

Field Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

Report Date:	2024-04-15 00:00:00	Source Room:	2nd Floor Bed 1
Test Date:	2024-04-04 00:00:00	Receiver Room:	1st Floor Bed 1
DLAA Test No	1.4.1	Test Assembly:	Floor-ceiling

STANDARDS:

ASTM E336-20	Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Building
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 Method

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 Apparent Sound Transmission Class (ASTC) were met.

TEST ENVIRONMENT:

The source room was 2nd Floor Bed 1. 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 1,176 cu. ft.

The receiver room was 1st Floor Bed 1. 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 receiver room had a volume of approximately 1,413 cu. ft.

The test assembly measured approximately 12.3x10.6, and had an area of approximately 130.4 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 PROCEDURE:

Determination of space-average sound pressure levels was performed via the manually scanned microphones technique, described in ASTC 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 ALC Test Procedure ASTM E1007-14

TEST INSTRUMENTATION:

Sound Level Meter	Larson Davis	831	4328	10/24/2022	4/4/2024
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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Test Assembly: Floor-ceiling

STATEMENT OF TEST RESULTS:

Frequency (Hz)	NR (dB)	Background (dB)	RT60 (s)	Sabines
125	22.3	38.6	0.663	104
160	23.9	34.0	0.573	121
200	30.1	38.4	0.864	80
250	34.5	34.2	1.590	44
315	37.7	25.8	1.169	59
400	37.0	23.5	1.316	53
500	38.0	23.8	1.474	47
630	42.5	21.1	1.338	52
800	46.1	19.2	1.216	57
1000	45.7	19.3	1.354	51
1250	53.7	16.5	1.504	46
1600	53.9	14.7	1.645	42
2000	54.4	11.9	1.571	44
2500	58.5	10.2	1.461	47
3150	64.0	9.4	1.258	55

The Apparent Sound Transmission Class (ASTC) of 45 was calculated. The ASTC rating is based on Apparent Transmission Loss (ATL), and includes the effects of noise flanking. The ASTC reference contour is shown on the next page, and has been "fit" to the Apparent Transmission Loss values, in accordance with the procedure of ASTC Test Procedure ASTM E336-16

*This test does fully conform to the requirements of ASTM E336-20, ASTM E413-16, and ASTM E2235-04(2012), with exceptions noted below.

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test_engineer
test_engineer_signature
test_date