

SOUND SOLUTIONS CASE STUDY



CHALLENGE:

IndependenceFirst is a non-profit agency directed by, and for the benefit of, persons with disabilities, primarily serving the four county metropolitan Milwaukee area. In 2008, IndependenceFirst renovated a building in the historic 5th Ward of Milwaukee, WI. This beautiful structure is an open environment with wood ceilings and exposed ductwork – embracing the “loft” feel.



SOLUTION:

Lencore Acoustics Corp. was asked to evaluate the space and offer a solution. Taking each area of the 40,000 square foot facility into account, Lencore tailored a Spectra® solution for IndependenceFirst. In order to maintain the integrity of the design and still provide the customer with an unconditional warranty, Lencore modified their product to incorporate an extension bracket for installation. The result was a custom solution which inverted the units using a strap that was minimally invasive aesthetically.

With employee and customer needs top-of-mind, IndependenceFirst was particular about the products they installed in their facilities from carpet to countertops to sound masking. To better understand how the introduction of sound masking would impact the office space, executives from IndependenceFirst asked to visit other facilities where Lencore Sound Masking was being used. The executive team liked what they heard and agreed to a 30 day trial of the Lencore system.

Two of the challenges this non profit organization faced with the plan for the new facility were managing the overall acoustics in the open environment and also meeting the stringent requirements for employee and customer comfort.

By elevating the ambient background sound of the space, Lencore was able to reduce distractions and provide levels of speech privacy without creating speech intelligibility issues for employees.

“At first the change was somewhat noticeable but as soon as we turned the system off the employees complained about the noise and we realized how effective the sound masking was. We turned it back on and the complaints stopped, proving that the system really worked,” stated Scott Luber, Administrative Director.

After the trial, Lencore was asked to triple the size of their original project scope because of the comfort and privacy that the sound provided.

**INDEPENDENT COMMENTARY:
DESIGNERS CHALLENGED
TO INCLUDE DISABLED**
by Mike Steere of CNN:

“It is about time we designed things that can be used by ALL people – which is the notion behind accessible design. Designing for people with disabilities almost always leads to products that work better for everyone.” [Don Norman, Design Professor, Northwestern University]

Once the champion of human-centered design – where wants and needs of individuals are the primary consideration in the design process, Norman now believes accessible activity-centered design is a better approach.

RESULT:

The successful outcome is evident in employee and customer satisfaction. IndependenceFirst commented that, “The environment exceeded the high expectations set by management for this challenging design.”

Lencore’s solution provided IndependenceFirst with a superior employee experience by significantly reducing audible distractions while allowing the open-plan facility to maintain its overall aesthetic and design integrity.

ABCs of Sound Masking

In order to control sound within any space there are three simple principles—known as the ABCs, to understand and apply. In particular, sound masking represents the C (Cover) which is imperative when the first two principles fail to achieve their full objectives.

- **A**bsorb—absorbing sound is typically achieved by introducing materials such as fabric wall or acoustical ceiling panels which have a high Noise Reduction Coefficient (NRC) value.
- **B**lock—blocking sound principles are used to contain sound within a space; this is best achieved through hard surfaces and slab-to-structure walls with a high Sound Transmission Class (STC) rating.
- **C**over—covering sound is best achieved through the introduction of a noise source which gently raises the background noise level to “mask” intelligible speech.