

# ARCHITECTURAL Design Solutions







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#### Product Application Chart & Index

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MBCI has earned its reputation as one of the nation's leading suppliers of preformed metal for roofs, walls, mansards and soffits by providing of the highest quality building components and service in the industry.

This Product Application Chart is for general reference only. Not all panels, gauges and widths should be used for these applications. Please call MBCI for the best product for your specific application.

Descriptions and specifications contained herein were in effect at the time this publication was approved for printing. In a continuing effort to refine and improve products, MBCI reserves the right to discontinue products at any time or change specifications and/or designs without incurring obligation. To ensure you have the latest information available, please inquire or visit our website at www.mbci.com. Application details are for illustration purposes only and may not be appropriate for all environmental conditions, building designs or panel profiles. Projects should be designed to conform to applicable building codes, regulations and accepted industry practices. If there is a conflict between this manual and project erection drawings, the erection drawings will take precedence.

# STIMULATE YOUR IMAGINATION

WITH MBCI'S BROAD SPECTRUM OF PANEL OFFERINGS, DESIGN OPPORTUNITIES ARE EXPONENTIAL. PRODUCT OFFERINGS RANGING FROM SINGLE SKIN ROOF AND WALL PANELS TO INSULATED METAL PANELS, SOLUTIONS FOR NEW AND RETROFIT CONSTRUCTION, COATINGS IN A BREADTH OF COLORS AND APPLIED FINISHES PROVIDE YOU INSPIRATION TO **DESIGN YOUR MASTERPIECE**.

#### THE MBCI ADVANTAGE

Since 1976, MBCI has been dedicated to providing our customers with the highest quality products and excellent service from our skilled professionals. MBCI is the industry leading manufacturer of metal roof and wall systems, supplying products to the architectural, institutional, commercial, industrial, residential and agricultural markets. MBCI has facilities positioned strategically throughout the United States to best serve our customers.

The industry leading manufacturer of metal roof and wall systems.



# Standing Seam Metal Roofing

When your design requires a roofing system that is both aesthetically pleasing and structurally sound, choose one of MBCI's standing seam metal roof systems. Our SSR systems are some of the most durable and weathertight roof systems available in the industry while enhancing the appearance of the building.

MBCI offers two types of standing seam metal roofs: vertical leg structural and trapezoidal structural. Each system carries the Underwriters Laboratories Wind Uplift (UL 90), Fire Resistance and Impact Resistance ratings covering a wide range of roof designs. Additional ratings have been given to the individual panel systems.

Special clips are available for thermal roof expansion and contraction during extreme temperature changes. All trim is both weathertight and aesthetically pleasing, giving the roof a clean finished appearance.



#### Vertical Leg Structural Standing Seam Metal Roof Systems

The vertical leg systems blend the aesthetics of an architectural panel with the strength of a structural panel. These panels have earned several UL uplift ratings, assuring the reliability of performance. They also provide flexibility to meet design challenges.

> Each of these SSR systems is designed to be installed over open framing. However, the MBCI LiteFrame®, 5/8" plywood or a composite roof assembly may be used as alternate substructures.



PROJECT: Audubon National Wildlife Refuge LOCATION: Coal Harbor, ND PANEL PROFILE: BattenLok® HS COLOR: Classic Green



LokSeam® is a snap-together standing seam roof system with a 13/4" tall vertical rib for use on roofs with a minimum slope of 3:12. LokSeam® panels can be installed over open framing or a solid substructure and are capable of transitioning from roof to fascia with the use of a rib cover. The LokSeam® system does not require a solid substructure for support.

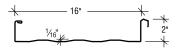


#### Product Specifications

- Applications: Roof
- Coverage Widths: 12", 16" and 18"
- Minimum Slope: 3:12
- Panel Attachment: Concealed Fastening System, Standard and UL 90 Clips
- Gauges: 24 (standard); 22 (12", 16", 18") and 26 (12") (optional)
- Finishes: Striated (standard); Embossed Striated (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

#### SUPERLOK®





SuperLok® is a mechanically field-seamed system that combines a 2" tall slim rib with exceptional uplift resistance. MBCI designed the SuperLok® system to withstand the most rigorous weather conditions. This panel can be installed directly over purlins or bar joists. SuperLok® does not require a solid substructure for support.

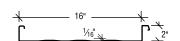
In addition to the UL 90 rating, the SuperLok® system meets a variety of ratings as tested under FM Global Corporation Standard 4471.

- Applications: Roof
- Coverage Widths: 12" and 16"
- Minimum Slope: ½:12
- Panel Attachment: Concealed Fastening System, Low, High (fixed or floating), Utility (no insulation clearance)
- Gauges: 24 (standard); 22 and 26 (optional)
- Finishes: Smooth Striated (standard); Embossed Striated (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic



#### **BATTENLOK® HS**





BattenLok® HS is a mechanically field-seamed, high-strength SSR system. The BattenLok® HS panels have a 2" tall vertical seam. This system can be installed directly over purlins or bar joists and is capable of transitioning from roof to fascia. BattenLok® HS does not require a solid substructure for support.

In addition to the UL 90 rating, the BattenLok® HS system has met all test requirements specified in CEGS 07416 / ASTM E 1592 Standing Seam Metal Roof System guide specification.

#### **Product Specifications**

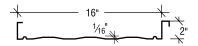
- Applications: Roof
- Coverage Widths: 12" and 16"
- Minimum Slope: ½:12
- Panel Attachment: Concealed Fastening System, Low, High (fixed or floating), Utility (no insulation clearance)
- Gauges: 24 (standard); 22 (optional)
- Finishes: Smooth Striated (standard); Embossed Striated and Smooth, Embossed Striated with Pencil Ribs (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

## CURVED BATTENLOK®





Curved BattenLok® may be curved to a minimum radius of 20 feet. This system can be installed directly over purlins or joists or over wood decks and metal decks with rigid insulation. Open framing applications eliminate costly curved deck surfaces and membrane underlayments. For large and/or long panels, the curving process for the curved standing seam metal roof system may be best accomplished at the job site.



In addition to the UL 90 rating, the BattenLok® HS system has met all test requirements specified in CEGS 07416 / ASTM E 1592 Standing Seam Metal Roof System guide specification.

- Applications: Roof
- Coverage Widths: 16"
- Panel Attachment: Concealed Fastening System, Low, High (fixed or floating), Utility (no insulation clearance)
- Gauges: 24 (standard)
- Finishes: Smooth Striated (standard)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300

#### Trapezoidal Standing Seam Metal Roof Systems

The trapezoidal SSR systems are designed for strength, durability and weatherability. The standing seams are 3" above the lowest part of the panel, well above the water level as it flows off the roof. The rake/gable at both ends of each roof system avoids the necessity of finishing in the low, flat part of the panel where the greatest possibilities for leaks occur in many other systems.

The trapezoidal SSR systems can be installed before or after the exterior walls are in place. All trim is attached after the roof is installed. With a recommended minimum slope of ¼:12, these systems can be used on all types of construction, including metal, masonry or wood for either new or retrofit construction.



C PROJECT: UDOT Strawberry Maintenance Station LOCATION: West Valley, UT PANEL PROFILE: Double-Lok® & Artisan® Series COLOR: Champagne Metallic

# ULTRA-DEK®

The Ultra-Dek® roof panel is a snap-together, trapezoidal leg standing seam roof system. Ultra-Dek® panels can be installed on various types of construction. The standard offering for the Ultra-Dek® system is a sliding clip that allows for thermal movement. These clips are available in high and low versions for uses with different thicknesses of vinyl-backed fiberglass insulation.

#### Product Specifications

- Applications: Roof
- Coverage Widths: 12", 18" and 24"
- Minimum Slope: 1/4:12
- Panel Attachment: Concealed Fastening System, Low, High (fixed or sliding)
- Gauges: 24 (standard); 22 and 26 (optional)
- Finishes: Striated (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

#### **DOUBLE-LOK®**



24"

Double-Lok® is a mechanically field-seamed, trapezoidal leg SSR system. The standard offering for the Double-Lok® system is a 2 ½" sliding clip that allows for thermal movement. A 4" sliding clip is also available, which in many cases, can eliminate roof steps on a double sloped roof up to 900 feet wide or a single sloped roof up to 450 feet wide. These clips are available in high and low versions for uses with different thicknesses of vinyl-backed fiberglass insulation. A 2" standoff clip is also available, allowing the placement of 6" fiberglass insulation and a 1" thermal spacer between the roof panel and the purlin or joist, a requirement for several climate zones in new energy codes.

- Applications: Roof
- Coverage Widths: 12", 18" and 24"
- Minimum Slope: 1/4:12
- Panel Attachment: Concealed Fastening System, Low, High, 2" Standoff
- Gauges: 22 and 24 (standard)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus\*, Signature\* 200, Signature\* 300, Signature\* 300 Metallic



# **eco**-FICIENT™Insulated Metal Panels

As building and energy codes become increasingly more stringent, MBCI's CCO-FICIENT™ insulated metal panels (IMPs) can help you meet these codes by providing you with the products to create a thermally efficient building envelope.

IMPs present many advantages for building owners, designers and contractors, including improved thermal performance, excellent insulating capabilities, reduced building operational expenses, accelerated construction schedules, earlier business starts and much more. **eco**-FICIENT™ panels are ideal for architectural, commercial, industrial and institutional applications. **eco**-FICIENT™ panels are available in a wide variety of panel profiles, colors and applied finishes.



#### **eco-ficient INSULATED BATTENLOK®**

This panel is one of MBCI's popular standing seam metal roof offerings. The **€CO**-FICIENT™ Insulated BattenLok® roof panel is ideal for architectural, commercial, institutional and industrial applications.

The exterior profile has a 2" high standing seam with a Mesa profile in the panel flat. The interior profile is also a stucco-embossed Mesa pattern. The exterior profile can be smooth on roof slopes less than 3:12. Insulated BattenLok® is attached to a building structure with concealed clips to provide continuous insulation and eliminate thermal bridges.



#### Product Specifications

- Applications: Roof
- · Gauges:
- Exterior: 24 and 22 | Interior: 26, 24 and 22
- Widths: 30", 36" and 42"

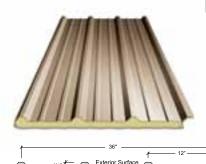
2", 2½", 3", 4", 5" or 6"

- Thicknesses: 2", 2½", 3", 4", 5" and 6"
- Length: Recommended maximum of 50'
- Panel Attachment: Concealed Fastening System
- Coatings: Galvanized/Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

#### **eco-ficient INSULATED R PANEL**

Exterior Surface

The **CCO**-FICIENT™ Insulated R Panel offers the same versatility as the single-skin PBR panel from MBCI and can be used for both roof and wall applications. This panel utilizes a throughfastened attachment. The standard exterior skin is smooth but can be embossed if requested. The interior skin is roll formed with our standard stucco-embossed Mesa pattern. The Insulated R Panel is ideal for commercial applications.



#### **Product Specifications**

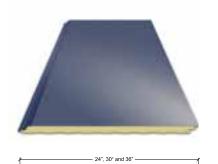
- Applications: Roof and Wall
- Gauges:
  - Exterior: 26, 24 and 22 | Interior: 26, 24 and 22
- Widths: 36"

1½", 2", 2½", 3", 4", 5" or 6"

- Thicknesses: 1½", 2", 2½", 3", 4", 5" and 6"
- Length: Recommended maximum of 50'
- Panel Attachment: Through Fastening System
- Coatings: Galvanized/Galvalume Plus®, Signature 200, Signature 300, Signature 300 Metallic, Applied Finishes

### **CCO-FICIENT** GRAND V

The  ${\sf CCO}$ -FICIENT<sup>TM</sup> insulated wall panel has a flat appearance providing a uniform look that is ideal for high-profile, vertical architectural applications. The exterior and interior skins are stucco-embossed and the interior skin has a Mesa pattern



Exterior Surface

#### **Product Specifications**

• Applications: Wall

• Gauges:

2", 2½", 3" or 4"

Exterior: 22 | Interior: 26, 24 and 22

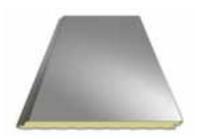
• Widths: 24", 30" and 36"

• Thicknesses: 2", 2½", 3" and 4"

- Length: Recommended maximum of 32'
- Panel Attachment: Concealed Fastening System
- Coatings: Galvanized/Galvalume Plus®,
   Signature® 200, Signature® 300, Signature® 300
   Metallic, Applied Finishes

## **CCO-FICIENT** GRAND H

The  ${\sf eco}$ -ficient of aluminum extrusions and accessories to complete the wall system. When desired, these panels can also be mixed with vertical  ${\sf eco}$ -ficient of achieve most any look a design requires.



#### Product Specifications

- Applications: Wall
- Gauges:

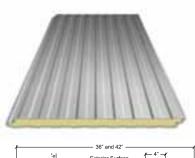
Exterior: 22 | Interior: 26, 24 and 22

- Widths: 24", 30" and 36"
- Thicknesses: 2", 2½" and 3"
- Length: Recommended maximum of 24'
- Panel Attachment: Concealed Fastening System
- $\bullet$  Reveal Options: ½", ½", ½, ¾", 1", 1½", 2", 2½" or 3"
- Coatings: Galvanized/Galvalume Plus®,
   Signature® 200, Signature® 300, Signature® 300
   Metallic, Applied Finishes



#### CCO-FICIENT® ROYAL

The  $\mathsf{CCO} ext{-}\mathsf{FICIENT}^\mathsf{TM}$  Royal wall panel is designed for both exterior wall applications and interior wall partitions. The versatility of this panel allows for a uniform appearance from the outside to inside and from room to room in partition applications.  $\mathsf{CCO} ext{-}\mathsf{FICIENT}^\mathsf{TM}$  Royal has aesthetically pleasing embossed exterior and interior skins with our Mesa pattern.



#### Product Specifications

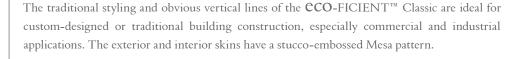
- Applications: Wall
- Gauges:

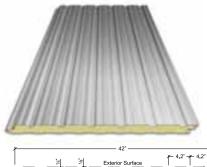
Exterior: 26, 24 and 22 | Interior: 26, 24 and 22

- Widths: 36" and 42"
- Thicknesses: 2", 2½", 3", 4", 5"and 6"
- Length: Recommended maximum of 50'
- Panel Attachment: Concealed Fastening System
- Coatings: Galvanized/Galvalume Plus®,
   Signature® 200, Signature® 300, Signature® 300
   Metallic, Applied Finishes



#### **eco-ficient**<sup>™</sup> **CLASSIC**





#### **Product Specifications**

- Applications: Wall
- Gauges:
- Exterior: 26, 24 and 22 | Interior: 26, 24 and 22
- Widths: 42"
- Thicknesses: 2", 2½", 3", 4", 5" and 6"
- Length: Recommended maximum of 50'
- Panel Attachment: Concealed Fastening System
- Coatings: Galvanized/Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic, Applied Finishes



The CCO-FICIENT™ Vintage is a unique offering with our Aztec-embossed pattern on the exterior panel. This creates a look that resembles old-world hand plaster. The interior skin of the panel is stucco-embossed with our Mesa pattern.



Exterior Surface

#### **Product Specifications**

- Applications: Wall
- Gauges:

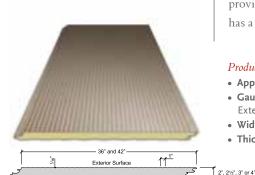
2", 2½", 3", 4"

Exterior: 24 and 22 | Interior: 26, 24 and 22

- Widths: 36" and 42"
- Thicknesses: 2", 21/2", 3" and 4"

- Length: Recommended maximum of 40'
- Panel Attachment: Through Fastening System
- Coatings: Galvanized/Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic, Applied Finishes

#### **eco-ficient SUMMIT**



The CCO-FICIENT™ Summit wall panel is an excellent alternative to conventional flat wall construction. The exterior skin is profiled with minor striations, giving it a flat appearance and providing a linear look while blending with the panel side joints. The interior skin of this panel has a stucco-embossed Mesa pattern.

#### **Product Specifications**

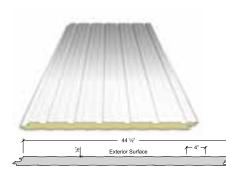
- Applications: Wall
- Gauges:

Exterior: 24" and 22 | Interior: 26, 24 and 22

- Widths: 36" and 42"
- Thicknesses: 2", 2½", 3" and 4"
- Length: Recommended maximum of 40'
- Panel Attachment: Concealed Fastening System
- Coatings: Galvanized/Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic, Applied Finishes

# CEILING PANEL

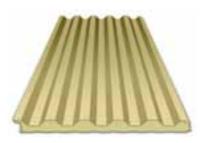
The Interior Partition & Ceiling Panel is for interior walls, partitions and suspended ceilings. Both sides of the panel feature an identical Mesa profile with stucco-embossing, providing a smooth appearance. This panel is not to be used for the building envelope. The standard surfaces are 26 gauge Galvalume® coated steel in Igloo White.



#### Product Specifications

- Applications: Wall and Ceiling (interior only)
- Gauges: 26 (both surfaces)
- Widths: 441/2"
- Thicknesses: 2", 2½", 3", 4", 5" and 6"
- Length: Recommended maximum of 40'
- Panel Attachment: Tongue-and-Groove with Exposed Fasteners
- Coatings: Igloo White

### **CCO-FICIENT**INSULATED 7.2



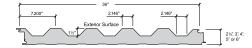
The Insulated 7.2 Panel combines a traditional 7.2 rib panel design with a premier polyurethane foam core. The Insulated 7.2 Panel can be installed both vertically and horizontally, allowing architects the same design flexibility that is available in our single skin 7.2 Panel. The Insulated 7.2 Panel is FM Approved Class 1 with no height restrictions.

#### Product Specifications

- Applications: Wall
- Gauges:

Exterior: 26, 24 and 22 | Interior: 26, 24 and 22

- Widths: 36"
- Thicknesses: 2½", 3", 4", 5"and 6"
- Length: Recommended maximum of 36'
- Panel Attachment: Concealed Fastening System
- Coatings: Galvanized/Galvalume Plus®,
   Signature® 200, Signature® 300, Signature® 300
   Metallic, Weathered Metal Series and Woodgrain Metal Series (for interior application only)







### **CCO-FICIENT**HPCI BARRIER



The HPCI Barrier™ insulated metal panel is an air, water, thermal and vapor barrier panel that can be used behind any type of façade. This back-up panel is installed in a horizontal orientation completely outside the structural supports. There are no thermal bridges to reduce the energy efficiency of the wall. HPCI Barrier™ is quick and easy to install and provides an economical solution to conventional air, water, thermal and vapor control without sacrificing thermal efficiency. This panel must be separated from the interior of the building by an approved thermal barrier of .5" (12.7 mm) gypsum wallboard to meet IBC requirements.

#### **Product Specifications**

- Applications: Wall
- Exterior and Interior Facings: Minimum .016" HPCI galvanized steel
- Widths: 42"
- Thicknesses: 2", 3" and 4"

- Length: Recommended maximum of 24'
- Insulation Material: Zero ozone depleting polyurethane
- Panel Attachment: Concealed Fastening System
- Coatings: White Polyester

# CO-FICIENT INSULATED FIRE RESISTANT PANEL



The Insulated Fire Resistant Panel consists of metal facings bonded to a structural mineral wool core to create a composite panel that achieves fire resistance ratings under the most demanding of conditions. Unlike traditional wall materials, the Insulated Fire Resistant Panel offers a level of flexibility architects, contractors and building owners won't find in any other product in the U.S. The mineral wool panel is rated for its 1-, 2- and 3-hour fire resistance qualities and provides satisfactory thermal performance and protection from the elements. The R-value of this panel is 3.61 per inch of insulation.

#### Fire Resistant Data

- The finished panel in 4" thickness for one hour, 7" thickness for two hour and 8" thickness for three-hour Fire Resistant ratings for nonbearing walls in accordance with UL 263 Fire Endurance tests and ASTM E119 tests.
- For more complete Fire Resistant rating data, including Fire Resistant ratings for pipe penetrations both metallic and non-metallic, ducts and fire door and window assembly design installed in an eco-FICIENT™ Insulated Fire Resistant wall, go to www.ecoficientseries.com and follow links to Fire Resistant approvals data.
- Wall-framing support members and adjacent construction may require fire protection as specified by applicable building code. The customer is responsible for specifying the appropriate fire protection of these areas.

#### Features & Benefits

- Resists high temperatures and will not burn because of mineral wool core
- Can be disassembled, moved and reinstalled rather than having to be demolished, waste materials disposed of and the walls completely rebuilt
- Elimination of installation of separate cement board splines at side joint of panel to maintain Fire Resistant with exclusive integral spline design
- Good sound reduction acoustical properties because of mineral wool
- Dimensionally stable, water repellent and will not expand
- Can be combined with other eCO-FICIENT™ panels for an aesthetically consistent profile facing, texture and color

- Applications: Wall
- Gauges:
- Exterior: 26 and 24 | Interior: 26 and 24
- Widths: 42"
- Thicknesses: 4", 5", 6", 7"and 8"
- Length: Recommended maximum of 40';
   Maximum available length may be reduced due to panel thickness, end use and orientation
- Panel Attachment: Exclusive integral spline design
- Coatings: Galvanized/Galvalume Plus®,
   Signature® 200, Signature® 300, Signature® 300
   Metallic, Interior is unpainted

# Concealed Fastening Systems



#### CRAFTSMAN<sup>™</sup> SERIES

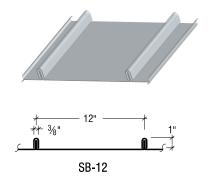
The Craftsman<sup>TM</sup> Series roofing system helps simplify a complicated building transition without the necessity of flashing. Craftsman<sup>TM</sup> is a snap-on batten roof system available in narrow, wide and high profiles – small (SB), large (LB) and high batten (HB).

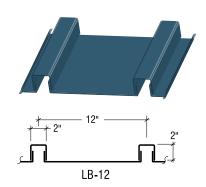
The Craftsman™ Series is a water-shedding system and can be used for roofs and mansard only when installed over a water-proofed solid substructure with a minimum roof slope of 3:12. A concealed clip securely locks the batten to the panel while allowing for expansion and contraction.

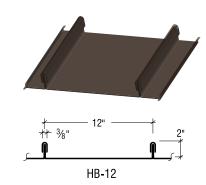
Each Craftsman<sup>™</sup> Series panel carries a UL 90 Uplift classification when installed over 5/8" plywood or a composite roof assembly with a metal subdeck and rigid insulation. For complete information, call MBCI or review UL Construction Numbers 280, 281, 282, 308, 309 and 310.

#### Product Specifications

- Applications: Roof
- Coverage Widths: 12" and 161/2"
- Minimum Slope: 3:12
- Panel Attachment: Concealed Fastening System
- Gauges: 24 (standard); 22 and 26 (optional)
- Finishes: Smooth (standard); Striated (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic





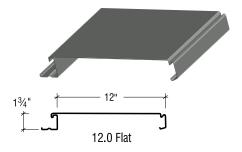


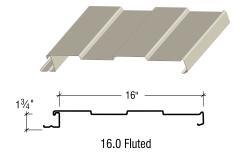
### DESIGNER SERIES

If you're looking for an elegant, clean design for your building, then the Designer<sup>T</sup> Series is what you need. Available in both flat and fluted profiles, these systems provide the toughness of metal while creating an attractive, flexible and functional wall or fascia.

The Designer™ Series 12.0 flat panel offers a 1¾" deep leg providing the perfect cavity for rigid board insulation. The Designer™ Series 16.0 fluted panel offers a continuous rib design with a hidden sidelap where the panels join together. Ribs are 4" wide and 3/8" deep, providing interesting shadow lines along the length of the wall.

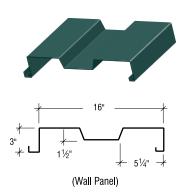
- Applications: Wall
- Coverage Widths: 12" (flat) and 16" (fluted)
- Panel Attachment: Concealed Fastening System
- Gauges: 24 and 22 (standard)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic







#### SHADOWRIB"



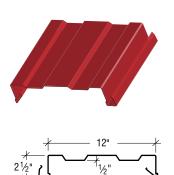
ShadowRib™ combines aesthetics, economics and function to bring definition to your design. The 3" deep flutes create distinctive shadow lines on your structure. Proven to be a performer and versatile tool to designers, this panel has superior structural strength which is accomplished without sacrificing appearance or design flexibility.

ShadowRib<sup>™</sup> can be used for walls, fascias and equipment screens. The system can be applied over light-gauge framing, purlins, girts, structural steel and joists.

#### **Product Specifications**

- Applications: Wall
- Coverage Widths: 16"
- Panel Attachment: Concealed Fastening System System (outside); ShadowRib™ Panel Clip (inside)
- Gauges: 24 (standard) and 22 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

#### **NUWALL®**



NuWall® combines the ease of installation in both new and retrofit applications with a pleasing aesthetic appeal. And, installation of panels for retrofit construction is performed outside with no disruption of the workplace on the inside. In retrofit applications, the NuWall® panel can be installed over an existing R or U panel wall. Other panel profiles and other forms of construction may require the use of subgirts.

NuWall® is attached to the structure with self-drilling fasteners on one side of the panel only. No clips are required. The adjoining panel simply snaps into the previous panel, concealing the fasteners from view.

#### **Product Specifications**

- Applications: Wall
- Coverage Widths: 12"
- Panel Attachment: Concealed Fastening System
- Gauges: 24 and 22
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

#### FW-120



12"

The FW-120 panel is a concealed fastener wall and liner panel that provides a smooth, flat appearance. The heavy gauge offering provides for large spanning capabilities, particularly in composite wall applications. FW-120 is available in a flat profile with one bead or two beads.

The FW-120 panel has been tested by a certified independent laboratory in accordance with ASTM test procedures for Air Infiltration and Water Penetration at the sidelap. Test results show no air leakage at 1.57PSF and no water penetration at 6.24PSF differential pressure.

- Applications: Wall
- Coverage Widths: 12"
- Panel Attachment: Concealed Fastening System
- Gauges: 24, 22 and 20
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Signature® 300

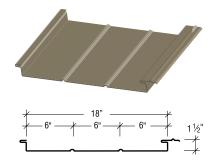
# Interior Wall & Liner Panels

These concealed fastener interior wall and liner panels offer an attractive, flat appearance for architectural, commercial and industrial markets. The FW-120 panel can also be used as an interior wall or liner panel. Both the IL and ILM panels are available with face beads and/or embossing to minimize the potential for oil canning.

### Field-Assembled Composite Wall Systems

The composite wall system is designed to accommodate FW or 7.2 panels as exterior skins with IL or ILM panel interior liners.

#### **IL PANEL**

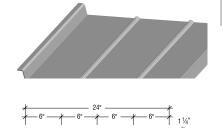


The IL Panel is ideal for an interior liner creating a rugged and attractive finished wall appearance. This profile allows for installation as the liner of a composite wall system or installed to the inside girts of a building. The IL Panel is not recommended for exterior wall applications.

#### Product Specifications

- Applications: Interior Wall and Liner
- Coverage Widths: 18" and 24"
- Panel Attachment: Concealed Fastening System
- Gauges: 24 (standard); 22 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Signature® 200

#### **ILM PANEL**



The ILM Panel is idea for interior liner creating a rugged and attractive finished wall. This concealed-fastening system does not have an interlocking side joint feature and are used as the interior liner in a field-assembled system only. ILM is not recommended for exterior wall applications.

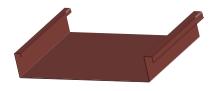
- Applications: Interior Wall and Liner
- Coverage Widths: 18" and 24"
- Panel Attachment: Concealed Fastening System
- Gauges: 24 (standard); 22 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Signature® 200

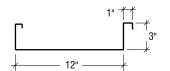
# Underhung Canopies

MBCI offers two separate panel profiles for underhung canopies, the Classic® Series and QwikLok $^{\text{\tiny TM}}$ .



#### CLASSIC® SERIES





Classic® Series is an excellent choice for canopies, walkway covers and soffits. Proven capabilities make this a versatile and valuable design tool. The Classic® Series creates a clean, flush appearance when used as a canopy system.

Panels may be secured to the structure by using clips or expansion fasteners. Both are positive fastened methods creating a secure interlock between the panel and structure. This versatile panel can be attached to the bottom of the roof structural system whether it is light gauge framing, purlins, structural steel or joists. When specifying the Classic® Series, please note the panel surface to be painted on the top or bottom.

#### Product Specifications

- Applications: Canopies, Walkway Covers and Soffits
- Coverage Widths: 12" and 16"
- Panel Attachment: Concealed Fastening System
- Gauges: 24 (standard); 22 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

#### QWIKLOK<sup>™</sup>



2 1/2"

QwikLok $^{\text{m}}$  provides the basic design element for any type of canopy cover, walkway or soffit. QwikLok $^{\text{m}}$  can be assembled from the underside of the structure one panel at a time, producing a flush appearance with no exposed fasteners.

Easy-to-trim flush surfaces make transitions to conventional material simple without major concern for creating special conditions. Direct the flow of water to any desired drainage point by combining QwikLok<sup>TM</sup> with an MBCI fascia/gutter. High gloss finish, immense water carrying capacity and long span characteristics make QwikLok<sup>TM</sup> today's most popular choice for any underside application.

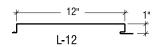
- Applications: Canopies, Walkway Covers and Soffits
- Coverage Widths: 12"
- Panel Attachment: Concealed Fastening System
- Gauges: 24
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: High Gloss White

# Soffits

MBCI offers two separate panel profiles to be used as soffits. The Artisan® Series is simplistic and offers uniform dimensions and a clean appearance. The FlexLoc® panel system combines a clean, flat appearance with an easy-to-engage seam.

#### ARTISAN® SERIES





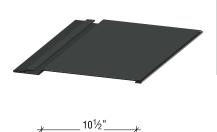
Used for soffits and interior liners, the simplicity of the Artisan® Series panel is its best design feature. Uniform dimensions and a clean appearance allow the designer to plan modules, eliminate complicated pieces and follow wall curvatures. The Artisan® panel can be vertical, horizontal, perpendicular or skewed to the building line, allowing the designer multidimensional freedom to create.

Artisan® Series panels use the positive fastened method and are attached directly to the substructure. The fastener is concealed behind the flush face. These panels can be attached to the MBCI LiteFrame system, girts or a solid substructure.

#### Product Specifications

- Applications: Soffits and Interior Liners
- Coverage Widths: 8", 10" and 12"
- Panel Attachment: Concealed Fastening System
- Gauges: 24 (standard); 22 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

#### **FLEXLOC®**



For a designer looking for a barrel vault with a smooth look and horizontal lines instead of vertical, FlexLoc® is the recommended product for you. It's ideal for both curved and soffit applications.

This non-structural panel is fastened to a waterproofed solid substrate with concealed clips, eliminating panel penetrations and exposed fasteners. Because the panels generally run parallel to the curved surface, no pre-curving of the FlexLoc® panel is required.

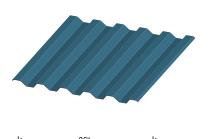
- Applications: Soffits and Curved Applications
- Coverage Widths: 8½", 9½" and 10½"
- Panel Attachment: Concealed Fastening System
- Gauges: 24 (standard); 22 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic



# Exposed Fastening Systems

MBCI exposed fastening systems help provide contemporary and environmentally-friendly aesthetics. Oftentimes these panels can be installed both vertically and horizontally, giving you numerous options for your design. To see all of our exposed-fastening options, visit us online at www.mbci.com.

#### 7.2 PANEL



When your design calls for an exposed fastener panel, the 7.2 panel is an ideal choice. This panel offers a versatility and functionality for both roofs and walls, and can be installed horizontally. The 7.2 Panel is 36" wide with symmetrical 1½" high ribs on 7.2" centers. The symmetrical rib 7.2 Panel provides excellent spanning and cantilever capabilities, making it great for carports and walkway canopies as well as architectural, commercial and industrial applications.

#### **Product Specifications**

- Applications: Roof and Wall
- Coverage Widths: 36"
- Rib Spacing: 7.2" on Center
- Rib Height: 11/2"
- Minimum Slope: 1/2:12

- Panel Attachment: Exposed Fastening System,
- Gauges: 24 (standard); 22, 26 and 29 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300, Signature® 300 Metallic

#### **PBR**



The PBR panel is commonly used for a wide variety of architectural, commercial and industrial applications. PBR is an exposed fastener, structural panel that can be used for both roof and wall applications.

#### **Product Specifications**

- Applications: Roof and Wall
- Coverage Widths: 36"
- Rib Spacing: 12" on Center
- Rib Height: 11/4"
- Minimum Slope: ½:12

- Panel Attachment: Exposed Fastening System,
- Gauges: 26 (standard); 22, 24 and 29 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300



#### **PBC**

The PBC panel is often used in horizontal applications but can be installed vertically as well. It can also be used for both roof and wall applications. This panel provides both a contemporary and industrial look to your design.



#### Product Specifications

- Applications: Roof and Wall
- Coverage Widths: 32"
- Rib Spacing: 2.67" on Center
- Rib Height: 7/8"
- Minimum Slope: 3:12

- Panel Attachment: Exposed Fastening System,
- Gauges: 26 (standard); 22, 24 and 29 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300





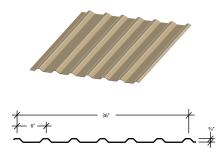
The PBD panel system has rib spacing of 2.67" on center with a rib height of 5%". Used for both roof and wall applications, the ribs are symmetrical from top to bottom, making this panel ideal for a roof liner.

- Applications: Roof and Wall
- Coverage Widths: 32"
- Rib Spacing: 2.67" on Center
- Rib Height: 5/8"
- Minimum Slope: 3:12

- Panel Attachment: Exposed Fastening System,
- **Gauges:** 26 (standard); 22, 24 and 29 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300



**PBU** 



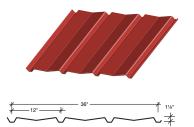
PBU, designed for both roof and wall applications, can be installed directly over purlins or joists. This panel offers the versatility of being used in both vertical and horizontal applications, giving designers a contemporary appearance for their building project. PBU is recommended for 1:12 or greater roof slopes.

#### Product Specifications

- Applications: Roof and Wall
- Coverage Widths: 36"
- Rib Spacing: 6" on Center
- Rib Height: ¾"
- Minimum Slope: 1:12

- Panel Attachment: Exposed Fastening System,
- Gauges: 26 (standard); 22, 24 and 29 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300

**PBA** 



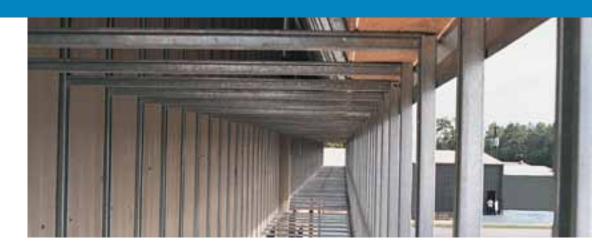
The PBA panel can be used for wall applications and is striated as a standard, providing a unique design feature. The inverted ribs of the PBA panel provide for a discreet location of the exposed fasteners.

- Applications: Wall
- Coverage Widths: 36"
- Rib Spacing: 12" on Center
- Rib Height: 11/8"

- Panel Attachment: Exposed Fastening System,
- Gauges: 26 (standard); 22, 24 and 29 (optional)
- Finishes: Smooth (standard); Embossed (optional)
- Coatings: Galvalume Plus®, Signature® 200, Signature® 300



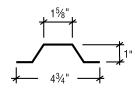
# Structural Systems



#### **LITEFRAME®**

Flexibility is the key to establishing discriminating profies for mansard and fascia applications. LiteFrame® gives the designer total control to create shapes that enhance a building's character. Virtually any combination of hat sections, channel sections and sub-girts can be made, allowing the designer to make a statement with stature and style.

This light gauge structural framing was designed for preformed metal panels. MBCI precision roll forms LiteFrame® in 20' lengths, but custom lengths are available. Hat sections and channel sections are easily assembled to make strong structural-type framing members.



#### STANDARD AND CUSTOM STRUCTURAL SHAPES

MBCI manufactures a complete line of structural shapes roll-formed to dimensions common to the metal building industry. Additionally, custom shapes can also be formed to accommodate specific project requirements.



# **Retrofit Solutions**

Whether your current roof is leaking, has problematic rainwater discharge, expensive maintenance costs, deficient energy efficiencies or all of these issues, MBCI's NuRoof® Retrofit System can help.

The NuRoof® framing system utilizes light-gauge (16 ga. to 12 ga.) steel framing installed directly over the existing roof's framing members to create a sloped plane. Regardless of whether your roof substrate is steel, wood or concrete, MBCI's NuRoof® system can be employed to satisfy the building owner's requirements. MBCI has the experience required to design the retrofit framing system that will comply with the original load requirements of the existing roof. The NuRoof® framing system has been designed to allow for a UL 90 rating using certain spacing requirements as all as meeting a variety of live and wind load requirements.

The existing roof's physical footprint, framing system and other rooftop conditions will most likely control the new roof's geometry. A low-sloped application is typically driven by economy and designed to discharge rainwater from the roof. High-slope applications are designed to improve and update the look of an existing building in conjunction with improving the performance of the roof.

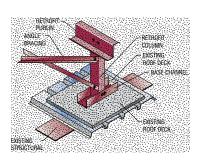
Once a NuRoof® framing system has been installed, one of MBCI's standing seam metal roofs is typically installed, creating a ventilated attic space while providing an architecturally appealing roof.

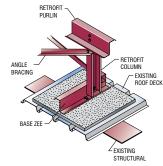


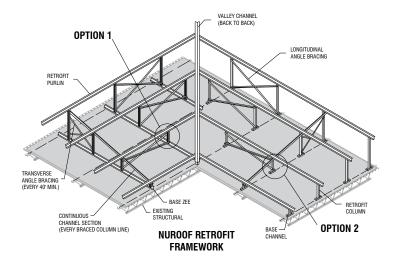
PROJECT: Dallas County Waste Water Treatment Facility
LOCATION: Dallas, TX

PANEL PROFILE: BattenLok® HS with a NuRoof® Retrofit System
COLOR: Champagne Matallic









## Solar Solutions

MBCI offers two types of PV systems for your building's roof. For all information related to our solar offerings, please visit us online at www.mbci.com/solar or request a copy of our most recent solar brochure.

#### GLASS-BASED CRYSTALLINE SILICON

The crystalline solution is a rigid module which can be installed on standing seam roofs using a non-penetrating clamp assembly. This option provides the highest energy conversion efficiency at 13-18%, which is about 10 watts per square foot. The glass-based crystalline module weighs 3-4 pounds per square foot. The modules perform best during peak sunlight hours.



## FLEXIBLE THIN FILM

This lightweight option, approximately <sup>3</sup>/<sub>4</sub> pound per square foot, is typically adhered to the metal roof panel in an MBCI manufacturing facility, allowing the solar array to be installed as the roofing system is installed. Thin film is less efficient than crystalline modules with a 5-10% efficiency rate at about 5 watts per square foot. Flexible thin film does perform better than crystalline modules in low light conditions.





# Service That Makes a Difference

MBCI was founded on its commitment to service. The additional effort from our staff sets MBCI apart from the competition. MBCI's Project Service team is staffed and prepared to provide professional assistance to the architectural and contracting communities. From the initial project concept, Project Services will assist in developing budget criteria and product selection as well as estimating and shop drawings.



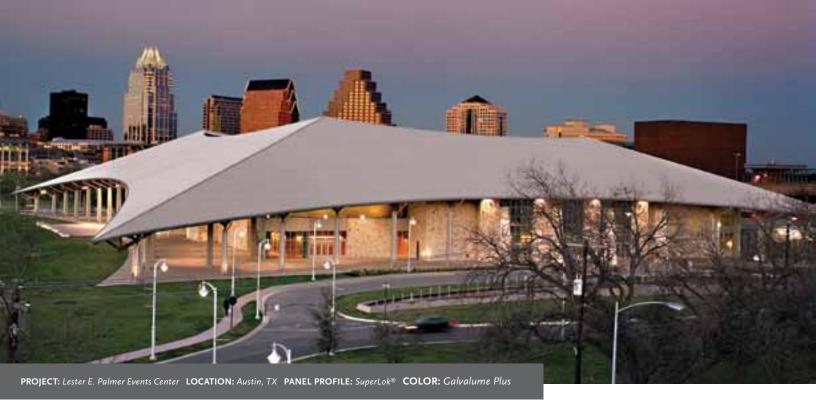
MBCI's educated sales personnel are authorized to conduct AIA Continuing Education classes for the many courses we offer. Contact us today to schedule a meeting or lunch-and-learn. These classes are also available to take online at www.mbci.com/otis.

CERTIFIED INSTALLER PROGRAM

The MBCI Certified Installer courses cover every aspect of putting our sophisticated systems on your roof, including materials and handling, weathertightness and technical requirements to installation steps and specific detail conditions.

SINGLE SOURCE WARRANTY

When you specify one of MBCI's Single Source<sup>TM</sup> Warranties, you can have confidence that your project will be covered by the most comprehensive warranty available. MBCI will conduct timely inspections to guarantee that the approved details are being used and the roof is being properly installed. Any discrepancies found during these inspections that would prevent issuance of the warranty will be quickly brought to the architect's attention. Should a leak occur after the warranty has been issued, the owner can rely on MBCI to handle.



### GREEN BUILDING BENEFITS

MBCI's metal panels are energy efficient, recyclable, durable, lightweight and cost-effective. Our panels are comprised of 25% to 35% recycled materials and our single skin panels are virtually 100 percent recyclable.

Cool metal roofing provides energy savings offering both economical and environmental benefits. As a proud ENERGY STAR® Partner, our Cool Roof colors have reflectivity performance that met ENERGY STAR® criteria for roof pitches greater than 2:12.

Our **CCO**-FICIENT<sup>™</sup> insulated metal panels have high R-values, which provide superior thermal performance and reduced energy consumption allowing for smaller greenhouse gas emissions and reduced energy costs for building owners. IMPs also mitigate thermal drift, which is common when using unfaced polyisocyanurate rigid board insulation.

IMPs qualify as continuous insulation (ci) where required by the International Energy Conservation Code $^{\circ}$  (IECC) and ASHRAE 90.1. This allows for insulation to be free from significant thermal bridging. And, because of their unique self-sealing side joints, **CCO**-FICIENT $^{\text{TM}}$  panels also function as an important part of a Continuous Air Barrier (CAB) system.

#### **TRIM & FLASHING**

All trim and flashing is available in the same gauge and finish as our panel offerings. A complete selection of standard trim and made-to-specification flashing in lengths to 20'-3" is available upon request. All flashing is designed to minimize exposed fasteners.

### TECHNICAL INFORMATION

MBCI conforms to industry-accepted metal and finish coating standards. Physical properties are available upon request. MBCI is committed to an aggressive, independent physical testing program to continually comply with guidelines on water penetration, uplift ratings and structural performance.

### MATERIALS & COATINGS

The base metal is 26, 24 or 22 gauge steel manufactured from either high-strength Galvalume® produced to ASTM A792/A792M-AZ50 or AZ55, Grade 50; or HDG produced to ASTM A653/A653M-G90 structural aluminum. Finishes—baked enamel, urethane, Plastisol. All materials are available smooth or stucco-embossed.

All metal architectural panels have wide, flat surfaces to meet the demands of today's design. While MBCI has recognized and responded to this requirement, we have a responsibility to point out that a wide and perfectly flat appearance is not always possible. In some wide products, panel distortion, called oil canning, may occur and require additional aesthetic tolerance and/or additional support behind the panel face. Heavier gauges, narrower widths, striations and embossing minimize oil canning.

#### **PAINT FINISHES**

MBCI offers one of the largest color selections in the industry. Each of our paint colors qualifies as a Cool Roof on sloped roofs above 2:12. Our applied finishes work as an excellent alternative to masonry or tilt-wall construction and are available on our  $\mathsf{CCO} ext{-}\mathrm{FICIENT}^\mathsf{TM}$  insulated metal panels.

#### SIGNATURE® 300/SIGNATURE® 300 METALLIC

This fluorocarbon paint system combines ceramic pigmentation with polyvinylidene fluoride (70% of resin solids) for a superior, long-lasting finish. Outstanding performance and durability are achieved through this proprietary resin technology. Signature® 300 is recognized as providing unsurpassed performance in critical areas such as color retention, film erosion rate and chemical resistance.

#### SIGNATURE® 200

Signature® 200 is a thermoset coating system composed of polyester resin modified by copolymerization with a functional silicone resin intermediate. With high quality ceramic pigmentation, Signature® 200 offers optimum exterior protection plus superior resistance to chemical corrosion and ultraviolet radiation. Signature® 200 represents the most sophisticated silicone polyester coating system in the industry.

## PAINT WARRANTIES

Forty year limited paint warranties are available upon written request and project qualification for all paint colors except Brite Red, which has a 25-year warranty. A 10-year warranty is available for applied finishes. (Outside the continental United States, please inquire.)



HOUSTON, TX | 877.713.6224 ADEL, GA | 888.446.6224 ATLANTA, GA | 877.512.6224 ATWATER, CA | 800.829.9324 DALLAS, TX | 800.653.6224 INDIANAPOLIS, IN | 800.735.6224 LUBBOCK, TX | 800.758.6224 MEMPHIS, TN | 800.206.6224 OKLAHOMA CITY, OK | 800.597.6224 OMAHA, NE | 800.458.6224 PHOENIX, AZ | 888.533.6224 RICHMOND, VA | 800.729.6224

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