

Protean

The Form of Architectural Vision

- IMAGINE
- DESIGN
- A C H I E V E







ABOUT PROTFAN

Imagine the possibilities – what form will your vision take?

Design to your vision – let our expertise help you push the limits of possibility.

Achieve your vision – with Protean Construction Products, your vision can become reality.

Protean Construction Products is a leading manufacturer of architectural metal wall systems that can be tailored to your design concept.

Our name is derived from the Latin word "pro•te•an" (pro tē ən), which means "readily taking on different shapes or forms; versatile." Like our name, our panels take on the form of your architectural vision.

With a passion to help you create great buildings that last, we provide project-specific solutions for your architectural metal wall system needs. We have extensive experience in the architectural market, superior quality manufacturing practices and products, and an understanding of field installation requirements.

Our engineering and design expertise enables us to help you achieve your vision without compromising your project's budget. We only work with qualified installers to insure proper installation and a superior finished product that performs as intended and lasts for the life of the building. "pro te an" (pro tē ən)

adjective

readily taking on different shapes or forms; versatile.



Orville L. Freeman Office Building



2201 Westlake and Enso Condominiums

WHY PROTFAN?

We are dedicated to your success. Our team of experts can help you achieve the optimum balance between form and function. We offer:

- Experience Protean has fabricated metal cladding for more than 1,000 architectural projects since our inception in 1989.
- Quality we have a 99.4% quality rating and have not had a single warranty claim in more than 20 years.
- Engineering leadership we are large enough to provide extensive engineering leadership and expertise, yet small enough to be flexible and attentive to the needs of individual clients.
- Design expertise our knowledgeable design team can assist with project-specific design solutions leading to the right product for the right application and desired aesthetic. Involving our team early on in the decision making process can save you time and money.
- Project management our project management team will work closely with you and the project contractor from start to finish on every project to ensure schedules are met and products are properly fabricated and ready for installation.
- In-house manufacturing by manufacturing our products in-house, we can control schedules, prioritize fabrication, and monitor the quality of everything we produce.
- Extensive product offering our product offering is on track with the latest architectural trends but also includes "tried and true" metal panel systems that stand the test of time.
- Architectural wall system specialties we have unmatched capabilities for 'dead flat' panels, curved panels and radiused panels within the context of an overall system design, expanding your architectural license.
- Customer service from the first lunch and learn to the final warranty close outs, we work with you to ensure the optimal system is selected to achieve your vision.



Mayo Clinic



Knight Theater



The Harvey B. Grant Center for African American Studies

LAMINATED PANEL SYSTEMS

Aluminum Honeycomb Cladding Systems are among the most economical for projects needing long, smooth expanses. Aluminum honeycomb panels can reduce installation costs because they require limited to no supporting infrastructure and are significantly lighter than aluminum plate or ACM panels. The honeycomb construction creates high strength and increased wind load resistance. Economical, sustainable and well-suited to long expanses, Protean's aluminum honeycomb panels are ideal for education, government and civic buildings.

Insulated Foam Core Laminated Panels provide all the benefits of honeycomb panels along with the added value of noise abatement and high R-value performance for increased energy efficiency. With attachment tabs removed, the FM-100 panel can be used in curtain walls in lieu of glass, as typical foam-in-place panels are not appropriate for glazed-in applications. Like Protean's aluminum honeycomb panels, insulated foam core laminated panels are well-suited for education, government and civic buildings.

Wet Sealed Systems

Honeycomb Core HC-100

Best for projects needing:

- Large, 'dead flat' expanses
- High strength and wind load resistance
- Large panels
- Complex panel configurations
- Low cost

Insulated Foam Core FM-100

Best for projects needing:

- High R-value performance
- · Insulated curtain wall inserts in lieu of glass
- Sound deadening/noise abatement

Rainscreen-Style Systems

Honeycomb Core HC-200

Best for projects needing:

- Large, 'dead flat' expanses
- High strength and wind load resistance
- Large panels
- Crisp aesthetic without caulk lines
- Simple/geometric panel configurations
- · Low maintenance and sustainability

Insulated Foam Core FM-200

Best for projects needing:

- Same applications as for FM-100, plus:
- · Smooth aesthetic without exposed gaskets or sealants



St. Paul ISD 625 Building - FM-200



Edison National Historical Site Building #6 – FM-200



Wright Patterson Airforce Base - FM-200

CASE STUDY: Logan International Airport



Logan International Airport - HC-200

Boston's Logan International Gateway Terminal welcomes international travelers and can process more than 2,000 passengers an hour through its Federal Inspection Station. Featuring elegant lines and long, smooth expanses, the terminal's design required a crisp aesthetic made possible by Protean's HC-200 rainscreen-style system. HC-200 also fulfilled requirements for low maintenance and sustainability in a high traffic area.

Project: Edison National Historic Site Building #6

Location: West Orange, New Jersey

Architect: Beyer, Blinder, Belle

Products: FM-200

The architect sought a clean, gasket-free look to minimize the impact of the structure on the overall presentation of the building once used by Thomas Edison. Incorporating Protean's FM-200 large flat panels delivered the crisp aesthetic chosen to achieve the architect's vision. FM-200's high R-value also met the requirements for energy efficiency and noise abatement imperative to the operation of the museum.

Project: Logan International Gateway Terminal

Location: Boston, Massachusetts

Architect: Skidmore, Owings & Merrill LLP

Products: HC-200, AP-COL

Logan International Airport, New England's largest transportation center, serves more than 33.5 million passengers a year. In such a high profile, high traffic facility, aesthetics and durability are critical considerations. Protean's HC-200 laminated honeycomb metal wall panels offered the design aesthetic of long, smooth expanses (up to 24') along with phenomenal strength in an extremely lightweight panel.

With the crisp appearance of a rainscreen-style system, the honeycomb panels were installed without exposed caulk or gaskets, enhancing visual appeal and offering increased durability for high traffic areas. The lightweight panels reduced the size, weight and cost requirements of the supporting structure, offering ease of installation along with long-term cost savings due to low maintenance requirements and sustainability. The site was augmented with column covers in the same look and finish to complement the presentation.



Project: North Education Center **Location:** New Hope, Minnesota

Architect: TSP, Inc. **Products:** HC-100

North Education Center's award winning design required exterior flexibility relative to different shapes and sizes. Protean cladded the building's canopy leveraging complex panel configurations with HC-100, while standard panel configurations enabled long expanses with a flat aesthetic for the exterior. The ease of installation of the lightweight honeycomb panels helped meet the cost constraints of an educational facility.

ALUMINUM PLATE SYSTEMS

Protean's **Aluminum Plate Systems** deliver both flexibility and versatility. Ranging from a fully caulked wet sealed system to a pressure equalized rainscreen system; standard construction is with 0.125" plate, ideal for cladding applications that go down to grade or as an accent around an entrance. The panel thickness prevents denting common to thinner rainscreens or ACM panels, and eliminates the possibility of delamination.

Well suited to small projects with custom colors, the wet-sealed and rainscreen system panels are painted after they are formed, eliminating the cost of minimum orders for custom ACM or coil coated colors. These systems work well for civic, education and government buildings as well as for retail/commercial accents, where durability is necessary and long life is desired.

Wet Sealed Systems

Aluminum Plate AP-1125 & AP-2125

Ideal for projects with multiple bends, shapes and contours on varying planes, AP-1125's durable material holds complex shapes enabling a curved or sloped aesthetic. Best for projects needing:

- Cladding down to grade
- · Small volume with custom colors
- · Complex building contours
- · Entrances and accents
- Sustainability and longevity for larger, monumental projects
- Seismic considerations (AP-2125)

AP-2125 systems are designed to be free-floating through the use of stainless steel alignment pins for seismic considerations.

Rainscreen Systems

Aluminum Plate AP-2000RS

A true rainscreen, AP-2000RS offers the ultimate in lowest overall cost throughout the service life of the system. This is a back ventilated and drained system, which adjusts to differential pressures within a 0.8 second differential. It can also help meet LEED requirements due to the elimination of thermal bridging. Best for projects needing:

- · Cladding down to grade
- · Small volume with custom colors
- Sustainability and low maintenance
- · Entrances and accents
- Sustainability and longevity for larger, monumental projects

Aluminum Plate AP-3000RS

Engineered for extremely wet climates or for buildings exposed to driving rain, AP-3000RS rainscreen systems feature an open joint system. AP-3000RS is designed to reduce the risk of moisture seeping behind the panels due to joint splines not found in more economical rainscreens. The extruded frame and non-welded corners provide a crisp and clean edge for an improved aesthetic. Best for projects needing:

- · Same applications as for AP-2000RS, plus
- A crisp aesthetic
- Long horizontal and vertical panels



The Crossings Condominiums - AP-1125, AP-2000RS



UW Madison Union South - AP-2000RS



CTECH - AP-1125



CASE STUDY: Bettendorf Public Library



Bettendorf Public Library – AP-1125

Bettendorf Public Library's entrance flares open like a book with vibrant yellow, blue and red "pages" created from AP-1125 aluminum plate panels.

Project: Bettendorf Public Library

Location: Bettendorf, Iowa

Architect: Brown Healley Stone & Sauer PC

Products: AP-1125, AP-COL

The Bettendorf Public Library features a bright, multicolored entrance that resembles the pages of a book. To achieve the architect's vision, significant contouring was needed along with durability for a high traffic area.

Protean's AP-1125 aluminum plate panels were the ideal choice — enabling contours on varying planes, durability to hold complex shapes for a curved aesthetic, and the ability to paint the panels after they were formed (allowing a small custom color run without needing to meet minimum requirements). Protean delivered five different colors of highly durable 0.125" plate going down to grade for a striking entrance that welcomes more than 300,000 visitors each year.



Project: Rock Sugar Pan Asian Kitchen **Location:** Los Angeles, California

Architect: Architects Design Consortium, Inc. (ADC)

Products: AP-1125

AP-1125 helped achieve the desired aesthetic for the Rock Sugar Pan Asian Kitchen, a building with complex contours. Curved panels with mitered corners were used to create the desired effect.



Project: CTECH

Location: Weston, Wisconsin **Architect:** United Structures, Inc.

Products: AP-1125

AP-1125 was used for CTECH's corporate headquarters to provide a decorative element to their storefront. AP-1125's durable 0.125 thick plate holds complex contours and prevents denting and delamination.

ACM PANEL SYSTEMS

Protean's **aluminum composite (ACM) panel systems** provide the lowest cost option where a shorter service life is anticipated. ACM panel systems are best used in low rise applications above grade and are ideal for retail and multifamily buildings.

Wet Sealed Systems

ACM-100

ACM-100 composite panel systems provide a sharp look at a competitive price ideal for retail, commercial or multi-family buildings, especially where branding and turnover result in frequent renovation.

Best for projects needing:

- · Low rise, above grade use
- Low cost materials
- · Branding/corporate identity
- Shorter service life requirements

Rainscreen Systems

ACM-2000RS

Protean's most economical rainscreen panel system, the ACM-2000RS can be installed as a drained/back-ventilated system or modified to install as a pressure equalized rainscreen system. The aluminum composite wall panels can be custom painted to match or contrast with other materials if desired on larger projects.

ACM-3000RS

An extruded frame rainscreen panel system, the ACM-3000RS is engineered for extremely wet climates or for buildings exposed to driving rain. The ACM-3000RS is designed to reduce the risk of moisture seeping behind the panels due to joint splines not found in more economical rainscreens. The extruded frame and non-welded corners provide a crisp and clean edge for an improved aesthetic.

ACM-2000RS and ACM-3000RS are best for the same types of projects as the ACM-100, in addition to projects requiring:

- Low cost sustainability
- · Low cost/low maintenance features



The Lakes, Lakefront Residences - ACM-100



Woodbury Medical Office Complex - ACM-3000RS



The Harvey B. Grant Center for African American Studies – ACM-100, AP-COL

CASE STUDY:

The Lakes, Lakefront Residences



The Lakes, Lakefront Residences – ACM-100

The owners of "The Lakes" wanted a luxurious exterior to appeal to tenants as well as pedestrian traffic. ACM-100 panels met the need for an elegant exterior without pushing rental costs beyond the means of the targeted demographic.



The Lakes, Lakefront Residences – ACM-100

Suitable for retail and residential buildings, ACM-100 offers a sharp aesthetic at a reasonable price to increase a project's appeal and marketability.

Project: The Lakes, Lakefront Residences

Location: Minneapolis, Minnesota **Architect:** Elness Swenson Graham

Architects (ESG)

Products: ACM-100

The Lakes, Lakefront Residences are a boutique collection of contemporary one and two-bedroom rental units offering lake views in South Minneapolis.

Protean's ACM-100 provided a cost effective solution for buildings that need frequent upgrades due to branding and typical turnover. When return on investment is a key factor for a site's long-term plan, ACM provides a viable solution that meets budget needs while providing a clean and attractive aesthetic.



Project: Knight Theater

Location: Charlotte, North Carolina
Architect: Thompson, Ventulett,
& Associates (tvs design)

Products: ACM-100

The design of the Knight Theater, a multipurpose performing arts facility, blends well with the adjacent Bechtler Museum of Modern Art. The architect wanted the contemporary look of ACM, along with its economic advantages, but needed a bold presentation. Protean was selected based upon the ability to form the panels to achieve the architect's vision while keeping within budget constraints.

COLUMN COVERS

Protean's Column Covers and Beam Wraps are available in aluminum plate, stainless steel and aluminum composite (ACM) materials. Available in round, square or oval shapes, they can be used in conjunction with Protean panel systems or as an accent to other materials. Column covers are an important complement to the overall design of a project, and should coordinate with materials used for adjacent walls. Protean's design team can help you spec the material, design configuration, and finish that best fits the overall aesthetic you hope to achieve.

Column Covers

Aluminum Plate AP-COL

Stainless Steel SS-COL

Aluminum Composite ACM-COL



Pennsylvania Convention Center – AP-COL, AP-1125

The Pennsylvania Convention Center's one million square foot expansion blended the old with the new, creating a bold and dramatic new façade. Protean's AP-COL aluminum column covers and AP-1125 aluminum plate system helped create the contemporary urban aesthetic ideal for the center's high traffic entrance.

CASE STUDY: Orville L. Freeman Office Building

111111



Orville L. Freeman Office Building - AP-COL, AP-1125

Named after the Minnesota Governor and former U.S. Secretary of Agriculture, the Orville L. Freeman Office Building is an award winning, state-of-the-art structure that features sustainable design.

Project: Orville L. Freeman Office Building

Location: St. Paul, Minnesota **Architect:** Hammel, Green &

Abrahamson, Inc. (HGA)

Products: AP-COL & AP-1125

The Orville L. Freeman Office Building houses the Minnesota Departments of Health and Agriculture. Majestic columns line the building's exterior and are an important part of the overall design. Protean's AP-COL aluminum plate column covers, available in lengths up to 15', complement the building's metal wall components and provide a striking finish. The 0.125" aluminum also meets the need for durability in a high traffic area.



PROTEAN APPLICATIONS AND MARKETS PRODUCT SELECTION GUIDE

CTS	PRODUCT CATEGORY	Aluminum Honeycomb (HC) & Insulated Foam Core (FM)				Aluminum Plate (AP)				Aluminum Composite (ACM)		
ODO	SYSTEM TYPE	Wet Sealed Systems		Rainscreen Style Systems		Wet Sealed Systems		Rainscreen Systems		Wet Sealed Systems	Rainscreen Systems	
PR	PRODUCT NAME	HC-100	FM-100	HC-200	FM-200	AP-1125	AP-2125	AP-2000RS	AP-3000RS	ACM-100	ACM-2000RS	ACM-3000RS
APPLICATION	Accents	*	*	*	*	***	*	***	***	**	**	**
	Branding/ Corporate Identity	*	*	*	*	**	*	**	**	***	***	***
	Cladding Down to Grade	**	**	**	**	***	***	***	***	*	*	*
	Crisp Aesthetic	**	**	***	***	**	**	***	***	**	**	***
	Complex Building Contours	**	**	*	*	***	***	**	**	**	*	*
	Complex Panel Configurations	***	***	*	*	***	***	**	*	***	*	*
	Custom Colors in Small Volume					***	***	***	***			
	Entrances	**	*	**	*	***	***	***	***	**	*	*
	High R-Value	*	***	*	***							
	Insulated Curtain Wall Inserts (in Lieu of Glass)	*	***	*	***	*				*		
	Large 'Dead Flat' Expanses	***	***	***	***	**	**	*	**	*	*	**
	Large Panels	***	***	***	***	**	**	*	*	**	*	*
	Long Vertical Panels	***	***	**	**	***	**	**	***	***	*	**
	Low Cost	***	***	**	**	**	*	*	*	***	***	***
	Low Maintenance	*	*	***	***	**	**	***	***	*	***	***
	Low Rise, Above Grade Use	**	**	**	**	*	*	*	*	***	***	***
	No Exposed Gaskets or Sealants	*	*	***	***	*	*	***	***	*	***	***
	Seismic Considerations			**	**		***	**			**	
	Shorter Service Life Requirements	**	**	*	*	**	**	*	*	***	***	**
	Sound Deadening Noise Abatement	**	***	**	***	*	*	*	*	*	*	*
	Sustainability	**	**	***	***	**	**	***	***	*	**	**
	Sustainability - Low Cost	**	**	***	***	**	*	*	*	**	***	***
	Civic	***	***	***	***	***	***	***	**	*	*	*
	Commercial	**	**	**	**	*	*	*	*	***	***	***
MARKET	Education	***	***	***	***	***	***	***	**	**	*	*
	Government	***	***	***	***	***	***	***	**	**	*	*
	Multi-Family	**	**	*	*	*	*	*	*	***	***	***
	Retail	**	**	*	*	*	*	*	*	***	***	***
	Retail/Commercial Accents	**	**	*	*	***	***	***	**	**	**	*

Product Application Key - Good: ★ Better: ★★ Best: ★★★

Note: Matching column covers and beam wraps are available once a wall system has been selected. Choose from Aluminum Plate (AP-COL), Stainless Steel (SS-COL), or ACM Composite (ACM-COL) materials in a variety of finishes.







Protean

.

The Form of Architectural Vision

Protean Construction Products, Inc.

11901 Riverwood Dr.

Burnsville, MN 55337

952 895 4000

952•895•1691 (Fax)

info@protean.com

protean.com

Find your local representative at protean.com/contact