

ARCHITECTURAL METAL LLC

Contemporary Solutions & Innovations

CSI-WAP™
Welded Aluminum Plate

Fully welded aluminum plate systems for **custom façade,** and **low-slope metal roofing applications.**

Simple at its core. Elevated through advanced welding and efficient fabrication technologies.

Now capable of what wasn't possible just years ago. Built to last.

Boutique Fabrication for Contemporary Architectural Metal Systems

- Founded in 2006 in Los Angeles, California.
- Performing in Hawai'i & Maui since 2012.
- Est. 2025 in Tampa Bay, Florida.

20 YEAR ANNIVERSARY
20 YEARS
EST. 2006

WELCOME TO CSI ARCHITECTURAL METAL

For nearly two decades, CSI Architectural Metal has been dedicated to the development and fabrication of engineered architectural metal panel systems for exterior and interior applications - including roofing, wall cladding, soffits, fascia, ceilings, and one-of-a-kind custom designs.

We are proud to introduce our CSI-WAP™ Welded Aluminum Plate Panel Series, a collection of heavy-gauge architectural metal systems engineered to combine performance, precision fabrication, and design freedom.

The CSI-WAP™ family includes CSI-WAP-RRP™ Reveal Roof Panels, CSI-WAP-WALL™ Wall Panels, CSI-WAP-SOFFIT™ Soffit & Ceiling Panels, CSI-WAP-FASCIA™ Fascia Systems, and CSI-WAP-CUSTOM™ Custom Architectural Applications.

And now, as we celebrate our 20th Anniversary, we are expanding the CSI-WAP™ family with our newest offering: CSI-WAP-IMAGING™.

Architectural metal imaging is not new to us. Years ago, before CSI became a manufacturer, I worked hands-on as an architectural sheet metal installer and had the opportunity to install custom image-perforated and image-transferred metal systems.

Over the years, the technology behind architectural metal imaging has evolved dramatically. Today's advanced digital design, fabrication, and manufacturing capabilities allow us to transform photographs, artwork, patterns, graphics, and other visual concepts into architectural metal surfaces with a level of precision that was simply not possible years ago.

Drawing on that experience, we decided it was time to bring this capability into the CSI family and make it available to our architects, designers, contractors, and clients.

While aluminum remains at the heart of the CSI-WAP™ Series, our systems and custom fabrication capabilities are also available in stainless steel and other architectural metals, depending on the requirements of the project.

This magazine is an introduction to the possibilities of our heavy-gauge panel systems - from engineered roof and wall assemblies to complex custom fabrication and architectural imaging.

We hope it inspires new ideas and demonstrates what can be achieved when design, engineering, craftsmanship, and modern fabrication technology come together.

Thank you for taking the time to explore the CSI-WAP™ Panel Series.

Best regards,

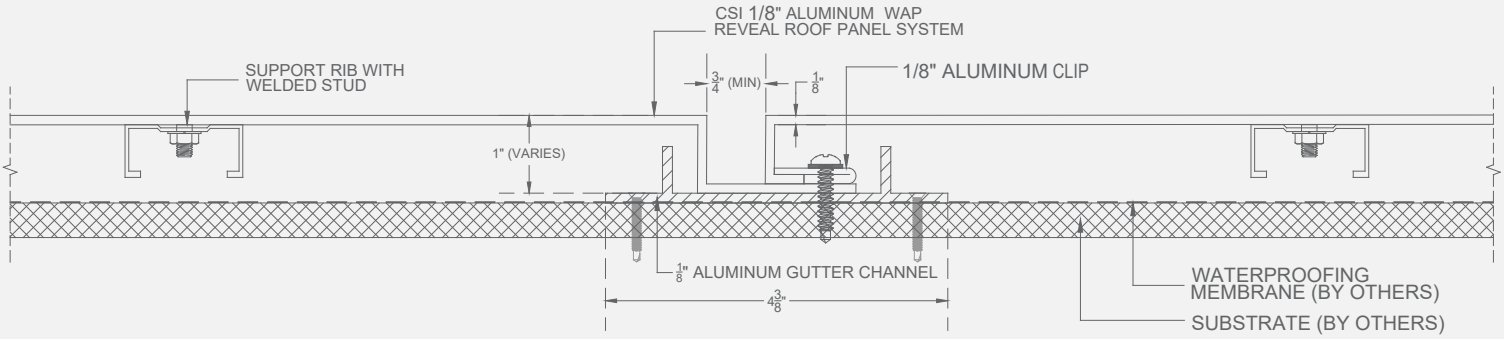


Daniel Schmidt
Owner & Founder
CSI Architectural Metal LLC

Heavy Gauge Premium PVDF Finishes

Post-fabrication baked enamel finishes applied to CSI-WAP components. Each part is welded, ground, and blended until seams are invisible, then finished in a multi-stage enamel process that bonds directly to the metal surface.

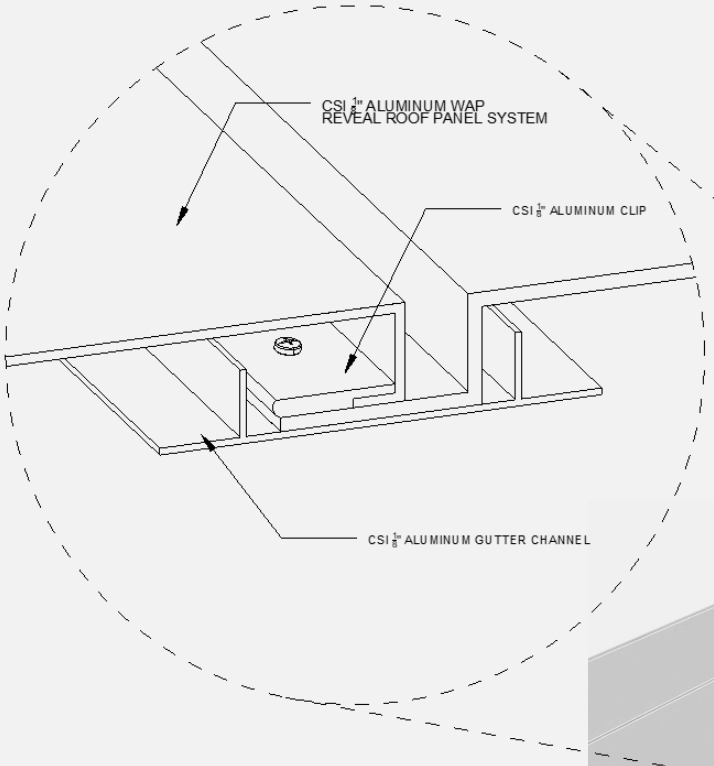
- Engineered Panel System
- Baked Enamel PVDF System — color fuses to the substrate during curing, creating a luminous, durable surface that responds to light and shade.
- Select any tone from the RAL Color Chart, or provide a physical sample for custom color matching.
- Samples available in matte, satin, or polished finish levels.
- Custom metallic and special effect finishes available upon request
- Panel Thickness: 0.08" (2mm, 5/64"), 0.12" (3mm, 1/8")
- Panel Width: 8" to 54"
- Panel Length: Up to 218" (18'max)
- Panel Reveal: 3/8" min.
- Panels are available in custom sizes and shapes
- Panels are available in convex and concave shapes
- Concealed Fastened Panel System

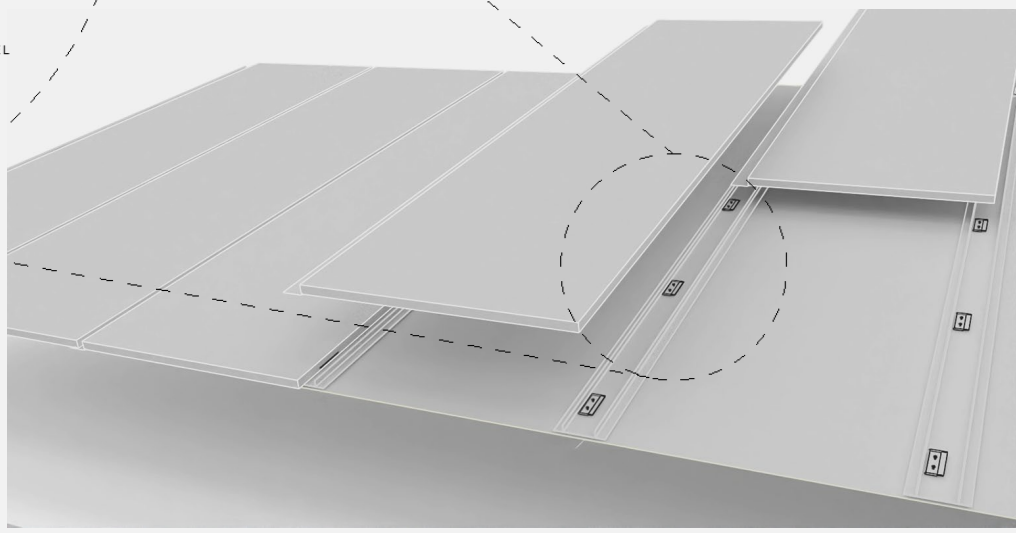


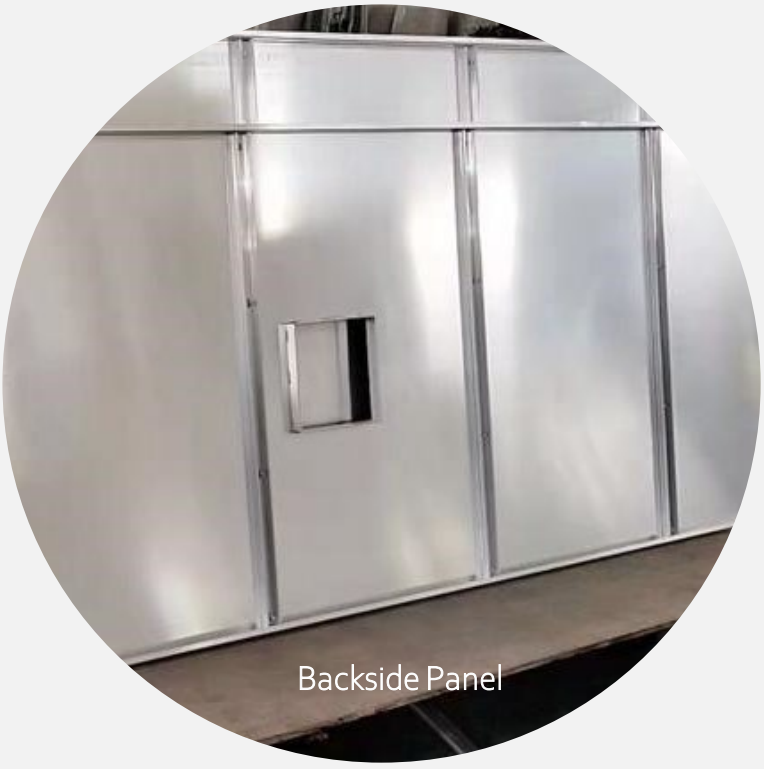
Gutter Channel & Attachment System

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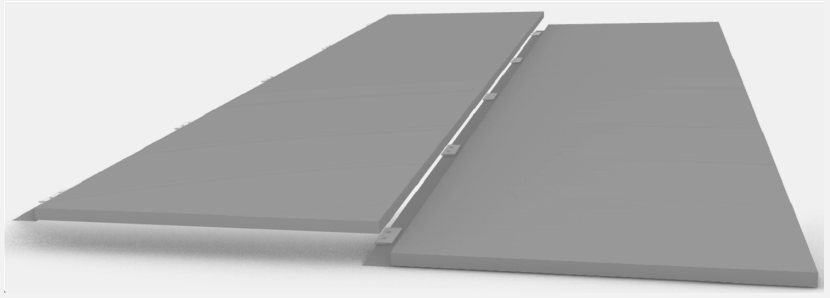
MIAMI·DADE COUNTY APPROVED
NOA No.: 24-1009.01







Backside Panel



MIAMI-DADE COUNTY APPROVED
NOA No.: 24-1009.01

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Project: Private Residence
Beverly Hills, California

Product: WAP
Material: 1/8" Aluminum, post-fab PVDF

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Project: Palmer Residence
Winter Park, Florida

Product: WAP
Material: 1/8" Aluminum, post-fab PVDF















Project: UTSA Mockup
San Antonio, Texas

Product: WAP
Material: 1/8" Aluminum,
post-fab PVDF

Project: UTSA Mockup
San Antonio, Texas

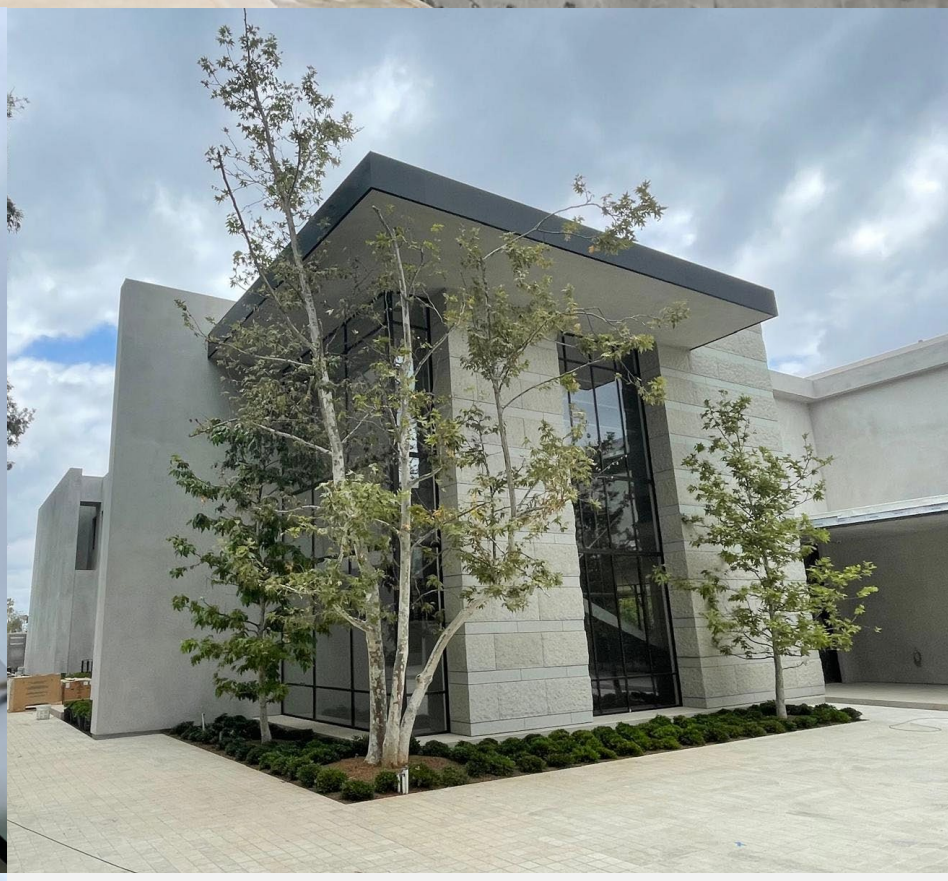
Product: WAP
Material: 1/8" Aluminum,
post-fab PVDF



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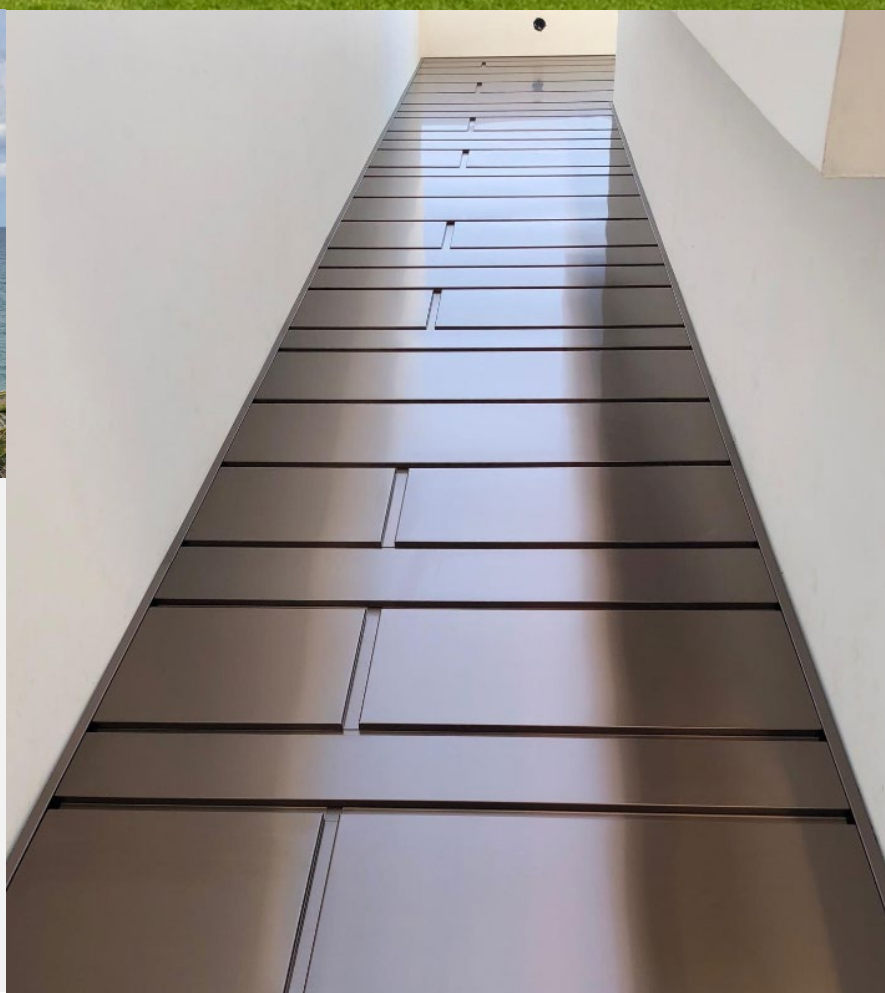
Project: Private Residence
Beverly Hills, California

Product: WAP-FASCIA
Material: 1/8" Aluminum, post-fab PVDF

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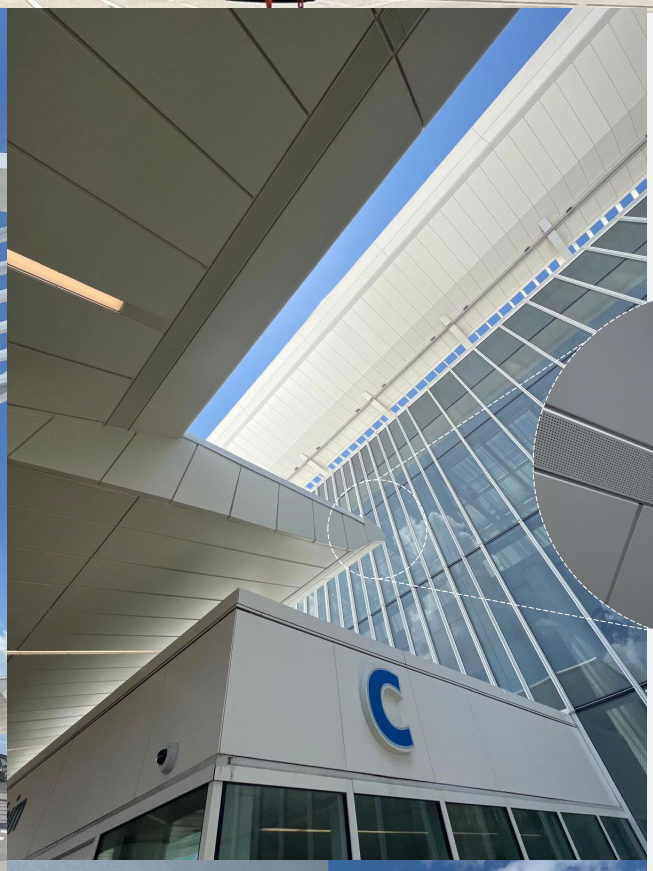
Project: Private Residence
Highland Beach, Florida

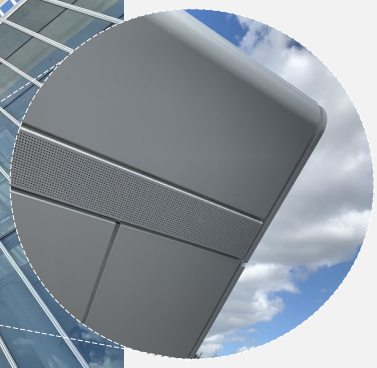
Product: CSI-LG Interlocking Wall Panel
Material: SS316 PVD Titanium

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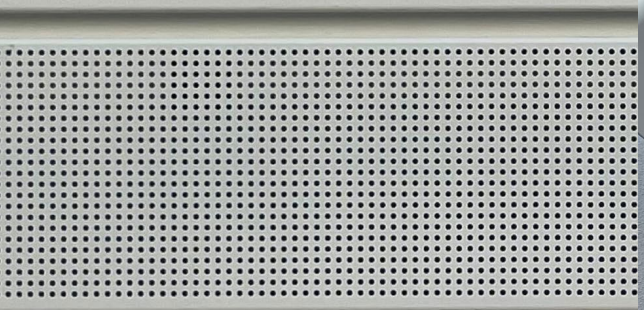






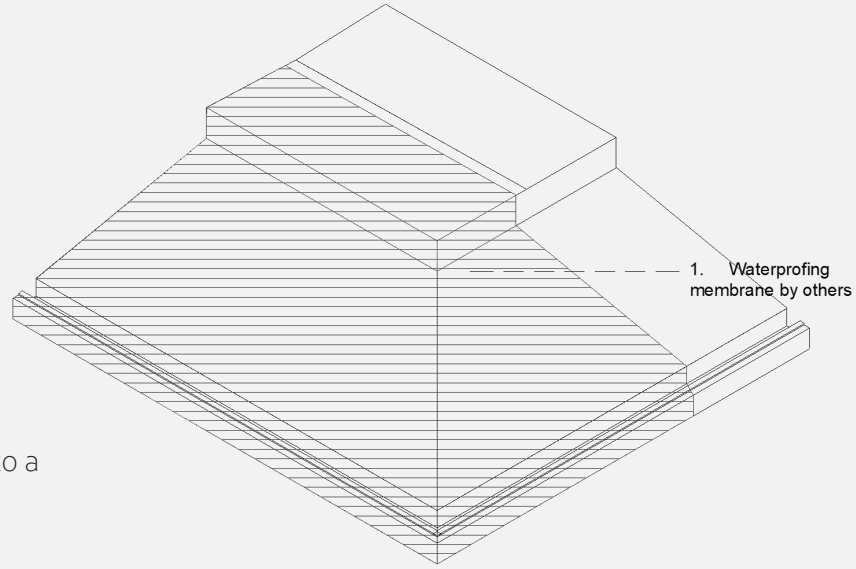
Project: Orlando International Airport — Terminal C
Orlando, Florida

Product: WAP
Material: 1/8" Aluminum, post-fab PVDF



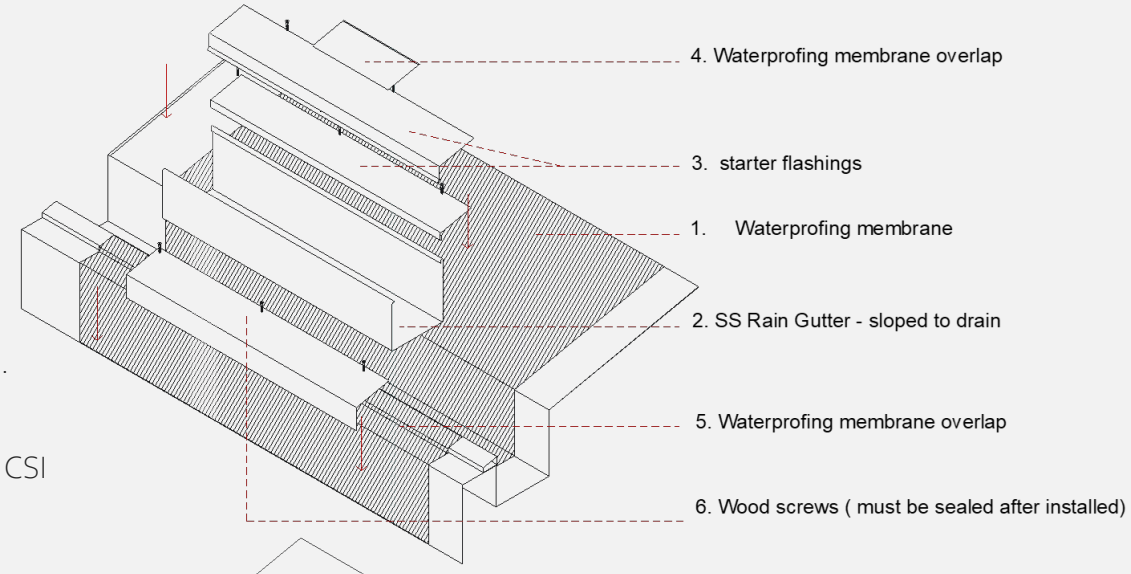


Additionally, we generate installation manuals explaining step-by-step details and renderings to help visualize not just the final product but also the specific steps necessary to install the panel system properly. These details and renderings are incredibly useful in providing a clear and comprehensive understanding of the installation process, making sure that everyone is on the same page.



Step 1

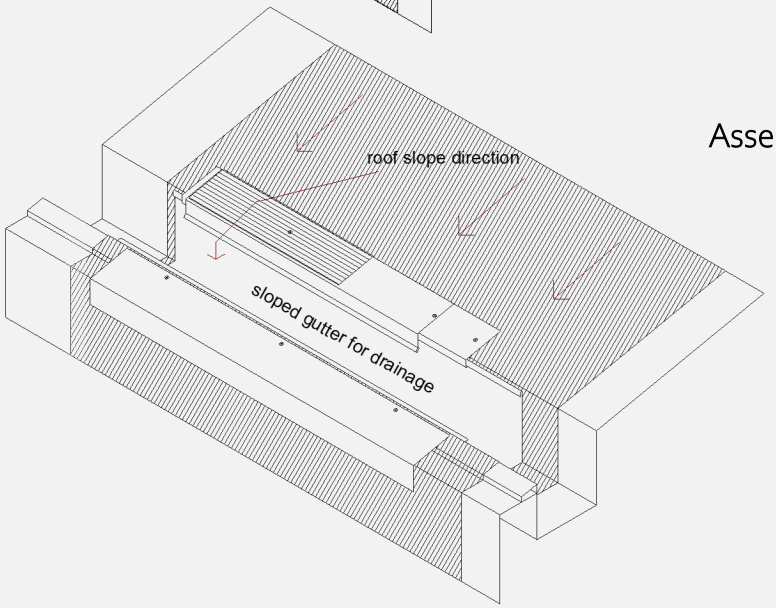
The roof must be fully waterproofed with the correct application product according to a specialist



Step 2

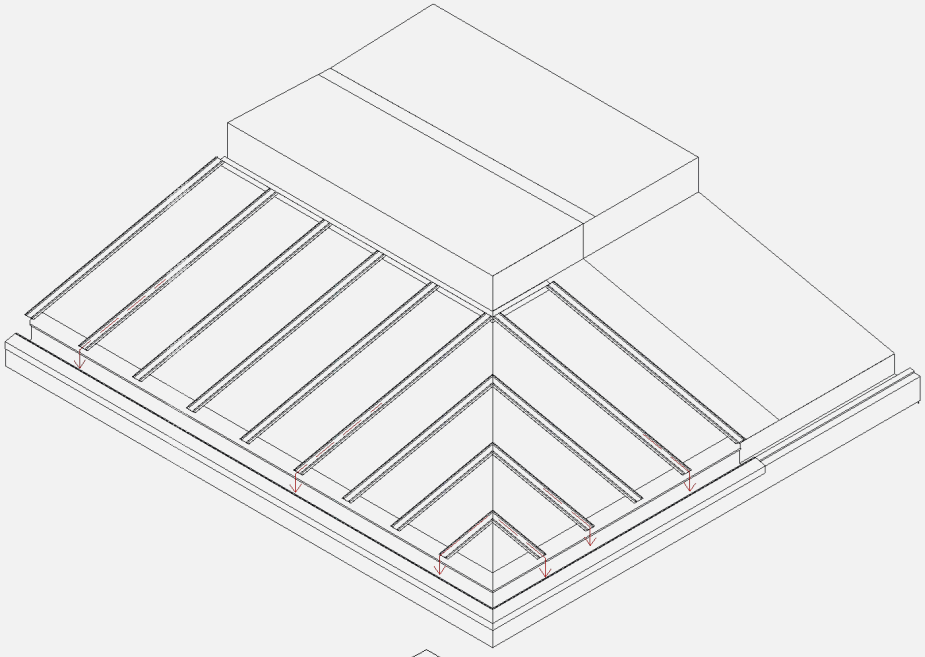
Flashings Installation Process.

Gutters and flashing must be installed before installing the CSI WAP roof panels.



Assembly view

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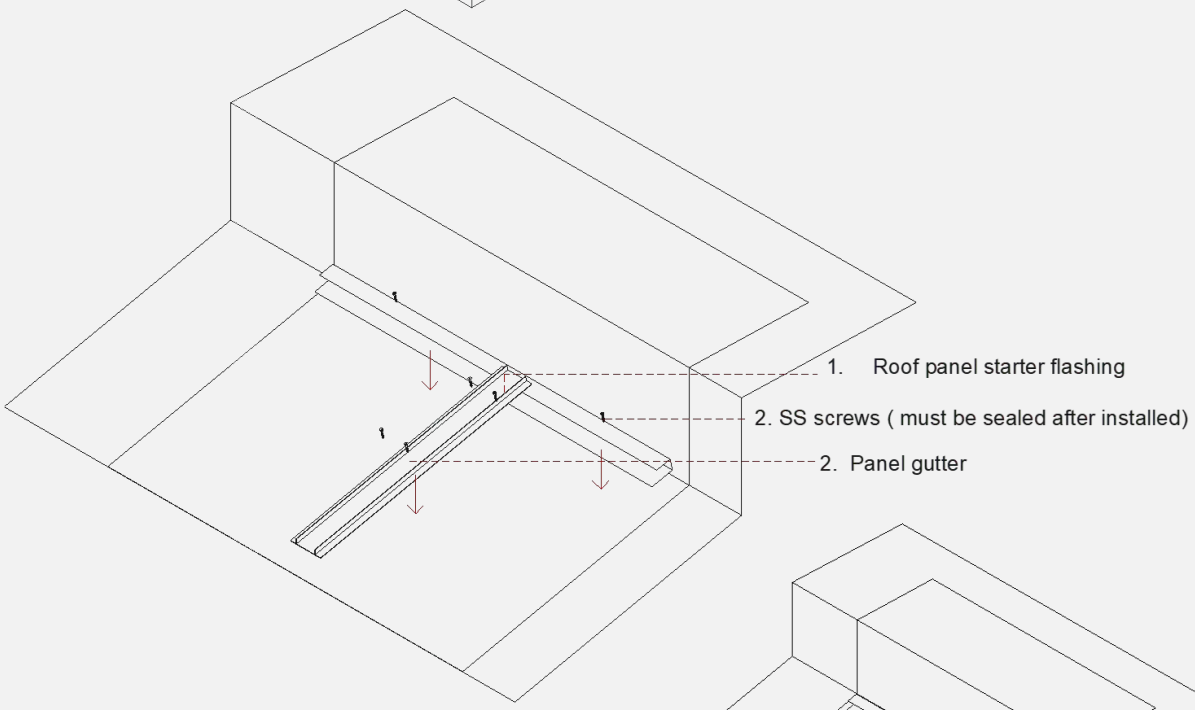
Step 3

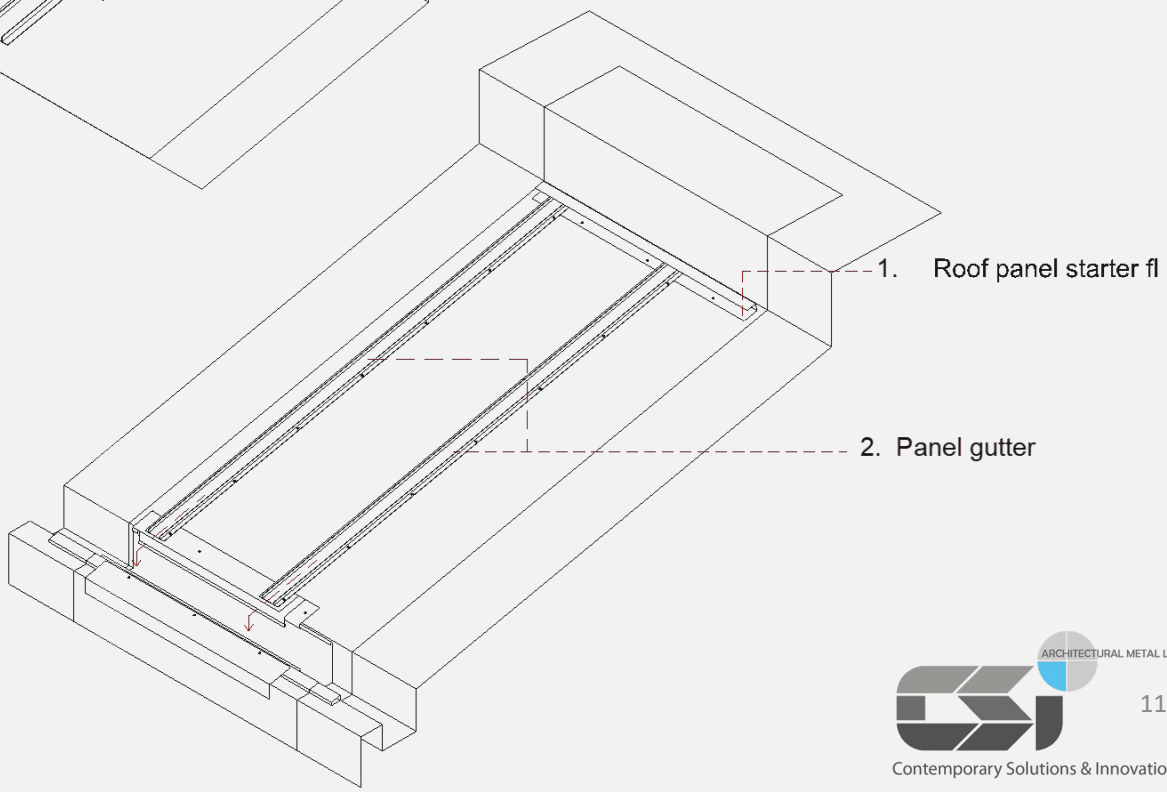
Layout, channel gutter, and Starter flashing installation

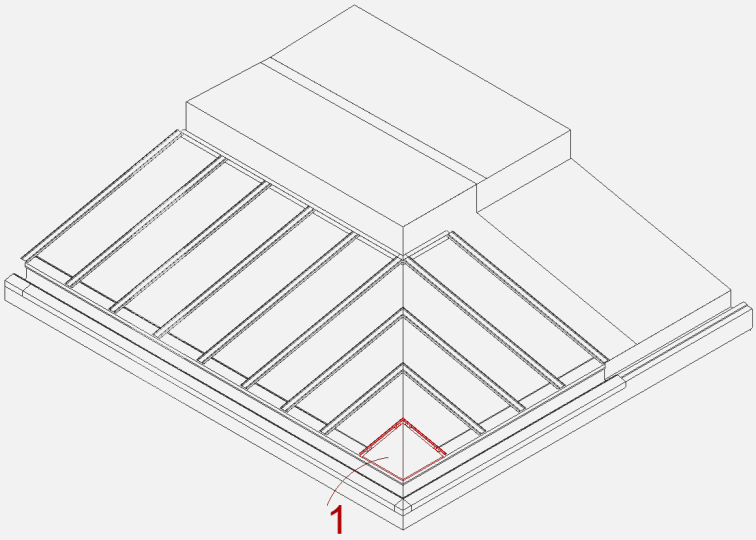
The installer must layout panels to check that all measures fit on site, also check the low and high eave levels

First, need to install the panel starter flashing on the high eave of the panel

Before the roof panel, panel gutters must be installed. This piece drains the water that gets in through the reveal joint of the panel to the main gutter

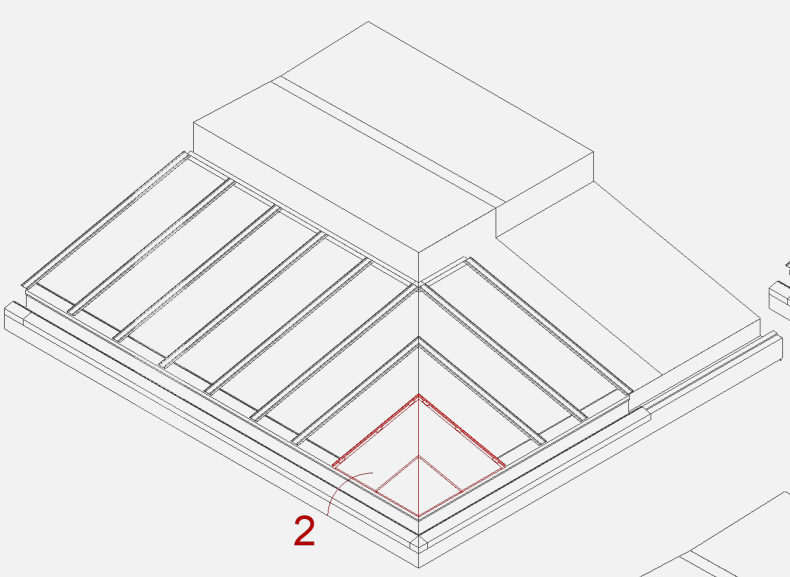


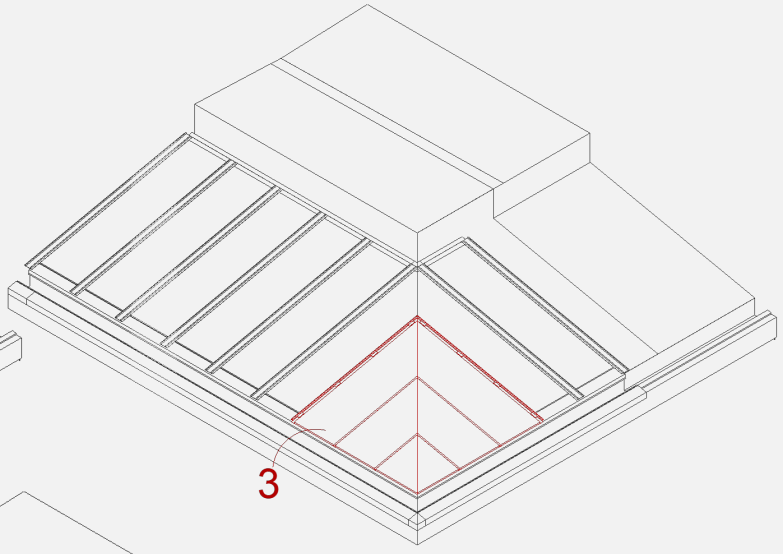


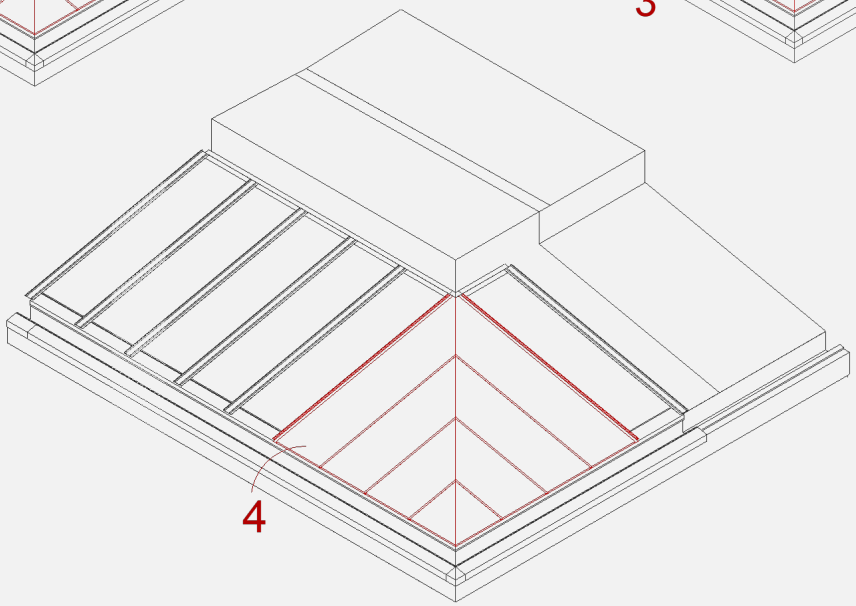


Step 4

Panel installation must start on the lower panel corner/panels attach each other with "J clips" into male and female flanges

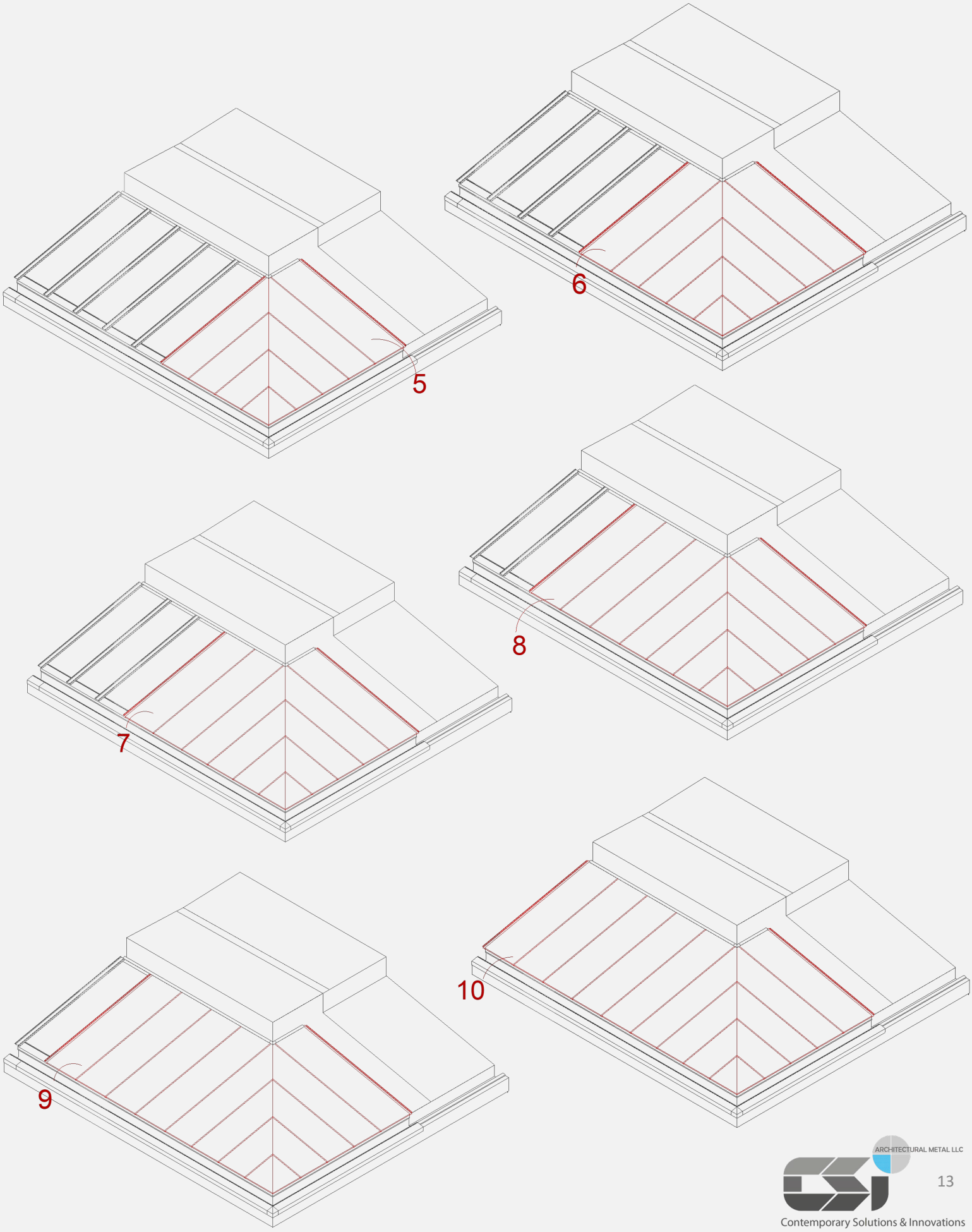


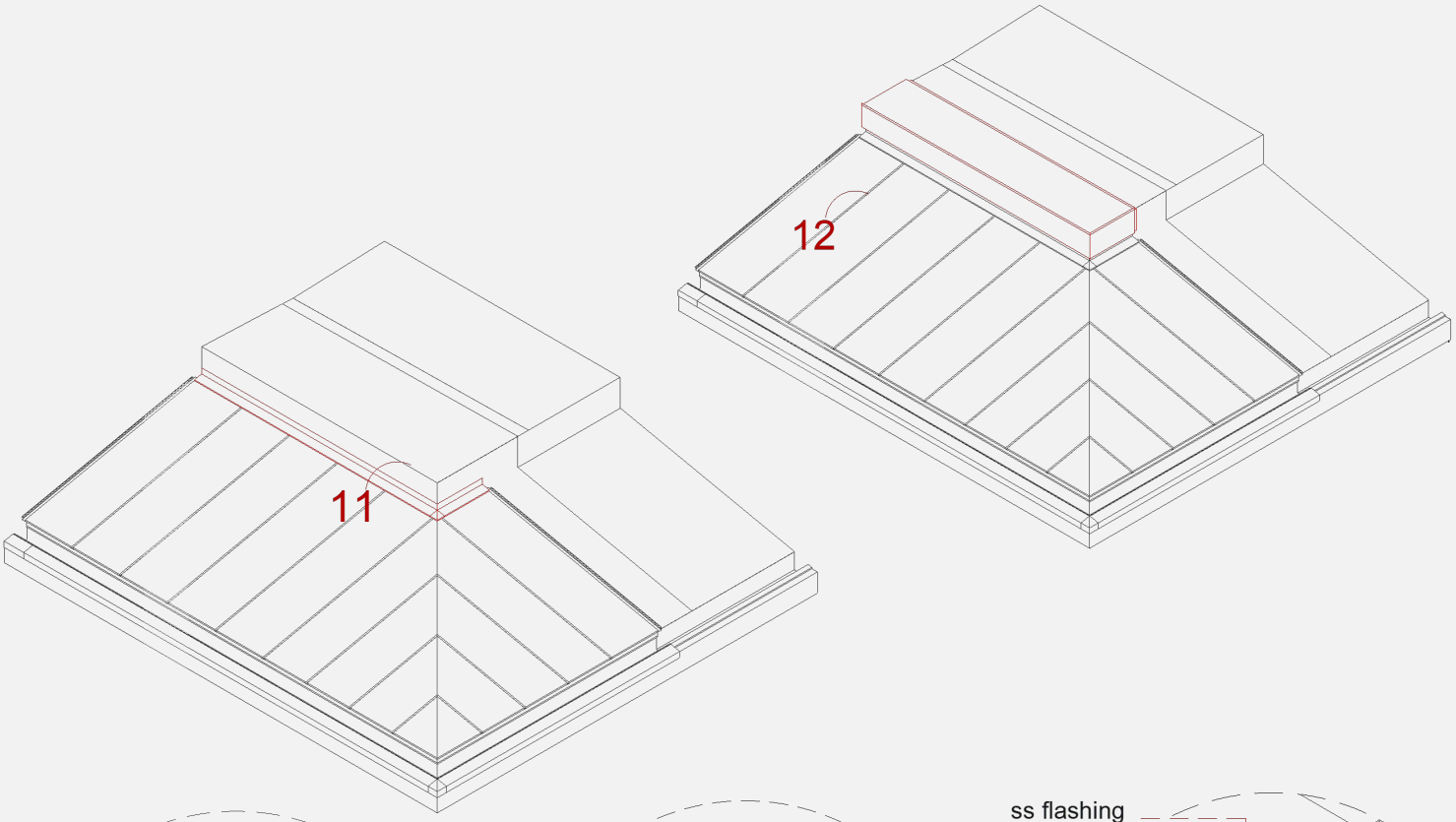


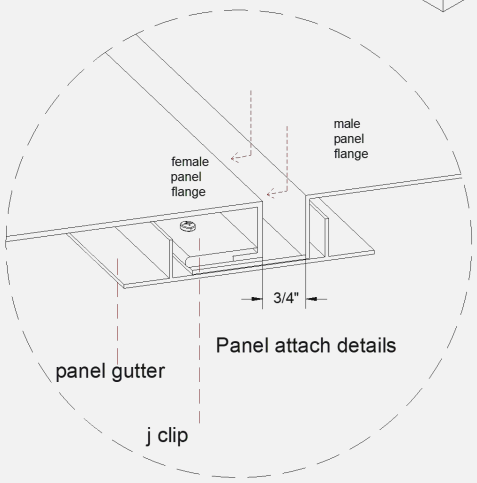


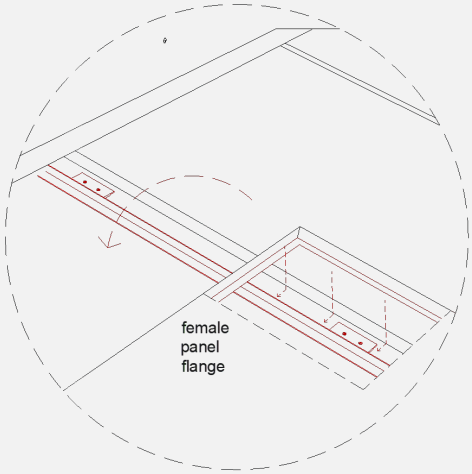
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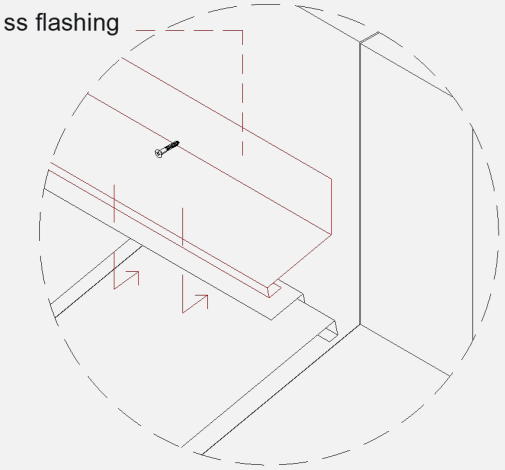
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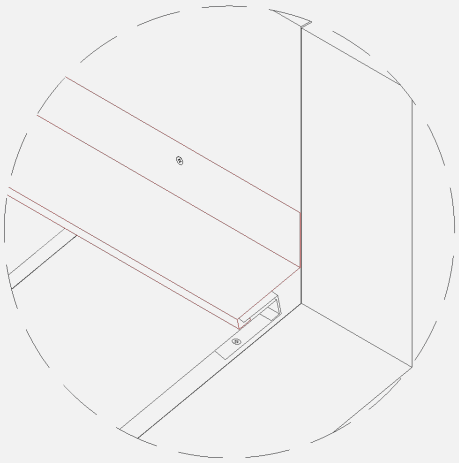

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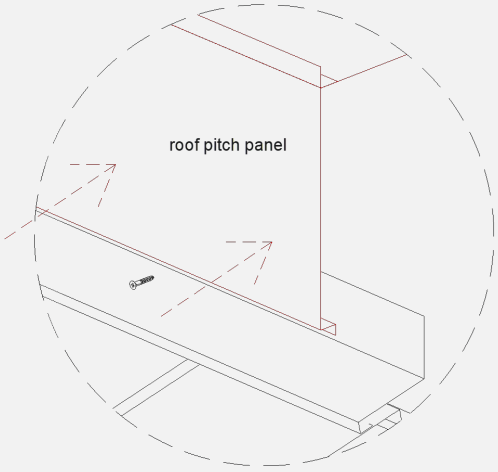


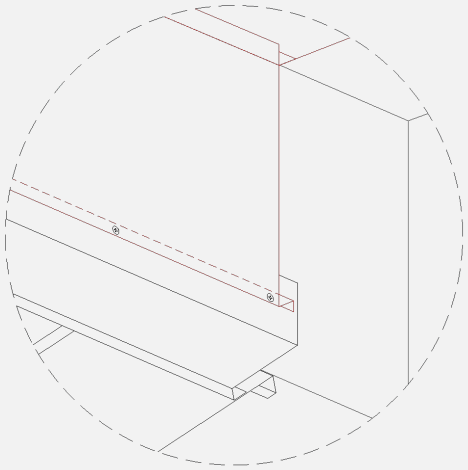




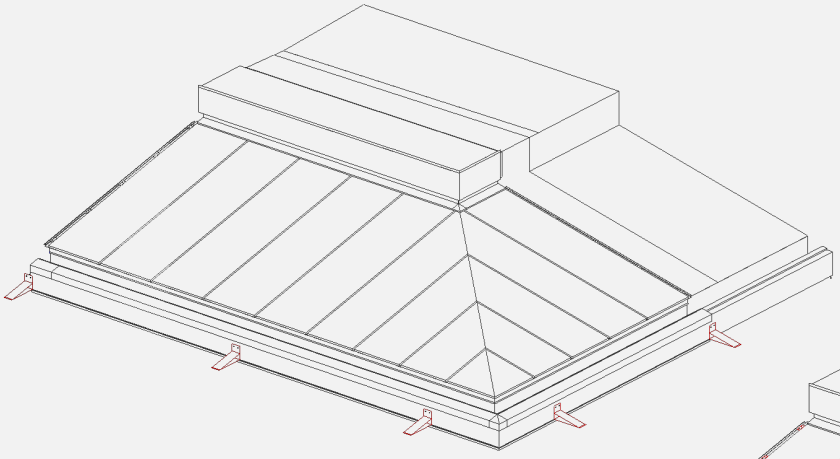






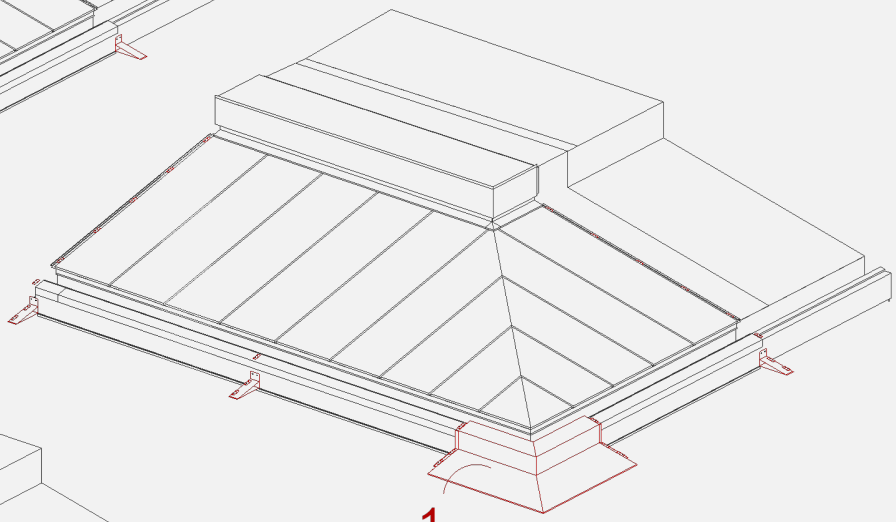


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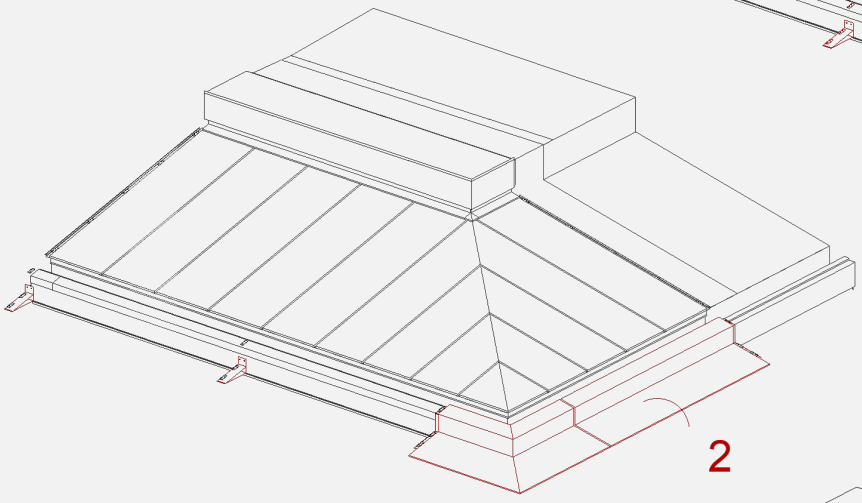
Installation of the SS supports

STEP 5- Roof Panel Installation Layout



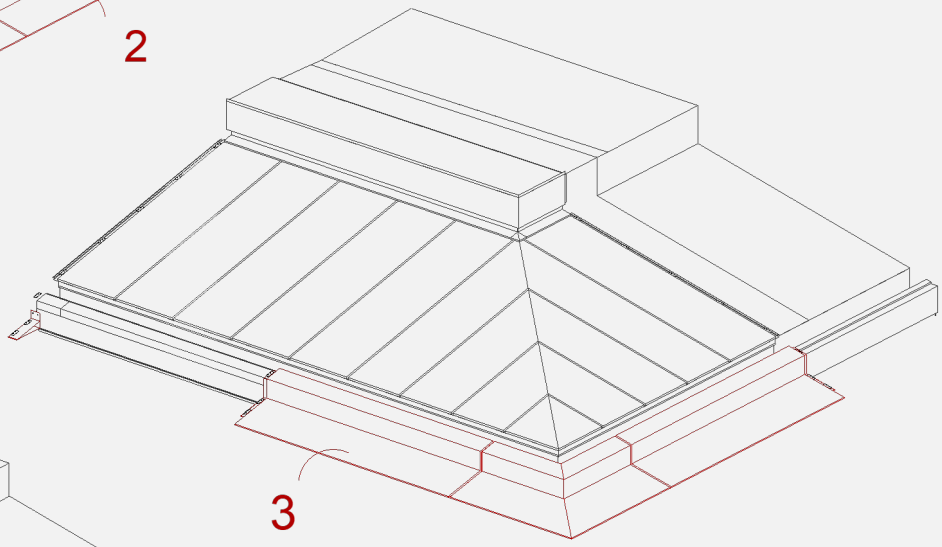
1

Panel installation must start on the lower panel corner/panels attach each other with "J clips" into male and female flanges

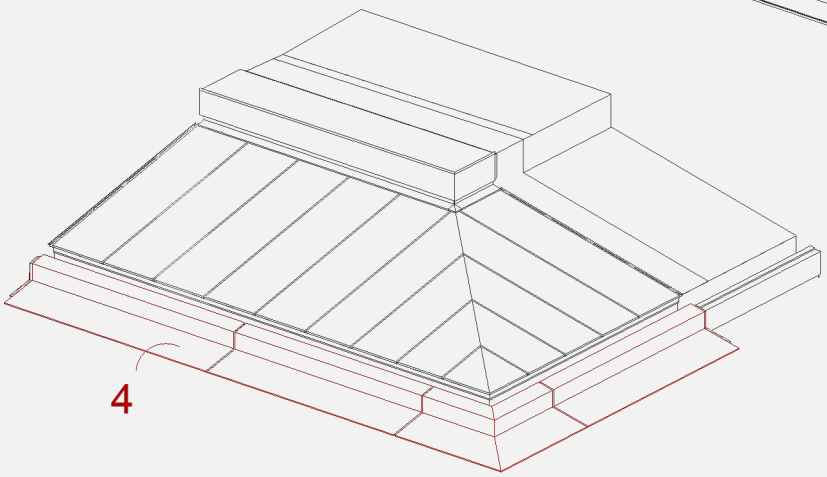


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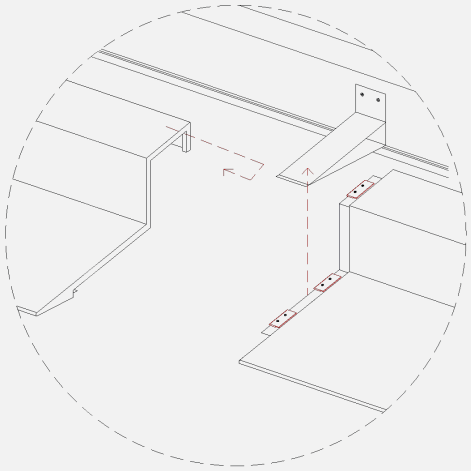
After finishing the corner panels, installation can continue to the straight panels, first the panels towards the right and next to the left side

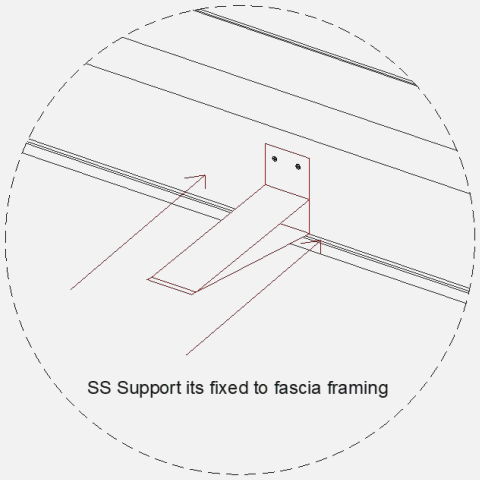


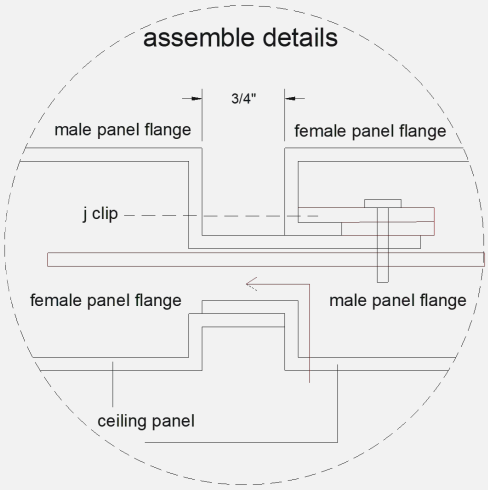
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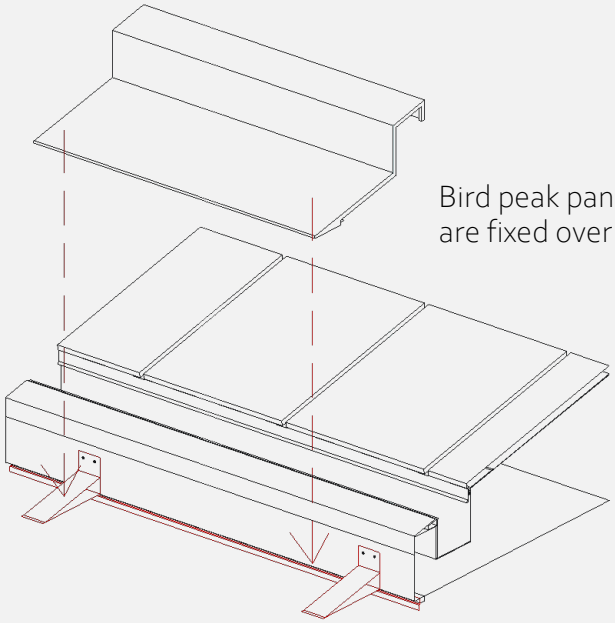


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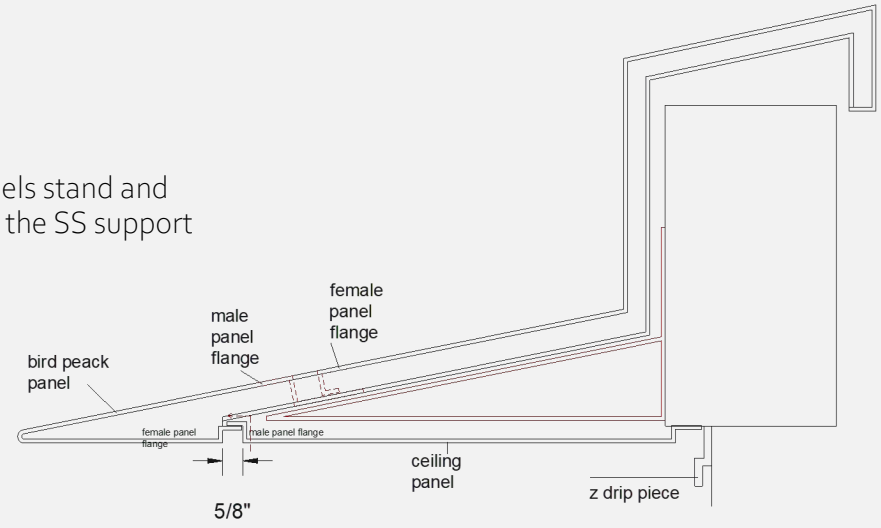


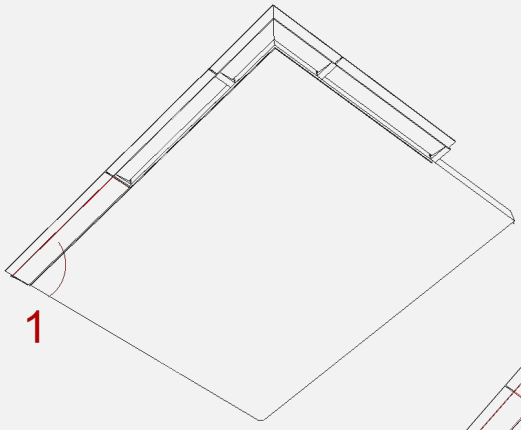


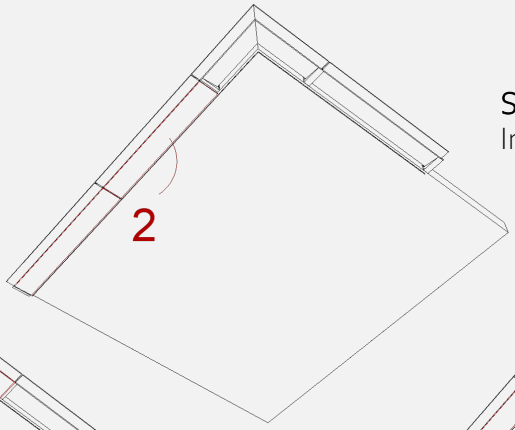




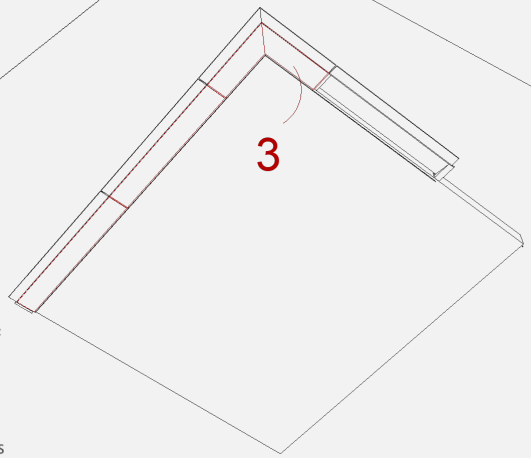
Bird peak panels stand and are fixed over the SS support

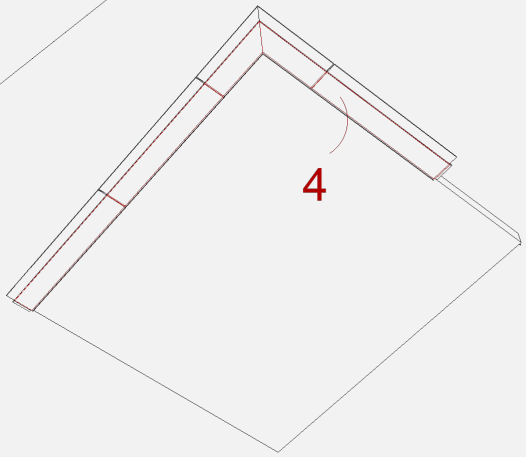




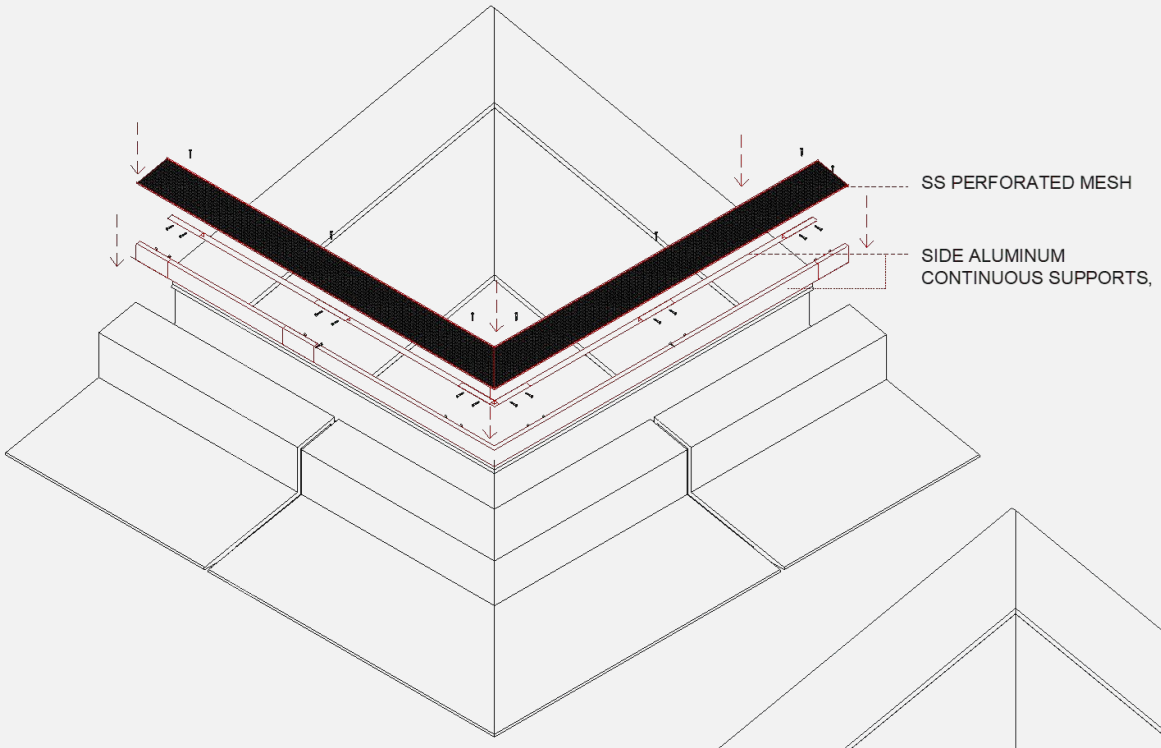


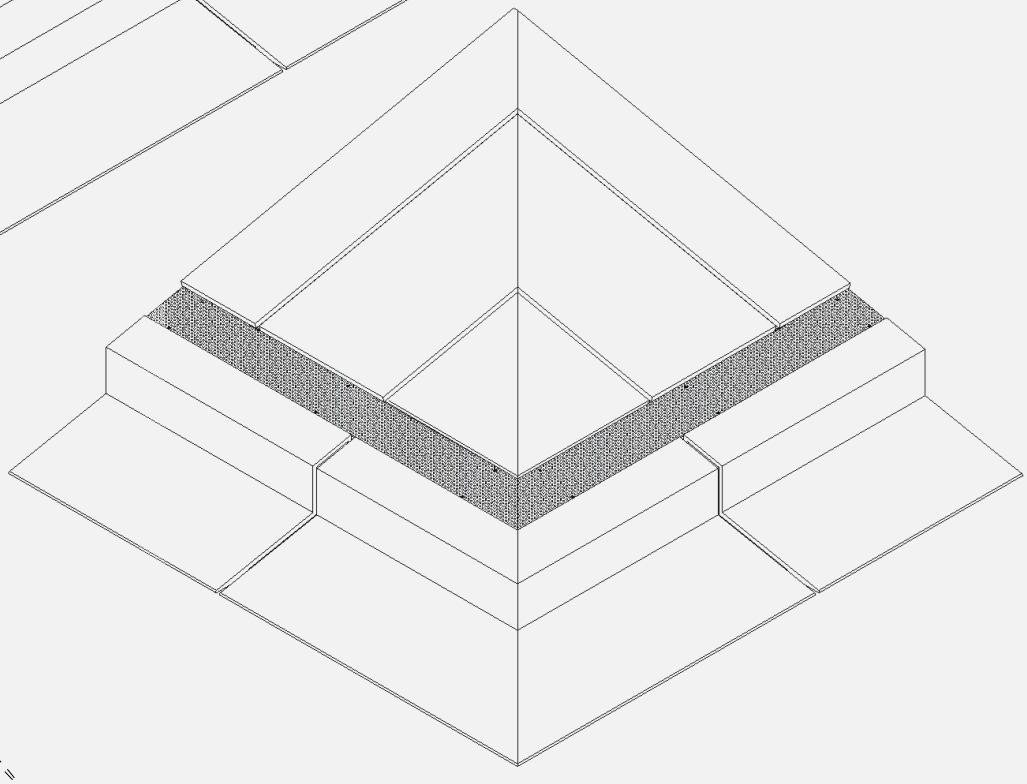
STEP 6- Ceiling Panel Installation Layout



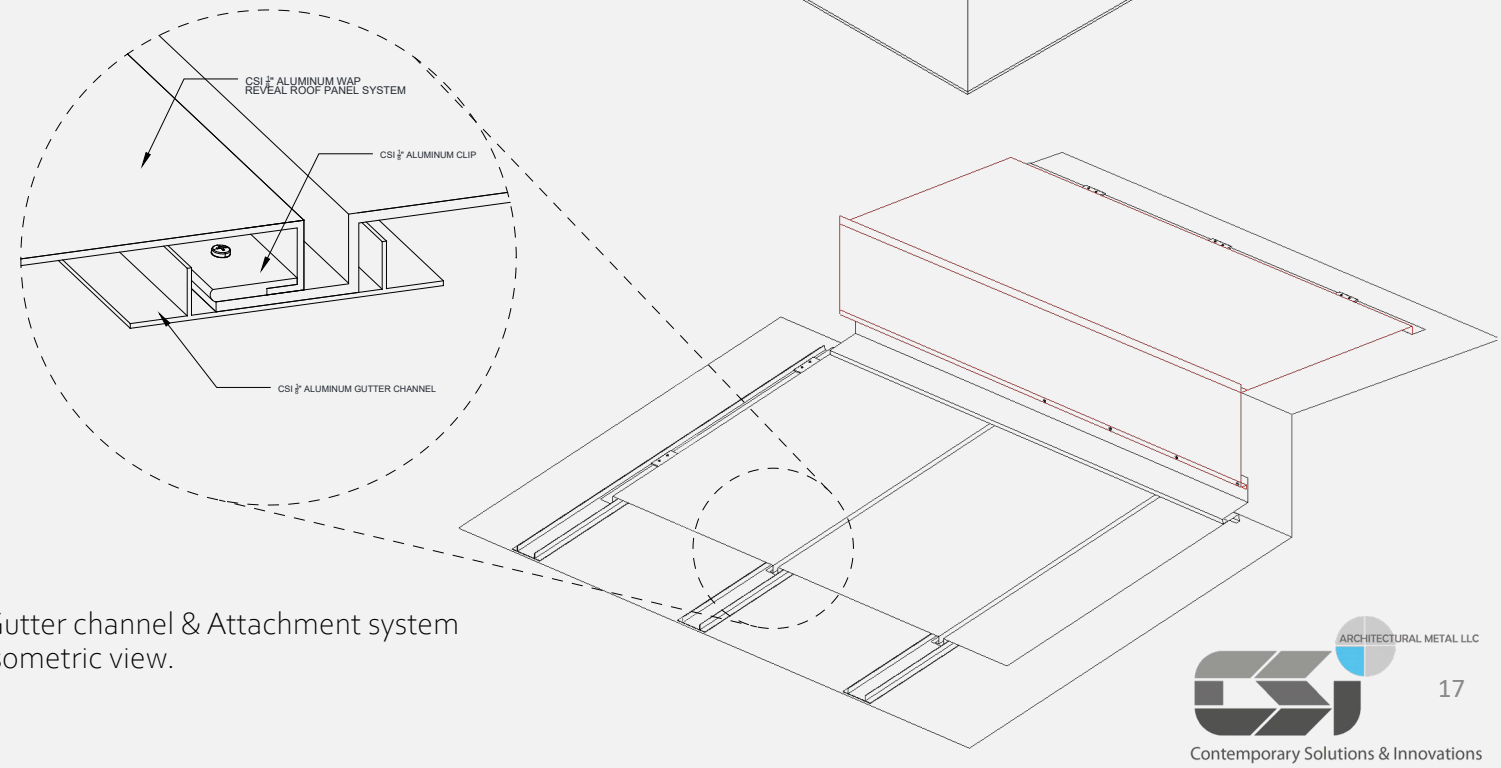


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STEP 7. Perforated mesh installation

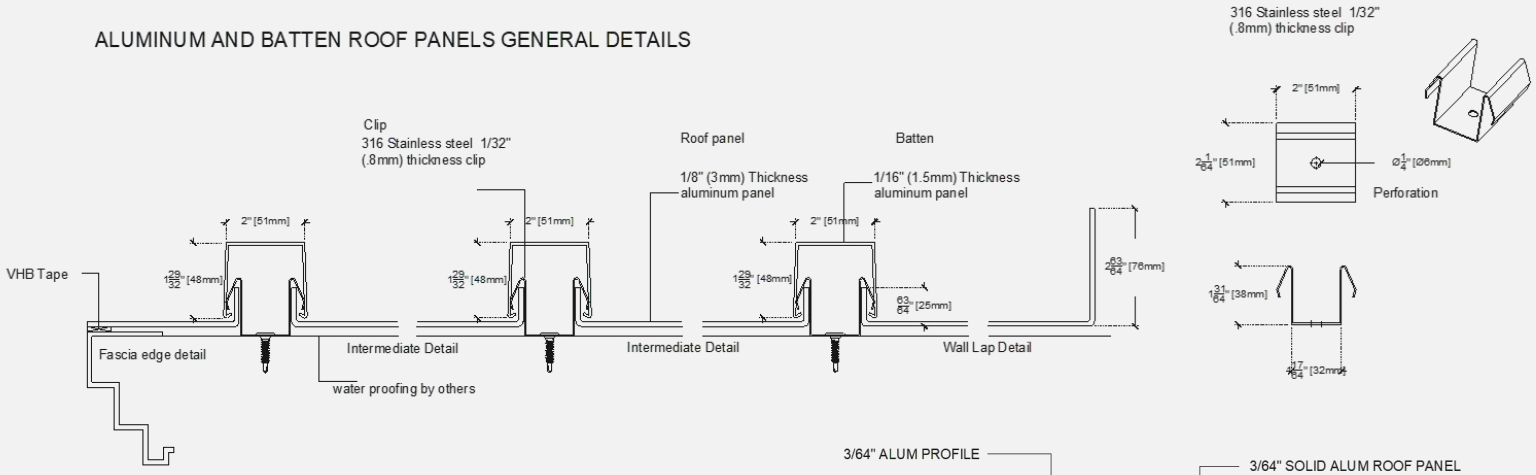


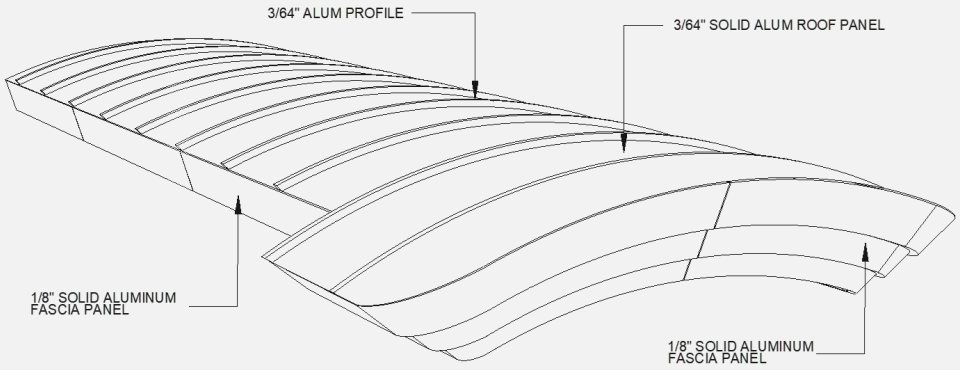
Gutter channel & Attachment system
Isometric view.



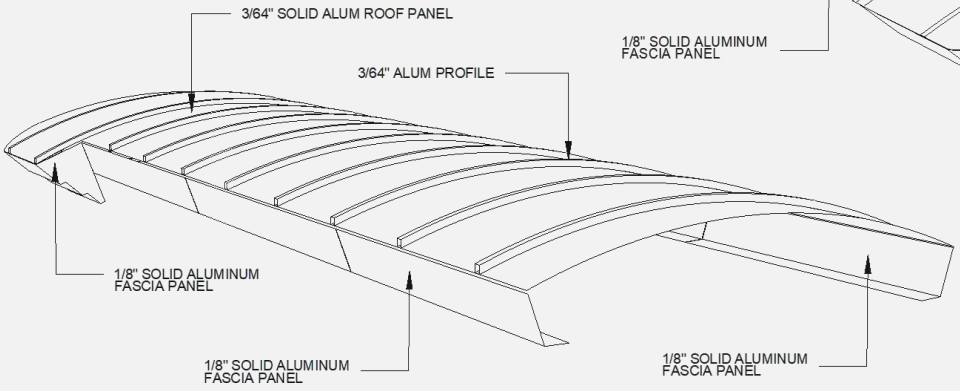


CLIP DETAIL





ISOMETRIC VIEW - FRONT SIDE



ISOMETRIC VIEW - BACK SIDE

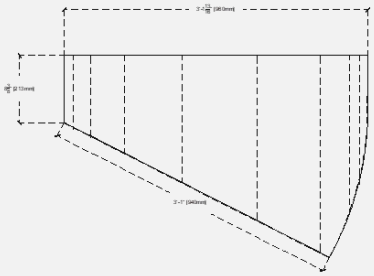


Architect's rendering

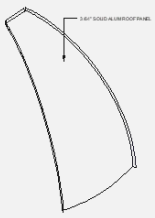


Project: Palmer Residence
Winter Park, Florida

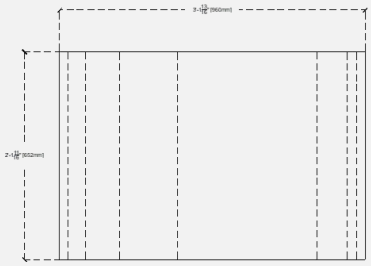
Product: WAP
Material : 1/8" Aluminum, post-fab PVDF



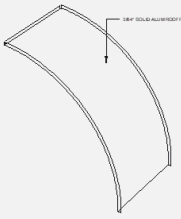
TOP VIEW



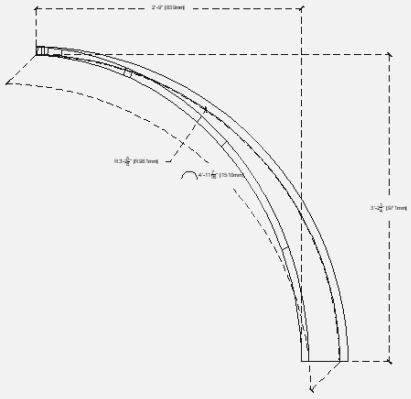
ISOMETRIC VIEW



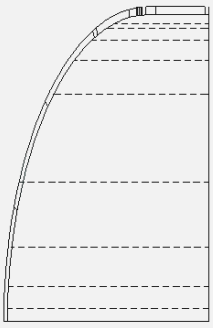
TOP VIEW



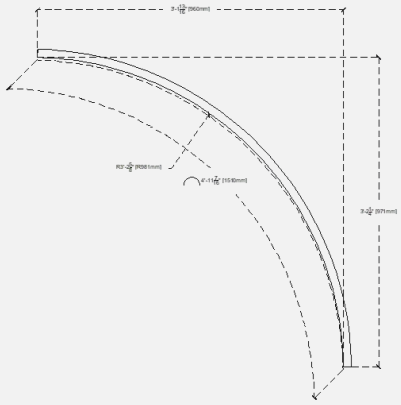
ISOMETRIC VIEW



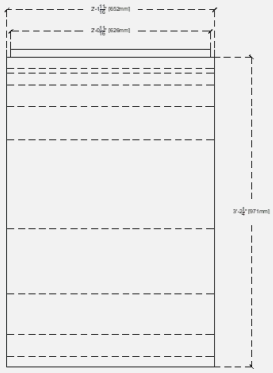
SIDE VIEW



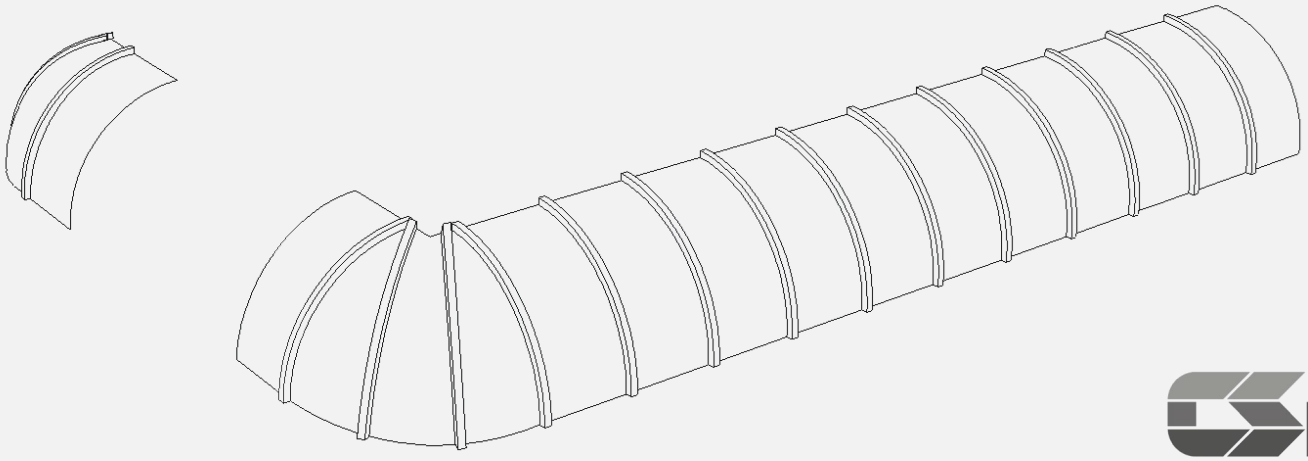
FRONT VIEW



SIDE VIEW



FRONT VIEW







Project: Palmer Residence
Winter Park, Florida

Product: WAP
Material: 1/8" Aluminum, post-fab PVDF











Project: Palmer Residence
Winter Park, Florida

Product: WAP
Material: 1/8" Aluminum, post-fab PVDF







The CSI-WAP™ demonstrates exceptional versatility, shown here in a precision-fabricated double-curved custom wide-boxed-rib roof panel, achieving complex geometry and smooth, continuous form even in a solid 1/8" aluminum plate, a capability rarely attainable with conventional sheet metal systems.

CSI-WSSP™ Panel System

Welded Stainless Steel Plate for Architectural Façade & Roofing Applications

The CSI-WSSP™, Welded Stainless Steel Plate panel system, fabricated from solid stainless-steel plate using advanced welding and CNC-controlled processes, WSSP panels deliver a monolithic appearance with concealed fastening, eliminating exposed edges and maintaining tight dimensional tolerances across complex geometries.

Designed as the stainless-steel counterpart to the CSI-WAP™ system, WSSP expands the palette of high-performance metal systems into natural finishes.

System Highlights

- Material: Solid stainless-steel plate (typically 316)
- Thickness Range: 1/8" to 1/4" (project-specific engineering available)
- Construction: Fully welded panel assemblies with closed edges
- Attachment: Concealed fastening with integrated support systems
- Fabrication: CNC precision + advanced welding technologies

Performance & Advantages

- Exceptional corrosion resistance (ideal for coastal and high-exposure environments)
- Non-combustible, high-strength material with long service life
- Superior dimensional stability compared to light-gauge systems
- Reduced oil canning due to plate thickness and structural rigidity
- Capable of supporting complex geometries, radii, and custom forms
- Engineered for extreme climates, including high wind and snow load conditions







•Aluminum •WAP-PVDF-RAL •WAP-PVDF-Custom •Stainless Steel 316L • SS316L Finishes

Metal Types & Finish Options

ARCHITECTURAL METAL LLC
Contemporary Solutions & Innovations

1. Lightweight and Strong

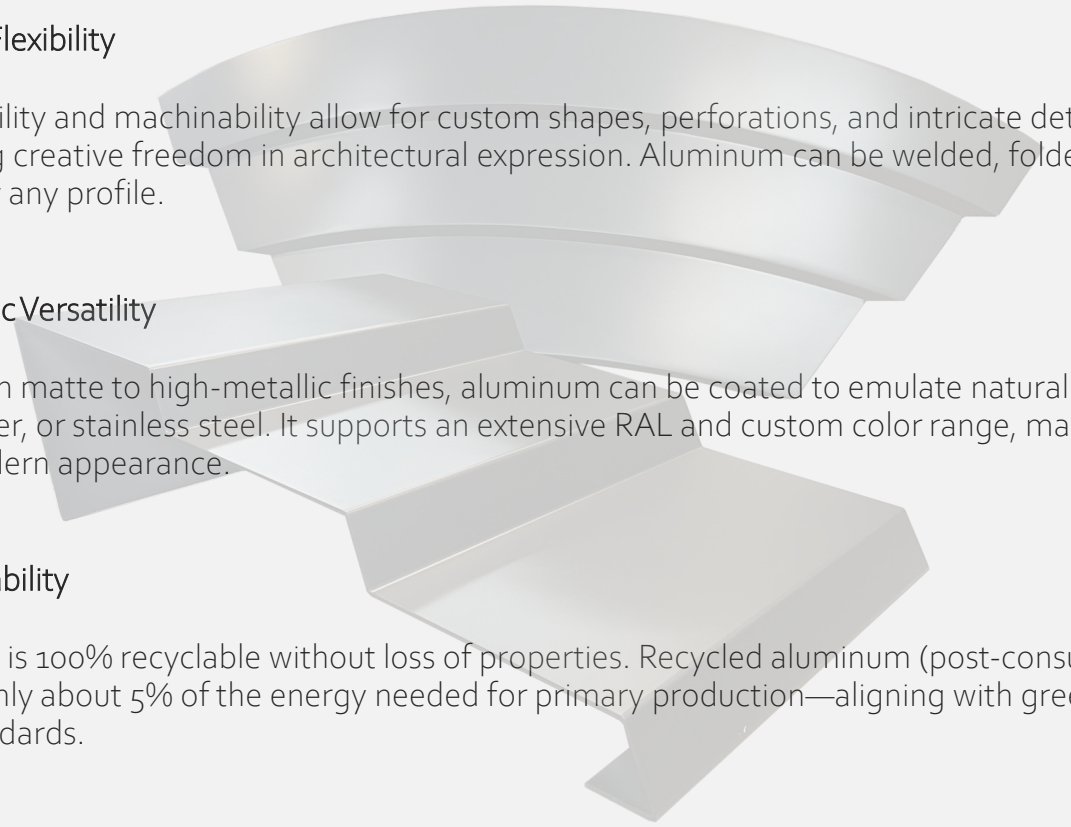
Aluminum offers an exceptional strength-to-weight ratio, making it ideal for large façade panels, soffits, and roof cladding systems. It reduces structural load while maintaining rigidity and durability.

2. Corrosion Resistance

Naturally resistant to corrosion through its protective oxide layer, aluminum performs well in a wide range of climates. For coastal or industrial environments, additional finishes (such as PVDF, anodizing, or baked enamel coatings) provide enhanced protection and longevity.

3. Design Flexibility

Its formability and machinability allow for custom shapes, perforations, and intricate detailing—supporting creative freedom in architectural expression. Aluminum can be welded, folded, or extruded into nearly any profile.



4. Aesthetic Versatility

Available in matte to high-metallic finishes, aluminum can be coated to emulate natural metals like zinc, copper, or stainless steel. It supports an extensive RAL and custom color range, maintaining a sleek, modern appearance.

5. Sustainability

Aluminum is 100% recyclable without loss of properties. Recycled aluminum (post-consumer content) requires only about 5% of the energy needed for primary production—aligning with green building and LEED standards.

6. Thermal and Acoustic Performance

When integrated with appropriate insulation and backer systems, aluminum panels contribute to energy efficiency and sound control, ideal for rainscreen and ventilated façade assemblies.

7. Low Maintenance and Longevity

Coated or anodized aluminum surfaces are fade-resistant, non-staining, and require minimal upkeep. Expected service life exceeds 50 years, depending on finish and exposure conditions.



Project: UTSA
San Antonio, Texas

Product: WAP-Wall Panels
Material: 1/8" Aluminum, post-fab PVDF



Project: UTSA
San Antonio, Texas

Product: WAP-Fascia / Roof Panels
Material: 1/8" Aluminum, post-fab PVDF

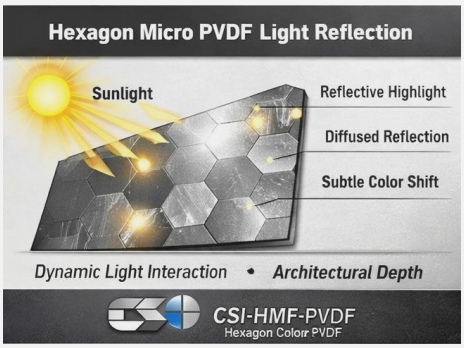
Heavy Gauge Premium PVDF Finishes

Post-fabrication baked enamel finishes applied to CSI-WAP components. Each part is welded, ground, and blended until seams are invisible, then finished in a multi-stage enamel process that bonds directly to the metal surface.

- Baked Enamel PVDF System — color fuses to the substrate during curing, creating a luminous, durable surface that responds to light and shade.
- Select any tone from the RAL Color Chart, or provide a physical sample for custom color matching.
- Samples available in matte, satin, or polished finish levels.
- Custom metallic and special effect finishes available upon request.

Notes
- All PVDF finishes meet or exceed AAMA 2605 performance standards.
- Marine-grade systems available for coastal or high-humidity environments.





ARCHITECTURAL METAL LLC
Contemporary Solutions & Innovations



RAL currently has 2,540 predefined colors: 216 RAL CLASSIC, 1,825 RAL DESIGN SYSTEM plus, and 490 RAL EFFECTRAL – 100 YEARS – JOY OF COLOR. RAL celebrated its 100th anniversary in 2025. In 1925, the "Reichsausschuss für Lieferbedingungen" (Imperial Committee for Delivery Terms) – or RAL for short – was founded. German industry needed technical delivery terms that could be used as rationalization measures. RAL addressed this need with RAL registrations and RAL agreements. The first RAL color chart comprised 40 colors with the aim of standardizing colors and enabling the uniform coating and painting of industrial goods. Today, RAL is an internationally recognized color standard used across architecture, design, manufacturing, and numerous industries worldwide, providing a consistent and reliable reference for precise color selection and specification.

CSI Architectural Metal offers the full range of RAL colors in matte, metallic, and gloss finishes. Custom variations are also available, allowing selected RAL colors to be tailored through subtle adjustments in shade, tone, and appearance to meet specific architectural and design requirements.

ARCHITECTURAL METAL LLC

Contemporary Solutions & Innovations

RAL - 100 YEARS - JOY OF COLOR

2,500+ predefined colors across three established collections

216	1,825	490
RAL CLASSIC	RAL DESIGN SYSTEM plus	RAL EFFECT

RAL celebrated its 100th anniversary in 2025. Founded in 1925 as the Reichsausschuss für Lieferbedingungen - the Imperial Committee for Delivery Terms - RAL responded to German industry's need for clear, standardized technical delivery conditions. Its first color chart contained 40 colors, created to bring consistency to the coating and painting of industrial goods.

Today, RAL is an internationally recognized color standard used throughout architecture, design, manufacturing, and industry, providing a consistent and reliable reference for precise color selection and specification.

THE FULL RAL RANGE. YOUR FINISH.

CSI Architectural Metal offers the full range of RAL colors in matte, metallic, and gloss finishes. Custom variations are also available, allowing selected colors to be refined through subtle adjustments in shade, tone, and appearance to meet specific architectural and design requirements.

Color appearance varies by screen, substrate, gloss level, and lighting. Final selection should be verified using an approved physical sample.



1. Composition and Performance

Stainless Steel 316 is an austenitic chromium-nickel-molybdenum alloy known for its marine-grade corrosion resistance and enduring metallic beauty.

The addition of molybdenum (Mo) provides superior protection against chlorides, salt air, and industrial pollutants, making 316 the preferred stainless steel for coastal and high-humidity environments.

2. Appearance and Surface Finishes

316 Stainless Steel maintains its natural metallic tone and refined reflectivity over time. It is available in a wide range of architectural finishes, including:

MAC finish (matte architectural)

Hair-line / brushed (#4)

Polished / mirror (#8)

Custom textures or directional grains

These finishes provide varying levels of gloss, reflection, and texture, supporting both modern and classic architectural expressions.

3. Corrosion Resistance and Durability

316 Stainless Steel delivers exceptional corrosion resistance, even in marine or coastal climates exposed to salt spray.

The self-healing chromium oxide layer protects the metal from oxidation and staining. When properly detailed and maintained, 316 exhibits service lives exceeding 100 years without degradation of structural or aesthetic integrity.

4. Strength and Stability

With high tensile and yield strength, 316 Stainless Steel maintains dimensional stability and resists oil-canning when fabricated correctly. Its rigidity makes it ideal for both Light Gauge panels and Heavy Gauge plate systems, particularly in rainscreen façades, soffits, and flat-lock roofing applications.

5. Fabrication and Workability

316 can be welded, folded, roll-formed, or mechanically fastened using standard stainless steel fabrication practices.

It is compatible with PVDF-coated, anodized, or natural metals in hybrid façades when properly isolated to avoid galvanic interaction.

6. Aesthetic Versatility

The cool silver-gray tone of stainless steel complements a broad range of materials—glass, stone, wood, and dark metals. It conveys a sense of precision, permanence, and refinement that is particularly suited for high-end architectural projects such as museums, airports, hospitals, and contemporary residences.

7. Maintenance and Cleanability

Stainless Steel 316 requires minimal maintenance. Occasional washing with mild detergent and water preserves its luster and removes surface contaminants. The passive oxide layer continuously regenerates, ensuring long-term brilliance even in demanding environments.

8. Sustainability

316 Stainless Steel is 100% recyclable and typically contains 60–85% recycled content. Its long service life, low maintenance requirements, and full recyclability make it a sustainable choice for environmentally conscious architectural design.

9. Architectural Summary

Alloy Type: 316 / UNS S31600

Finish Options: MAC, #4 brushed, hair-line, #8 mirror, custom textures

Corrosion Resistance: Marine-grade (chloride and salt-resistant)

Service Life: 80–100+ years

Thickness Range: 26ga – 20ga (Light Gauge Panels)

Maintenance: Minimal; self-healing oxide surface

Sustainability: 100% recyclable, long lifecycle value

10. MAC Finish (Multi-Axial Character Finish)

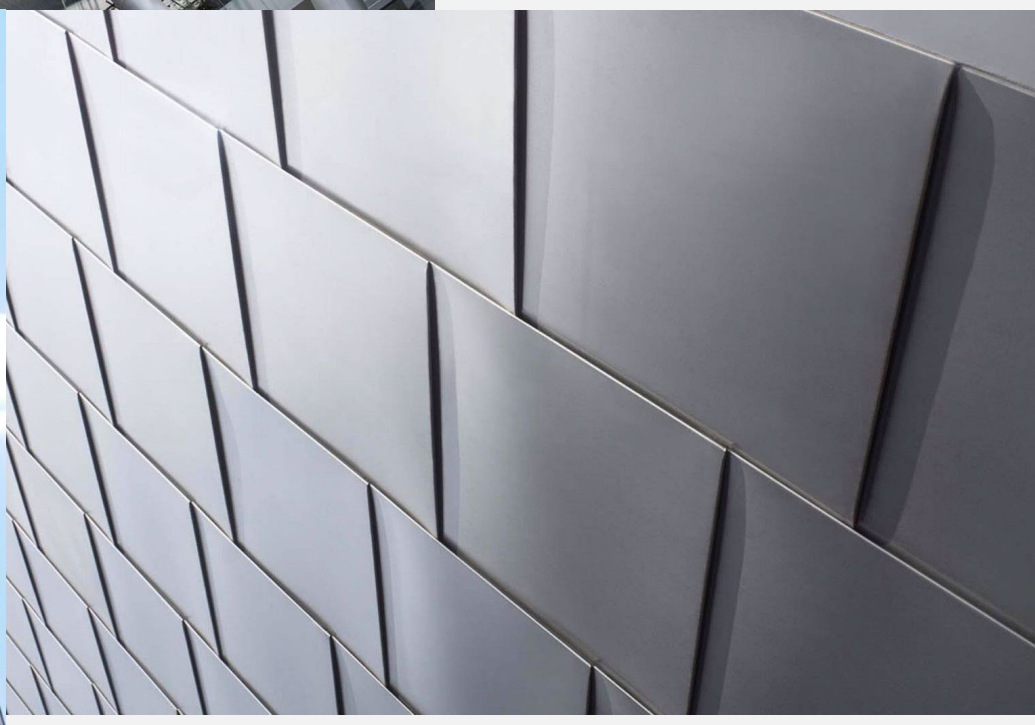
- Appearance: Refined, multi-directional satin texture with subtle movement and depth
- Surface Character: Non-linear grain pattern; soft, randomized light reflection
- Use cases:
- High-end façades
- Signature architectural features
- Interior feature walls and column covers
- Key advantages:
- Minimizes visible grain direction inconsistencies
- Reduces perception of oil canning
- Hides fingerprints and minor handling marks
- Provides a sophisticated, contemporary metal aesthetic



Project: Liverpool Toreo
Mexico City

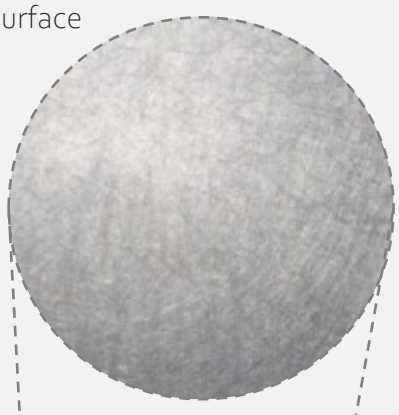
Product: Flat Lock
Material: Stainless Steel





11. Vibration Finish (Non-Directional / Orbital Finish)

- Appearance: Distinct multi-directional pattern with fine, overlapping circular abrasions
- Surface Character: Highly textured, random orbital pattern creating a lively reflective surface
- Use cases:
- Iconic façades and landmark architecture
- Feature panels and statement elements
- High-traffic areas requiring visual durability
- Key advantages:
- Completely non-directional—no grain alignment required
- Excellent at concealing oil canning and surface distortion
- Highly resistant to visible scratches and wear patterns
- Creates dramatic light diffusion and visual movement, bold, expressive designs

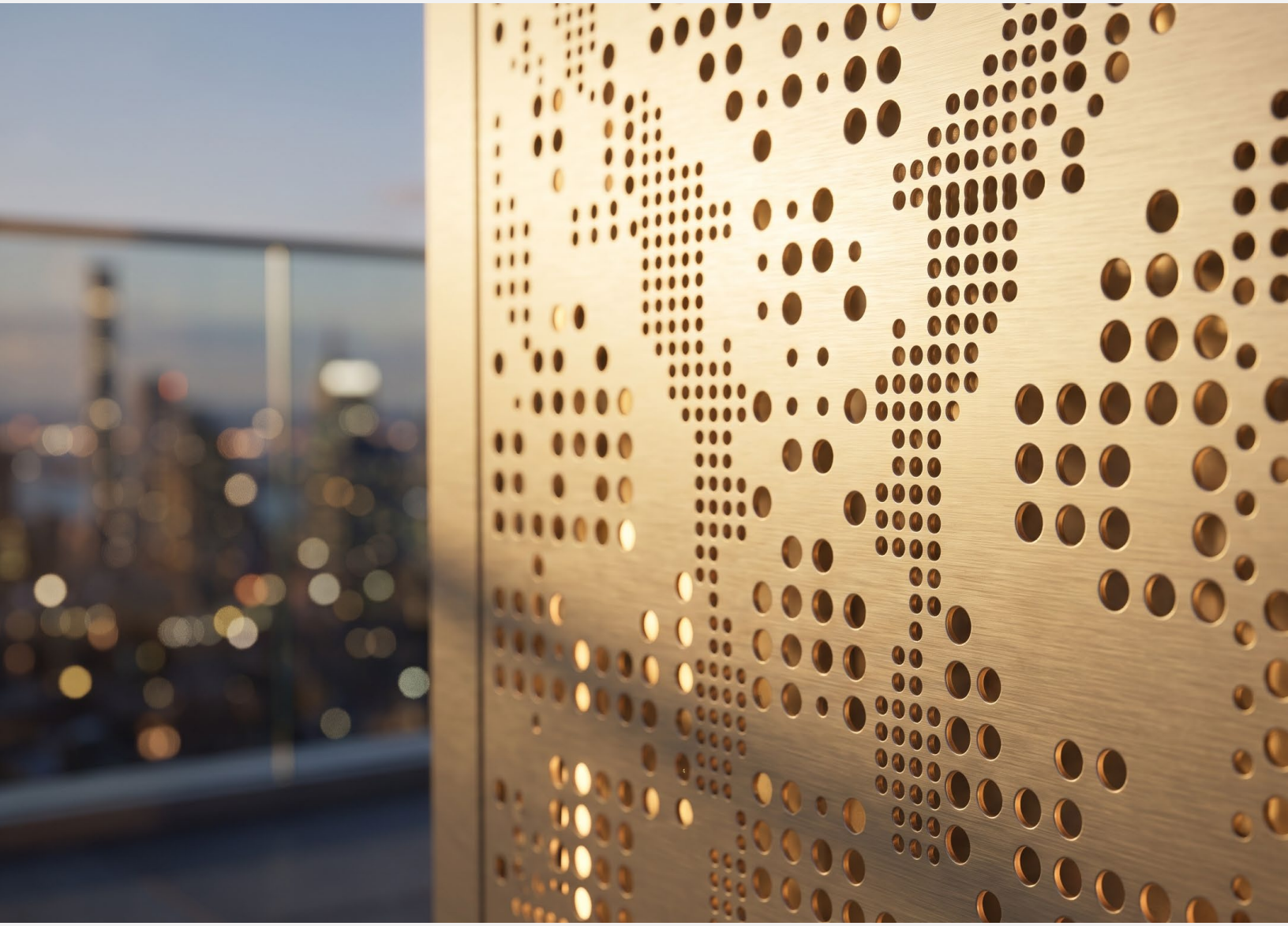






Redefine the relationship between architecture, the environment, and light. Designed for the most exclusive and demanding projects, this innovative facade system allows architects and designers to incorporate photographs, artwork, logos, and custom patterns into architectural metal panels using high-precision manufacturing techniques.

In the sunlight, the panels project a discreet, elegant, and sophisticated presence, blending harmoniously with the structure's minimalist design. However, as night falls, the building reveals its true magnitude. Through high-resolution CNC perforated panels and LED backlighting, the facade comes to life, transforming into a luminous canvas of monumental proportions. Thanks to variable hole size and perforation density technology, the creative possibilities are endless, allowing light to be sculpted to create an unprecedented visual impact."





High-Resolution CNC Machined

Pixel-perfect perforations with variable hole sizes and densities for absolute geometric precision.



Lightweight Engineering

Advanced architectural metal profiles reduce building dead load without compromising structural rigidity.

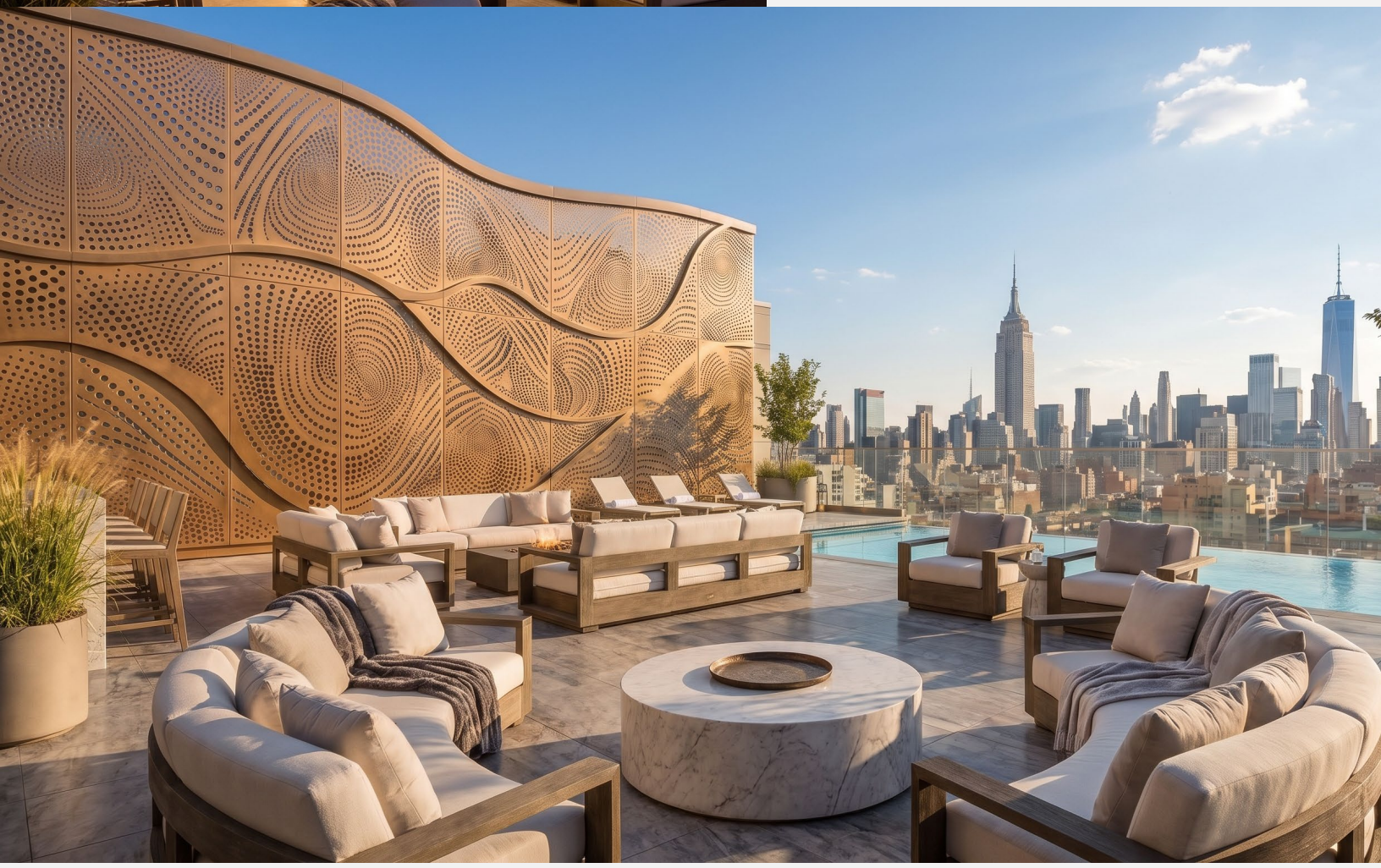
Low Maintenance Finish

High-performance surface treatments repel dirt, smog, and pollutants, requiring minimal upkeep.



Dynamic LED Integration

Engineered cavity spacing designed specifically for seamless ambient or RGB LED backlighting



Unlimited Customization

From complex typography to 3D relief machining, every panel is a bespoke architectural canvas.



Thermal & Moisture Control

The ventilated rainscreen cavity actively dissipates heat load and prevents condensation buildup.



Seamless Visual Flow

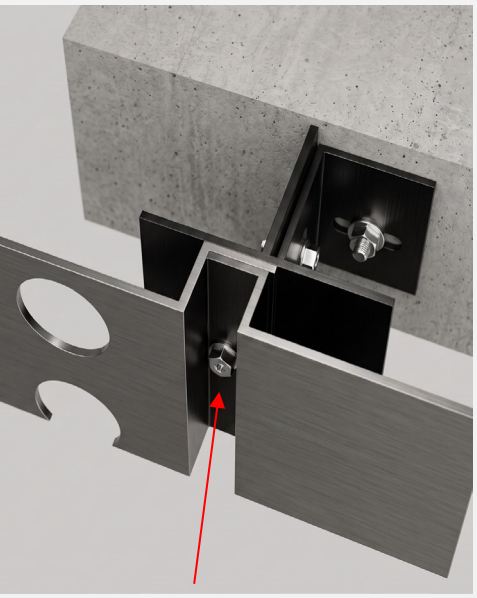
Continuous pattern matching across shadow joints for uninterrupted, monumental facade designs.

Rapid Modular Installation

Fully adjustable substructures and precision-folded cassettes ensure fast, flawless, and secure mounting.

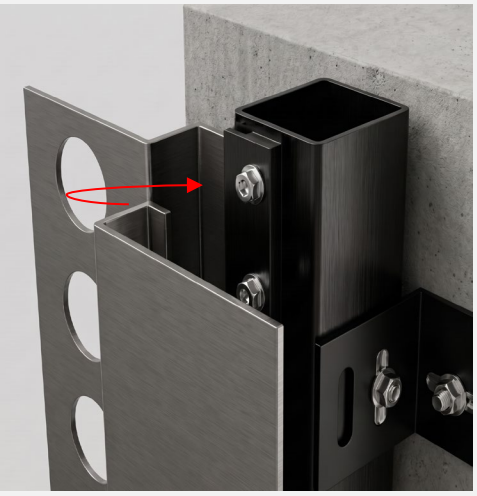
ASSEMBLY AND SYSTEM DETAILS

To ensure that uncompromised aesthetic vision meets rigorous structural demands, we offer three premium rainscreen fixing systems tailored to the specific needs, scale, and budget of your project.



Exposed Fixing

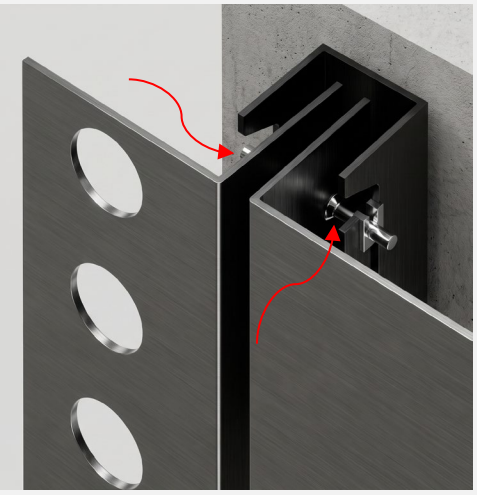
Ideal for large-scale projects, this robust flat-panel system uses heavy-duty, color-matched exposed fasteners that blend seamlessly into your custom PVDF finish, maximizing cost-efficiency without compromising aesthetics.



Concealed fixing | Hidden Clip

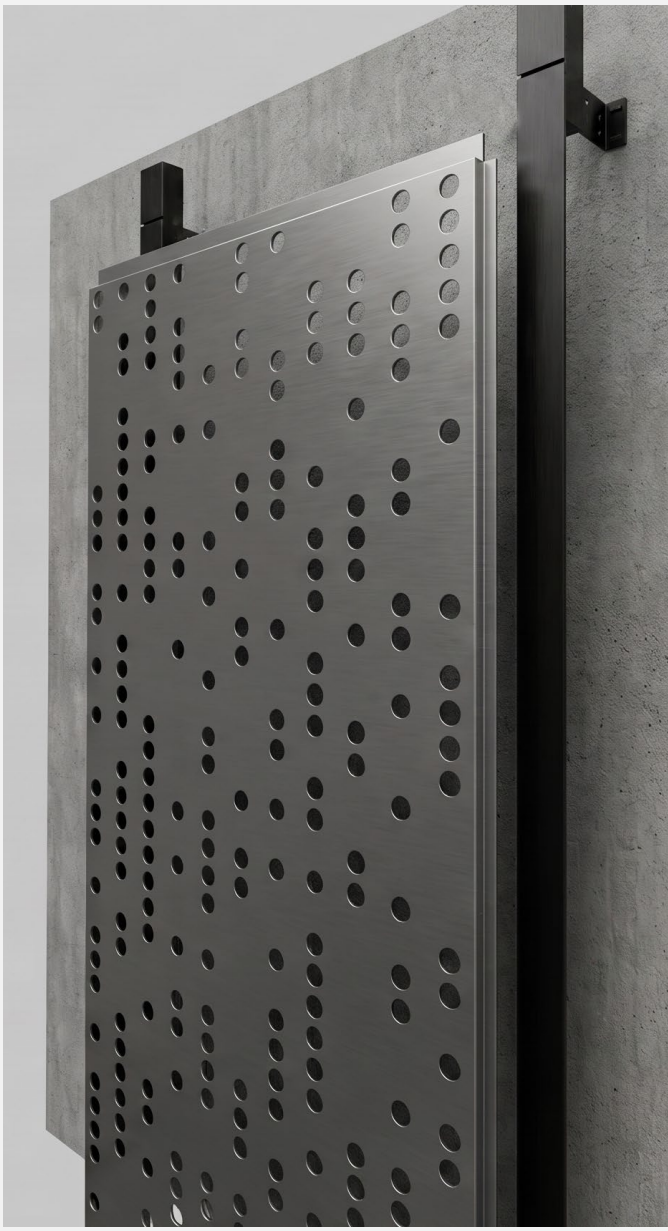
Perfect for commercial designs needing sharp modular depth. Folded cassette panels use discrete fixing clips hidden within the panel joints, eliminating visible face fasteners

while providing a pronounced, elegant reveal between modules



Concealed fixing | Hanging system

Our ultimate secret-fix solution for ultra-luxury projects. Aluminum hanging rails lock into folded cassette flanges, creating a flawless, uninterrupted surface with individually demountable panels for easy cavity access.



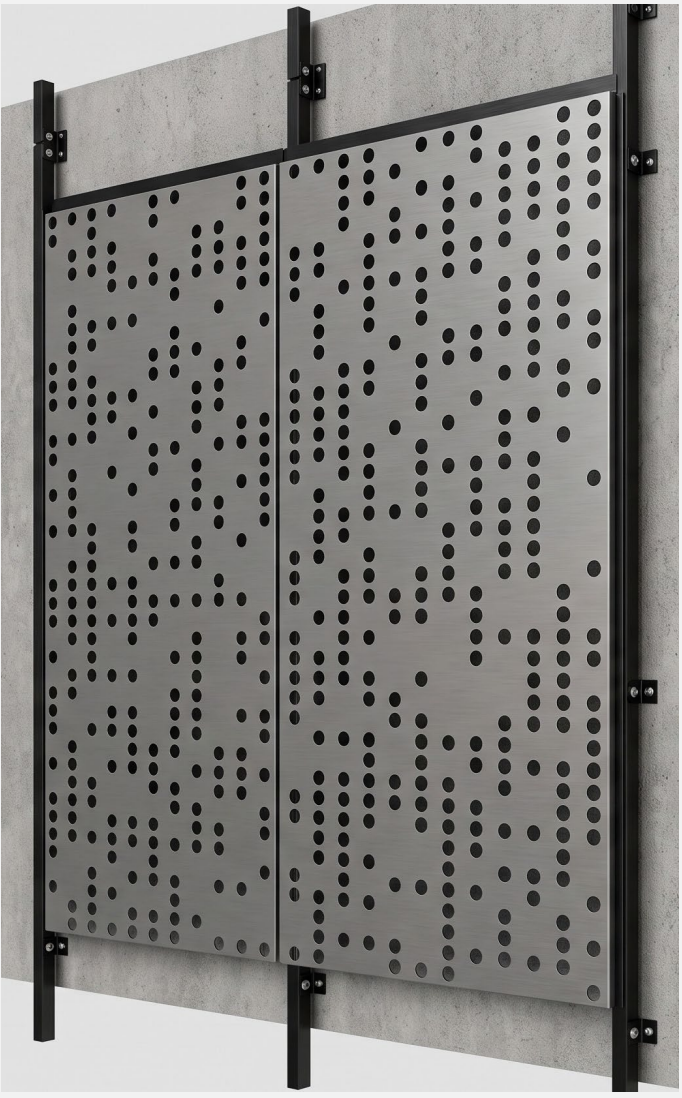
INSTALLATION PROCESS

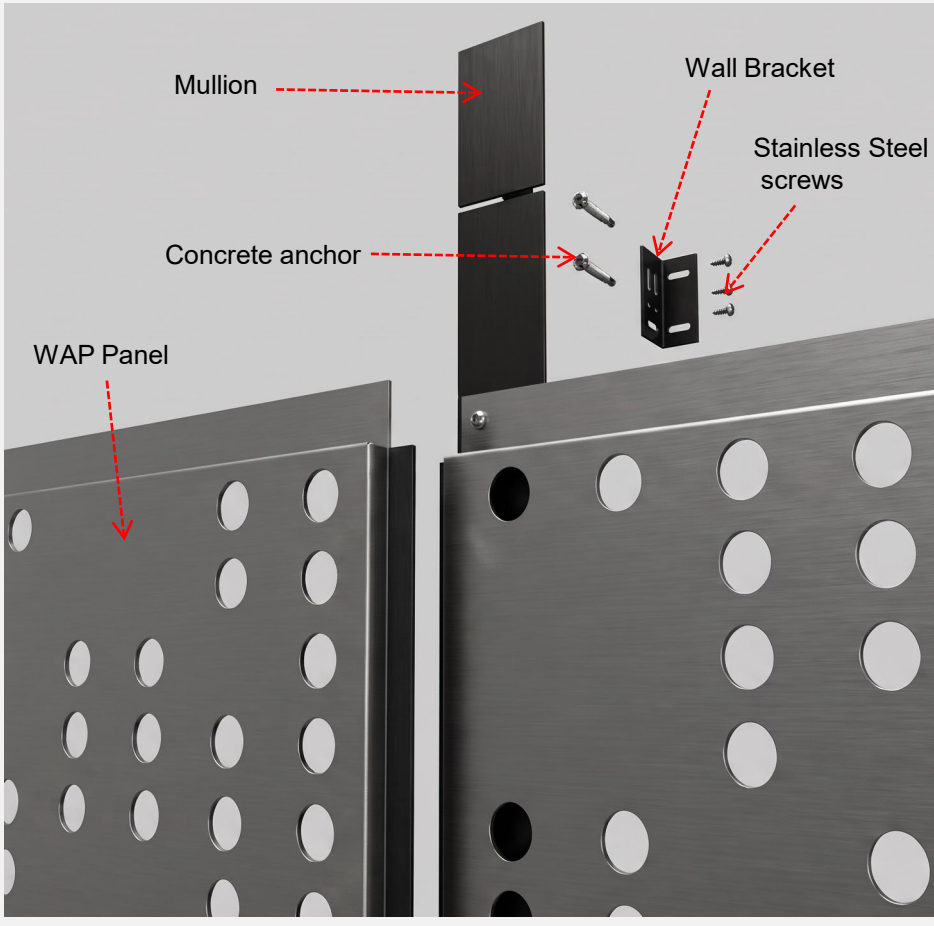
Concealed fixing | Hidden Clip

Guarantee flawless aesthetics with an assembly engineered for efficiency and high performance. The process begins by anchoring robust adjustable brackets and vertical aluminum mullions, creating an optimal ventilation cavity.

From left to right, each cassette panel integrates with millimeter precision. Our innovative hidden clip system fastens directly to the panel's folded flanges and the mullion using structural screws, becoming completely invisible.

The result is a continuous, secure, and monumental architectural skin. Designed to grant ultimate creative flexibility, the system allows custom horizontal and vertical reveal joints tailored exactly to your vision. Your design, without compromise.



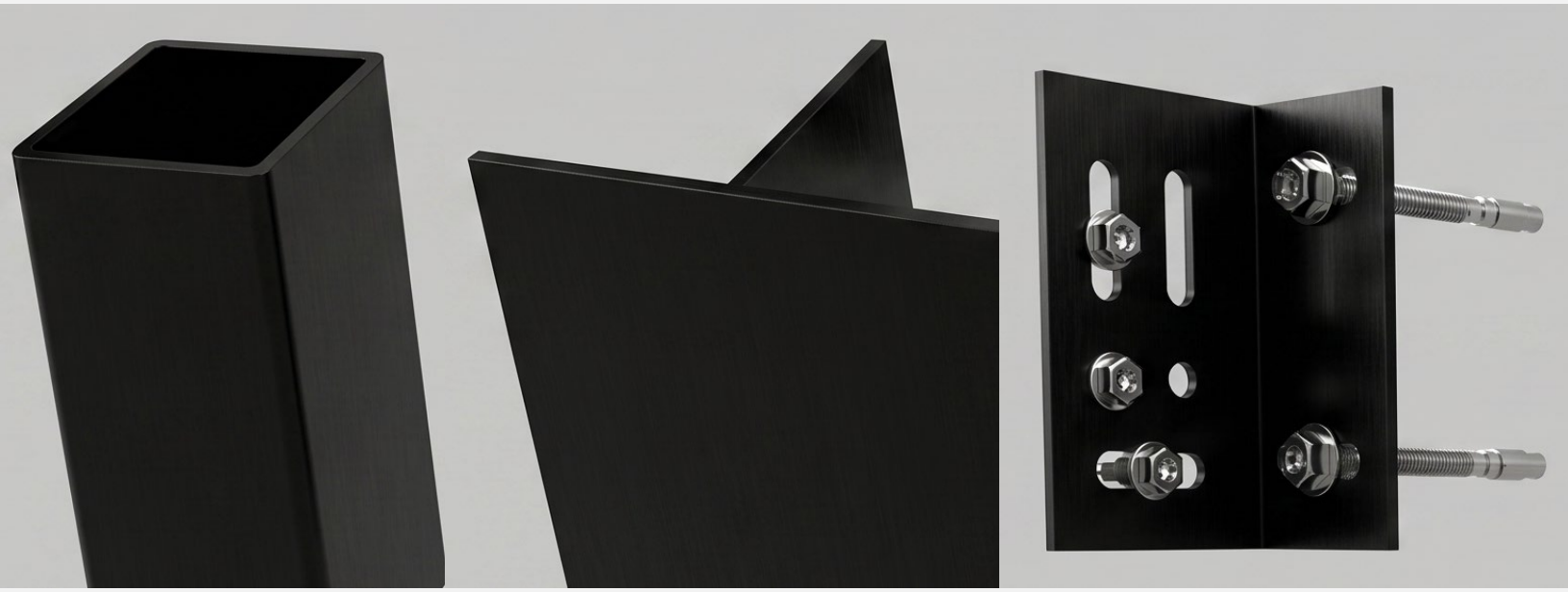




Wall Bracket Hidden Clip

SYSTEM COMPONENTS

Adjustable aluminum brackets anchor securely to the base wall, supporting vertical structural profiles (mullions) that create the ventilation cavity. Specialized mounting plates and concealed hardware fasten the panels, ensuring flawless alignment, optimal thermal efficiency, and robust structural integrity.





MATERIALS AND FINISHES

CSI-WAP IMAGING PANELS™ system is not just about light and pattern; it is about the tactile, enduring quality of the metal itself. We offer our high-resolution CNC-perforated panels in premium architectural metals; each material brings its own distinct character, structural advantages, and interaction with its environment.

Architectural Aluminum: Lightweight Performance



Aluminum is the benchmark material for dynamic, large-format façades, offering an exceptional balance of strength, weight, and design flexibility.

Key Advantages: Exceptionally lightweight yet structurally robust, aluminum minimizes building dead load while ensuring superior structural integrity. Its outstanding formability makes it the ideal substrate for intricate CNC engraving, precision perforation patterns, and complex geometries. Additionally, it is 100% recyclable and naturally corrosion-resistant.

Signature Finishes: Available in premium PVDF coatings, architectural anodized finishes, and decorative sublimated wood-grain or stone effects.

Stainless Steel: Strength & Precision



For projects demanding exceptional strength and a hyper-modern, high-tech aesthetic, stainless steel is the ultimate choice.

Key Advantages: Offering supreme tensile strength and unparalleled impact resistance, stainless steel thrives in harsh coastal or high-density urban environments. Its reflective surface responds dynamically to natural daylight and integrated LED illumination, creating depth and visual impact.

Signature Finishes:
- Directional Brushed (Hairline / Satin): For elegant light diffusion.
- Mirror-Polished: For striking, reflective monumentality.
- Bead-Blasted: For a smooth, matte, contemporary finish.
- PVD Color Coating (Titanium Gold, Bronze, or Black): For an ultra-luxury aesthetic.

Architectural Zinc: The Living Metal



Zinc is an environmentally responsible material that ages gracefully, developing a protective natural patina that ensures it lasts for generations.

Key Advantages: Zinc is a "living" material that dynamically responds to its environment. It is self-healing—minor scratches and imperfections gradually blend into the natural patina over time. It offers an exceptionally long lifespan with virtually zero maintenance, bestowing your façade with a soft, organic prestige.

Signature Finishes:

- Natural Mill Finish: Starts bright and shiny, then weathers naturally over time.
- Pre-Weathered Zinc (Quartz-Zinc or Anthra-Zinc): Provides immediate matte grey or charcoal tones upon installation.
- Pigmented Zinc: Offers subtle undertones of blue, red, or green while preserving the metal's natural visible grain.

Copper: Timeless Character



Few materials convey heritage, craftsmanship, and timeless elegance like architectural copper.

Key Advantages: As the epitome of high-end architectural cladding, copper is highly durable and completely maintenance-free. It develops a rich natural patina over time, transitioning from a warm, glowing penny-bronze to its iconic verdigris green. When combined with custom CNC perforation, backlit copper creates a striking contrast between historic materiality and futuristic technology.

Signature Finishes:

- Natural Bare Copper: Allows for organic, natural weathering on-site.
- Pre-Oxidized Copper: Delivers a rich, dark brown finish straight from the factory.
- Pre-Patinated Copper: Features factory-accelerated verdigris green for instant historic appeal.

Weathering Steel: Natural Patina



For bold, contemporary designs that seek to ground the building in nature or industrial heritage, weathering steel delivers unmatched dramatic impact.

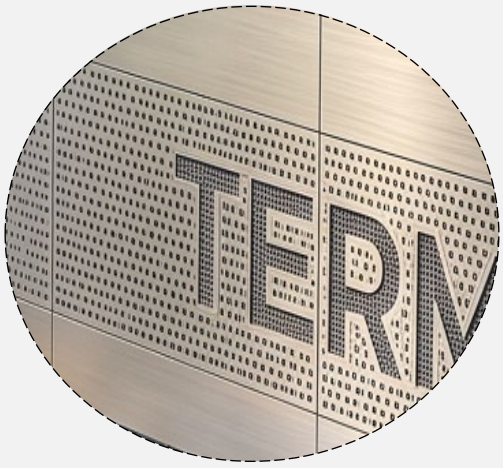
Key Advantages: Weathering steel is engineered to develop a stable, protective oxide layer when exposed to the elements. This oxidized coating shields the inner steel from further corrosion while delivering high structural strength. Its rugged, earthy aesthetic contrasts spectacularly with precision CNC perforations and sleek LED lighting.

Signature Finishes:

- Natural Weathering: Shipped as raw steel to develop an organic rust patina naturally on-site.
- Pre-Weathered & Factory-Sealed: Locks in the desired rust tone upon delivery and prevents runoff stains on adjacent materials.


THE AETHELRED
LUXURY HOTEL & RESIDENCES

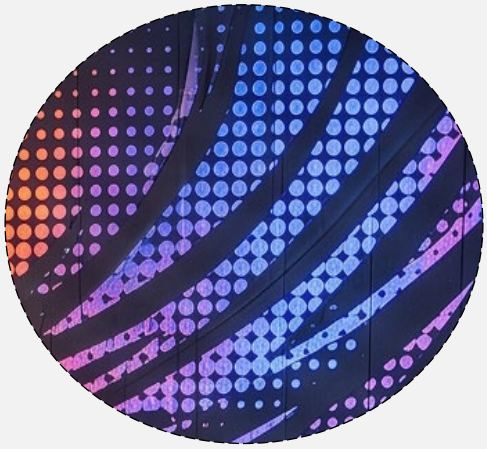

ORIGIN
ROASTERS


TERM


TERMINAL 3
GLOBAL GATE
AIRPORT
TERMINA




UNIVERSITY OF INNOVATION - ADVANCED KNOWLEDGE CENTER





The ultimate canvas for visionary architects.

Responsibility & Warranty

CSI Architectural Metal LLC is not responsible for waterproofing unless a formal CSI 20-Year Weather-Tightness Warranty is issued. This warranty is provided only when CSI's tested waterproof assemblies are used in accordance with the specifications validated by Intertek Building & Construction.

Tested and Approved Waterproof Assemblies

CSI recommends the Platinum HT-B Weather Barrier as the standard high-performance membrane for roof, wall, soffit, fascia, and custom assemblies. When field adhesion is reduced due to temperature or moisture, the Perm-A-Barrier water-based primer must be applied before installation.

Low-Slope Applications (< 2:12 Pitch)

For roof slopes below 2:12, CSI requires two layers of fully adhered high-temperature peel-and-stick underlayment installed over Perm-A-Barrier primer. Flashings must be sandwiched into the membrane at all perimeters and penetrations. This underlayment assembly serves as the primary waterproofing system, while the metal panels function as an architectural rainscreen and UV barrier.

Underlayment Assembly Details

System Type: High-Temperature Ice & Water Shield Assembly Membrane: Two layers of self-adhered underlayment applied over Perm-A-Barrier primer Integration: Flashings embedded between underlayment layers create a continuous waterproof envelope Limitation: Metal roof coverings must still comply with slope requirements. Underlayment redundancy cannot substitute for slope-compliant panel design. Reference: CSI has a 20-year track record of successful custom installations using GRACE ULTRA membranes and Perm-A-Barrier primer, warranted by Grace Construction Products in conjunction with CSI.

Protection Against UV Degeneration

To prevent UV degradation of waterproofing membranes in assemblies with perforated or open-joint systems--such as CSI Applied Heavy Plate (CSI-AHP) Soffit Panel Systems and CSI-AHP Wall Systems-- CSI requires the installation of a Dörken DELTA®-FASSADE S UV Barrier Layer directly over the waterproofing membrane. This protective layer shields the primary barrier from prolonged UV exposure while maintaining drainage and ventilation continuity behind the panels.

Recognized Use in Rainscreen Conditions

CSI Architectural Metal LLC recognizes use of its roof panels at low slopes (1:12 and below) where they act as rainscreen and UV barrier only, provided the above double-layer underlayment assembly is followed exactly. In these installations, CSI panels are approved for architectural use with full aesthetic and structural integrity, while waterproofing remains the responsibility of the underlayment system.

Validated Performance

According to Intertek Test Report No. Q6264.02-450-18 R0, dated 08/14/2024, CSI's 1/8" Aluminum 1100 Roof Panel assembly (with Platinum HT-B Weather Barrier) successfully passed the TAS 100-23 Wind Driven Rain Resistance Test, meeting the requirements of Florida Building Code 8th Edition (2023), Section 1523.6.5.

Test Highlights

Test Agency: Intertek Building & Construction - West Palm Beach, FL Test Method: TAS 100-23 (Wind and Wind-Driven Rain Resistance) Panel Type: 1/8" Aluminum 1100 Roof Panel, 2:12 slope Underlayment Used: Platinum HT-B Weather Barrier (single layer, 3" overlap) Observed Results: - 35 mph - No leakage -70 mph - No leakage - 90 mph - No leakage - 110 mph - No leakage Conclusion: The assembly met or exceeded FBC TAS 100 performance criteria.

Warranty Integration

CSI Architectural Metal LLC will issue a Weather-Tightness Warranty only in conjunction with the waterproofing manufacturer's warranty when the above assemblies, membranes, primers, and UV protection layers are installed according to tested and approved procedures.
Report Reference: Intertek Q6264.02-450-18 R0 | Date: 09/15/2014 | © CSI Architectural Metal LLC

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MIAMI-DADE COUNTY APPROVED
NOA No.: 24-1009.01

CSI Light Gauge Panel Systems

CSI Light Gauge Panel Systems must be installed by qualified sheet metal workers with proven experience in architectural sheet metal work to ensure a successful installation. These panel systems are highly integrated and detail-sensitive, requiring traditional craftsmanship and the "old-school" tricks of the trade that come only with experience. Installers must be capable of reading and interpreting architectural drawings, verifying field dimensions, inspecting the substrate for compliance, and maintaining clear communication with the project team throughout all stages of installation.

Tools, Training, and Safety

CSI recommends that all installers undergo product-specific training to become familiar with system components, fabrication details, and approved attachment methods. Proper use of precision layout tools, hand brakes, seamers, and cutting equipment is essential for maintaining accuracy and panel integrity. All work must comply with OSHA safety standards and CSI's installation guidelines, including the use of appropriate personal protective equipment (PPE) such as gloves, safety glasses, and fall-protection gear when working at heights. Installers should also follow best practices for material handling to prevent surface damage and preserve factory finishes.

Field Coordination and Quality Assurance

Prior to installation, a project-specific mock-up is recommended to confirm design intent, attachment methods, joint alignment, and overall aesthetics. This allows for early identification of adjustments needed to achieve optimal performance and visual consistency. Throughout installation, the contractor should ensure close coordination with other trades—especially waterproofing, framing, and glazing—to maintain system integrity at transitions, penetrations, and terminations.

Upon completion, all work should undergo a final inspection verifying proper panel alignment, fastening, seam engagement, and compliance with approved shop drawings. Any deviations must be corrected prior to project turnover.

Maintenance and Service Life

CSI Light Gauge Panel Systems are designed for long-term durability and minimal maintenance when properly installed. Routine inspections are recommended at least twice per year and after any severe weather events to check for loose fasteners, sealant degradation, or panel movement.

Cleaning should be performed with mild, non-abrasive detergents and soft brushes to preserve the integrity of factory-applied finishes. Harsh chemicals, high-pressure washing, or metallic scrubbing pads should be avoided, as these can damage protective coatings.

With proper maintenance and environmental consideration, CSI Light Gauge Panel Systems can achieve a service life of 50+ years, maintaining both structural performance and aesthetic appeal throughout their lifespan.

MIAMI-DADE COUNTY APPROVED
NOA No.: 24-1009.01

CSI Heavy Gauge Panel Systems

CSI Heavy Gauge Panel Systems can be installed by experienced construction professionals who can read and interpret architectural plans and installation instructions. Although these systems are delivered prefabricated and installation-ready, proper handling and alignment are essential to ensure a successful and watertight installation.

A project-specific mock-up is strongly recommended to familiarize qualified installers with the panel system, detailing, and sequencing prior to full installation. This process helps identify field conditions, coordination needs, and best practices before work begins.

All waterproofing and sheet metal flashing beneath the panel system must be performed by qualified roofers or sheet metal workers with experience in architectural metal applications to guarantee system performance and weather resistance.

Tools, Safety, and Quality Assurance

Installation of CSI Heavy Gauge Panel Systems requires the use of standard construction and precision alignment tools, including laser levels, torque-controlled fasteners, and lifting equipment designed for handling plate materials. Careful planning of lifting points and bracing is necessary to prevent deformation of panels during installation.

Installers must follow all OSHA safety requirements and CSI's installation protocols, including the use of personal protective equipment (PPE) such as gloves, helmets, safety glasses, and fall protection when working at heights or handling large-format panels.

To ensure consistency, all work should be subject to continuous quality control, verifying attachment methods, joint spacing, and alignment against approved shop drawings. Any field modifications must be reviewed and approved by CSI or the project's design authority.

Maintenance and Service Life

CSI Heavy Gauge Panel Systems are engineered for long-term structural performance and minimal maintenance. Periodic inspections--recommended twice annually and after major weather events--should include checking attachment integrity, sealant joints, and adjacent flashings for wear or displacement.

Cleaning should be performed using mild, non-abrasive cleaners and soft cloths to preserve finish integrity. Avoid high-pressure washing or chemical solvents that could compromise protective coatings or anodized surfaces.

When properly maintained and installed per CSI guidelines, Heavy Gauge Panel Systems provide an expected service life exceeding 75 years, maintaining both aesthetic precision and structural resilience even under demanding environmental conditions.

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Materials & Resources (MR)

MR – Environmental Product Declarations

Aluminum used in CSI Architectural Metal panel systems is available with Environmental Product Declarations (EPDs) that provide transparent lifecycle data for inclusion in project documentation.

MR – Sourcing of Raw Materials

CSI panel systems utilize aluminum with significant recycled content, supporting responsible sourcing requirements.

MR – Construction Waste Management

Factory prefabrication of panel systems reduces the need for field cutting and helps minimize construction waste.

Indoor Environmental Quality (EQ)

EQ – Low-Emitting Materials

PVDF coating systems used on CSI panels contain low VOC content and may contribute toward compliance with low-emitting material

CSI-WAP-panel series: Sustainability & LEED® Contribution

The CSI-WAP™ (Welded Aluminum Plate) Panel System represents a durable, high-performance architectural façade solution engineered for long service life and sustainable building design. Fabricated from solid aluminum plate and finished with Hexagon Micro Finish™ PVDF, CSI-WAP panels combine structural integrity, recyclable materials, and precision fabrication to support environmentally responsible building envelopes.

In contrast to composite panel systems that rely on bonded core materials, CSI-WAP utilizes solid aluminum plate construction, offering exceptional durability and long-term performance while maintaining the recyclability inherent to architectural metals.

CSI-WAP panel systems may contribute toward sustainability goals within the LEED program developed by the U.S. Green Building Council.

Materials & Resources (MR)

Environmental Product Declarations (EPD)

Aluminum used in CSI-WAP panel systems may be supplied with Environmental Product Declarations (EPDs), providing transparent lifecycle environmental impact data.

Sourcing of Raw Materials

Architectural aluminum typically contains significant recycled content, supporting responsible material sourcing and resource efficiency.

Construction Waste Management

CSI-WAP panels are precision fabricated to project dimensions in controlled manufacturing environments, reducing field cutting and helping minimize construction waste.

Indoor Environmental Quality (EQ)

Low-Emitting Materials

Hexagon Micro Finish™ PVDF coatings contain low VOC content and contribute toward indoor environmental quality considerations.

Energy & Envelope Performance

Metal panel façade systems such as CSI-WAP are compatible with ventilated rainscreen assemblies, which can enhance moisture management, thermal performance, and long-term building envelope durability.

Durability & Lifecycle Performance

Sustainable architecture is closely tied to material longevity. The solid aluminum plate construction of CSI-WAP panels combined with advanced PVDF finishes provides a façade system engineered for decades of service life. Reducing replacement cycles significantly lowers the long-term environmental impact of building materials.

Natural Architectural Metals

Copper, stainless steel, titanium, and zinc are among the most durable and sustainable materials used in architecture. Unlike painted or coated materials, the finish of these metals is not applied to the surface—it is inherent to the alloy itself. Over time, these materials naturally develop protective patinas that enhance corrosion resistance while giving buildings a distinctive architectural character.

This intrinsic durability provides a major sustainability advantage. A façade designed to last 100 years instead of 25 years dramatically reduces replacement cycles, manufacturing impacts, and construction waste.

Typical service life examples include:

- Copper roofs and cladding: commonly 100+ years
- Stainless steel: extremely durable alloy systems capable of lasting for generations with minimal maintenance
- Titanium: highly corrosion-resistant architectural metal capable of extremely long service life, 100+ year, with exceptional durability in aggressive environments
- Zinc roofs façades: often 80–120 years*
- Aluminum: CSI Architectural Metal does not recommend mill-finished aluminum for exterior architectural applications. When exposed to the elements, mill-finish aluminum can weather unevenly, often resulting in inconsistent coloration and surface appearance, commonly described as blotchiness.

In addition to longevity, natural metals are fully recyclable and frequently contain significant recycled content, making them a responsible material choice for sustainable building envelopes.

Natural architectural metals may contribute toward several credits within the LEED program developed by the U.S. Green Building Council, including:

Materials & Resources (MR)

- Environmental Product Declarations (EPD): Many metal manufacturers provide EPDs documenting lifecycle environmental impact.
- Sourcing of Raw Materials: Metals commonly contain high recycled content, supporting responsible material sourcing.
- Material Ingredients: Some manufacturers publish Health Product Declarations (HPDs) or Declare labels for transparency.
- Construction Waste Management: Prefabricated metal panel systems reduce field cutting and minimize jobsite waste.

Energy & Atmosphere (EA)
Metal roofs and façades can support building energy performance through reflective surfaces and ventilated rainscreen assemblies.

Sustainable Sites (SS)
Certain metal roofing systems may contribute to Heat Island Reduction credits when finishes meet Solar Reflectance Index (SRI) requirements.

Through longevity, recyclability, and precision prefabrication, natural architectural metals provide an environmentally responsible solution for building envelopes designed to perform for generations.

These characteristics make natural architectural metals a strong choice for projects prioritizing sustainability, durability, and lifecycle performance.

Note: LEED credits are awarded at the project level by the U.S. Green Building Council. Contribution of CSI Architectural Metal products toward specific credits depends on the overall project design and documentation.

Disclaimer: For projects where long-term visual consistency is important, CSI recommends architectural coatings such as PVDF finishes or the use of natural metals with controlled patina characteristics.

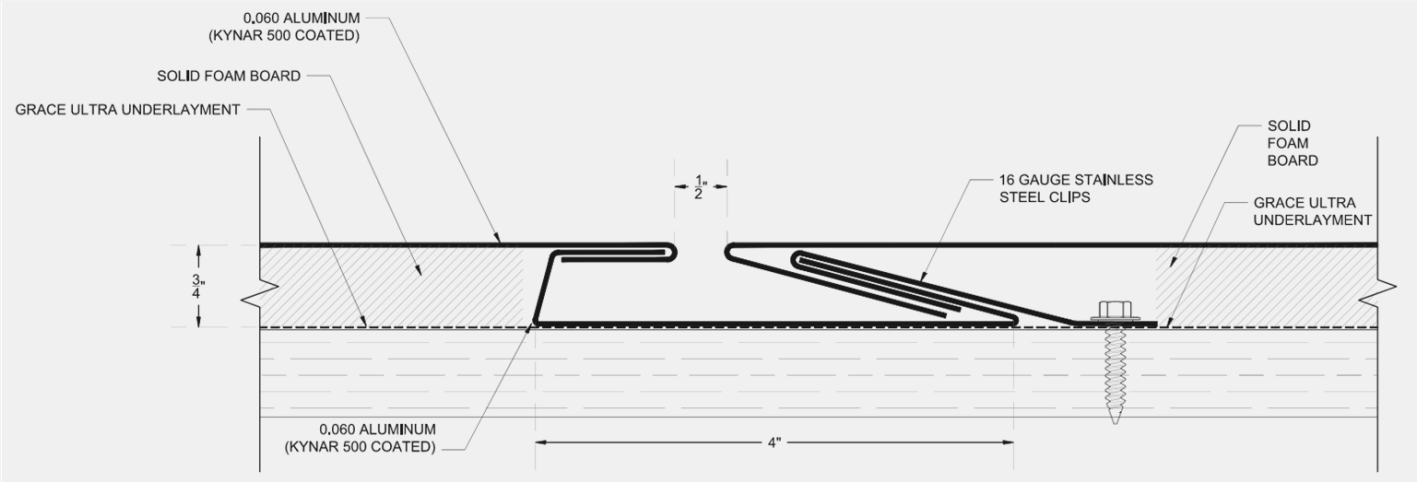


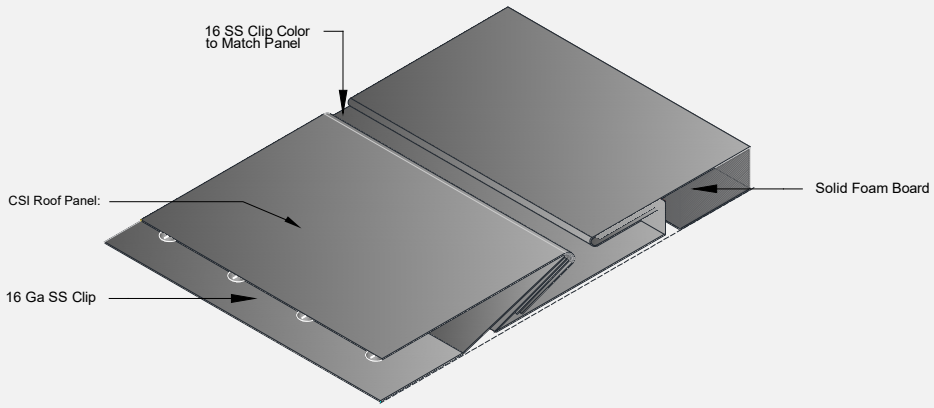


CSI-LG-RRP, private residence in Hawai'i, The Big Island

Product Data Sheet

CSI-LG-RRP Light Gauge-Reveal Roof Panel





- Part ID: LG RRP
- Concealed fastened Panel System.
- Install from the bottom upwards.
- Applies over a solid substructure.
- Panels can be installed horizontally, vertically, or diagonally and are interchangeable for an accent effect.
- Panels are available in various sizes and shapes.
- Panel Width: 6" to 54"
- Panel Length: varies.
- Panel Reveal: 1/4" to 1"

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Project: The Pterodactyl – Office Building, Culver City, California



Project: Orlando International Airport, Terminal C