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# AIA/CES 1-HOUR PRESENTATIONS

SGH Concepts offers a diverse range of engaging AIA/CES approved 1-hour presentations to help educate, identify, and work with the many architectural products we provide.

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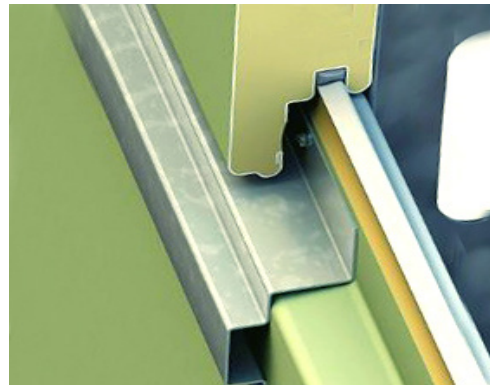
Below, see our list of offered presentations, and their descriptions.

AIA/CES 1-HOUR PRESENTATIONS	PROVIDER	STATES
<b>BACKUP WALL SYSTEMS</b>		
Insulating Composite Backup Panels - A Simpler Solutions	Centria	NE, IA, MO, KS, CO, MT
Introduction to Pultruded FRP Façade Attachment Systems	Strongwell	NE, IA, MO, KS, CO, MT
Are Highly Permeable Membranes Too Permeable?	Vaproshield	NE, MO, KS, MT
<b>INSULATED METAL PANEL SYSTEMS</b>		
Building the Perfect Envelope with Insulated Metal Panels	Centria	NE, IA, MO, KS, CO, MT
Maximizing Envelope Performance with IMP-Integrated Components	Centria	NE, IA, MO, KS, CO, MT
<b>RAINSCREENS</b>		
Metal Panels 101 <span style="color: blue; font-weight: bold;">NEW</span>	SGH Concepts	NE, IA, MO, KS, CO, MT
Single Skin Metal Rainscreen	Dri-Design	NE, IA, MO, KS, CO, MT
How to Achieve Superior Building Envelope Performance in Rainscreen Wall Design	Centria	NE, IA, MO, KS, CO, MT
Single Skin Metal Panel Building Envelope Solution	Centria	NE, IA, MO, KS, CO, MT
Fiber Cement Panels	SGH Concepts Swisspearl	NE, IA, MO, KS, MT
<b>DAYLIGHTING</b>		
Daylighting 101 <span style="color: blue; font-weight: bold;">NEW</span>	SGH Concepts	NE, IA, MO, KS, CO, MT
Sustainable Design Through Daylighting	Kalwall	NE, IA, KS, MT
Sustainable Design Using Highly Insulated Diffused Natural Daylight	Structures Unlimited	NE, IA, KS, MT
Innovative Daylighting Strategies for Commercial Buildings - Intro to Tubular Daylighting Devices	SGH Concepts Solatube	NE, IA, MO, KS, MT
Inspiring Applications of Tubular Daylighting	SGH Concepts Solatube	NE, IA, MO, KS, MT
Successful Daylighting for Wellness & Sustainable Design	SGH Concepts Solatube	NE, IA, MO, KS, MT
Inspiring Applications of Tubular Daylighting in Educational Facilities	SGH Concepts Solatube	NE, IA, MO, KS, MT
<b>OPERABLE WALLS</b>		
Revolutionizing Flexible Space with Automated Operable Partitions	Skyfold	NE, IA, KS, MT
Mastering Architectural Acoustics In Flexible Spaces	Skyfold	NE, IA, KS, MT
A Sound Decision - Acoustics & Operable Partitions	SGH Concepts Modernfold	NE, IA, KS
Breaking The Fourth Wall - Modern Operable Wall Systems	SGH Concepts Modernfold	NE, IA, KS
Through The Looking Glass - Moveable Glass Partition Systems	SGH Concepts Modernfold	NE, IA, KS

## BACKUP WALL SYSTEMS

### INSULATING COMPOSITE BACKUP PANELS - A SIMPLER SOLUTION

**CREDITS: 1 HR LU/HSW**  
**PROVIDER: CENTRIA**



Description: The presentation explores exterior wall design performance; energy code requirements; the influence of air, moisture, thermal and vapor barriers; and actual project case studies are presented as an excellent option for building envelope weather barrier construction. This program will be an interactive session that encourages feedback and questions.

### ARE HIGHLY PERMEABLE MEMBRANES TOO PERMEABLE?

**CREDITS: 1 LU HOUR/ 1 IIBEC CEH**  
**PROVIDER: VAPROSHIELD**



Description: This comprehensive course offers a fresh look on how increased permeability in water resistive barriers will enhance wall assembly performance for the life of the building.

#### Learning Objectives:

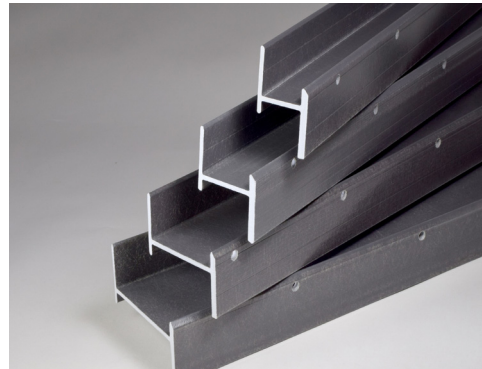
- Define what permeance is and how it is tested.
- Understand wall assembly drying mechanisms.
- Show the benefits of permeable assemblies.
- Illustrate the differences between vapor tight and highly permeable WRB membranes in relation to water intrusion of a wall assembly.



# BACKUP WALLS SYSTEMS

## INTRODUCTION TO PULTRUDED FRP FAÇADE ATTACHMENT SYSTEMS

**CREDITS: 1 HR LU/HSW**  
**PROVIDER: STRONGWELL**



Description: Architects, Engineers, and Designers who work with exterior cladding systems will receive an introduction to pultruded fiber-reinforced polymer (FRP) composites and their characteristics as structural building materials. Using this information, session participants will be able to demonstrate how FRP girts can be used for a cladding support structure and simultaneously create a thermally efficient wall. Participants will be able to define continuous insulation (CI) systems per ASHRAE 90.1 and differentiate FRP CI systems vs. traditional steel girt systems. Finally, participants will be able to obtain the necessary design resources to integrate FRP CI systems in future projects.

### Learning Objectives:

- Describe the beneficial characteristics of pultruded fiber-reinforced polymer (FRP) composites used as building materials, including how this will impact the user's experience living/working in the building.
- Identify the relevant codes and standards that apply when using FRP as a building material and discuss their application in common architectural designs.
- Demonstrate how FRP girts can be used for a cladding support structure and simultaneously create a thermally efficient wall, and specifically address how this benefits occupants of the building.
- Obtain and utilize the necessary design resources to integrate FRP CI systems in future projects to foster increased efficiency and longevity of structures for building owners and occupants.

# INSULATED METAL PANEL SYSTEMS

## BUILDING THE PERFECT ENVELOPE WITH INSULATED METAL PANELS

**CREDITS: 1 HR LU/HSW**  
**PROVIDER: CENTRIA**



Description: Understanding building physics is critical to proper building envelope design. Examined here are practical concepts for the building designer, including how cladding systems perform across different climate zones and applications. Environmental control layers and hygrothermal loads are reviewed, as is the concept of perfect/ universal wall design. The course focuses on how single-component insulated metal panels (IMPs) function as a perfect/universal wall, simplifying wall system design and installation.

## MAXIMIZING ENVELOPE PERFORMANCE WITH IMP-INTEGRATED COMPONENTS

**CREDITS: 1 HR LU/HSW**  
**PROVIDER: CENTRIA**



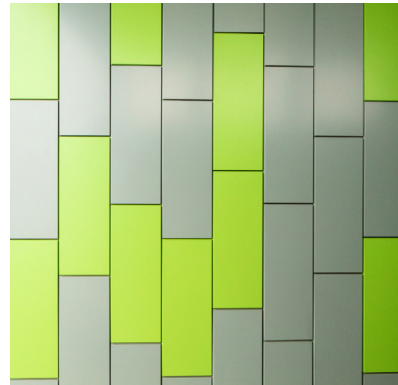
Description: Maximizing Envelope Performance with IMP-Integrated Components explores an advanced insulated metal composite panel building envelope system, components that have been engineered to integrate with the system - including windows, daylighting panels, sunshades, and louvers - and how the IMP system and integrated components combine to create a high-performance building envelope.



# RAINSCREENS

## METAL PANELS 101

**CREDITS: 1 HR LU/HSW**  
**PROVIDER: SGH CONCEPTS**



Description: This During this course, you will learn about wall system designs, the rainscreen principle, metal wall panel material and coatings, and the basic requirements of a wall panel assembly. Different types of metal wall panels will be discussed, along with basic detailing and flashing components.

### Learning Objectives:

- Learning about the rainscreen principle
- Compare different metal panel systems, along with IMP systems
- Simplify the design and construction of different metal panel systems
- Determine the best metal panel for their particular project.

## SINGLE SKIN METAL PANEL BUILDING ENVELOPE SOLUTION

**CREDITS: 1.25 HR LU / HSW**  
**PROVIDER: CENTRIA**



Description: As part of a well-designed rainscreen system, single-skin metal panels offer unique aesthetic options combined with the assurance that the building envelope will withstand the effects of long-term exposure to the elements. This course compares common cladding types; presents single-skin metal panel materials, coatings, finishes, and design options; and examines using single-skin metal panels with a single-component barrier wall to form a complete rainscreen assembly.

# RAINSCREENS

## SINGLE SKIN METAL RAINSCREEN

**CREDITS: 1 HR LU/HSW  
PROVIDER: SGH CONCEPTS  
DRI-DESIGN**



Description: This course compares exterior wall metal cladding systems and takes an in-depth look at the design options, testing, specifications, environmental implications, and the detailing of single-skin metal panel systems as used in a pressure-equalized rainscreen (PER) application.

### Learning Objectives:

- Comparing Performance attributes of different types of metal cladding.
- Determine how metal panels can protect structural components of a building.
- Identifying testing methods for rainscreen systems.
- How to improve the energy efficiency of a wall system.
- Specifying a metal panel with a suitable finish for single skin metal panel to meet a building's projected cost and maintenance life cycle needs.
- Project Case Studies.

## HOW TO ACHIEVE SUPERIOR BUILDING ENVELOPE PERFORMANCE IN RAINSCREEN WALL DESIGN

**CREDITS: 1 HR LU/HSW  
PROVIDER: CENTRIA**



Description: The course will compare and contrast the common multicomponent backup wall assembly with the single-component insulated metal composite backup wall system, and demonstrate how the later overcomes deficiencies of the former in creating a building envelope with superior performance as well as other key benefits.

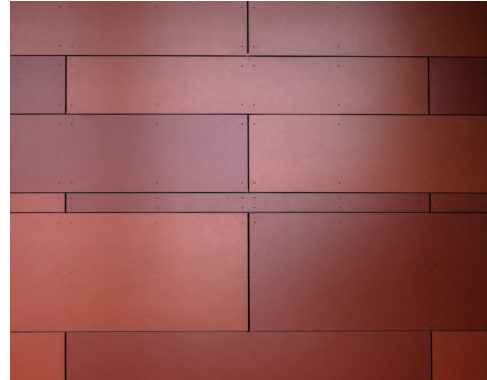
### Learning Objectives:

- How to achieve superior building envelope performance in rainscreen wall design explores rainscreen wall design theory.
- How rainscreen walls control hygrothermal loads.
- shortcomings of today's multi-component backup wall assemblies used in rainscreen wall construction.

# RAINSCREENS

## FIBER CEMENT PANELS

**CREDITS: 1.0 HR LU / HSW**  
**PROVIDER: SGH CONCEPTS**  
**SWISSPEARL**

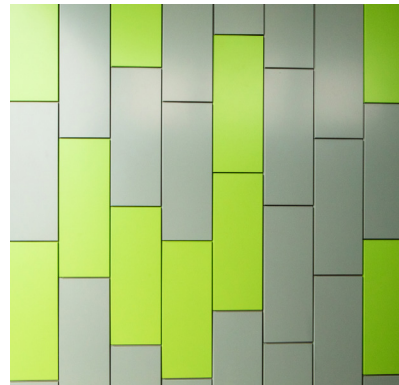


### Learning Objectives:

- Describe the many product choices and options available in fiber cement panels.
- Summarize the test standards met by high performing fiber cement panels.
- List the components of a ventilated rainscreen system and identify how each contributes to reliable thermal performance and reduced energy consumption.
- Discuss the fiber cement panel life cycle which makes it an excellent choice for sustainable design.
- Discuss steps of preliminary design with fiber cement panels and how the ventilated facade system should be planned with drawings, especially the sub framing and panel layout.
- Discuss the safety measures taken when handling and installing fiber cement panels.

## SINGLE SKIN METAL RAINSCREEN

**CREDITS: 1 HR LU/HSW**  
**PROVIDER: SGH CONCEPTS**  
**DRI-DESIGN**



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- Specifying a metal panel with a suitable finish for single skin metal panel to meet a building's projected cost and maintenance life cycle needs.
- Project Case Studies.



# DAYLIGHTING

## DAYLIGHTING 101

**CREDITS: 1 HR LU/HSW**  
**PROVIDER: SGH CONCEPTS**



Description: Topics about the use and benefits of daylight, the different types of systems, mental benefits of natural daylight, thermal case studies, along with applications and basic details.

### Learning Objectives:

- Learn the benefits of using daylighting and daylighting strategies.
- Able to properly compare different daylighting products.
- Design and implement different daylighting systems.
- Determine the best daylighting for their building.

## SUSTAINABLE DESIGN THROUGH DAYLIGHTING

**CREDITS: 1 HR LU/HSW**  
**PROVIDER: KALWALL**



Description: Topics discussed include daylighting strategies available through the integration of structural sandwich panels, energy conservation, enhancements, options, form and aesthetics. The many benefits to health, productivity, safety and sustainable design will be discussed, as well as specialty applications including explosion venting, blast resistance, OSHA fall through protection and hurricane resistance.

# DAYLIGHTING

## SUSTAINABLE DESIGN USING HIGHLY INSULATED DIFFUSED NATURAL DAYLIGHT



**CREDITS: 1 HR LU/HSW**  
**PROVIDER: STRUCTURES UNLIMITED, INC.**

### Learning Objectives:

- Participants leave with the ability to understand the health, safety, productivity, protection and aesthetic benefits of Natural daylighting in occupied spaces.
- Understand the benefits to the occupants of a space with diffused sunlight (no glare) instead of direct sunlight (glare).
- Participants will gain understanding of how Natural Daylight improves occupant's attendance productivity and health.
- Understanding the benefits of designing with low solar heat gain to lower the energy costs of cooling and high insulation properties benefiting the efficiency of heating of the building.
- Participants will also learn about safety of providing a daylighting material, which can meet OSHA fall through, windborne debris, blast resistance and explosion venting protection.

## SUCCESSFUL DAYLIGHTING FOR WELLNESS & SUSTAINABLE DESIGN

**CREDITS: 1 HR LU/HSW**  
**1 HR GENERAL CE**  
**PROVIDER: SGH CONCEPTS**  
**SOLATUBE**



Description: Expand your awareness of the advantages of daylighting using Tubular Daylighting Devices (TDDs) that contribute to wellness and sustainable design. You will learn the importance of natural light to humans, the role TDDs can play, and the resources available for achieving sustainable design goals.

# DAYLIGHTING

## INSPIRING APPLICATIONS OF TUBULAR DAYLIGHTING IN EDUCATIONAL FACILITIES

**CREDITS: 1 HR LU/HSW  
1 HR GENERAL CE  
PROVIDER: SGH CONCEPTS  
SOLATUBE**



Description: Discover how tubular daylighting devices (TDDs) can be implemented in inspiring and innovative ways to meet aesthetic and functional design goals in educational settings. From sustainably-built, green schools to life-saving facilities such as tornado and hurricane shelters, TDDs can add perfect, broad-spectrum daylight while supporting the unique design vision of architects and designers in the educational environment.

## INNOVATIVE DAYLIGHTING STRATEGIES FOR COMMERCIAL BUILDINGS - INTRO TO TUBULAR DAYLIGHTING DEVICES

**CREDITS: 1 HR LU/HSW  
1 HR GENERAL CE  
PROVIDER: SGH CONCEPTS  
SOLATUBE**



Description: Learn about the latest advanced optical daylighting technology and the product category Tubular Daylighting Devices (TDDs) which make daylighting a space as easy as applying traditional lighting equipment.

## INSPIRING APPLICATIONS OF TUBULAR DAYLIGHTING

**CREDITS: 1 HR LU/HSW  
PROVIDER: SGH CONCEPTS  
SOLATUBE**



Description: This session will study inspiring applications of Tubular Daylighting Devices (TDDs) around the world that deliver natural light into unique spaces and create visually appealing natural lighting to complement an overall design.

# OPERABLE WALLS

## REVOLUTIONIZING FLEXIBLE SPACE WITH AUTOMATED OPERABLE PARTITIONS

**CREDITS: 1 HR LU/HSW  
PROVIDER: SKYFOLD**



Description: Have you thought about incorporating automated and acoustic operable partitions into your flexible space design plans, but have struggled with the design concept, planning and choosing a solution? Then this is the class for you.

### Learning Objectives:

- Recognize the advantages of automated flexible space to manage spaces more efficiently and effectively.
- Compare and contrast three types of automated operable partitions.
- Understand acoustic separation as it relates to flexible spaces and automated operable partitions.
- Understand storage and structural considerations.
- Discover the impact of automated operable partitions on overall design.
- Understand the overall cost implications (initial and lifecycle).

## MASTERING ARCHITECTURAL ACOUSTICS IN FLEXIBLE SPACES

**CREDITS: 1 HR LU/HSW  
PROVIDER: SKYFOLD**



Description: There are many acoustical considerations when designing flexible spaces that do not sacrifice privacy and comfort, especially when integrating operable partitions into these spaces. This course explores acoustics in the built environment (also known as “invisible architecture”) and its effects on well-being, health, safety and productivity, as well as an overview of the WELL Building Institute’s acoustical comfort recommendations.

### Learning Objectives:

- Understand what sound is and how it behaves in an interior environment.
- Learn how building materials are classified for their sound control capabilities.
- Learn about acoustical challenges in flexible spaces with and without operable partitions.
- Discover how best to control sound.
- Find solutions for noise control through automation and intelligent acoustical design.

# OPERABLE WALLS

## A SOUND DECISION - ACOUSTICS & OPERABLE PARTITIONS

**CREDITS: 1 HR LU/HSW CE  
PROVIDER: SGH CONCEPTS  
MODERNFOLD**



Description: Acoustical control is a critical factor in virtually every type of environment; therefore, selection of the appropriate operable partition is critical. It is important when choosing an operable wall system to not only consider the space and configuration of your application and how the wall operates, but to also examine the wall's acoustical performance. We discuss the right wall system, in conjunction with complementing architectural elements, to help produce excellent acoustical control.

### Learning Objectives:

- Identify the ways acoustics can be measured and how high acoustic levels can affect the physical, mental, and social health of occupants.
- Illustrate how operable partitions can be used to reduce sound transmission and create multiple configurations that are quiet and effective for a variety of users.
- Analyze field sound tests used to ensure materials and products comply with standards and guidelines for safe acoustical levels in various applications.
- Discuss how operable partitions can help projects apply for LEED category credits that guide design professionals in creating spaces that allow occupants to live and work in peace.

# OPERABLE WALLS

## BREAKING THE FOURTH WALL - MODERN OPERABLE WALL SYSTEMS

**CREDITS: 1 HR LU/HSW CE**  
**PROVIDER: SGH CONCEPTS**  
**MODERNFOLD**



Description: From simply reconfiguring a room to completely changing how it is entered and exited, operable wall partition systems make rooms more efficient and maximize space by implementing superior technologies. We'll go beyond the basics of operable partitions to address layout, operating clearances, panel construction, and acoustical elements. By the end of this course, design professionals will learn how these components work together to impact a project's environment in term of health, well-being, and space management.

### Learning Objectives:

- Define operable wall systems and discuss how they can improve occupants' wellbeing by implementing space flexibility and daylighting through various panel configurations.
- Compare and contrast the different suspension systems available for use with operable partitions.
- List the various types of acoustical seals that can be used with operable partitions in order to improve occupants' health and wellbeing in multi-use spaces.
- Identify safety considerations of operable partitions, including stopping electric partitions, protecting spaces from fire, and ensuring appropriate clearances •

## OPERABLE WALLS

### THROUGH THE LOOKING GLASS - MOVABLE GLASS PARTITION SYSTEMS

**CREDITS: 1 HR LU/HSW CE**  
**PROVIDER: SGH CONCEPTS**  
**MODERNFOLD**



Description: One of the best ways to craft unique and welcoming environments is by adding openness and natural light to a space. Join us in this one-hour course as we discuss utilizing glass operable walls to facilitate natural light and views in a variety of applications to meet the diverse needs of different markets. By the end of this presentation, you will be able to identify features and benefits of glass operable wall systems, especially increased social and emotional well-being for occupants and increased sustainability.

#### Learning Objectives:

- Identify the need for natural light and views in the workspace, describing their ability to improve the emotional and social health of occupants.
- Compare and contrast glass operable wall systems, especially in their ability to contribute to LEED category credits.
- Discuss the characteristics and benefits of glass operable walls, especially suspension systems that ensure occupants and operators are kept from physical harm.
- Illustrate how glass operable walls can be used in a variety of applications to meet the diverse needs of different markets.