ATS CONTINUING EDUCATION
ONLINE_SEMINAR
Acoustic and Sound Control Design Solutions - North America
Wednesday, March 12, 2025

11:00 AM Welcome, Credits, and Certificates

11:05 AM **Polyethylene: Sustainable Plastic for Exterior Acoustics**

This course includes a discussion of the strengths and weaknesses of polyethylene, the manufacturing process, sound attenuation properties and its environmental impact.

Spencer Kelly
Oldcastle APG Provider #: J545
AIA #:AcousticFence HSW

12:05 PM Review of Session Code Process

12:10 PM **Design Details for Good Acoustics: Part 1 - Walls**

Acoustical design requirements are frequently based on laboratory test data. Walls constructed in a lab for testing are built under ideal conditions and with high levels of precision. These walls also do not have any of the attachments or penetrations that are ubiquitous in real-world construction. Selecting a tested wall design that meets an STC requirement is not enough to provide adequate sound isolation in the real-world. To achieve good sound isolation it is imperative that designers understand how to treat the myriad of details that can compromise a wall's performance. These include: electrical boxes, hanging cabinets, window mullions, control joints, intersections, and more. In this presentation we: discuss why a detail is important for noise control, provide the acoustical impact of poor detailing based on test data (when available), and provide acoustical best practices for the details.

Prerequisite Knowledge:
A basic understanding of acoustic terminology such as STC ratings and of acoustical requirements in codes and guidelines.

HSW Justification:
The entirety of this presentation focuses on good design for acoustics. Good acoustic design is essential for minimizing noise transfer between dwelling units. In the paper “Health effects of annoyance induced by neighbour noise,” published in the Noise Control Engineering Journal, authors Christian Maschke and Hildegard Niemann state that “Adults who indicated chronically severe annoyance by neighbour noise were found to have an increased health risk in the cardio-vascular system, the movement apparatus, as well as increased risk of depression and migraine.” Furthermore, the authors state that “Neighbour noise induced annoyance is therefore a highly underestimated risk factor for healthy housing.” Annoyance from neighbor noise can at least in part be addressed through better sound isolation between dwelling units. This presentation focuses on the construction details that are essential to achieve good sound isolation in the real world.

Mike Raley
PAC International Provider #: 10008841
AIA #:PAC005 HSW

01:10 PM Break

01:30 PM **Acoustic Door Assemblies and Their Role in Sound Control**

Sound control is a critical element to a building's design. How an occupant will use the space must be understood in order to deliver a healthy and functional environment free of noise. Is speech privacy important? Is this a learning environment? Does the office open to a manufacturing floor? We all think of the walls, ceiling, and floor when discussing sound attenuation. But we must not overlook the importance of an acoustic-door assembly. Without the proper acoustic door, the sound-control goals in an acoustic plan may not be met. This course will review healthy sound levels and how to test and identify target STC ratings. We'll discuss the elements of the acoustic-door assembly and how the assembly addresses fire-ratings and ADA compliance, contributes to LEED certification and green building, and provides security for classified files and electronic data.

Steve Peterman
Ambico Ltd. Provider #: J834
AIA #:AAD001-24 HSW | GBCI (USGBC/CAGBC) #:0920030780

02:30 PM Break

02:45 PM **Approaches to Acoustic Lighting: One Solution for 2 Design Problems**

Acoustic lighting is a real thing, delivering real value. Learn why acoustic lighting is suddenly an important component of designing modern spaces. Topics include the trends driving the need for acoustic lighting, in particular the intersection of open concept spaces with designing for wellness. Also, basic acoustic design factors that influence the effectiveness of acoustic lighting, and different approaches to combining acoustics and lighting.

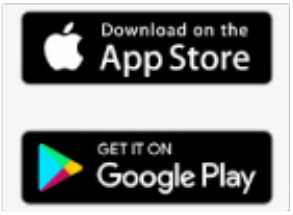
Clara Powell
Cooledge Provider #:
AIA #:Cool400 HSW

03:45 PM **Cork: Nature's Regenerative Building Material**

The word sustainable is often used to describe building products, but few are more sustainable than cork. This course will dive deep into the Cork Oak tree, its regenerative bark, mindful harvesting, and its use in building products. We'll review cork's natural properties that make it ideal in the built environment, including moisture resistance, durability, and superior acoustic control. This course will examine the use of cork in flooring underlayment as an example of its ability to reduce impact sound in ceiling/flooring assemblies. Lastly, we'll address cork's contribution to a circular economy and review its lifecycle stages from its responsible forestry at raw materials to its end-of-life where cork products can be recycled into new products.

Rick Loomis
Amorim Cork Solutions, LLC Provider #: 10101323
AIA #:CorkRegen27 HSW | GBCI (USGBC/CAGBC) #:0920030806

04:45 PM End



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