

Hive Cocktail Bar
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Acoustic Isolation Project for Hive Cocktail Bar

Introduction:

The Hive Cocktail Bar is committed to providing quality services to its valued customers without causing any disturbances in the neighborhood environment. As part of this commitment, the bar is seeking to enhance its sound isolation to prevent any potential sound-related disturbances. The initiative aims to ensure that the Hive Cocktail Bar continues to provide uninterrupted services to its valued customers.

Objective:

Implement effective acoustic isolation measures at Hive Cocktail Bar to ensure a peaceful environment, avoiding sound disturbances in the surroundings, and providing an enjoyable experience for customers.

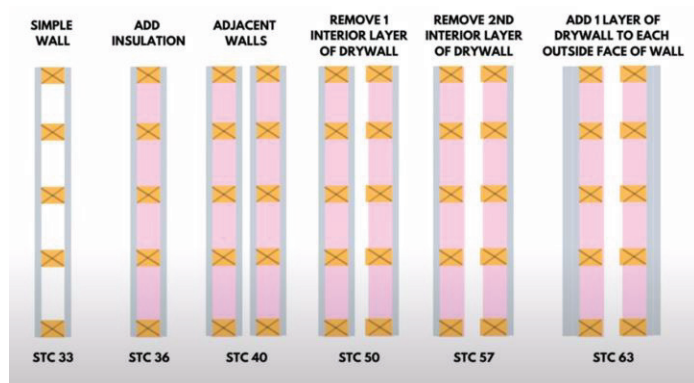
Procedures:

The soundproofing of the bar requires meeting specific targets through the application of proven techniques in sound insulation. This includes addressing even the structural noise transmission. The 'Box in a Box' system, frequently used in recording studios, is an essential technique that will be used to isolate sounds. This technique involves decoupling existing walls, ceilings, floors, doors, and windows to prevent sound transmission. The ventilation system is also critical in soundproofing and requires special attention.

Walls:

The Hive Cocktail Bar will construct inner walls using a decoupled system that incorporates sound clips, hat channels, Rockwool (or fiberglass), and two layers of drywall (1 x 1/4" and 1 x 5/8"), with a 1-inch air space between them. This approach will ensure that the walls are an effective barrier to sound transmission.

The sound clips, hat channels, and Rockwool will be used to decouple the walls and prevent any vibration from transmitting through them. The two layers of drywall will provide additional mass and ensure that the walls are an effective barrier to sound transmission. The air space between the two layers of drywall will also act as an additional buffer to prevent sound transmission.

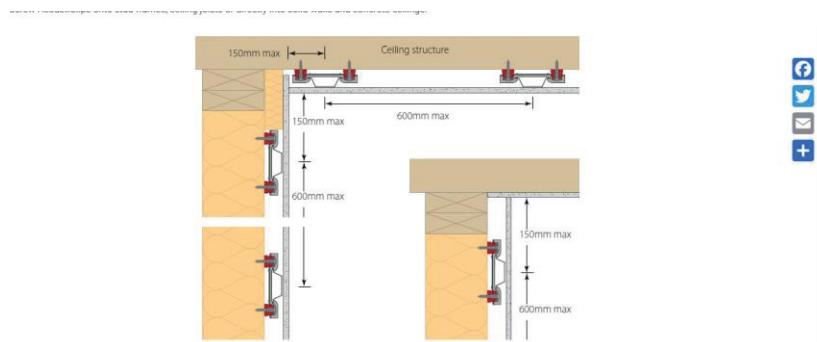


Example Product Link: <https://www.noisestopsystems.co.uk/shop/wall-soundproofing/acousticlip/>

Ceiling:

The ceiling will be reconstructed using the same technique used for walls, with the addition of Rockwool between the upper floor studs to enhance mass. This approach will ensure that the ceiling is an effective barrier to sound transmission. The Rockwool will be installed between the upper floor studs to enhance mass and reduce sound transmission.

The ceiling will be decoupled using sound clips, hat channels, and Rockwool to prevent any vibration from transmitting through it. The two layers of drywall will provide additional mass and ensure that the ceiling is an effective barrier to sound transmission.



Floor:

The floor requires special attention and will be designed as a floating floor to maximize soundproofing effectiveness. The floating floor will be built by placing a layer of acoustic underlayment on the subfloor, then a layer of soundproofing mat, and finally a layer of flooring. This approach will ensure that the floor is an effective barrier to sound transmission.

The acoustic underlayment will absorb any vibrations and prevent them from transmitting through the floor. The soundproofing mat will provide additional mass and ensure that the floor is an effective barrier to sound transmission.

Windows:

Existing windows will either be replaced with triple-glazed ones or supplemented with double-glazed windows on the interior of the bar. This approach will ensure that the windows are an effective barrier to sound transmission.

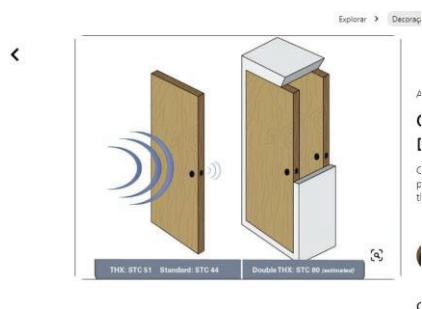
The triple-glazed windows will provide additional mass and ensure that the windows are an effective barrier to sound transmission. The double-glazed windows will be installed on the interior of the bar to provide additional insulation.

Example Product Link: <https://thesoundproofwindows.co.uk/>

Doors:

The entrance door system will transition from a single door to a double-door system, ensuring that at least one door is always closed. Additionally, the sealing of the doors will be reinforced, including the replacement of weather strips. This comprehensive approach will significantly reduce sound transmission through the doors.

The double-door system will ensure that there is always a barrier to sound transmission. The sealing of the doors will prevent any sound leakage through the gaps. The replacement of weather strips will ensure that the doors are airtight and reduce any sound transmission.





Example Product Link: <https://quietstar.co.uk/acoustic-doors>

Air System (Exhaust/Fresh Air):

Given the significance of the air system in soundproofing, a balance must be struck between maintaining a sealed environment and introducing fresh air. In both cases, an air sound trap will be implemented. This approach will ensure that the air system is an effective barrier to sound transmission.

The air sound trap will be installed in the ventilation system to prevent any sound transmission through it. The trap will balance the need for fresh air and the need to maintain a sealed environment. This approach will ensure that the air system is an effective barrier to sound transmission.

Testing and Adjustments:

Conduct sound tests after implementing measures and adjust as necessary to optimize acoustic isolation.

Maintenance and Monitoring:

Establish a regular maintenance plan and monitor the acoustic isolation system to ensure continuous effectiveness.

This project aims to transform Hive Cocktail Bar into an acoustically isolated environment, providing a pleasant atmosphere free from sound disturbances for both customers and the neighborhood.

Sound Level Measurements:

Date: 08/12/2023

Time: 7:30pm

Area:

- Inside: 79 dba
- Outside: 70 dba
- Side: 61 dba

Date: 15/12/2023

Time: 7pm

Area:

- Inside: 80.2 dba
- Outside: 67.9 dba
- Side: 60.2 dba

Date: 15/12/2023

Time: 11pm

Area:

- Inside: 83.5 dba
- Outside: 68.7 dba
- Side: 57.7 dba

Date: 16/12/2023

Time: 7pm

Area:

- Inside: 83.7 dba
- Outside: 63.7 dba
- Side: 60.8 dba

Date: 16/12/2023

Time: 9pm

Area:

- Inside: 83.7 dba
- Outside: 65.7 dba
- Side: 60.9 dba

Date: 16/12/2023

Time: 10:30pm

Area:

- Inside: 84.1 dba
- Outside: 64.5 dba
- Side: 60.3 dba

Date: 20/12/2023

Time: 6:30pm

Area:

- Inside: 74.6 dba
- Outside: 65.3 dba
- Side: 56.7 dba

Date: 20/12/2023

Time: 7:40pm

Area:

- Inside: 81.3 dba
- Outside: 65.2 dba
- Side: 53.5 dba

Date: 22/12/2023

Time: 4:20pm

Area:

- Inside: 79.7 dba
- Outside: 64.6 dba
- Side: 54.9 dba

Date: 22/12/2023

Time: 8:15pm

Area:

- Inside: 83.1 dba
- Outside: 68.7 dba
- Side: 65.7 dba

Date: 22/12/2023

Time: 10:30pm

Area:

- Inside: 85.1 dba
- Outside: 71.1 dba
- Side: 63.9 dba

Date: 23/12/2023

Time: 4:20pm

Area:

- Inside: 73.6 dba
- Outside: 60.2 dba
- Side: 57.5 dba

Date: 24/12/2023

Time: 5pm

Area:

- Inside: 74.7 dba
- Outside: 65.5 dba
- Side: 54.6 dba

Date: 29/12/2023

Time: 6:40pm

Area:

- Inside: 77.6 dba
- Outside: 66.3 dba
- Side: 58.8 dba

Date: 30/12/2023

Time: 5pm

Area:

- Inside: 84.3 dba
- Outside: 66 dba
- Side: 59.5 dba

Date: 30/12/2023

Time: 7:20pm

Area:

- Inside: 86.8 dba
- Outside: 72.7 dba
- Side: 66.6 dba

Date: 30/12/2023

Time: 9:40pm

Area:

- Inside: 86.7 dba
- Outside: 69.9 dba
- Side: 62.2 dba

Date: 04/01/2024

Time: 9:10pm

Area:

- Inside: 83.6 dba
- Outside: 54.5 dba
- Side: 53.2 dba

Date: 06/01/2024

Time: 5pm

Area:

- Inside: 78.1 dba
- Outside: 67.1 dba
- Side: 59.1 dba

Date: 06/01/2024

Time: 10:30pm

Area:

- Inside: 97.8 dba
- Outside: 66.5 dba
- Side: 67.4 dba

Date: 12/01/2024

Time: 9:50pm

Area:

- Inside: 85.3 dba
- Outside: 57.6 dba
- Side: 65.3 dba

Date: 13/01/2024

Time: 6pm

Area:

- Inside: 73 dba
- Outside: 61.2 dba
- Side: 59.1 dba

Date: 13/01/2024

Time: 10pm

Area:

- Inside: 86.6 dba
- Outside: 65.7 dba
- Side: 65.8 dba

During my recent visit to the Hive Cocktail Bar, I observed attempts to improve the sound isolation of the environment. These improvements included the installation of foam panels on the ceiling and the use of acoustic materials around the dance floor. Such measures are essential to ensure that customers can enjoy their experience at the bar without being disturbed by external noises. The use of acoustic materials has been shown to be effective in reducing noise levels, and the bar has taken a commendable step in this direction. It is noteworthy that such steps reflect the commitment of the bar to providing an enjoyable and memorable experience for its patrons.