the eighteen standard frequencies. A graphic presentation of the data and additional information appear on the following pages. The precision of the TL test data is within the limits set by the ASTM Standard E90-99.


| <u>FREQ.</u> | <u>T.L.</u> | <u>C.L.</u> | <u>DEF.</u> | <u>FREQ.</u> | <u>T.L.</u> | <u>C.L.</u> | <u>DEF.</u> |
|--------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|
| 100 | 29 | 0.26 | 0 | 800 | 61 | 0.35 | 0 |
| 125 | 33 | 0.24 | 8 | 1000 | 62 | 0.27 | 0 |
| 160 | 36 | 0.25 | 8 | 1250 | 63 | 0.22 | 0 |
| 200 | 42 | 0.28 | 5 | 1600 | 62 | 0.21 | 0 |
| 250 | 47 | 0.35 | 3 | 2000 | 58 | 0.20 | 3 |
| 315 | 53 | 0.38 | 0 | 2500 | 61 | 0.15 | 0 |
| 400 | 55 | 0.34 | 1 | 3150 | 65 | 0.13 | 0 |
| 500 | 57 | 0.33 | 0 | 4000 | 67 | 0.11 | 0 |
| 630 | 59 | 0.28 | 0 | 5000 | 70 | 0.11 | 0 |

STC=57

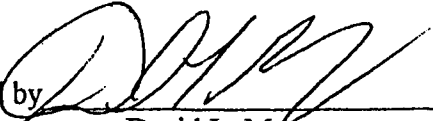
ABBREVIATION INDEX

FREQ. = FREQUENCY, HERTZ, (cps)
T.L. = TRANSMISSION LOSS, dB
C.L. = UNCERTAINTY IN dB, FOR A 95% CONFIDENCE LIMIT
DEF. = DEFICIENCIES, dB<STC CONTOUR
STC = SOUND TRANSMISSION CLASS

Tested by


Dean Victor
Senior Experimentalist

Approved by


David L. Moyer
Laboratory Manager

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.



ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.

RIVERBANK ACOUSTICAL LABORATORIES

1512 S. BATAVIA AVENUE
GENEVA, ILLINOIS 60134

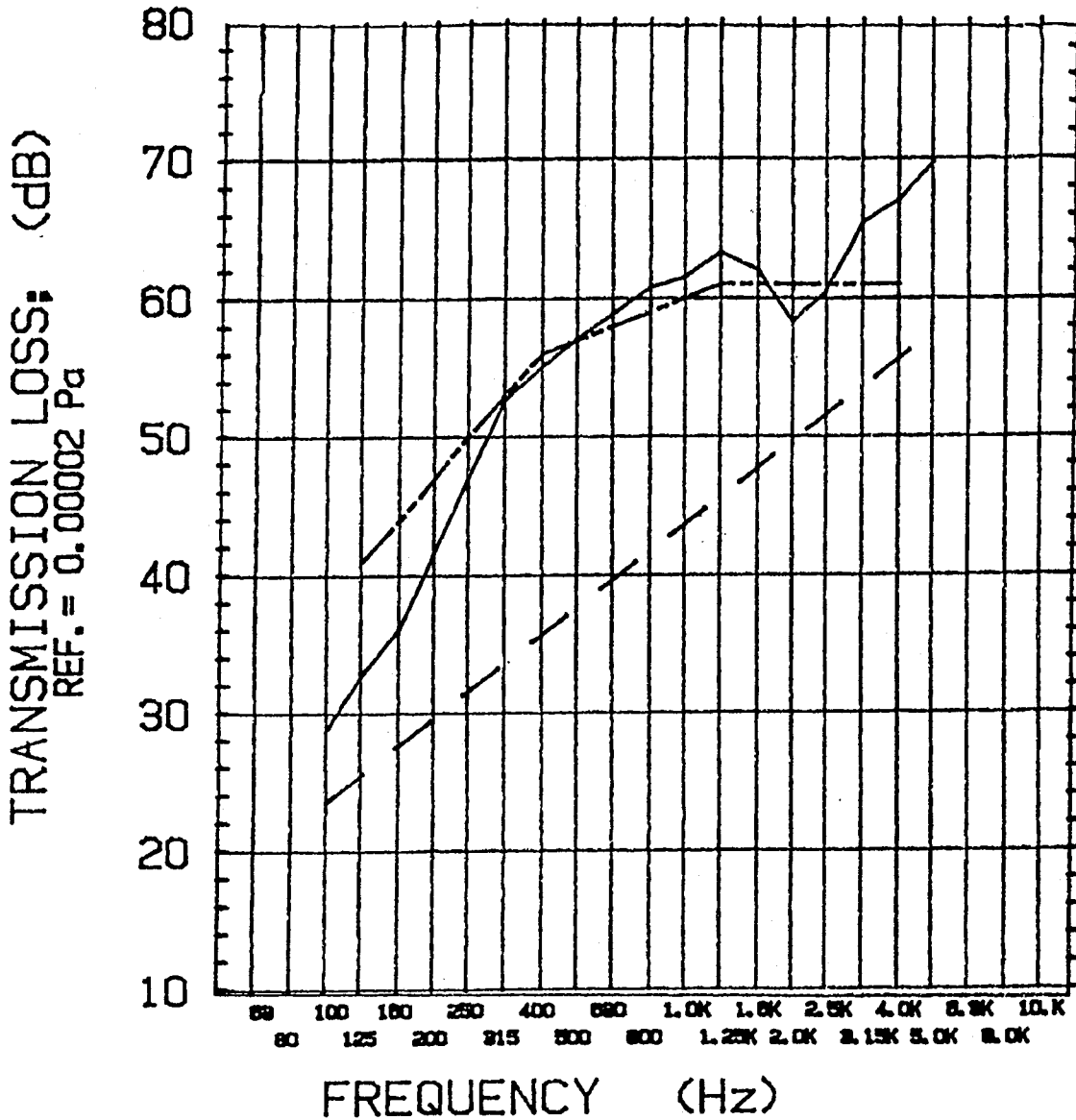
OF
IIT RESEARCH INSTITUTE

630/232-0104
FOUNDED 1918 BY
WALLACE CLEMENT SABINE

REPORT

TRANSMISSION LOSS REPORT RAL-TL02-34

PAGE 4 OF 4



- TRANSMISSION LOSS
- - - - SOUND TRANSMISSION CLASS CONTOUR
- . - . MASS LAW CONTOUR

THE RESULTS REPORTED ABOVE APPLY ONLY TO THE SPECIFIC SAMPLE SUBMITTED FOR MEASUREMENT. NO RESPONSIBILITY IS ASSUMED FOR PERFORMANCE OF ANY OTHER SPECIMEN.

NVLAQ

ACCREDITED BY DEPARTMENT OF COMMERCE, NATIONAL VOLUNTARY LABORATORY
ACCREDITATION PROGRAM FOR SELECTED TEST METHODS FOR ACOUSTICS.
THE LABORATORY'S ACCREDITATION OR ANY OF ITS TEST REPORTS IN NO WAY CONSTITUTES
OR IMPLIES PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NIST.