SOUND SOLUTIONS CASE STUDY

SITUATION:

Concrete. Collaboration. When Lowe Campbell Ewald (LCE) returned to Detroit, they wanted a fresh start but also wanted to be grounded in their roots. The LCE space, located at Ford Field, is the epitome of current trends in design. Hard surfaces with an interactive layout flourished in the design. Joel Smith, head of Neumann/Smith Architecture, took on the challenge of building out the unfinished floors for the 500 employees of LCE. Smith states, "We had 122,000 square feet on five floors. It needed to be a signature space while balancing over 100 collaborative areas with individual work." Idea-inspiring atmosphere was the theme for the marketing communications agency.

CHALLENGE:

Smith wanted to maintain the historic, industrial warehouse architecture while integrating sustainable materials such as reclaimed wood, recycled palettes, concrete and even brass print plates used in the 1950s through the 1980s. But he knew that noise would be a challenge. A challenge Smith would overcome, stating, "With the amount of hard surfaces we wanted to incorporate into the finished space we knew we would have to address acoustics. Sound masking was part of our solution from the beginning. What really surprised me, though, were the advancements in technology that delivered even better masking than I expected." With primarily open plan design, no fabric partitions plus the hard surfaces, sound would not find refuge in absorptive materials - resulting in a louder environment with reverberation.







Lowe Campbell Ewald

SOLUTION:

Employee comfort was a critical factor in the transition to the new space. Joe Fisher, Facility Manager, Lowe Campbell Ewald, stated, "Moving to an open environment was a major change for our employees, and we knew acoustical design would be key to a successful transition. Lencore's masking system provides that needed privacy and comfortable sound that we were seeking. It was their comfortable sound that was key." Sound Masking raises the ambient background

level by introducing a gentle sound into the space. This sound masks indirect speech which, in effect, makes the space "quieter", more productive and more comfortable. LCE installed Lencore's Spectra i.NET[®] sound masking system throughout all five floors. In a few areas, such as executive conference rooms



and offices, they integrated the solid drive speaker technology, which turns hard surfaces – such as drywall or glass, into a speaker producing the frequencies necessary to mask speech. Smith left a final thought, "With an acoustically harsh environment with all of the hard materials used, the use of Lencore's sound masking solution helped us complete the space to allow collaborative activity to coexist with individual work in a comfortable and productive workplace."

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.

- Absorb—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.
- Block—blocking sound principles are used to contain sound within a space; this is best achieved through hard surfaces and slab-tostructure walls with a high Sound Transmission Class (STC) rating.
- Cover—covering sound is best achieved through the introduction of a noise source which gently raises the background noise level to "mask" intelligible speech.

