

## Make the office sound as good as it looks

When designing a new office, there is no shortage of decisions to make. Designers, Project Managers and Contractors will help with key decisions on layout, finishes, furniture and building systems. But frequently, one small item is overlooked that can impact the success of the new space.

This item, if not properly addressed, will lower the productivity of the work force and decrease the satisfaction of employees with their new space.

The issue is speech privacy. Most offices and workstations do not provide adequate privacy. Private offices and conference rooms frequently allow conversations in neighboring spaces to be overheard. Next time you are sitting in a reception area outside of a conference room, listen to the amount of conversation that can be understood. If CEOs took a minute to try this, many would be horrified at the result.

In addition to secrecy, productivity is an important casualty of poor speech privacy. Imagine a lawyer reading a legal document. Studies show that conversational distraction while reading will impair short-term memory. So as neighboring conversations distract our attorney, additional time will be required to re-read the document or potentially important information may be missed.

Personnel in open workstations do not expect to have confidentiality. However, employers should be motivated



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to provide a work environment that allows productive work without constant distraction.

In a recent study, The Center for the Built Environment found that 64% of private office occupants and 82% of workers in open work stations are dissatisfied with the level of distractions from neighboring conversations. This is a significant majority of workers that are being negatively affected by the shortcomings of their work environment.

Speech privacy can be measured using the Privacy Index (PI). Imagine going into an office, closing the door and reading 100 words at random out of the dictionary. If your colleague in the adjoining office can understand 5 words out of 100, the office has achieved a PI of 95. This is the definition of confidentiality.

Most offices in commercial office buildings provide a PI that is less than 80. Sound travels from one space to the next through numerous weaknesses in the built environment. The sound of speech passes below the union of the ceiling and the wall and through lights and air conditioning components. Like water from a bucket with holes, the energy of sound finds every opening no matter how small.

A Privacy Index of 80 defines normal privacy. This is an important threshold. Reaching a PI of 80 allows for a significant reduction in distractions. The 20% of words that can be understood does not provide sufficient content to break concentration and take workers off of their task.

Normal privacy can be achieved in open work stations. Imagine a workstation that provides better privacy than most offices.

The most effective method to improve speech privacy is to install a sound masking system. Sound masking works by subtly raising the ambient sound level within a space using a precisely tuned spectrum of sound. The effect is that speech from neighboring areas becomes less intelligible. As intelligibility drops, privacy increases. Sophisticated electronics and computer analysis allow a very low volume to provide a significant increase in privacy.

Privacy in open workstations can be nearly doubled with sound masking to reach a PI of 80. Offices and conference rooms can deliver confidentiality without the need for expensive and frequently ineffective construction.

This increase in privacy is a great tool to aid in the cultural shift from offices to open workstations. If privacy levels can be increased to allow effective productivity, most tasks can be accomplished in the open environment with only occasional use of small conference or huddle rooms. This also allows higher densities that can reduce overall space needs of the organization.

As buildings become more and more efficient, privacy is harder and harder to achieve. Air-conditioning systems provide very little background sound. This is even more prevalent in new facilities with under-floor air systems. Additionally, the sustainable building movement is encouraging the use of lighter building materials. This further challenges speech privacy. Sustainability goals can be met without compromising privacy by implementing sound masking.

Good workplace acoustics do not always walk hand in hand with beautiful spaces. The use of glass, metal and exposed structural elements provide an exciting visual and functional work environment. Sound masking can allow these features to be implemented while maintaining an effective acoustical environment.

Incorporating acoustics into the planning process can improve productivity, reduce costs and make beautiful spaces sound as good as they look.

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