

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIIC)

| | | | |
|---------------|----------------------|----------------|--|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Great Room, Volume: 3949 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3949 cu. ft. |
| DLAA Test No: | 1.1.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STANDARDS

| | |
|---------------------|---|
| ASTM E1007-14 | Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structure |
| ASTM E989-06(2012) | Standard Classification for Determination of Impact Insulation Class (IIC) |
| 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 general accordance with ASTM E1007-14, with all exceptions noted below. All requirements for measuring and reporting Absorption Normalized Impact Sound Pressure Level (ANISPL) and Apparent Impact Insulation Class (AIIIC) 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 3949 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 receiver room had a volume of approximately 3949 cu. ft.

The test assembly measured approximately 14.8x29.583, and had an approximate area of 428 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 Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3949 cu. ft. |
| DLAA Test No: | 1.1.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

TEST PROCEDURE:

The test was performed in general accordance with ASTM E1007-14. Determination of Space-Average Levels performed via the manually scanned microphones technique, described in ASTM E1007-14, Paragraph 11.4.2.2.

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 ASTM E2235-04(2012).

TEST INSTRUMENTATION:

| Equipment Type | Manufacturer | Model Number | Serial Number | Last NIST Traceable Calibration | Last Local Calibration |
|-----------------------|--------------|--------------|---------------|---------------------------------|------------------------|
| Tapping Machine: | Norsonics | CAL200 | 2775671 | 9/19/2022 | N/A |
| 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 |

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIC)

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|---------------|----------------------|----------------|--|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Great Room, Volume: 3949 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3949 cu. ft. |
| DLAA Test No: | 1.1.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STATEMENT OF TEST RESULTS:

| Frequency | Absorption Normalized Impact Sound Pressure Level, ANISPL (dB) | Average Receiver Background Level | Average RT60 (Seconds) | Exceptions noted to ASTM E1007-14 | |
|-----------|--|-----------------------------------|------------------------|-----------------------------------|---|
| 100 Hz | 54.0 | 35.4 | 0.62 | | |
| 125 Hz | 51.0 | 39.2 | 0.85 | | 2 |
| 160 Hz | 47.0 | 33.0 | 0.63 | | 2 |
| 200 Hz | 40.0 | 37.1 | 1.00 | 1 | 2 |
| 250 Hz | 44.0 | 34.4 | 1.02 | | 2 |
| 315 Hz | 48.0 | 33.7 | 1.14 | | 2 |
| 400 Hz | 40.0 | 33.3 | 1.34 | | 2 |
| 500 Hz | 33.0 | 32.5 | 1.26 | 1 | 2 |
| 630 Hz | 30.0 | 31.2 | 1.14 | 1 | 2 |
| 800 Hz | 29.0 | 30.6 | 1.12 | 1 | 2 |
| 1000 Hz | 27.0 | 29.6 | 1.29 | 1 | |
| 1250 Hz | 26.0 | 28.9 | 1.46 | 1 | |
| 1600 Hz | 26.0 | 28.5 | 1.52 | 1 | |
| 2000 Hz | 23.0 | 24.9 | 1.46 | 1 | |
| 2500 Hz | 20.0 | 20.6 | 1.39 | 1 | |
| 3150 Hz | 19.0 | 18.5 | 1.40 | 1 | |
| 4000 Hz | 18.0 | 17.6 | 1.39 | | |
| 5000 Hz | 17.0 | 15.1 | 1.32 | | |

*This test does not fully conform to the requirements of ASTM E1007-13, so the calculated AIIC rating should be considered a minimum.

Notes:

1. The signal-to-noise ratio is less < 5 dB at this frequency band.
2. Airborne sound flanking is within 10 dB of impact sound pressure measurements at this frequency band.

AIIC: 69

An Apparent Impact Insulation Class (AIIC) of 69 and an Impact Sound Rating (ISR) of 72 was calculated. The AIIC rating is based on Absorption Normalized Impact Sound Pressure Level (ANISPL), and includes the effects of noise flanking. The AIIC reference contour is shown on the next page, and has been "fit" to the ANISPL values, in accordance with the procedure of ASTM E989-06(2012).

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.

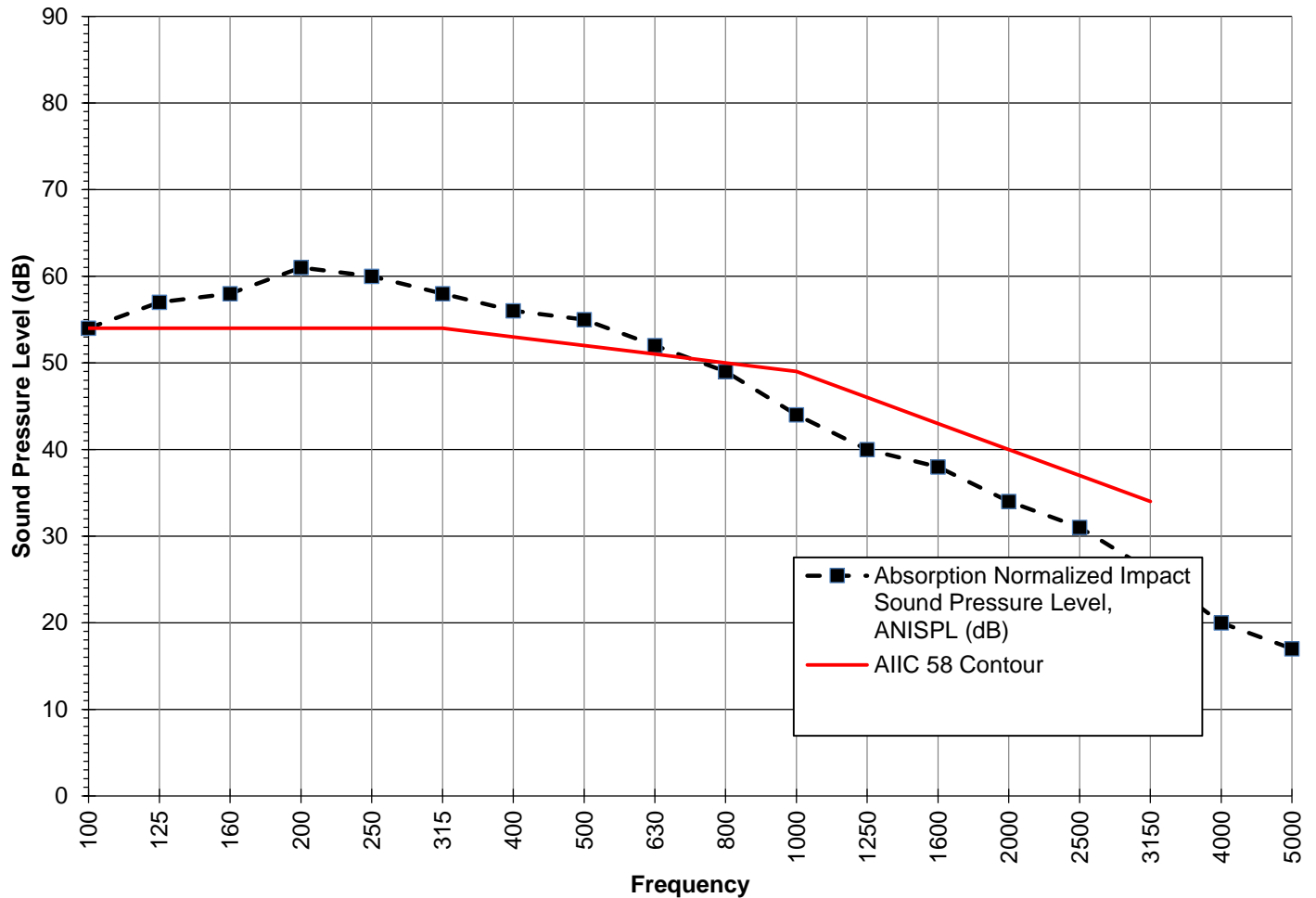
Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIC)

Report Date: April 05, 2024
Test Date: April 04, 2024
DLAA Test No: 1.1.1

Source Room: 2nd Floor Great Room, Volume: 3949 cu. ft.
Receiver Room: 1st Floor Great Room/Kitchen, Volume: 3949 cu. ft.
Test Assembly: Floor-ceiling, Area: 428 sq. ft.

Test Site: Ka'ulu by Gentry
Client: Gentry Builders, LLC



AIIC: 69

Test Conducted By:

Zane Wright, Project Consultant

Jake Pfitsch, Project Consultant

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIIC)

| | | | |
|---------------|----------------------|----------------|--|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Kitchen, Volume: 3949 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3949 cu. ft. |
| DLAA Test No: | 1.2.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STANDARDS

| | |
|---------------------|---|
| ASTM E1007-14 | Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structure |
| ASTM E989-06(2012) | Standard Classification for Determination of Impact Insulation Class (IIC) |
| 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 general accordance with ASTM E1007-14, with all exceptions noted below. All requirements for measuring and reporting Absorption Normalized Impact Sound Pressure Level (ANISPL) and Apparent Impact Insulation Class (AIIIC) were met.

TEST ENVIRONMENT:

The source room was 2nd Floor 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 3949 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 receiver room had a volume of approximately 3949 cu. ft.

The test assembly measured approximately 14.8x29.583, and had an approximate area of 428 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.

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIc)

| | | | |
|---------------|----------------|----------------|--|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Kitchen, Volume: 3949 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3949 cu. ft. |
| DLAA Test No: | 1.2.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

TEST PROCEDURE:

The test was performed in general accordance with ASTM E1007-14. Determination of Space-Average Levels performed via the manually scanned microphones technique, described in ASTM E1007-14, Paragraph 11.4.2.2.

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 ASTM E2235-04(2012).

TEST INSTRUMENTATION:

| Equipment Type | Manufacturer | Model Number | Serial Number | Last NIST Traceable Calibration | Last Local Calibration |
|-----------------------|--------------|--------------|---------------|---------------------------------|------------------------|
| Tapping Machine: | Norsonics | CAL200 | 2775671 | 9/19/2022 | N/A |
| 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 |

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIC)

| | | | |
|---------------|----------------|----------------|--|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Kitchen, Volume: 3949 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3949 cu. ft. |
| DLAA Test No: | 1.2.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

STATEMENT OF TEST RESULTS:

| Frequency | Absorption Normalized Impact Sound Pressure Level, ANISPL (dB) | Average Receiver Background Level | Average RT60 (Seconds) | Exceptions noted to ASTM E1007-14 |
|-----------|--|-----------------------------------|------------------------|-----------------------------------|
| 100 Hz | 82.0 | 35.4 | 0.62 | |
| 125 Hz | 83.0 | 39.2 | 0.85 | |
| 160 Hz | 79.0 | 33.0 | 0.63 | |
| 200 Hz | 76.0 | 37.1 | 1.00 | |
| 250 Hz | 77.0 | 34.4 | 1.02 | |
| 315 Hz | 74.0 | 33.7 | 1.14 | |
| 400 Hz | 69.0 | 33.3 | 1.34 | |
| 500 Hz | 63.0 | 32.5 | 1.26 | |
| 630 Hz | 56.0 | 31.2 | 1.14 | |
| 800 Hz | 50.0 | 30.6 | 1.12 | |
| 1000 Hz | 46.0 | 29.6 | 1.29 | |
| 1250 Hz | 47.0 | 28.9 | 1.46 | |
| 1600 Hz | 45.0 | 28.5 | 1.52 | |
| 2000 Hz | 45.0 | 24.9 | 1.46 | |
| 2500 Hz | 41.0 | 20.6 | 1.39 | |
| 3150 Hz | 38.0 | 18.5 | 1.40 | |
| 4000 Hz | 34.0 | 17.6 | 1.39 | |
| 5000 Hz | 31.0 | 15.1 | 1.32 | |

AIIC: 38

An Apparent Impact Insulation Class (AIIC) of 38 and an Impact Sound Rating (ISR) of 42 was calculated. The AIIC rating is based on Absorption Normalized Impact Sound Pressure Level (ANISPL), and includes the effects of noise flanking. The AIIC reference contour is shown on the next page, and has been "fit" to the ANISPL values, in accordance with the procedure of ASTM E989-06(2012).

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.

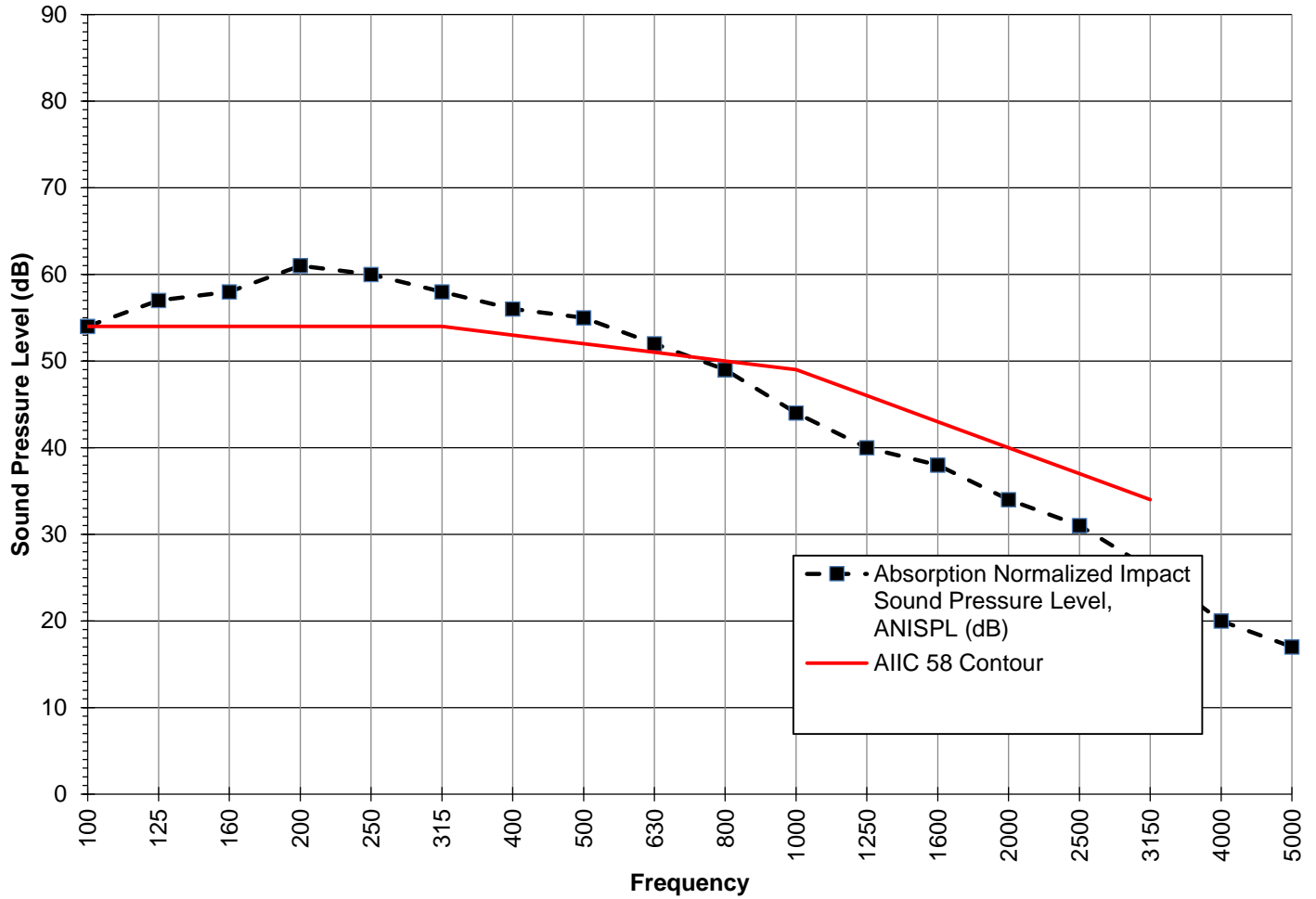
Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIC)

Report Date: April 05, 2024
Test Date: April 04, 2024
DLAA Test No: 1.2.1

Source Room: 2nd Floor Kitchen, Volume: 3949 cu. ft.
Receiver Room: 1st Floor Great Room/Kitchen, Volume: 3949 cu. ft.
Test Assembly: Floor-ceiling, Area: 428 sq. ft.

Test Site: Ka'ulu by Gentry
Client: Gentry Builders, LLC



AIIC: 38

Test Conducted By:

Zane Wright, Project Consultant

Jake Pfitsch, Project Consultant

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIc)

| | | | |
|---------------|----------------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 3, Volume: 796 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 2, Volume: 1413 cu. ft. |
| DLAA Test No: | 1.3.1 | Test Assembly: | Floor-ceiling, Area: 88 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STANDARDS

| | |
|---------------------|---|
| ASTM E1007-14 | Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structure |
| ASTM E989-06(2012) | Standard Classification for Determination of Impact Insulation Class (IIC) |
| 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 general accordance with ASTM E1007-14, with all exceptions noted below. All requirements for measuring and reporting Absorption Normalized Impact Sound Pressure Level (ANISPL) and Apparent Impact Insulation Class (AIIc) were met.

TEST ENVIRONMENT:

The source room was 2nd Floor Bed 3. 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 796 cu. ft.

The receiver room was 1st Floor Bed 2. 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 1413 cu. ft.

The test assembly measured approximately 9x9.8, and had an approximate area of 88 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.

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIc)

| | | | |
|---------------|----------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 3, Volume: 796 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 2, Volume: 1413 cu. ft. |
| DLAA Test No: | 1.3.1 | Test Assembly: | Floor-ceiling, Area: 88 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

TEST PROCEDURE:

The test was performed in general accordance with ASTM E1007-14. Determination of Space-Average Levels performed via the manually scanned microphones technique, described in ASTM E1007-14, Paragraph 11.4.2.2.

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 ASTM E2235-04(2012).

TEST INSTRUMENTATION:

| Equipment Type | Manufacturer | Model Number | Serial Number | Last NIST Traceable Calibration | Last Local Calibration |
|-----------------------|--------------|--------------|---------------|---------------------------------|------------------------|
| Tapping Machine: | Norsonics | CAL200 | 2775671 | 9/19/2022 | N/A |
| 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 |

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIC)

| | | | |
|---------------|----------------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 3, Volume: 796 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 2, Volume: 1413 cu. ft. |
| DLAA Test No: | 1.3.1 | Test Assembly: | Floor-ceiling, Area: 88 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STATEMENT OF TEST RESULTS:

| Frequency | Absorption Normalized Impact Sound Pressure Level, ANISPL (dB) | Average Receiver Background Level | Average RT60 (Seconds) | Exceptions noted to ASTM E1007-14 | |
|-----------|--|-----------------------------------|------------------------|-----------------------------------|---|
| 100 Hz | 50.0 | 31.9 | 0.63 | | |
| 125 Hz | 52.0 | 33.2 | 0.77 | | 2 |
| 160 Hz | 47.0 | 35.2 | 0.57 | | |
| 200 Hz | 45.0 | 36.9 | 0.75 | | |
| 250 Hz | 44.0 | 30.5 | 1.44 | | 2 |
| 315 Hz | 47.0 | 27.9 | 0.97 | | |
| 400 Hz | 39.0 | 23.0 | 1.08 | | 2 |
| 500 Hz | 34.0 | 21.1 | 1.16 | | 2 |
| 630 Hz | 29.0 | 20.7 | 1.06 | | 2 |
| 800 Hz | 26.0 | 19.8 | 1.00 | | 2 |
| 1000 Hz | 21.0 | 18.6 | 1.08 | | 2 |
| 1250 Hz | 20.0 | 16.2 | 1.21 | | 2 |
| 1600 Hz | 18.0 | 14.8 | 1.26 | | 2 |
| 2000 Hz | 16.0 | 11.0 | 1.23 | | 2 |
| 2500 Hz | 11.0 | 9.0 | 1.10 | | 2 |
| 3150 Hz | 9.0 | 8.4 | 1.00 | 1 | 2 |
| 4000 Hz | 11.0 | 11.2 | 1.05 | | |
| 5000 Hz | 9.0 | 9.8 | 1.01 | | |

*This test does not fully conform to the requirements of ASTM E1007-13, so the calculated AIIC rating should be considered a minimum.

Notes:

1. The signal-to-noise ratio is less < 5 dB at this frequency band.
2. Airborne sound flanking is within 10 dB of impact sound pressure measurements at this frequency band.

AIIC: 69

An Apparent Impact Insulation Class (AIIC) of 69 and an Impact Sound Rating (ISR) of 69 was calculated. The AIIC rating is based on Absorption Normalized Impact Sound Pressure Level (ANISPL), and includes the effects of noise flanking. The AIIC reference contour is shown on the next page, and has been "fit" to the ANISPL values, in accordance with the procedure of ASTM E989-06(2012).

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.

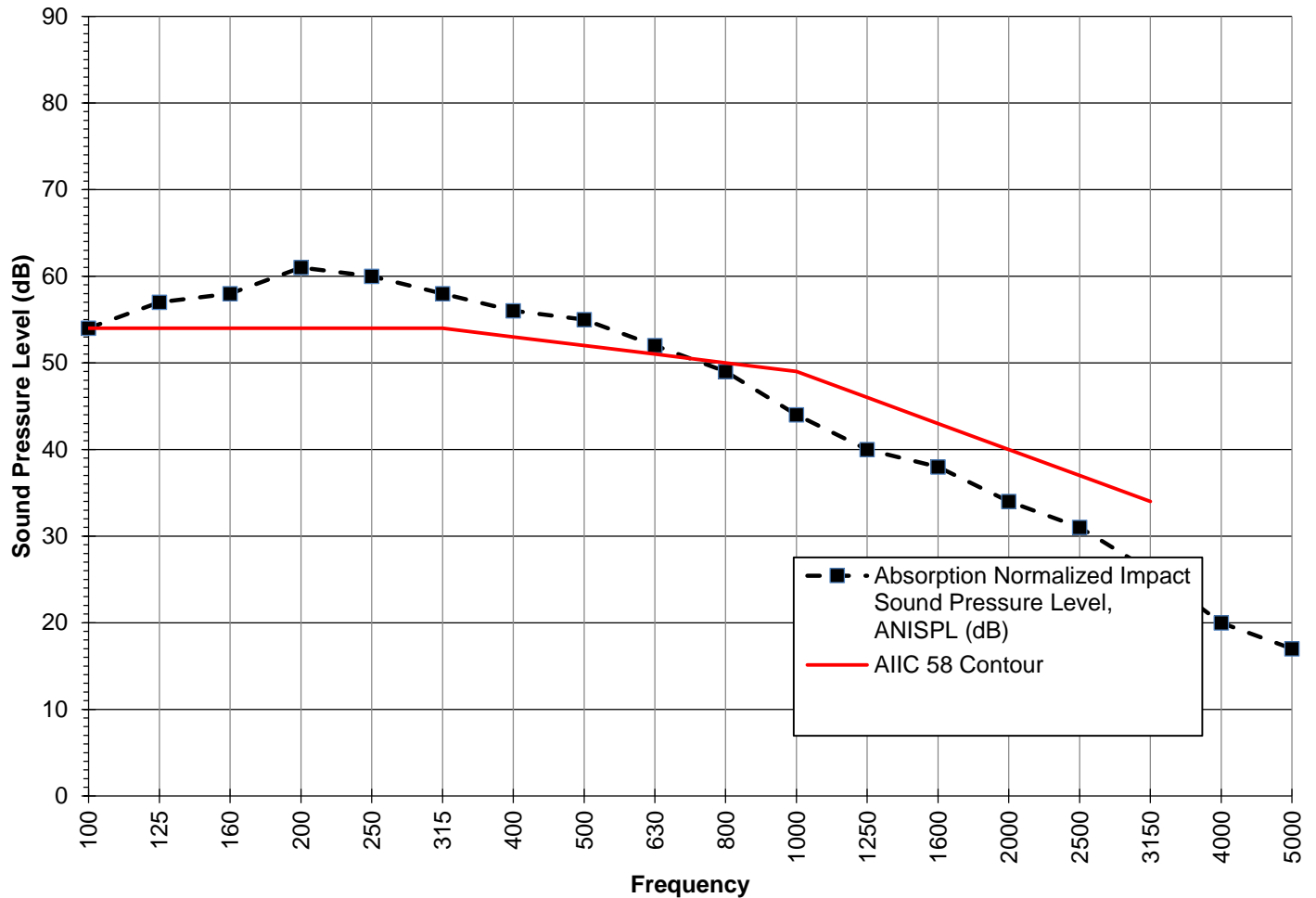
Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIC)

Report Date: April 05, 2024
Test Date: April 04, 2024
DLAA Test No: 1.3.1

Source Room: 2nd Floor Bed 3, Volume: 796 cu. ft.
Receiver Room: 1st Floor Bed 2, Volume: 1413 cu. ft.
Test Assembly: Floor-ceiling, Area: 88 sq. ft.

Test Site: Ka'ulu by Gentry
Client: Gentry Builders, LLC



AIIC: 69

Test Conducted By:

Zane Wright, Project Consultant

Jake Pfitsch, Project Consultant

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIc)

| | | | |
|---------------|----------------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 1, Volume: 1176 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 1, Volume: 1413 cu. ft. |
| DLAA Test No: | 1.4.1 | Test Assembly: | Floor-ceiling, Area: 130 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STANDARDS

| | |
|---------------------|---|
| ASTM E1007-14 | Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structure |
| ASTM E989-06(2012) | Standard Classification for Determination of Impact Insulation Class (IIC) |
| 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 general accordance with ASTM E1007-14, with all exceptions noted below. All requirements for measuring and reporting Absorption Normalized Impact Sound Pressure Level (ANISPL) and Apparent Impact Insulation Class (AIIc) 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 1176 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 1413 cu. ft.

The test assembly measured approximately 12.3x10.6, and had an approximate area of 130 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.

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIIC)

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|---------------|----------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 1, Volume: 1176 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 1, Volume: 1413 cu. ft. |
| DLAA Test No: | 1.4.1 | Test Assembly: | Floor-ceiling, Area: 130 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

TEST PROCEDURE:

The test was performed in general accordance with ASTM E1007-14. Determination of Space-Average Levels performed via the manually scanned microphones technique, described in ASTM E1007-14, Paragraph 11.4.2.2.

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 ASTM E2235-04(2012).

TEST INSTRUMENTATION:

| Equipment Type | Manufacturer | Model Number | Serial Number | Last NIST Traceable Calibration | Last Local Calibration |
|-----------------------|--------------|--------------|---------------|---------------------------------|------------------------|
| Tapping Machine: | Norsonics | CAL200 | 2775671 | 9/19/2022 | N/A |
| 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 |

Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIC)

| | | | |
|---------------|----------------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 1, Volume: 1176 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 1, Volume: 1413 cu. ft. |
| DLAA Test No: | 1.4.1 | Test Assembly: | Floor-ceiling, Area: 130 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STATEMENT OF TEST RESULTS:

| Frequency | Absorption Normalized Impact Sound Pressure Level, ANISPL (dB) | Average Receiver Background Level | Average RT60 (Seconds) | Exceptions noted to ASTM E1007-14 | |
|-----------|--|-----------------------------------|------------------------|-----------------------------------|---|
| 100 Hz | 57.0 | 39.7 | 0.73 | | |
| 125 Hz | 49.0 | 38.6 | 0.66 | | |
| 160 Hz | 47.0 | 34.0 | 0.57 | | |
| 200 Hz | 41.0 | 38.4 | 0.86 | | |
| 250 Hz | 39.0 | 34.2 | 1.59 | | 2 |
| 315 Hz | 44.0 | 25.8 | 1.17 | | |
| 400 Hz | 38.0 | 23.5 | 1.32 | | 2 |
| 500 Hz | 32.0 | 23.8 | 1.47 | | 2 |
| 630 Hz | 26.0 | 21.1 | 1.34 | | 2 |
| 800 Hz | 23.0 | 19.2 | 1.22 | | 2 |
| 1000 Hz | 18.0 | 19.3 | 1.35 | 1 | 2 |
| 1250 Hz | 17.0 | 16.5 | 1.50 | | 2 |
| 1600 Hz | 16.0 | 14.7 | 1.64 | | 2 |
| 2000 Hz | 16.0 | 11.9 | 1.57 | | 2 |
| 2500 Hz | 16.0 | 10.2 | 1.46 | | |
| 3150 Hz | 14.0 | 9.4 | 1.26 | | |
| 4000 Hz | 10.0 | 11.9 | 1.33 | | |
| 5000 Hz | 9.0 | 10.6 | 1.36 | | |

*This test does not fully conform to the requirements of ASTM E1007-13, so the calculated AIIC rating should be considered a minimum.

Notes:

1. The signal-to-noise ratio is less < 5 dB at this frequency band.
2. Airborne sound flanking is within 10 dB of impact sound pressure measurements at this frequency band.

AIIC: 70

An Apparent Impact Insulation Class (AIIC) of 70 and an Impact Sound Rating (ISR) of 70 was calculated. The AIIC rating is based on Absorption Normalized Impact Sound Pressure Level (ANISPL), and includes the effects of noise flanking. The AIIC reference contour is shown on the next page, and has been "fit" to the ANISPL values, in accordance with the procedure of ASTM E989-06(2012).

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.

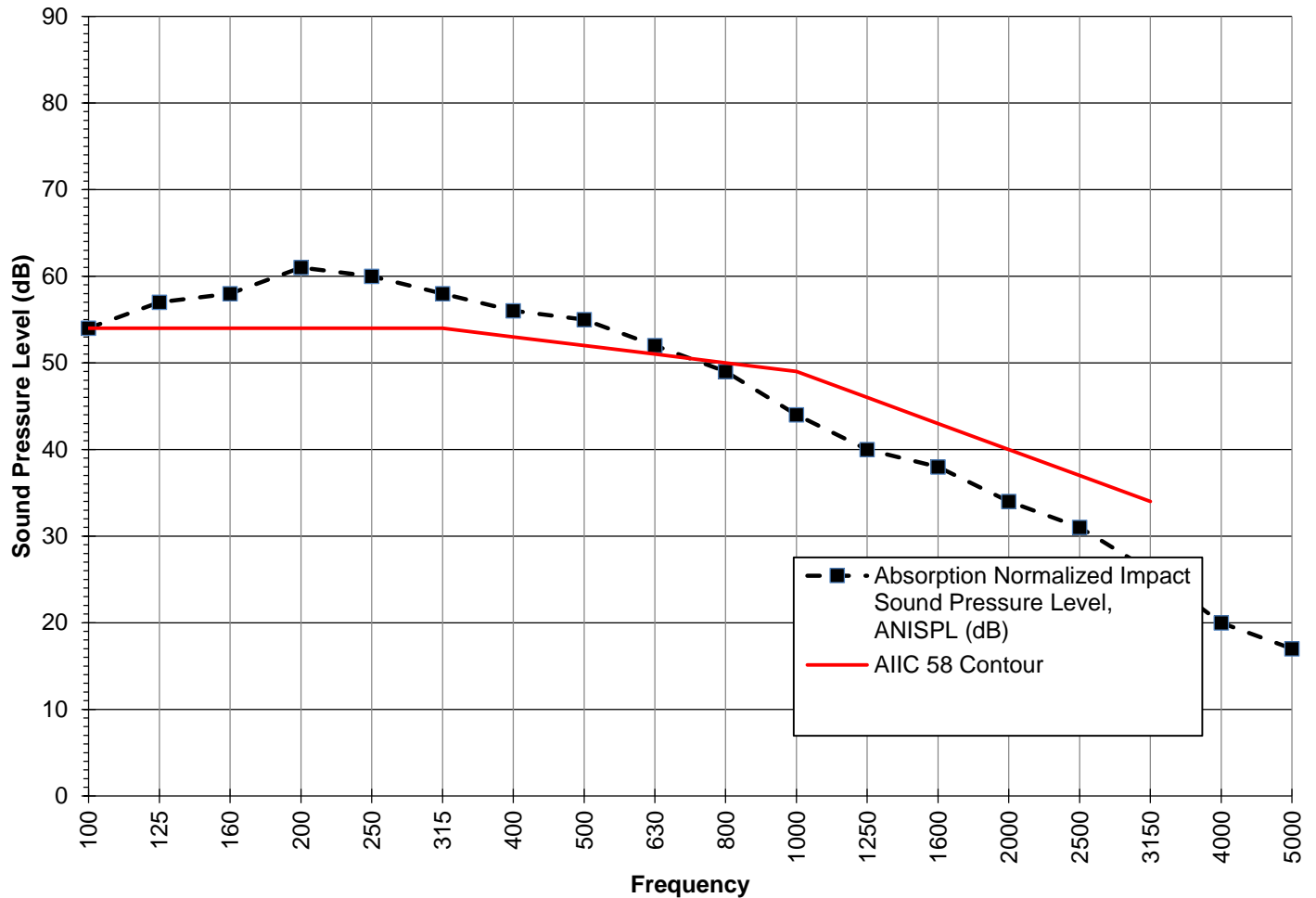
Field Impact Sound Transmission Test Report

Apparent Impact Insulation Class (AIIC)

Report Date: April 05, 2024
Test Date: April 04, 2024
DLAA Test No: 1.4.1

Source Room: 2nd Floor Bed 1, Volume: 1176 cu. ft.
Receiver Room: 1st Floor Bed 1, Volume: 1413 cu. ft.
Test Assembly: Floor-ceiling, Area: 130 sq. ft.

Test Site: Ka'ulu by Gentry
Client: Gentry Builders, LLC



AIIC: 70

Test Conducted By:

Zane Wright, Project Consultant

Jake Pfitsch, Project Consultant

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------------|----------------|---|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Great Room, Volume: 3950 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3950 cu |
| DLAA Test No: | 1.1.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STANDARDS

| | |
|---------------------|--|
| ASTM E336-16 | Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings |
| ASTM E413-16 | 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 general accordance with ASTM E336-16, with all exceptions noted below. All requirements for measuring and reporting Apparent Transmission Loss (ATL) and Apparent Sound Transmission Class (ASTC) were met.

The procedures of ASTM E336-16 Annex were not used.

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 3950 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 receiver room had a volume of approximately 3950 cu. ft.

The test assembly measured approximately 14.8x29.583, and had an approximate area of 428 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.

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------------|----------------|---|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Great Room, Volume: 3950 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3950 cu |
| DLAA Test No: | 1.1.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

TEST PROCEDURE:

Determination of space-average sound pressure levels was performed via the manually scanned microphones technique, described in ASTM E336-16, Paragraph 11.4.3.3.

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 ASTM E2235-04(2012).

TEST INSTRUMENTATION:

| Equipment Type | Manufacturer | Model Number | Serial Number | Last NIST Traceable Calibration | Last Local Calibration |
|--------------------------------|--------------|--------------|---------------|---------------------------------|------------------------|
| Sound Level Meter 1 | Larson Davis | 831 | 3784 | 9/19/2022 | Apr 2024 |
| Microphone Pre-Amp: | Larson Davis | PRM831 | 051188 | 9/19/2022 | Apr 2024 |
| Microphone: | Larson Davis | 377B20 | 301698 | 9/16/2022 | Apr 2024 |
| Calibrator: | Larson Davis | CAL200 | 2775671 | 9/19/2022 | N/A |
| Sound Level Meter 2 | Larson Davis | 831 | 4328 | 10/24/2022 | Apr 2024 |
| Microphone Pre-Amp: | Larson Davis | PRM831 | 046469 | 10/24/2022 | Apr 2024 |
| Microphone: | Larson Davis | 377B20 | 168830 | 10/20/2022 | Apr 2024 |
| Calibrator: | Larson Davis | CAL200 | 5955 | 10/26/2022 | N/A |
| Amplified Loudspeakers (QTY 2) | QSC | K10 | GAA530909 | N/A | N/A |
| Noise Generator: | NTi Audio | MR-PRO | 0162 | N/A | N/A |

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------|----------------|---|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Great Room, Volume: 3950 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3950 cu |
| DLAA Test No: | 1.1.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

STATEMENT OF TEST RESULTS:

| Frequency | L1, Average Source Room Level (dB) | L2, Average Corrected Receiver Room Level (dB) | Average Receiver Background Level (dB) | Average RT60 (Seconds) | Noise Reduction, NR (dB) | Apparent Transmission Loss, ATL (dB) | Exceptions noted to ASTM E336-16 |
|-----------|------------------------------------|--|--|------------------------|--------------------------|--------------------------------------|----------------------------------|
| 100 Hz | 95.8 | 78.2 | 35.4 | 0.62 | 17.6 | 19.0 | |
| 125 Hz | 95.0 | 79.5 | 39.2 | 0.85 | 15.5 | 18.2 | |
| 160 Hz | 91.4 | 73.0 | 33.0 | 0.63 | 18.4 | 19.9 | |
| 200 Hz | 90.0 | 65.6 | 37.1 | 1.00 | 24.4 | 27.8 | |
| 250 Hz | 91.6 | 61.6 | 34.4 | 1.02 | 30.0 | 33.5 | |
| 315 Hz | 89.7 | 57.6 | 33.7 | 1.14 | 32.1 | 36.1 | |
| 400 Hz | 88.8 | 52.7 | 33.3 | 1.34 | 36.1 | 40.8 | |
| 500 Hz | 84.7 | 47.5 | 32.5 | 1.26 | 37.2 | 41.7 | |
| 630 Hz | 82.5 | 42.0 | 31.2 | 1.14 | 40.5 | 44.5 | |
| 800 Hz | 84.5 | 39.9 | 30.6 | 1.12 | 44.6 | 48.5 | |
| 1000 Hz | 83.0 | 33.7 | 29.6 | 1.29 | 49.3 | 53.9 | |
| 1250 Hz | 83.8 | 30.4 | 28.9 | 1.46 | 53.4 | 58.5 | |
| 1600 Hz | 81.4 | 28.2 | 28.5 | 1.52 | 53.2 | 58.5 | |
| 2000 Hz | 79.8 | 25.5 | 24.9 | 1.46 | 54.3 | 59.4 | |
| 2500 Hz | 82.4 | 22.1 | 20.6 | 1.39 | 60.3 | 65.2 | |
| 3150 Hz | 84.0 | 19.6 | 18.5 | 1.40 | 64.4 | 69.3 | |
| 4000 Hz | 85.0 | 17.7 | 17.6 | 1.39 | 67.3 | 72.2 | |
| 5000 Hz | 84.3 | 16.1 | 15.1 | 1.32 | 68.2 | 72.8 | |

ASTC: 41

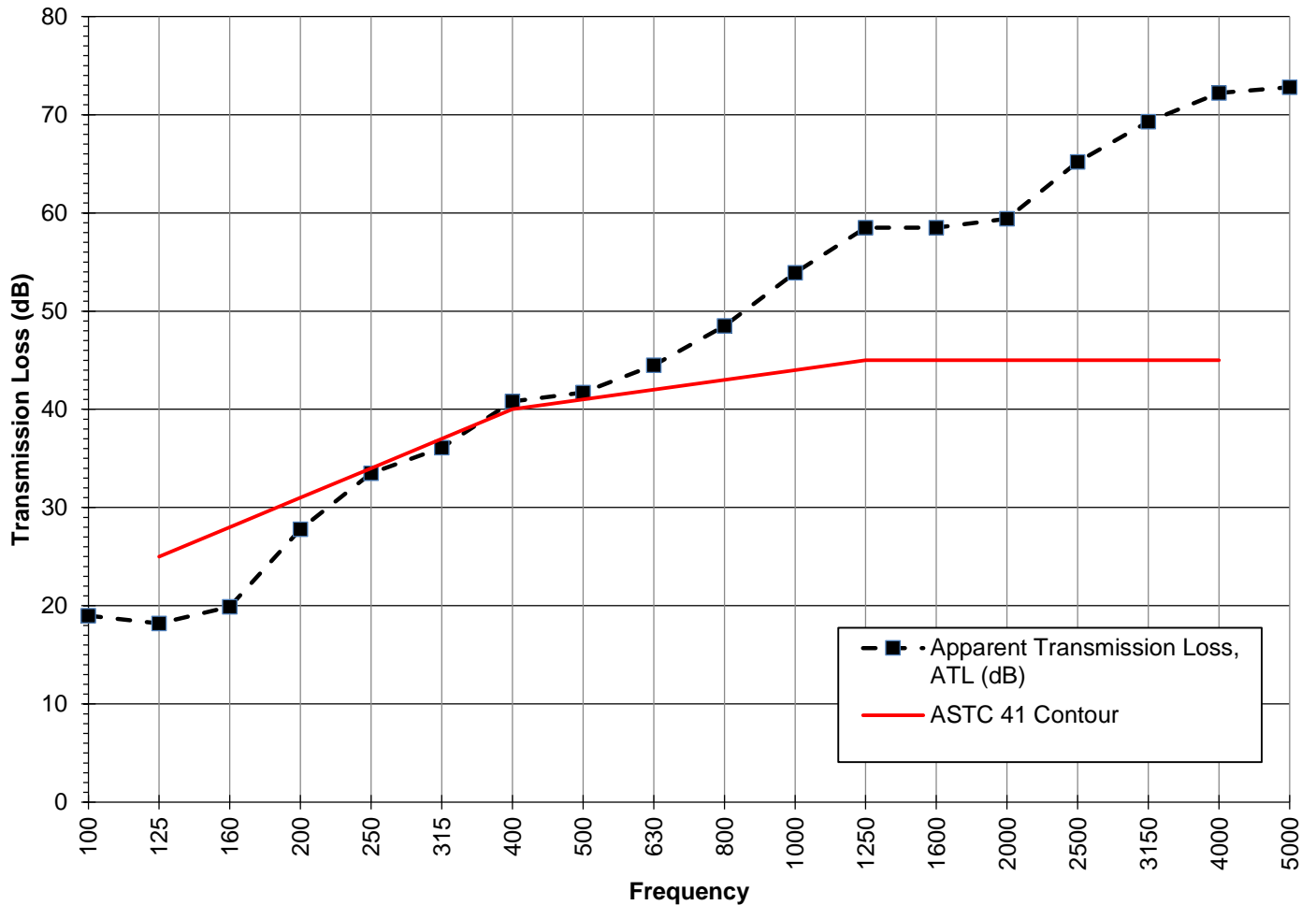
An Apparent Sound Transmission Class (ASTC) of 41, and a Noise Isolation Class (NIC) of 39 was calculated. The NIC rating is based on Noise Reduction (NR), and includes the effects of noise flanking. The NIC reference contour is shown on the next page, and has been "fit" to the Apparent Transmission Loss values, in accordance with the procedure of ASTM E413-16.

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.

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------------|----------------|---|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Great Room, Volume: 3950 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3950 cu |
| DLAA Test No: | 1.1.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |



ASTC: 41

Test Conducted By:

Zane Wright, Project Consultant

Jake Pfitsch, Project Consultant

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------------|----------------|---|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Kitchen, Volume: 3950 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3950 cu |
| DLAA Test No: | 1.2.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STANDARDS

| | |
|---------------------|--|
| ASTM E336-16 | Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings |
| ASTM E413-16 | 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 general accordance with ASTM E336-16, with all exceptions noted below. All requirements for measuring and reporting Apparent Transmission Loss (ATL) and Apparent Sound Transmission Class (ASTC) were met.

The procedures of ASTM E336-16 Annex were not used.

TEST ENVIRONMENT:

The source room was 2nd Floor 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 3950 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 receiver room had a volume of approximately 3950 cu. ft.

The test assembly measured approximately 14.8x29.583, and had an approximate area of 428 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.

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------------|----------------|---|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Kitchen, Volume: 3950 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3950 cu |
| DLAA Test No: | 1.2.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

TEST PROCEDURE:

Determination of space-average sound pressure levels was performed via the manually scanned microphones technique, described in ASTM E336-16, Paragraph 11.4.3.3.

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 ASTM E2235-04(2012).

TEST INSTRUMENTATION:

| Equipment Type | Manufacturer | Model Number | Serial Number | Last NIST Traceable Calibration | Last Local Calibration |
|--------------------------------|--------------|--------------|---------------|---------------------------------|------------------------|
| Sound Level Meter 1 | Larson Davis | 831 | 3784 | 9/19/2022 | Apr 2024 |
| Microphone Pre-Amp: | Larson Davis | PRM831 | 051188 | 9/19/2022 | Apr 2024 |
| Microphone: | Larson Davis | 377B20 | 301698 | 9/16/2022 | Apr 2024 |
| Calibrator: | Larson Davis | CAL200 | 2775671 | 9/19/2022 | N/A |
| Sound Level Meter 2 | Larson Davis | 831 | 4328 | 10/24/2022 | Apr 2024 |
| Microphone Pre-Amp: | Larson Davis | PRM831 | 046469 | 10/24/2022 | Apr 2024 |
| Microphone: | Larson Davis | 377B20 | 168830 | 10/20/2022 | Apr 2024 |
| Calibrator: | Larson Davis | CAL200 | 5955 | 10/26/2022 | N/A |
| Amplified Loudspeakers (QTY 2) | QSC | K10 | GAA530909 | N/A | N/A |
| Noise Generator: | NTi Audio | MR-PRO | 0162 | N/A | N/A |

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------|----------------|---|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Kitchen, Volume: 3950 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3950 cu |
| DLAA Test No: | 1.2.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

STATEMENT OF TEST RESULTS:

| Frequency | L1, Average Source Room Level (dB) | L2, Average Corrected Receiver Room Level (dB) | Average Receiver Background Level (dB) | Average RT60 (Seconds) | Noise Reduction, NR (dB) | Apparent Transmission Loss, ATL (dB) | Exceptions noted to ASTM E336-16 |
|-----------|------------------------------------|--|--|------------------------|--------------------------|--------------------------------------|----------------------------------|
| 100 Hz | 95.8 | 78.2 | 35.4 | 0.62 | 17.6 | 19.0 | |
| 125 Hz | 95.0 | 79.5 | 39.2 | 0.85 | 15.5 | 18.2 | |
| 160 Hz | 91.4 | 73.0 | 33.0 | 0.63 | 18.4 | 19.9 | |
| 200 Hz | 90.0 | 65.6 | 37.1 | 1.00 | 24.4 | 27.8 | |
| 250 Hz | 91.6 | 61.6 | 34.4 | 1.02 | 30.0 | 33.5 | |
| 315 Hz | 89.7 | 57.6 | 33.7 | 1.14 | 32.1 | 36.1 | |
| 400 Hz | 88.8 | 52.7 | 33.3 | 1.34 | 36.1 | 40.8 | |
| 500 Hz | 84.7 | 47.5 | 32.5 | 1.26 | 37.2 | 41.7 | |
| 630 Hz | 82.5 | 42.0 | 31.2 | 1.14 | 40.5 | 44.5 | |
| 800 Hz | 84.5 | 39.9 | 30.6 | 1.12 | 44.6 | 48.5 | |
| 1000 Hz | 83.0 | 33.7 | 29.6 | 1.29 | 49.3 | 53.9 | |
| 1250 Hz | 83.8 | 30.4 | 28.9 | 1.46 | 53.4 | 58.5 | |
| 1600 Hz | 81.4 | 28.2 | 28.5 | 1.52 | 53.2 | 58.5 | |
| 2000 Hz | 79.8 | 25.5 | 24.9 | 1.46 | 54.3 | 59.4 | |
| 2500 Hz | 82.4 | 22.1 | 20.6 | 1.39 | 60.3 | 65.2 | |
| 3150 Hz | 84.0 | 19.6 | 18.5 | 1.40 | 64.4 | 69.3 | |
| 4000 Hz | 85.0 | 17.7 | 17.6 | 1.39 | 67.3 | 72.2 | |
| 5000 Hz | 84.3 | 16.1 | 15.1 | 1.32 | 68.2 | 72.8 | |

ASTC: 41

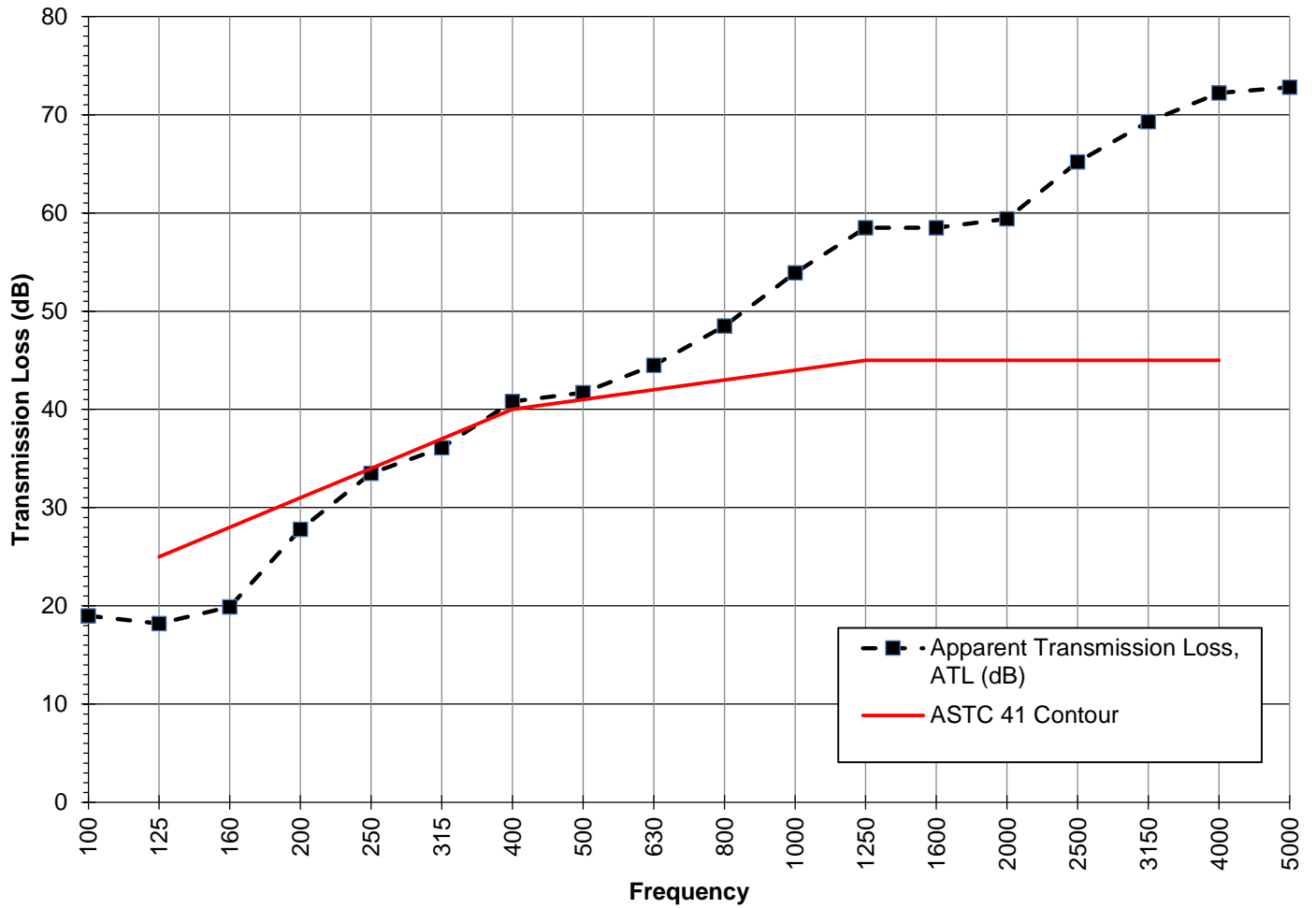
An Apparent Sound Transmission Class (ASTC) of 41, and a Noise Isolation Class (NIC) of 39 was calculated. The NIC rating is based on Noise Reduction (NR), and includes the effects of noise flanking. The NIC reference contour is shown on the next page, and has been "fit" to the Apparent Transmission Loss values, in accordance with the procedure of ASTM E413-16.

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.

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------------|----------------|---|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Kitchen, Volume: 3950 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Great Room/Kitchen, Volume: 3950 cu |
| DLAA Test No: | 1.2.1 | Test Assembly: | Floor-ceiling, Area: 428 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |



ASTC: 41

Test Conducted By:

Zane Wright, Project Consultant

Jake Pfitsch, Project Consultant

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 3, Volume: 800 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 2, Volume: 1410 cu. ft. |
| DLAA Test No: | 1.3.1 | Test Assembly: | Floor-ceiling, Area: 88 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STANDARDS

| | |
|---------------------|--|
| ASTM E336-16 | Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings |
| ASTM E413-16 | 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 general accordance with ASTM E336-16, with all exceptions noted below. All requirements for measuring and reporting Apparent Transmission Loss (ATL) and Apparent Sound Transmission Class (ASTC) were met.

The procedures of ASTM E336-16 Annex were not used.

TEST ENVIRONMENT:

The source room was 2nd Floor Bed 3. 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 800 cu. ft.

The receiver room was 1st Floor Bed 2. 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 1410 cu. ft.

The test assembly measured approximately 9x9.8, and had an approximate area of 88 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.

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 3, Volume: 800 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 2, Volume: 1410 cu. ft. |
| DLAA Test No: | 1.3.1 | Test Assembly: | Floor-ceiling, Area: 88 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

TEST PROCEDURE:

Determination of space-average sound pressure levels was performed via the manually scanned microphones technique, described in ASTM E336-16, Paragraph 11.4.3.3.

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 ASTM E2235-04(2012).

TEST INSTRUMENTATION:

| Equipment Type | Manufacturer | Model Number | Serial Number | Last NIST Traceable Calibration | Last Local Calibration |
|--------------------------------|--------------|--------------|---------------|---------------------------------|------------------------|
| Sound Level Meter 1 | Larson Davis | 831 | 3784 | 9/19/2022 | Apr 2024 |
| Microphone Pre-Amp: | Larson Davis | PRM831 | 051188 | 9/19/2022 | Apr 2024 |
| Microphone: | Larson Davis | 377B20 | 301698 | 9/16/2022 | Apr 2024 |
| Calibrator: | Larson Davis | CAL200 | 2775671 | 9/19/2022 | N/A |
| Sound Level Meter 2 | Larson Davis | 831 | 4328 | 10/24/2022 | Apr 2024 |
| Microphone Pre-Amp: | Larson Davis | PRM831 | 046469 | 10/24/2022 | Apr 2024 |
| Microphone: | Larson Davis | 377B20 | 168830 | 10/20/2022 | Apr 2024 |
| Calibrator: | Larson Davis | CAL200 | 5955 | 10/26/2022 | N/A |
| Amplified Loudspeakers (QTY 2) | QSC | K10 | GAA530909 | N/A | N/A |
| Noise Generator: | NTi Audio | MR-PRO | 0162 | N/A | N/A |

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 3, Volume: 800 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 2, Volume: 1410 cu. ft. |
| DLAA Test No: | 1.3.1 | Test Assembly: | Floor-ceiling, Area: 88 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

STATEMENT OF TEST RESULTS:

| Frequency | L1, Average Source Room Level (dB) | L2, Average Corrected Receiver Room Level (dB) | Average Receiver Background Level (dB) | Average RT60 (Seconds) | Noise Reduction, NR (dB) | Apparent Transmission Loss, ATL (dB) | Exceptions noted to ASTM E336-16 |
|-----------|------------------------------------|--|--|------------------------|--------------------------|--------------------------------------|----------------------------------|
| 100 Hz | 96.1 | 76.2 | 31.9 | 0.63 | 19.9 | 18.9 | |
| 125 Hz | 96.0 | 78.6 | 33.2 | 0.77 | 17.4 | 17.3 | |
| 160 Hz | 92.9 | 67.9 | 35.2 | 0.57 | 25.0 | 23.6 | |
| 200 Hz | 88.8 | 61.6 | 36.9 | 0.75 | 27.2 | 27.0 | |
| 250 Hz | 87.8 | 60.2 | 30.5 | 1.44 | 27.6 | 30.2 | |
| 315 Hz | 88.4 | 52.3 | 27.9 | 0.97 | 36.1 | 37.0 | |
| 400 Hz | 88.4 | 50.3 | 23.0 | 1.08 | 38.1 | 39.5 | |
| 500 Hz | 84.2 | 45.2 | 21.1 | 1.16 | 39.0 | 40.7 | |
| 630 Hz | 82.1 | 44.6 | 20.7 | 1.06 | 37.5 | 38.8 | |
| 800 Hz | 84.2 | 44.7 | 19.8 | 1.00 | 39.5 | 40.6 | |
| 1000 Hz | 82.2 | 41.4 | 18.6 | 1.08 | 40.8 | 42.2 | |
| 1250 Hz | 82.8 | 34.3 | 16.2 | 1.21 | 48.5 | 50.4 | |
| 1600 Hz | 80.1 | 33.6 | 14.8 | 1.26 | 46.5 | 48.6 | |
| 2000 Hz | 78.6 | 31.1 | 11.0 | 1.23 | 47.5 | 49.4 | |
| 2500 Hz | 81.0 | 27.3 | 9.0 | 1.10 | 53.7 | 55.2 | |
| 3150 Hz | 82.5 | 30.6 | 8.4 | 1.00 | 51.9 | 52.9 | |
| 4000 Hz | 83.3 | 29.5 | 11.2 | 1.05 | 53.8 | 55.1 | |
| 5000 Hz | 82.7 | 23.7 | 9.8 | 1.01 | 59.0 | 60.1 | |

ASTC: 41

An Apparent Sound Transmission Class (ASTC) of 41, and a Noise Isolation Class (NIC) of 40 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 Apparent Transmission Loss values, in accordance with the procedure of ASTM E413-16.

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.

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

Report Date:
Test Date:
DLAA Test No:

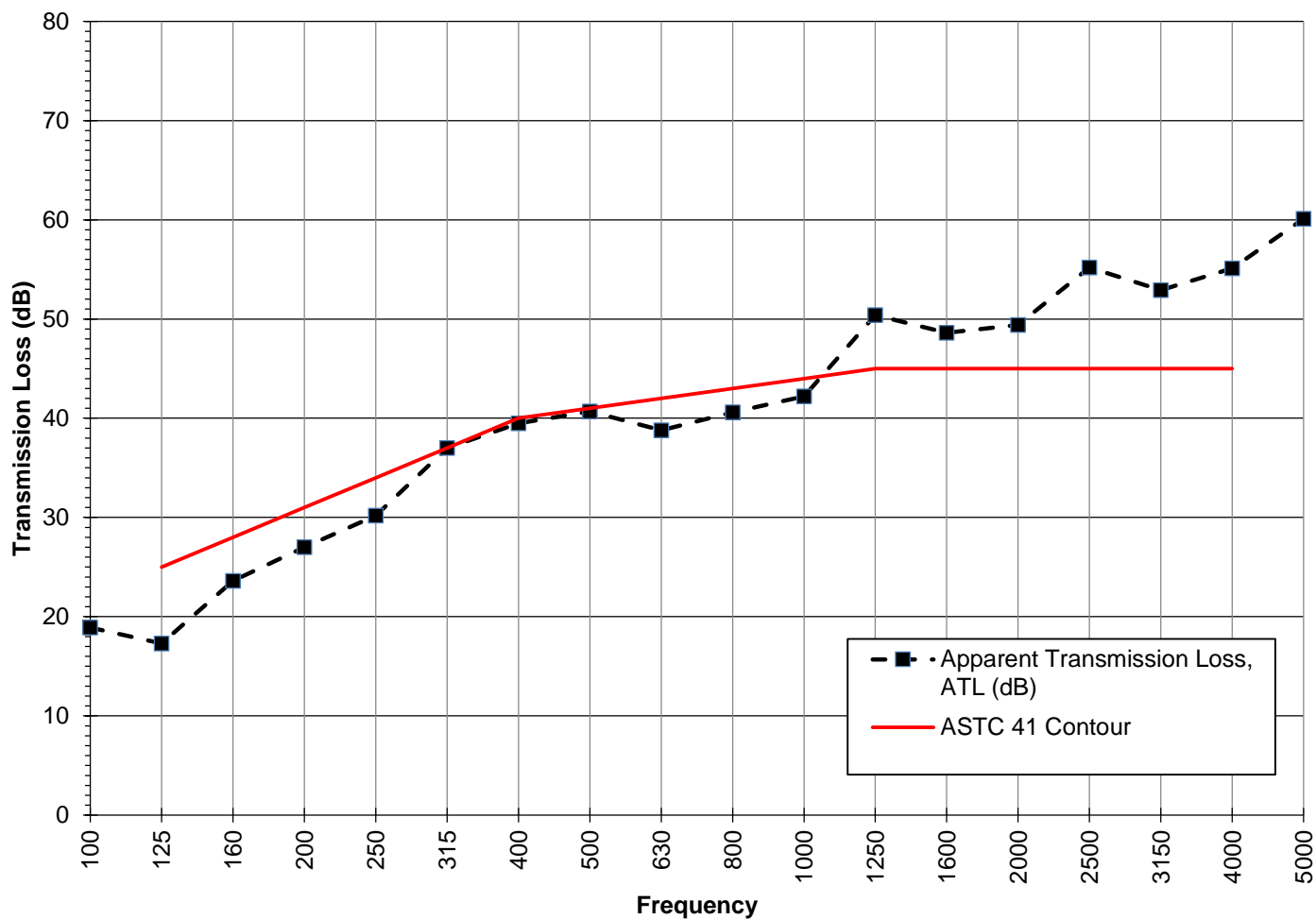
April 05, 2024
April 04, 2024
1.3.1

Source Room:
Receiver Room:
Test Assembly:

2nd Floor Bed 3, Volume: 800 cu. ft.
1st Floor Bed 2, Volume: 1410 cu. ft.
Floor-ceiling, Area: 88 sq. ft.

Test Site:
Client:

Ka'ulu by Gentry
Gentry Builders, LLC



ASTC: 41

Test Conducted By:

Zane Wright, Project Consultant

Jake Pfitsch, Project Consultant

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 1, Volume: 1180 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 1, Volume: 1410 cu. ft. |
| DLAA Test No: | 1.4.1 | Test Assembly: | Floor-ceiling, Area: 130 sq. ft. |
| Test Site: | Ka'ulu by Gentry | | |
| Client: | Gentry Builders, LLC | | |

STANDARDS

| | |
|-------------------------------------|--|
| ASTM E336-16 | Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings Classification for Rating Sound Insulation |
| ASTM E413-16 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 general accordance with ASTM E336-16, with all exceptions noted below. All requirements for measuring and reporting Apparent Transmission Loss (ATL) and Apparent Sound Transmission Class (ASTC) were met.

The procedures of ASTM E336-16 Annex were not used.

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 1180 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 1410 cu. ft.

The test assembly measured approximately 12.3x10.6, and had an approximate area of 130 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.

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 1, Volume: 1180 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 1, Volume: 1410 cu. ft. |
| DLAA Test No: | 1.4.1 | Test Assembly: | Floor-ceiling, Area: 130 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

TEST PROCEDURE:

Determination of space-average sound pressure levels was performed via the manually scanned microphones technique, described in ASTM E336-16, Paragraph 11.4.3.3.

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 ASTM E2235-04(2012).

TEST INSTRUMENTATION:

| Equipment Type | Manufacturer | Model Number | Serial Number | Last NIST Traceable Calibration | Last Local Calibration |
|--------------------------------|--------------|--------------|---------------|---------------------------------|------------------------|
| Sound Level Meter 1 | Larson Davis | 831 | 3784 | 9/19/2022 | Apr 2024 |
| Microphone Pre-Amp: | Larson Davis | PRM831 | 051188 | 9/19/2022 | Apr 2024 |
| Microphone: | Larson Davis | 377B20 | 301698 | 9/16/2022 | Apr 2024 |
| Calibrator: | Larson Davis | CAL200 | 2775671 | 9/19/2022 | N/A |
| Sound Level Meter 2 | Larson Davis | 831 | 4328 | 10/24/2022 | Apr 2024 |
| Microphone Pre-Amp: | Larson Davis | PRM831 | 046469 | 10/24/2022 | Apr 2024 |
| Microphone: | Larson Davis | 377B20 | 168830 | 10/20/2022 | Apr 2024 |
| Calibrator: | Larson Davis | CAL200 | 5955 | 10/26/2022 | N/A |
| Amplified Loudspeakers (QTY 2) | QSC | K10 | GAA530909 | N/A | N/A |
| Noise Generator: | NTi Audio | MR-PRO | 0162 | N/A | N/A |

Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

| | | | |
|---------------|----------------|----------------|---------------------------------------|
| Report Date: | April 05, 2024 | Source Room: | 2nd Floor Bed 1, Volume: 1180 cu. ft. |
| Test Date: | April 04, 2024 | Receiver Room: | 1st Floor Bed 1, Volume: 1410 cu. ft. |
| DLAA Test No: | 1.4.1 | Test Assembly: | Floor-ceiling, Area: 130 sq. ft. |

| | |
|------------|----------------------|
| Test Site: | Ka'ulu by Gentry |
| Client: | Gentry Builders, LLC |

STATEMENT OF TEST RESULTS:

| Frequency | L1, Average Source Room Level (dB) | L2, Average Corrected Receiver Room Level (dB) | Average Receiver Background Level (dB) | Average RT60 (Seconds) | Noise Reduction, NR (dB) | Apparent Transmission Loss, ATL (dB) | Exceptions noted to ASTM E336-16 |
|-----------|------------------------------------|--|--|------------------------|--------------------------|--------------------------------------|----------------------------------|
| 100 Hz | 97.3 | 78.2 | 39.7 | 0.73 | 19.1 | 20.5 | |
| 125 Hz | 93.8 | 71.5 | 38.6 | 0.66 | 22.3 | 23.3 | |
| 160 Hz | 93.2 | 69.3 | 34.0 | 0.57 | 23.9 | 24.2 | |
| 200 Hz | 88.3 | 58.2 | 38.4 | 0.86 | 30.1 | 32.2 | |
| 250 Hz | 89.8 | 55.3 | 34.2 | 1.59 | 34.5 | 39.3 | |
| 315 Hz | 89.6 | 51.9 | 25.8 | 1.17 | 37.7 | 41.1 | |
| 400 Hz | 89.4 | 52.4 | 23.5 | 1.32 | 37.0 | 40.9 | |
| 500 Hz | 84.5 | 46.5 | 23.8 | 1.47 | 38.0 | 42.4 | |
| 630 Hz | 83.6 | 41.1 | 21.1 | 1.34 | 42.5 | 46.5 | |
| 800 Hz | 85.1 | 39.0 | 19.2 | 1.22 | 46.1 | 49.7 | |
| 1000 Hz | 83.0 | 37.3 | 19.3 | 1.35 | 45.7 | 49.8 | |
| 1250 Hz | 83.6 | 29.9 | 16.5 | 1.50 | 53.7 | 58.2 | |
| 1600 Hz | 81.0 | 27.1 | 14.7 | 1.64 | 53.9 | 58.8 | |
| 2000 Hz | 79.6 | 25.2 | 11.9 | 1.57 | 54.4 | 59.1 | |
| 2500 Hz | 82.2 | 23.7 | 10.2 | 1.46 | 58.5 | 62.9 | |
| 3150 Hz | 83.7 | 19.7 | 9.4 | 1.26 | 64.0 | 67.7 | |
| 4000 Hz | 84.5 | 13.8 | 11.9 | 1.33 | 70.7 | 74.7 | |
| 5000 Hz | 83.8 | 12.1 | 10.6 | 1.36 | 71.7 | 75.8 | |

ASTC: 45

An Apparent Sound Transmission Class (ASTC) of 45, and a Noise Isolation Class (NIC) of 43 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 Apparent Transmission Loss values, in accordance with the procedure of ASTM E413-16.

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.

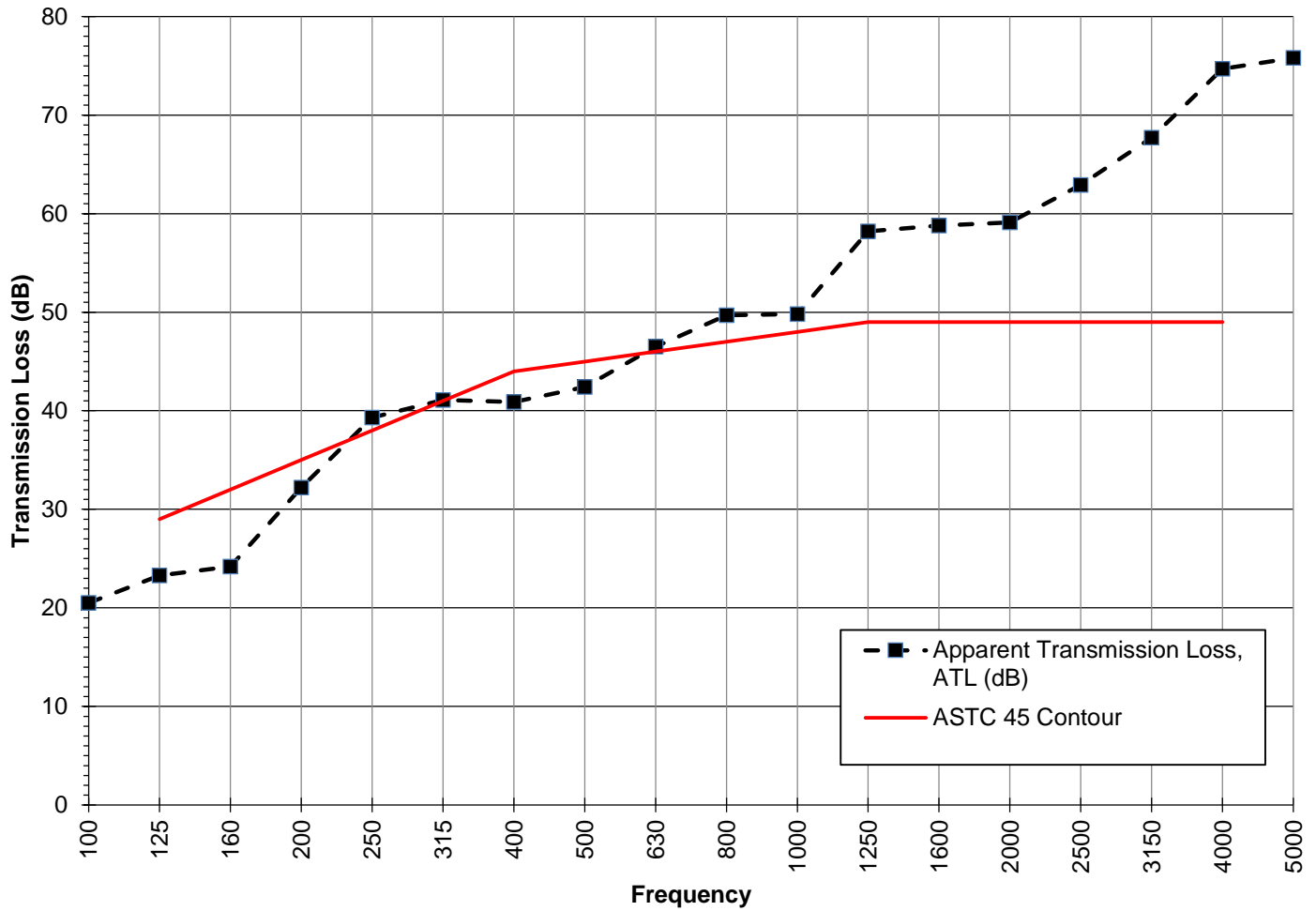
Field Airborne Sound Transmission Test Report

Apparent Sound Transmission Class (ASTC)

Report Date: April 05, 2024
Test Date: April 04, 2024
DLAA Test No: 1.4.1

Source Room: 2nd Floor Bed 1, Volume: 1180 cu. ft.
Receiver Room: 1st Floor Bed 1, Volume: 1410 cu. ft.
Test Assembly: Floor-ceiling, Area: 130 sq. ft.

Test Site: Ka'ulu by Gentry
Client: Gentry Builders, LLC



ASTC: 45

Test Conducted By:

Zane Wright, Project Consultant

Jake Pfitsch, Project Consultant