





# CUSTOMIZE *your* COOL

## No compromises

With Construction Specialties' Sun Controls, Sunshades and Daylight Systems, your design can take on intricate patterns, sleek textures, vivid colors and even LED lighting — all while promoting lower energy costs and reduced glare, and allowing filtered light to enter interiors and occupants to see out.

Choose from a variety of blades, outriggers, fascias or mounting options. Orient them horizontally or vertically. Finish them with a variety of powder-coat finishes or add a flourish with LED lighting. **With CS, your daylight management solution is truly yours.**

And the “cool” factor? With CS, it always comes standard.

## A shade beyond standard


At CS, manufacturing the product is just the beginning. When you need a sun control solution that you can trust to perform under the most demanding conditions, count on CS to provide the expert guidance and engineering support you need to move forward with peace of mind along with code compliance.

Work with our engineers to design a unique system — no matter how complex it may seem (see pages 14-15).

Have us develop specification documents and custom details to match. We'll also perform engineering and design your product for wind and snow load performance.







San Francisco General Hospital  
Location: San Francisco, CA  
Architect: Fong and Chan Architects





ZUCKERBERG SAN FRANCISCO  
HOSPITAL AND TRAUMA CENTER



Zuckerberg San Francisco General Hospital and Trauma Center

## How to keep sunlight at bay — and patients comfortable

San Francisco has long been known for its high standards for design, environmental awareness and innovative problem solving. So when the Zuckerberg San Francisco General Hospital and Trauma Center — affectionately nicknamed “The General” — became due for a facelift to meet new seismic standards, **its approach to the patient experience, energy efficiency and aesthetics had to rise to the occasion** as well.

When construction began on the hospital’s rebuild in 2009, it had already been serving San Francisco and its surrounding counties for decades, to the tune of around 100,000 patients annually. In designing the new nine-story acute-care facility, architecture firm Fong & Chan sought to create a warm, healing environment with private patient rooms and abundant natural light. To support the hospital’s sustainability goals, the new campus would also implement reduced water usage, expanded bicycle parking and a rooftop garden.

So while the Bay Area’s famed fog may have helped temper daylight to some extent, the hospital needed a fixed daylight management solution that also softens sunlight and helps minimize cooling costs. **Fong & Chan chose custom cantilevered sunshades from Construction Specialties.**



Wrapping around five stories of the facility’s 360-degree curtain wall exterior, the sunshades — coated with CS’s **20-Year AAMA 2605 Powder Coat in Bone White** — form concentric “rings,” creating an iconic design element. Fong & Chan also worked with CS engineers to create a custom solution for the rooftop area: a **teardrop-shaped Infill Sunshade system**.

From patient rooms and hallways inside, this highly efficient, visually captivating sun control system reduces glare, allows sufficient yet soft filtered light to enter the space, and contributes to a 21% overall reduction in energy use for the new hospital. And, from the outside, San Francisco gets a LEED® Gold-certified facility that’s as visually intriguing and forward-thinking as the city itself.



### Product Model 200-3

Infill Sunshades with Bone White finish



DSNY

Location: New York, NY

Architect: Dattner Architects





Manhattan District's 1/2/5 Garage, NYC Department of Sanitation

# Perforated perfection, customized for constructability



When Dattner Architects began conceptualizing a new garage for the New York City Department of Sanitation, their design team was faced with numerous challenges. For this public project, proprietary specifications could not be used and design details would have to be planned with the ability to be constructed by a range of manufacturers. Further, the massive facility, which would eventually house three district garages and more than 150 sanitation vehicles, as well as vehicle-wash, personnel, fueling and repair facilities, **would also have to employ sustainable design strategies while remaining committed to holistic design and civic architecture.**

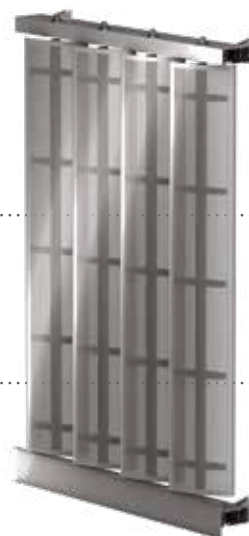
Construction Specialties engineers worked with Dattner's design team to develop a unique solution that satisfied the extensive functional and constructability requirements: **a fully custom sun control system composed of 2,600 30"-wide perforated vertical aluminum shades** resembling fins, mounted entirely on the building's curtain wall with a custom bracket system and finished with CS's **20-Year Powder Coat** in El Cajon Silver. For good measure, CS also worked with Dattner to detail a system.

The fins not only help reduce heat gain and glare in driving and working areas, but also create a wrapper that obscures mechanical louvers and headlights from the outside. Today, the massive, LEED® Gold-certified facility sits at the corner of Spring Street and West Street, **as a beacon for innovative civic architecture that is just as functional as it is beautiful.**



## Product

Custom Vertical Perforated Sunshades



University of Hawaii at Manoa Information Technology Center

## Say 'aloha' to energy savings



Large data centers are known to have notoriously high energy demands. So when Ferraro Choi architects were tasked with designing the University of Hawaii at Manoa's new Information Technology Center, a comprehensive energy savings plan was in order.

The massive facility would eventually host and consolidate all of the statewide university's enterprise information and technology systems. In fact, when completed, the data center, which occupies only one of its six floors, would represent more than 70% of the whole building's energy need. Cooling units for data cabinets were part of the solution, as were chilled-beam cooling technology and pre-conditioned outdoor air systems.

But right alongside these efforts was a Construction Specialties Horizontal Sunshade system with Airfoil™ blades, which blocks solar heat gain and contributes to a more efficient air conditioning system during the day while still "bouncing" indirect daylight into the space. Coated with CS's 20-Year Powder Coat in Market Square, the shades also create a signature brise-soleil around the facility's exterior.

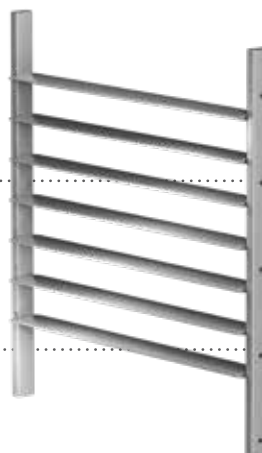
CS engineers worked with Ferraro Choi to develop careful detailing and ensure proper attachments for the concrete façade's unique geometry, including a seamless concealed fastener system for the Airfoil blades, which features varied spacing between blades on each façade orientation based on computer modeling to create a cost-effective, high-performance daylight management system.

At this LEED® Gold-certified facility — one of the few LEED-certified data centers in the U.S. — students and staff now enjoy reduced glare and heat gain, and their stunning panoramic view of the Manoa Valley remains uncompromised. Further, the facility consumes 22% less energy than a typical code-compliant building — a remarkable achievement for any building, much less a massive data center located in a sunny, tropical climate.



### Product Model 200-4

Horizontal Sunshades with Airfoil™ blades and Market Square finish





**University of Hawaii at Manoa  
Information Technology Center**  
Location: Honolulu, HI  
Architect: Ferraro Choi and Associates, Ltd.



Photographer Andrea Brizzi



**CUSTOMIZE**  
your **COOL**

North Parking Deck, Wake Technical Community College

# More than a parking deck— a window to campus

**Northern Wake Parking Garage**  
Location: Raleigh, NC  
Architect: BBH Design





When Wake Technical Community College elected to construct a new parking deck on its Northern Wake Campus to accommodate increasing student enrollment, architecture firm BBH Design wanted commuters to experience the beauty of the Raleigh, N.C., campus, even as they parked their vehicles. **The architects also needed to create a low-footprint, environmentally sensitive structure that highlighted the campus's natural appeal.**

So in conceptualizing a new 514-space North Parking Deck, rather than simply running perforated metal panels along the building's façade above pedestrian and vehicle entryways,

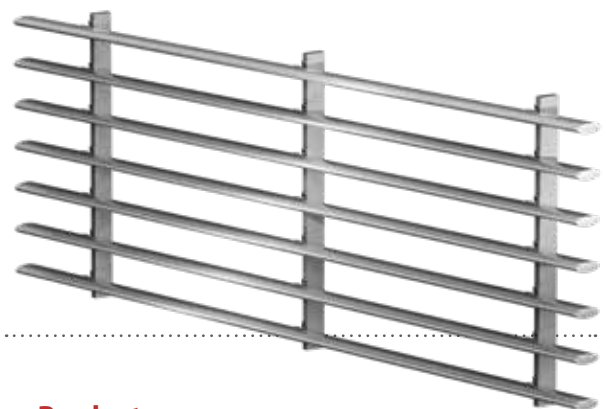
BBH Design Associate Tzu Chen, AIA, specified **horizontal CS sunshades with 12-inch Airfoil™ blades** to execute a "filtered edge" design concept.

In Chen's architectural layout, the sunshades not only create separate sections across the façade's thinly veiled skin, but also provide guests with direct views of the beautiful wooded area outside the parking deck and with a wayfinding tool within the stair towers at opposite corners of the deck. From the outside, the aluminum sunshades also turn horizontally off the façade to indicate vehicle access. Additionally, the sunshades, which feature CS's bright silver metallic coating, minimize the amount of UV rays hitting vehicles inside and reduce glare for drivers.

**For Chen, CS Sun Controls were the firm's top choice, specifically for the profile of the Airfoil blades and CS's reputation for beautiful and durable metallic finishes.**

"Seeing the final product, we definitely feel that the sunshades blend well with all of the deck's components," said Chen. "The abruptness of the transitions was a consideration, but it worked out nicely."

The parking deck project was awarded the AIA Triangle Honor in North Carolina, marking the first time a parking deck project received such an honor.



### Product

Horizontal sunshades with 12-inch Airfoil™ blades



**Tower Hall, NCSU Centennial Campus**  
Location: Raleigh, NC  
Architect: LS3P Associates, Ltd.





Tower Hall, North Carolina State University, Centennial Campus

# Tower hall shines as a beacon of campus life



The central point of North Carolina State University's (NCSU) Centennial Campus, "the Oval" is the epicenter of student life. So when NCSU began plans to construct Tower Hall as part of the Oval's Wolf Ridge Apartments, **architecture firm LS3P Associates, Ltd. wanted to create a majestic structure that would stand out as a beacon in the most popular area on campus.**

Emblematic of the engineering- and textile-focused campus, LS3P Associates Principal and Studio Leader Chris Roberts implemented a design that matched the spirit of the school's culture of engineering, **creating a weave aesthetic with Construction Specialties Model 200-4 horizontal sunshades** spanning the six-story tower.

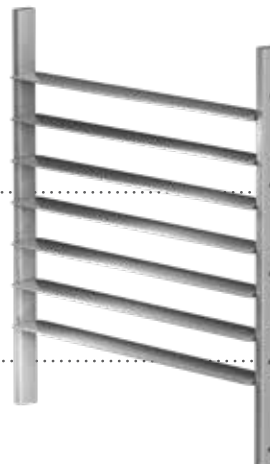
The tightly woven design fades as the building rises, providing a beautiful façade. The thinly veiled screen shades cover the glass window on the sixth floor's student lounge, providing a bird's-eye view of not only campus and the brand-new James B. Hunt Jr. Library across the Oval, but also of the picturesque Lake Raleigh. The sunshades, outfitted with a clear anodized finish, outline the multipurpose building, complete with a dining facility, residence life areas, a 24-hour desk, and both undergraduate and graduate apartments.

The sunshades also serve a dual purpose, as LED lights were installed on the interior of the design to illuminate the tower at night with a breathtaking white light, or red light to signify a marquee win by the Wolfpack. The sunshades are hung from steel, connecting all the way around the tower's structure, adding to the building's exterior weave design.

As for all LEED® Gold-certified projects, **bidding on the design was open to the public, but Roberts cited CS's affordable bid that stood out in the end, making Building One of Wolf Ridge Apartments — or Tower Hall — a reality.**



**Product Model 200-4**  
Horizontal Sunshades



Boeing Everett Delivery Center

## A first-class design element

When Construction Specialties met with DLR Group's senior designer to discuss design for the Boeing Delivery Center, our team brought along a working sample of the newest CS sunshade: Airfoil™ Lux.

**At first sight of its lit-up LED blade sample, the designer knew he wanted to use it.**

And why not? Airfoil Lux Sunshades are resistant to the unpredictable weather of the upper Northwest, and the Boeing Delivery Center was poised to be a state-of-the-art, multifunctional facility that caters to Boeing customers and employees alike. Featuring an event center, showroom for commercial airplanes, office space for Boeing staff and their customers, and an international airport all at once, **the design would have to entail not only sustainable strategies but also aesthetic decisions that focused the eye on the aircrafts themselves.**

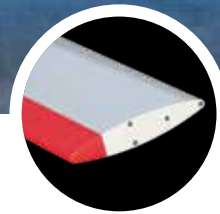
So, on the building's crown, which sits between the center's two main aircraft ports, **Airfoil Lux blades with LED lights were added to a 10-foot cantilevered sunshade** above its windows and finished with CS's **Cradle to Cradle Certified™ 20-Year Powder Coat** in Silver.

CS also considered the architect's specification for 3-foot cantilevered sunshades mounted to the windows below, and suggested additional CS sunshades to ensure a harmonized aesthetic, and that **all finishes, engineering and warranties remained a single-source responsibility.**

The Boeing Delivery Center became the first project in the United States to use CS Airfoil Lux Sunshades, and today they reduce solar heat gain and glare during the day and dramatically illuminate the building's central crown at night.







**Product**  
Airfoil™ Lux Sunshades

## CS Custom Sunshades

# Be a control freak!

Glare at our wide selection of customization options

While Construction Specialties gives you the ability to construct a unique sun control system that meets the complex needs of your project, our expert engineers will ensure that the finished product looks anything but piecemeal. **CS Sun Controls are custom designed to attach to any type of building, and precision attachments are manufactured for all curtain wall or masonry projects.**

CS offers a range of applications designed to meet your project's specific shading requirements. Design options include vertical and horizontal orientation, cantilevered or suspended support, lightshelves and skylight shutters.

### 1 Define your design with a blade style

Blades are the most important element in effective sunshading. That's why we let you choose from a range of blade styles, or design your own. We'll work with you to specify the blade angle and rotation to optimize daylight based on building orientation and other conditions.

### 2 Span the distance with an outrigger

The outrigger is key to the system's ability to project greater distances. Select a wedge, tapered, box or trellis outrigger to support the structure, and specify its height, thickness and projection to meet your building's functional requirements.

### 3 Cap it off with a fascia

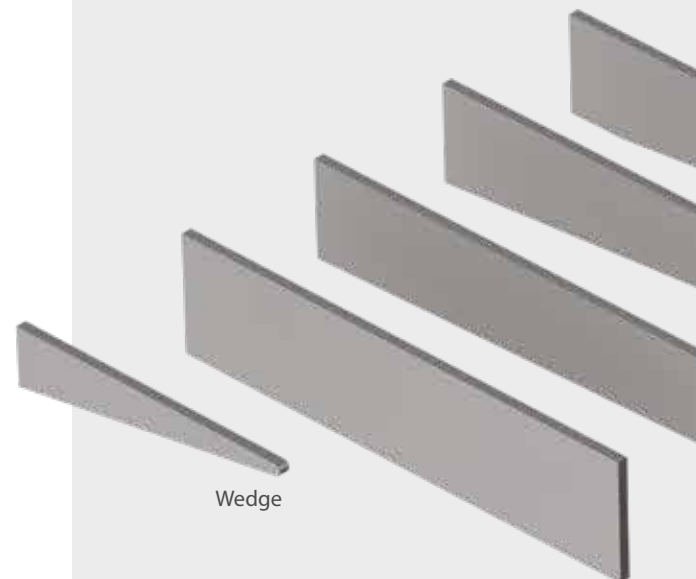
Fascias are a bold aesthetic element that provide the finishing touch on your sun control system. Punctuate your design with a harmonizing fascia style, including round, rectangular, bullnose or wedge.

### 4 Choose a finish

Choose from our wide range of finishes, from 20 wood grain patterns to CS's 20-Year AAMA 2605 Powder-Coat finishes to fluoropolymer pearlescent and metallic coatings.

*Sunshades can be mounted on all curtain wall buildings with projections up to 5 feet.*

**Visit [c-sgroup.com](http://c-sgroup.com) for more information.**





Airfoil™  
3"-18"

Crescent  
6"-10"

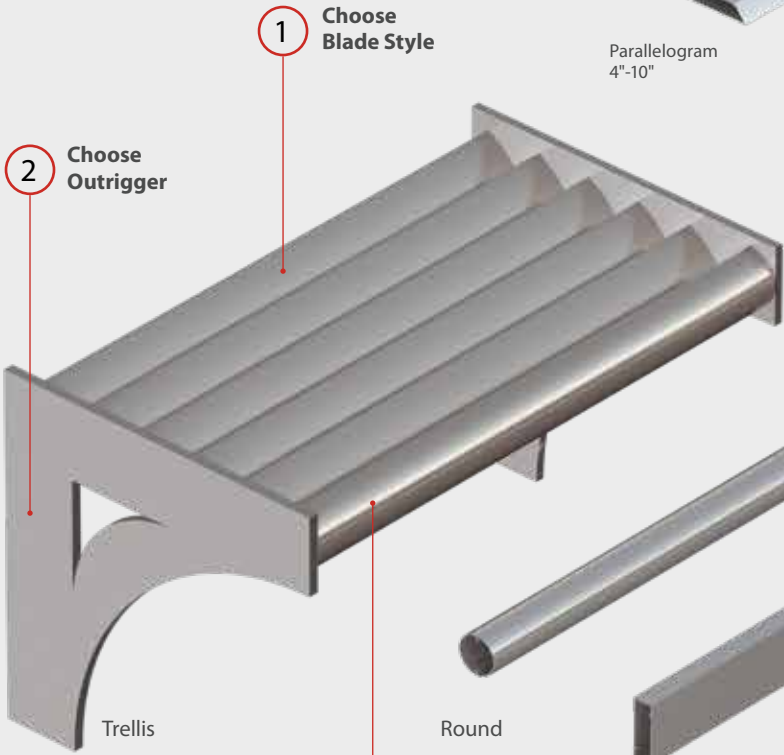
Rect Tube  
2"-10"

Extruded  
demi fin  
6"-10"

Round  
1"-6"

Parallelogram  
4"-10"

Tear-Drop  
4"-10"



Round

Rectangular

Bullnose

Wedge

3 Choose Fascia Style

Box

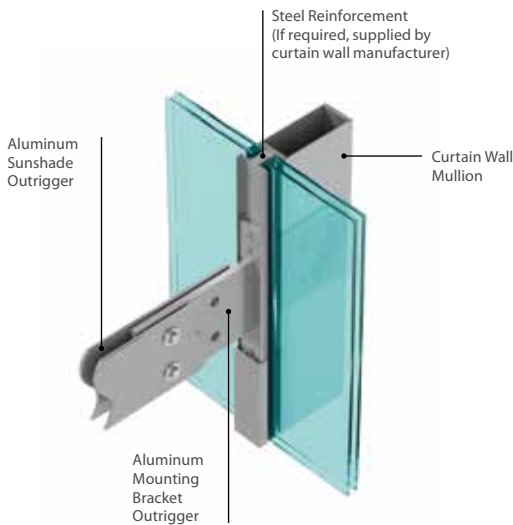
Tapered

4 Choose a finish  
See page 24 for finishing options

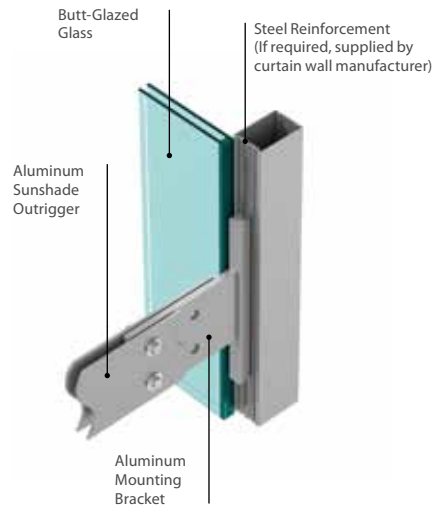
# Mounting Options

Construction Specialties Sun Control systems can be mounted on all types of structures. Our engineers will work with you to provide the proper attachment for any masonry structure or curtain wall system. Mounting design specifications and hardware, including brackets, come standard with every CS Sun Control system.

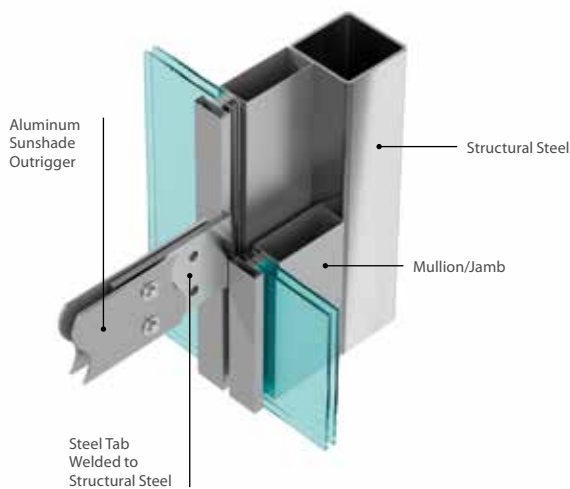
Typical attachment details are below. **Visit [c-sgroup.com](http://c-sgroup.com) for more information.**



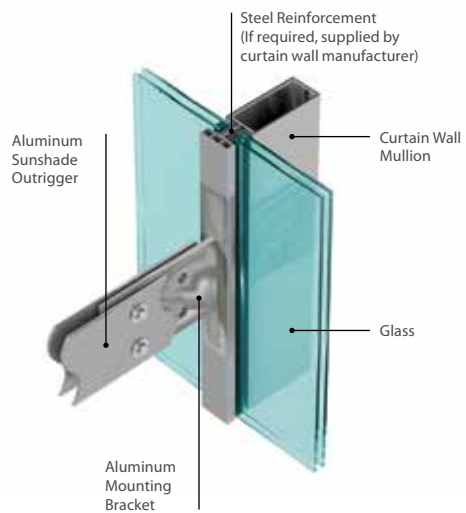
**On Curtain Wall**



**On SSG Curtain Wall**

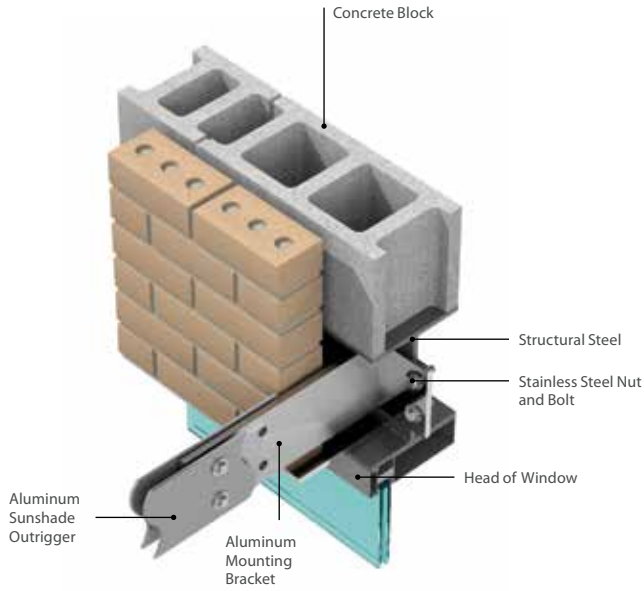


**On Storefront**

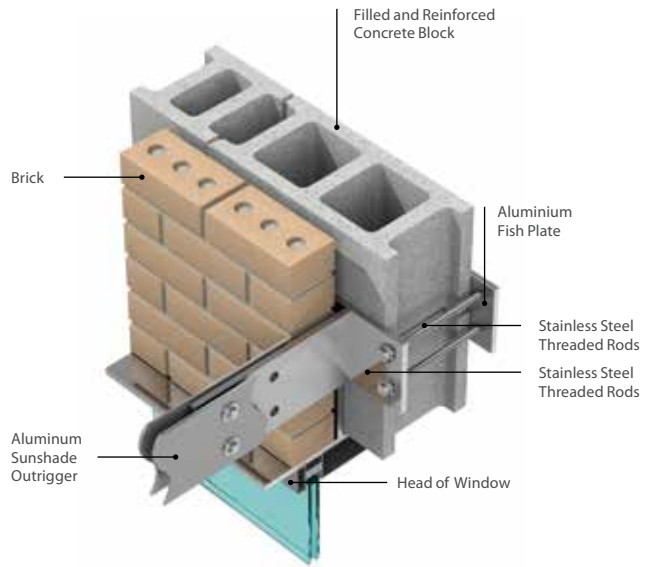


**On Curtain Wall**

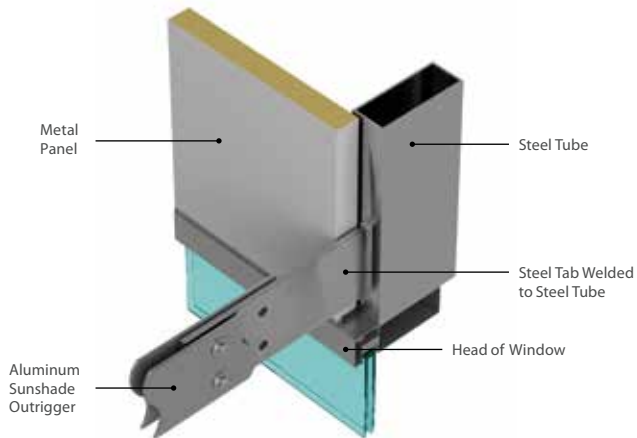




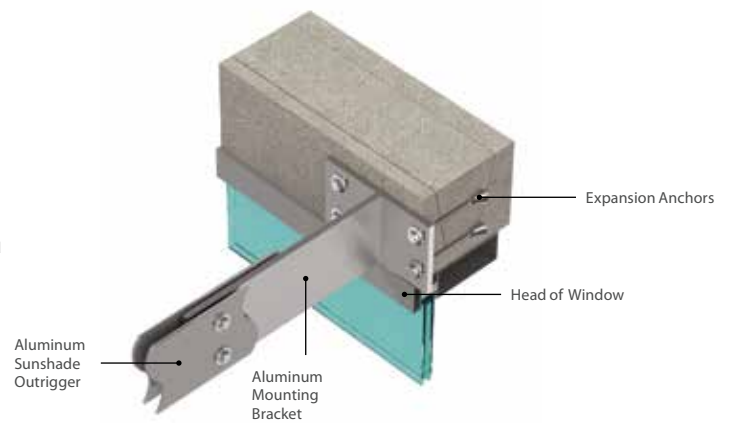
**Bolted to Steel Behind Brick**



**On Block, Behind Brick**



**Steel Tab Welded to Steel Tube Behind Metal Panel**



**Bolted to Concrete Lintel**

**University of South Florida**  
**School of Medicine**  
Location: Tampa, FL  
Architect: Gresham Smith and Partners

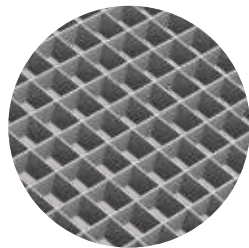




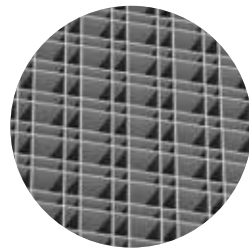
## CS Shadowline Sunshades

# Make a statement... beyond a shadow of a doubt

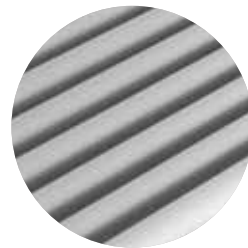
Utilizing several standard Construction Specialties Sun Control and Grille components, CS Shadowline Sunshades are engineered for effective sunshading, despite their reduced mass compared to traditional sunshades. **Featuring a dramatic shadow effect and the ability to project up to six feet, Shadowline Sunshades are ideal for use on curtain walls and standard construction.** Choose from a variety of infill patterns, fascia and outrigger styles.



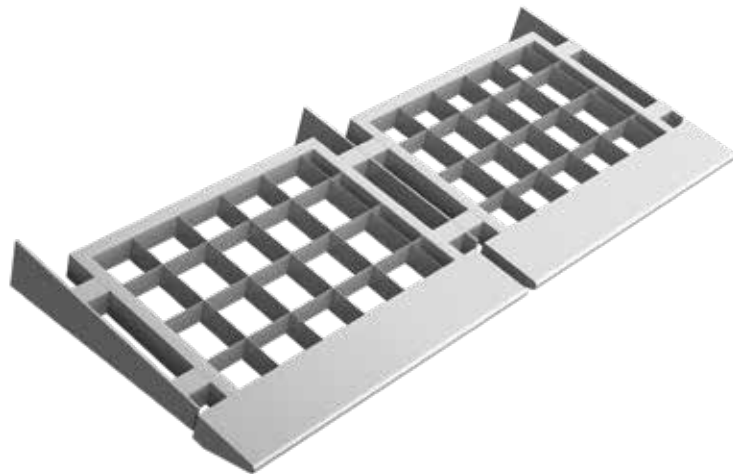
Modular



Lattice



4" Airfoil™



For comprehensive product information, visit [www.c-sgroup.com/shadowline](http://www.c-sgroup.com/shadowline)

## CS Cascade™ Sunshades

# Float on

It's not magic — it's Construction Specialties Cascade™ Sunshades.

With CS Cascade Sunshades, architects can reduce solar heat gain and add an exciting “floating” effect, all supported by a unique cable-restrained vertical system. The system can be quickly and efficiently constructed on-site, thanks to the system's aluminum collar.

Filter in natural light without obstructing views to the outdoors. Achieve a unique, airy design with stainless steel clevises, suspension cables and reduced mass compared to traditional sunshades. Create a continuous line appearance across the entire span. And make the system truly yours, with a range of blade styles, including patterns and lines from CS Grilles, LED blades and various powder-coat finishes.

**No outriggers? No problem — only with CS Cascade Sunshades.**



**For comprehensive product information, visit [www.c-sgroup.com/cascade](http://www.c-sgroup.com/cascade)**

Stainless steel clevis



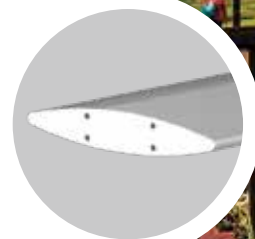
Aluminum collar



Cable suspension



Airfoil™ blade available at 12" and 17"





CUSTOMIZE  
your COOL

Fairleigh Dickinson University  
Monninger Center  
Location: Madison, NJ  
Architect: Farewell Architects, LLC





**Tampa Bay History Center**  
Location: Tampa, FL  
Architect: Verner Johnson



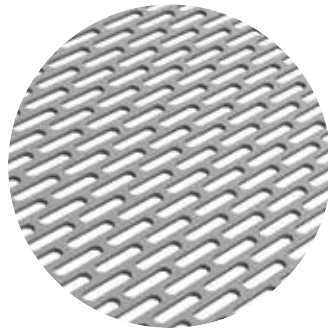


## CS Perform Sunshades

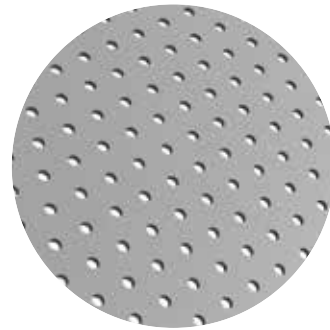
# We 'dapple' in stunning visuals

With Construction Specialties Perform Sunshades, effective sun control isn't all-or-nothing. With its perforated aluminum sheet blade design, you get superb daylight management while still allowing beautiful dappled light to filter in, creating stunning visual effects.

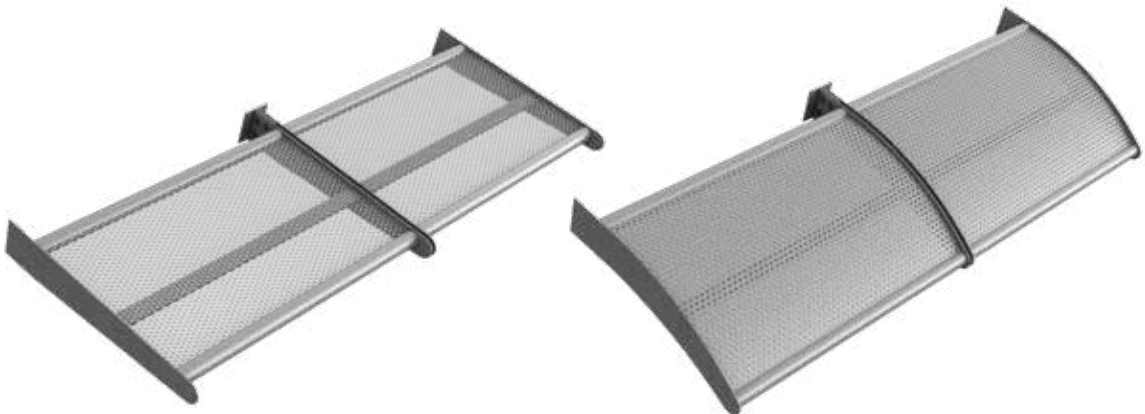
Available in standard curved and standard flat designs, Perform's aluminum perforated sheets can be sourced with almost any perforation style, including slotted and circular. Custom-designed tube support mechanically captures the perforated sheet without unsightly welding. The Perform system can be designed to meet any wind and snow load.



Round Slots on Staggered Centers



Round Holes on Staggered Centers



For comprehensive product information, visit [www.c-sgroup.com/perform](http://www.c-sgroup.com/perform)

## Go against the grain

Create a distinctive aesthetic with AAMA 2604-certified CS Wood Grain Powder-Coat finishes. All CS Wood Grain Powder Coats come with a five to 10-year warranty.



Soft Maple 001



Hard Maple 002



Douglas Fir 003



Lyptus 004



Warm Knotty  
Pine 005



Regency  
Cherry 006



Rosewood 007



Vintage Oak 008



Black Cherry 009



Light Walnut 010



Warm Walnut 011



Oregon Walnut 012



English Walnut 013



Mahogany  
Cherry 014



Bloodwood 015

## 20-Year AAMA 2605 Powder-Coat Finishes

When you go with CS's 20-Year AAMA 2605 Powder-Coat finishes, you'll always get beautiful, long-lasting color with your CS Sun Control system.

**For more information about our 20-year warranty, call (800) 631-7379.**







**CS creates products that solve complex building challenges around the world:**

Acrovyn by Design®	Architectural Grilles + Vision Barriers	Expansion Joint Covers
Acrovyn® Doors	Architectural Louvers	Explosion + Pressure Relief Vents
Acrovyn® Wall Covering + Panels	Cubicle Curtains + Tracks	Fire + Smoke Vents
Acrovyn® Wall Protection	Entrance Mats + Grids	Sun Controls

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