

## Field Sound Transmission Test Report

### Noise Isolation Class (NIC)

<b>Report Date:</b>	2024-04-15 00:00:00		
<b>Test Date:</b>	2024-04-04 00:00:00		
<b>DLAA Test No</b>	1.1.1	<b>Source Room:</b>	2nd Floor Great Room
<b>Test Site</b>	Gentry apts	<b>Receiver Room:</b>	1st Floor Great Room/Kitchen
<b>Client</b>	Gentry Builders	<b>Test Assembly:</b>	Floor-ceiling

### STANDARDS:

ASTM E336-16	Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings
ASTM E413-16	Standard Classification for Rating Sound Insulation
ASTM E2235-04(2012)	Standard Test Method for Determination of Decay Rates for Use in Sound Insulation Test Methods

### STATEMENT OF CONFORMANCE:

Testing was conducted in accordance with ASTM E336-20, ASTM E413-16, and ASTM E2235-04(2012), with exceptions noted below. All requirements for measuring and reporting Airborne Sound Attenuation between Rooms in Buildings (ATL) and Noise Isolation Class (NIC) were met.

### TEST ENVIRONMENT:

The source room was 2nd Floor Great Room. The space was finished, unfurnished. The floor was Carpet. The ceiling was gyp. The walls were gyp. All doors and windows were closed during the testing period. The source room had a volume of approximately 3,949 cu. ft.

The receiver room was 1st Floor Great Room/Kitchen. The space was finished unfurnished. The floor was LVT. The ceiling was gyp. The walls were gyp. All doors and windows were closed during the testing period. The source room had a volume of approximately 3,949 cu. ft.

The test assembly measured approximately 14.8x29.583, and had an area of approximately 428.0 sq. ft.

### TEST ASSEMBLY:

The tested assembly was the Floor-ceiling. The assembly was not field verified, and was based on information provided by the client and drawings for the project. The client advised that no slab treatment or self-leveling was applied. Results may vary if slab treatment or self-leveling or any adhesive is used in other installations.

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**Test Site** Gentry apts **Receiver Room:** 1st Floor Great Room/Kitchen  
**Client** Gentry Builders **Test Assembly:** Floor-ceiling

#### TEST PROCEDURE:

Determination of space-average sound pressure levels was performed via the manually scanned microphones technique, described in ASTM Test Procedure ASTM E336-16, Paragraph 11.4.3.3. The source room was selected in accordance with ASTM E336-11 Paragraph 9.2.5, which states that 'If a corridor must be used as one of the spaces for measurement of ATL or FTL, it shall be used as the source space.'

Flanking transmission was not evaluated.

To evaluate room absorption, 1 microphone was used to measure 4 decays at 4 locations around the receiving room for a total of 16 measurements, per AIIIC Test Procedure ASTM E1007-14

#### TEST INSTRUMENTATION:

Equipment Type	Manufacturer	Model Number	Serial Number	Last NIST Traceable Calibration	Last Local Calibration
Microphone Pre-Amp	Larson Davis	PRM831	046469	10/24/2022	4/4/2024
Microphone	Larson Davis	377B20	168830	10/20/2022	4/4/2024
Calibrator	Larson Davis	CAL200	5955	10/26/2022	N/A
Amplified Loudspeaker	QSC	K10	GAA530909	N/A	N/A
Noise Generator	NTi Audio	MR-PRO	0162	N/A	N/A

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**DLAA Test No** 1.1.1

**Source Room:** 2nd Floor Great Room

**Test Site** Gentry apts

**Receiver Room:** 1st Floor Great Room/Kitchen

**Client** Gentry Builders

**Test Assembly:** Floor-ceiling

#### STATEMENT OF TEST RESULTS:

Frequency (Hz)	L1, Average Source Room Level (dB)	L2, Average Corrected Receiver Room Level (dB)	Average Receiver Background Level (dB)	Noise Reduction, NR (dB)	
100	101.9	78.2	42.1	0.618	17.6
125	99.9	79.5	47.1	0.846	15.5
160	97.1	73.0	40.5	0.633	18.4
200	93.6	65.6	43.8	0.996	24.4
250	94.3	61.6	44.7	1.023	30.0
315	92.9	57.6	39.5	1.137	32.1
400	92.6	52.7	40.7	1.345	36.1
500	88.8	47.5	41.7	1.262	37.2
630	86.6	42.0	40.6	1.141	40.5
800	89.1	39.9	40.7	1.118	44.6
1000	86.6	33.7	34.8	1.287	49.3
1250	87.2	30.4	33.9	1.459	53.4
1600	83.7	28.2	32.3	1.518	53.2
2000	81.8	25.5	29.6	1.461	54.3
2500	84.4	22.1	26.4	1.393	60.3
3150	85.9	19.6	25.0	1.403	64.4
4000	86.7	17.7	25.0	1.388	67.3

**NIC: 39**

The Noise Isolation Class (NIC) of 39 was calculated. The NIC rating is based on Noise Reduction (NR), and includes the effects of noise flanking. The NIC reference contour is shown on the next page, and has been fit to the Noise Reduction values, in accordance with the procedure of ASTM Test Procedure ASTM E336-16. The results stated in this report represent only the specific construction and acoustical conditions present at the time of the test. Measurements performed in accordance with this test method on nominally identical constructions and acoustical conditions may produce different results.

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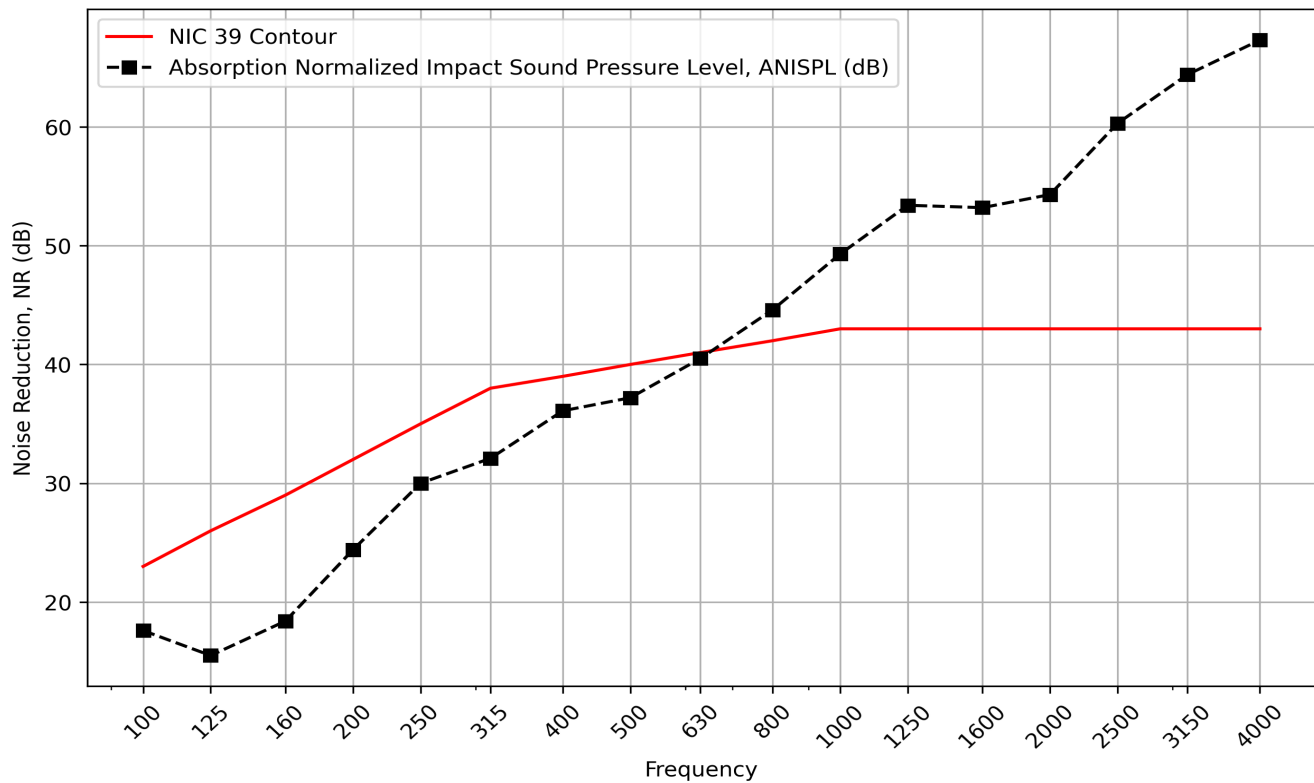
**Source Room:** 2nd Floor Great Room

**Test Site** Gentry apts

**Receiver Room:** 1st Floor Great Room/Kitchen

**Client** Gentry Builders

**Test Assembly:** Floor-ceiling



**NIC: 39**

Test Conducted By:

Jake Pfitsch, Project Consultant

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