

BLADESCREENS

Architectural Vision Screen

# Submittal Package
# &
# General Guidelines

Full Version 1.1
03/02/2020

www.bladescreens.com

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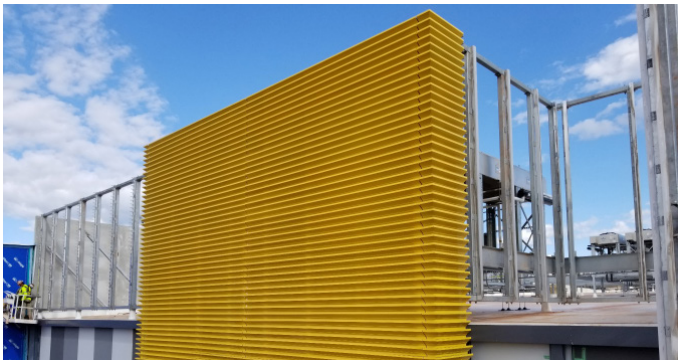
23 - CLEANING AND MAINTENANCE

# PRODUCT OVERVIEW

BladeScreens is an architectural louver screen system that is used in a variety of applications where a sight barrier is desired. Combining both form with function, louvers provide architectural style to building design by adding unique and appealing features to the exterior elevation. BladeScreens are primarily suited for applications such as roof equipment screens or simple façade design elements, where a streamlined appearance, combined with flexibilty of finishes can be easily integrated with other architectural metal panels, wall claddding, and roofing materials.

Why BladeScreens:

- Inverted profile design creates a visual barrier when viewed straight ahead or from below.
- Conceals vertical supports and attachment clips.
- Field-fabricated corner options provide flexibility for open-joint or mitered conditions.
- 3” brace profiles available in gray painted finish to reduce visual glare and color distortion on finished blade profiles.
- Easy coordination of BladeScreens finishes with roofing, sheet metal, and wall cladding panels spanning numerous material types and paint vendors.
- Positioned to service projects of almost any size from smaller sized applications to larger more expansive buildings and complexes.



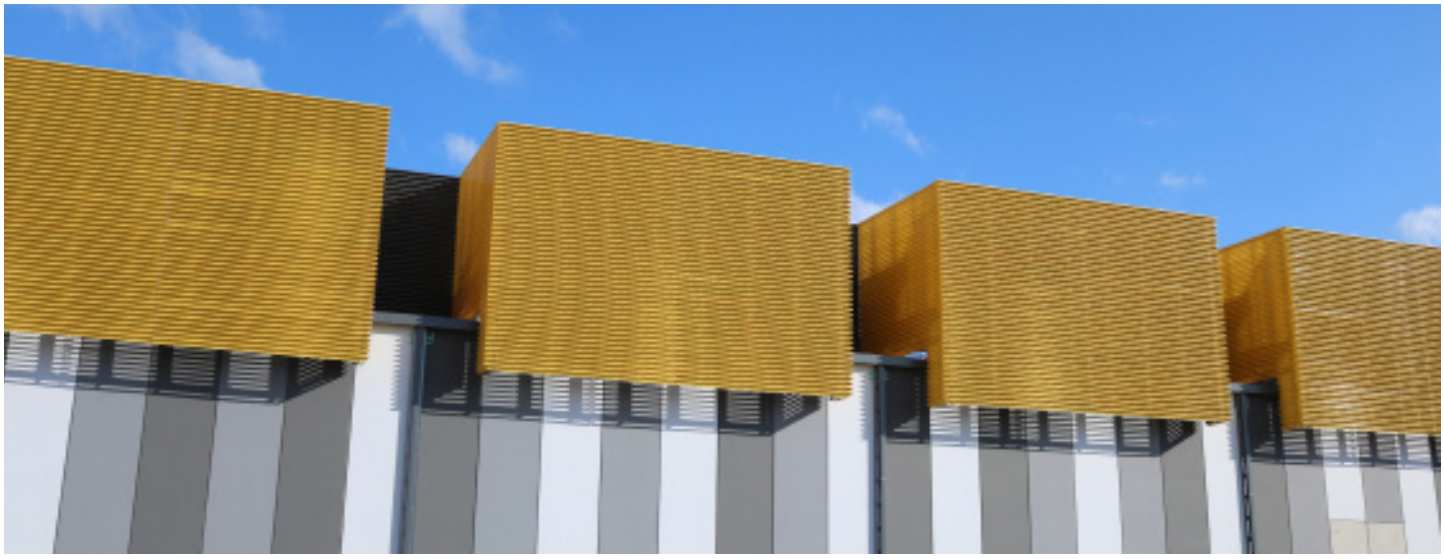






# PRODUCT BASICS

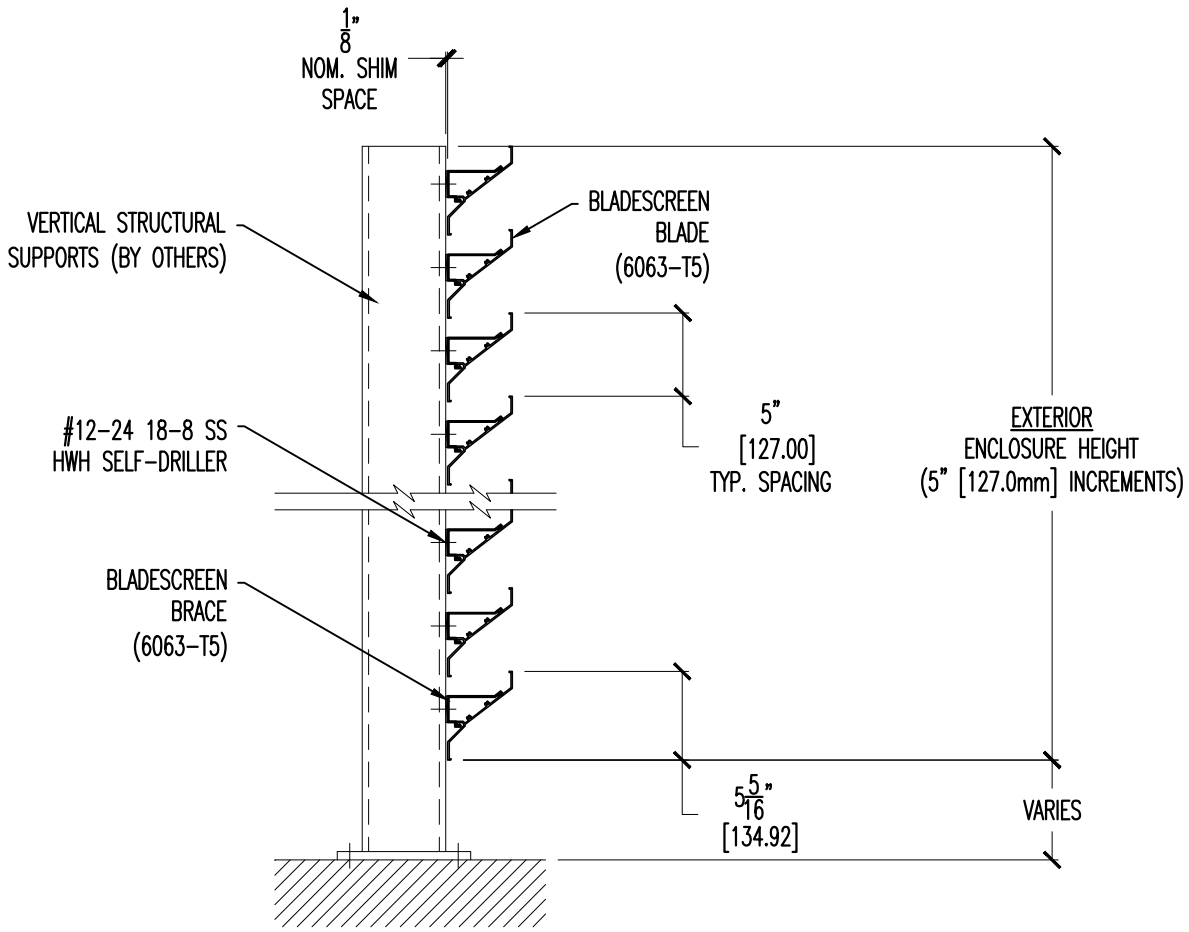
| | |
|---|---|
| Material | • Aluminum alloy 6063-T5 |
| Design | • Inverted, horizontal blade, secured to a receiver clip and mechanically fastened to a continuous vertical support member. |
| Blade Dimensions | • 0.094 inches thick<br>• 3 7/8” inches wide |
| Shim Space | • 1/8” inches |
| Vertical Support | • Formed Z-Shape |
| Louver Screen Depth | • 3-7/8" inches |
| Louver Screen Height (Spacing) | • 5" O.C. blade spacing; overall screen height in 5" increments. |
| Corner Conditions | • Field-fabricated open-joint or mitered corners. |
| What Is Included? | • BladeScreens™ blades 20 feet long standard lengths or fabricated to length as specified in shop drawings<br>• BladeScreens™ 3” brace |



# SYSTEM DETAILS

## BLADESCREENS SYSTEM DETAILS

BLADESCREENS

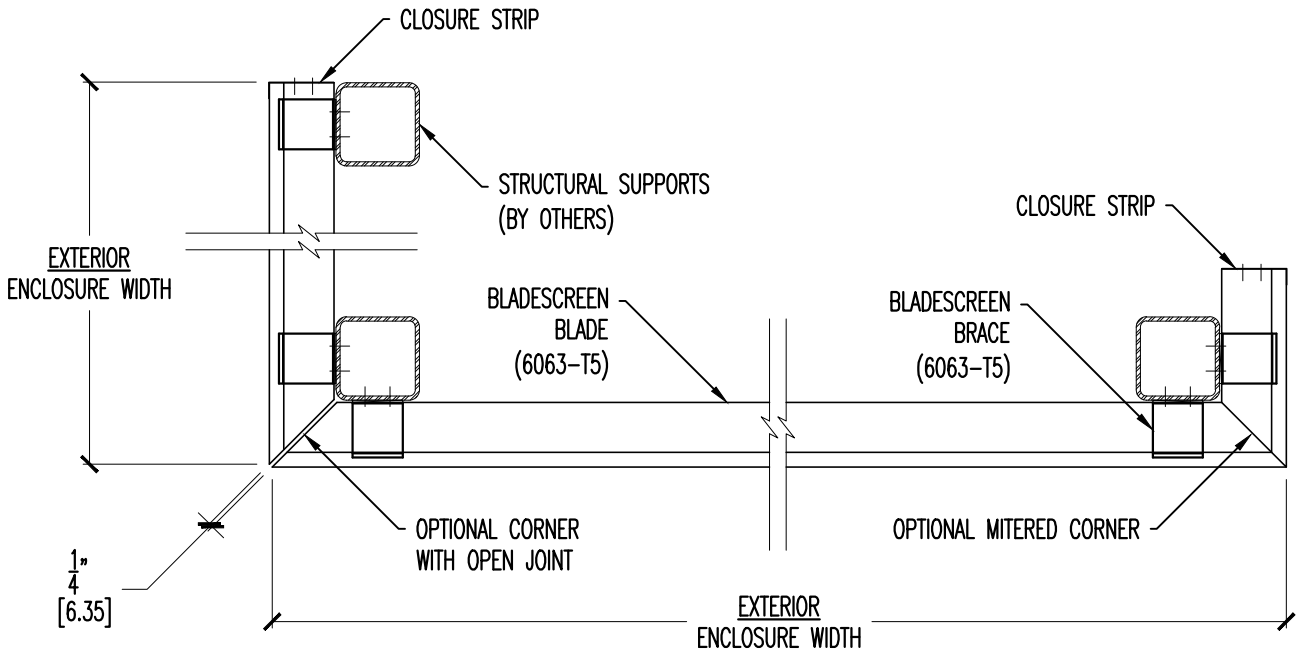



DETAIL: 1

BLADESCREENS STANDARD DETAILS MODEL 5V-4

SECTION VIEW

BLADESCREENS



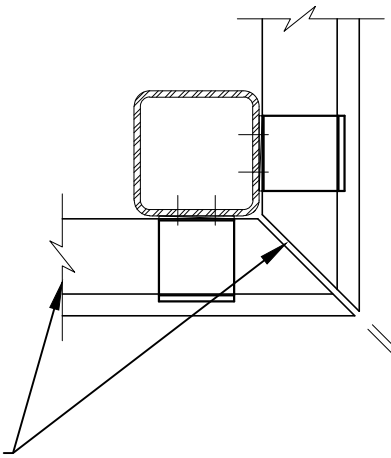

DETAIL: 2

BLADESCREENS STANDARD DETAILS MODEL 5V-4

PLAN VIEW

BLADESCREENS

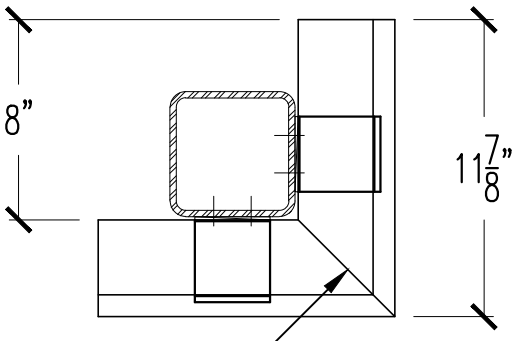
OPEN JOINT CORNER:



BLADES COME STANDARD WITH SQUARE CUT FNDS (90°)

$\frac{1}{4}$" TYP. JOINT OPENING

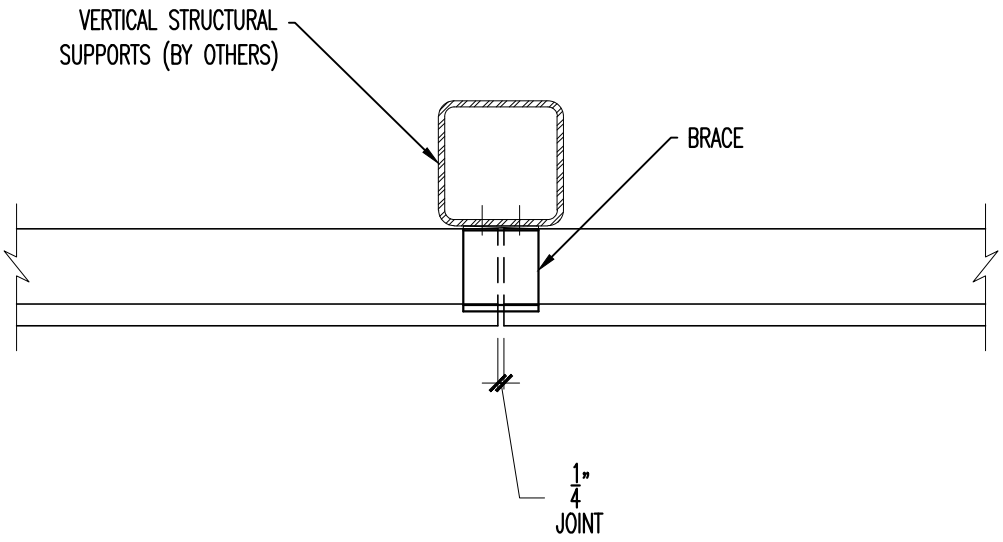
MITERED CORNER:




FIELD-FABRICATED MITERED CORNER BLADES TO BE CUT 45° ON SITE. CLOSED CORNERS MAY BE GLUED OR WELDED BY INSTALLER.

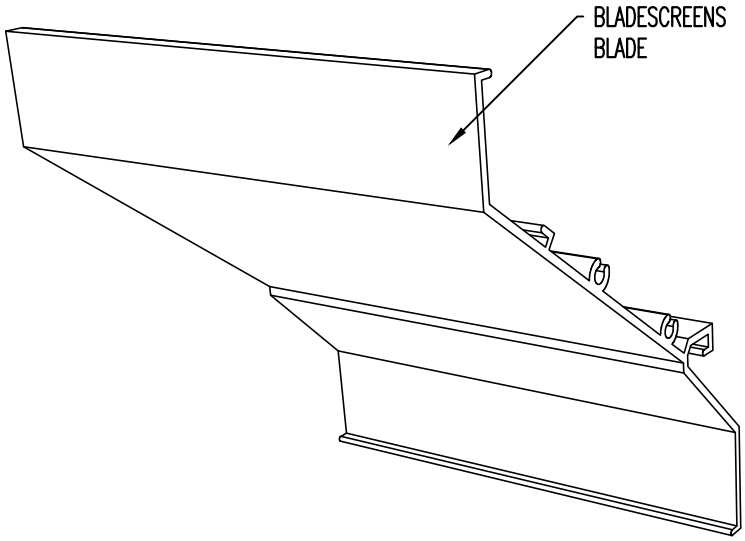
| DETAIL: 3 | BLADESCREENS STANDARD DETAILS MODEL 5V-4 |
|---|---|
| | OUTSIDE CORNER OPTIONS |

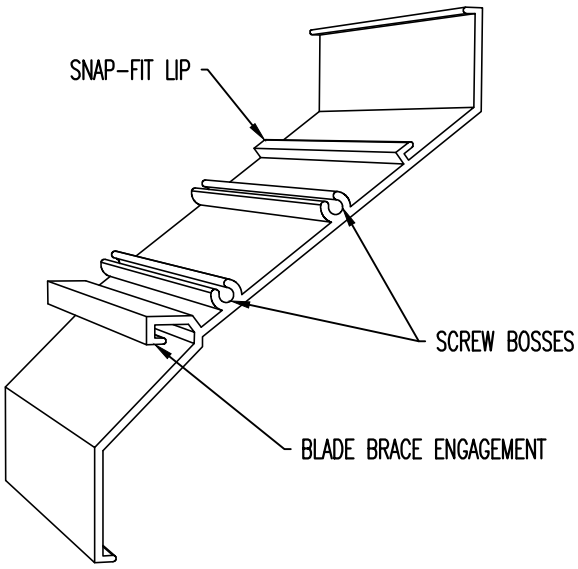
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| DETAIL: 4 | BLADESCREENS STANDARD DETAILS MODEL 5V-4 |
|---|---|
| | BLADE SPLICE AND VERTICAL JOINT |

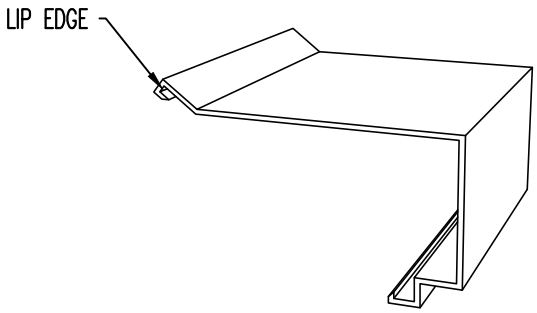
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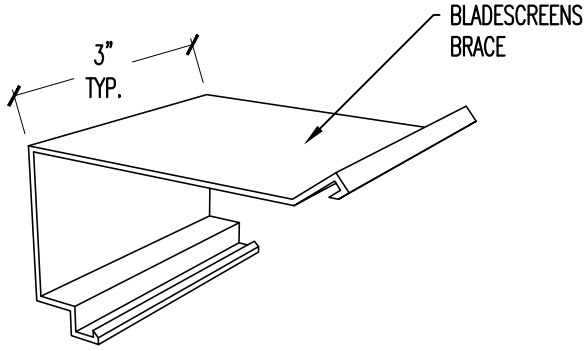



| DETAIL: 5 | BLADESCREENS STANDARD DETAILS MODEL 5V-4 |
|---|---|
| | BLADESCREENS BLADE DETAIL |

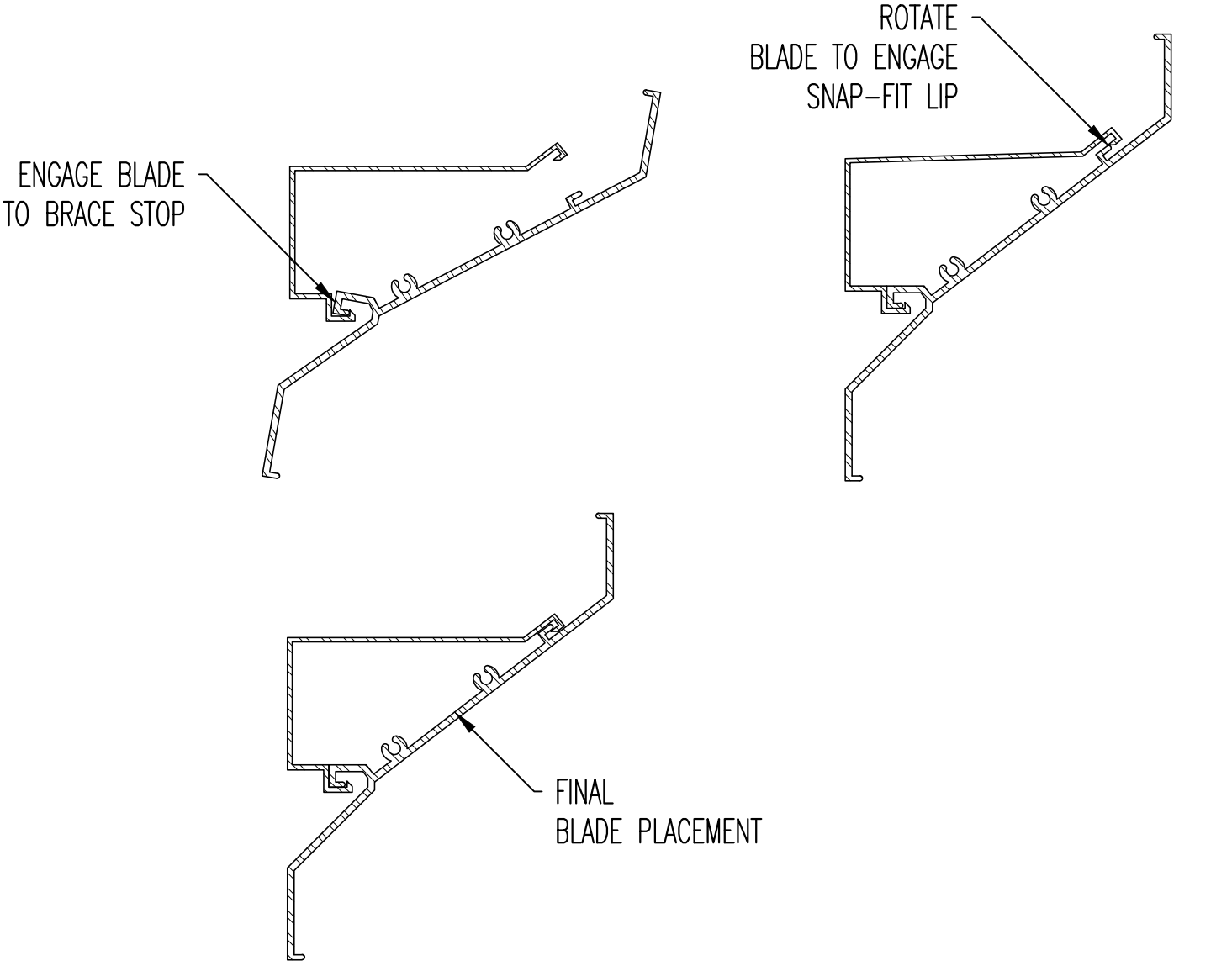
BLADESCREENS

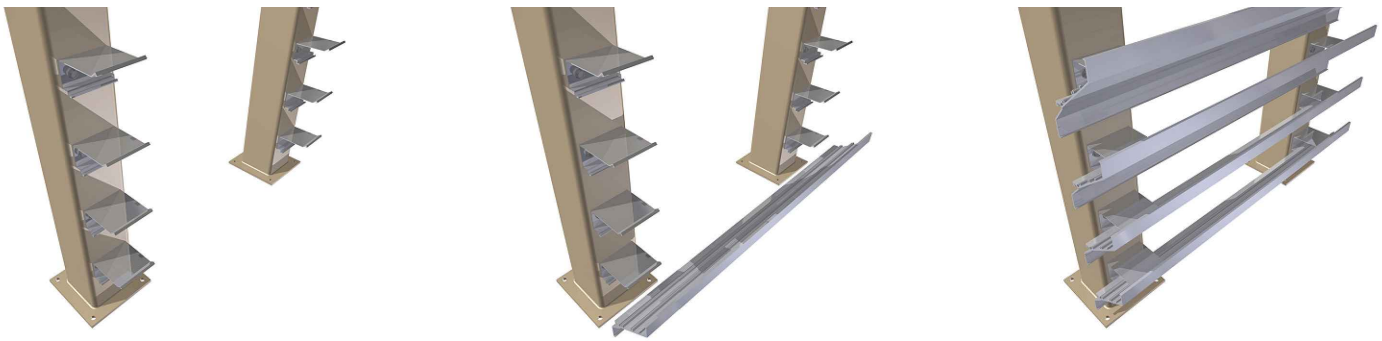



| DETAIL: 6 | BLADESCREENS STANDARD DETAILS MODEL 5V-4 |
|---|---|
| | BLADESCREENS BRACE DETAIL |

BLADESCREENS



DETAIL: 7

BLADESCREENS STANDARD DETAILS MODEL 5V-4

BLADE ENGAGEMENT AND INSTALLATION SEQUENCE

# BLADESCREENS SPECIFICATION

SECTION 08 92 00 – ARCHITECTURAL LOUVERED VISION SCREEN BARRIER

# PART 1 - GENERAL

## 1.01 RELATED DOCUMENTS

A. Drawings and General Provision of the Contract, including General and Supplementary Conditions, and Division 10 Specification Sections apply to this Section.

## 1.02 SUMMARY

A. Definition:

1. Architectural Louvered Vision Screen Barrier system includes extruded louver profiles, attachment brackets, and miscellaneous materials as appropriate for the design of the project to provide a vision screen barrier.
2. Louvers are oriented horizontally and attached to vertical structural supports.

B. Section Includes:

1. Applications of Architectural Louvered Vision Screen Barrier system includes:
    a. Roof equipment enclosures and vision screen barriers
    b. Horizontal architectural screen-walls

C. Related Sections:

1. Division 05: Structural Metal Framing
2. Division 07: Flashing and Sheet Metal, Roof Specialties and Accessories, Joint Sealers
3. Division 08: Glazed Curtain Wall
4. Division 09: Paints and Coatings

## 1.03 REFERENCES

A. General: Standards listed by reference, including revisions by issuing authority, form a part of this specification section to the extent indicated. Standards listed have either been identified by the International Building Code (IBC), local building code, or specific requirement for this building construction type.

B. The Aluminum Association Incorporated

1. Aluminum Standards and Data
2. Specifications and Guidelines for Aluminum Structures

C. Architectural Aluminum Manufacturers Association

1. AAMA 800 - Voluntary Specifications and Test Methods for Sealants
2. AAMA 2603 - Voluntary Specification Performance Requirements for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
3. AAMA 2604 - Voluntary Specification Performance Requirements for Pigmented Organic Coatings on Aluminum Extrusions and Panels
4. AAMA 2605 - Voluntary Specification Performance Requirements for Pigmented Organic Coatings on Aluminum Extrusions and Panels
5. AAMA TIR Metal Curtain Wall Fasteners

D. American Society for Testing and Materials (ASTM) International:

1. ASTM B209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
2. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
3. ASTM D822 - Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings
4. ASTM D2244 - Standard Practice for Calculation of Color Tolerances and Color Differences from Instrumentally Measured Color Coordinates
5. ASTM D4214 - Standard Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films

E. International Organization for Standardization (ISO):

1. ISO 105 A02-93 - Tests for Color Fastness -- Part A02: Grey scale for assessing change in color
2. ISO 178 - Determination of Flexural Properties
3. ISO 527-3 - Determination of Tensile Properties

F. ISO 846 - Evaluation of the Action of Organisms
American Society of Civil Engineers - Minimum Design Loads for Buildings and Other Structures

1.04 SUBMITTALS

A. General: Provide submittals in accordance with Conditions of the Contract and Division 01 Submittal Procedures Section.

B. Product Data: For each type of product indicated, include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

C. Shop Drawings: Submit shop drawings showing elevations and layouts, profiles, and product components, including anchorage, accessories, finish colors, and textures.

1. Include details showing thickness and dimensions of the system parts, details of edge conditions, attachment system, corners, fastening and anchoring methods, locations of joints, location and configuration of joints necessary to accommodate thermal movement.
2. Provide signed and sealed drawings by a qualified Design Professional in the project jurisdiction showing conformance with the performance requirements and design criteria identified for this project.

D. Samples: Submit selection and verification samples for finishes, colors, and textures.

1. Selected Samples: Manufacturer’s color charts or chips illustrating the full range of colors, finishes and patterns available for Architectural Louvered Vision Screen Barrier with factory applied finishes. Custom color selection requires the color sample to be submitted for approval. Approval signatures are required by the Owner and/or Architect.
2. Verification Samples:
    a. Two samples of each color or finish selected, sized per manufacturer’s availability.
    b. Custom color samples may contain drawdown lines. Sizes for custom color samples are limited.

E. Warranties: Architectural Louvered Vision Screen warranty documents as specified within the warranty section of this specification.

1.05 QUALITY ASSURANCE

A. Qualifications:

1. Architectural Louvered Vision Screen Barrier Manufacturer: The manufacturing company or related holding entities shall have a minimum of 10 years of continuous experience in building envelope product manufacture, fabrication, and installation; and be able to provide specified warranty on finish.

2. Architectural Louvered Vision Screen Barrier Installer:

a. The installer shall have been in business under the present name for at least five (5) years before the start of this project and have the experience with similar sized Architectural Louvered Vision Screen Barrier system projects.

b. The Architectural Louvered Vision Screen Barrier system installer must be capable of providing field service representation during construction.

B. Pre-installation Meetings: Conduct pre-installation meeting to verify project requirements, substrate conditions, and system Fabricator's installation details.

1.06 PROJECT CONDITIONS

A. Substrate Tolerances: The General Contractor is responsible for providing a substrate with a tolerance of 1/4 inch in 20.0 feet (6mm in 6m), on level, plumb, and location control lines as indicated and within 1/8 inch (3mm) offset of adjoining faces of alignment of matching profiles tolerances are noncumulative.

B. Field Measurements: Verify locations of framing members by field measurements prior to the fabrication of Architectural Louvered Vision Screen Barrier system. Indicate measurements on the "As Built Shop Drawings". Field measurements to be taken once all substrate materials and adjacent materials are installed.

C. Project Schedule: Provisions in the project schedule must accommodate the time interval between field measurements and fabrication/installation.

1.07 STORAGE, AND HANDLING

A. Deliver Architectural Louvered Vision Screen Barrier and other manufactured accessory materials in manufacturer's original, unopened, and undamaged containers with identification labels intact and visible. Package Architectural Louvered Vision Screen Barrier components for protection during transportation and handling. Comply with Manufacturer's and Installer's written delivery and handling guidelines.

B. Store Architectural Louvered Vision Screen Barrier components horizontally, covered with suitable weathertight and ventilated covering to prevent exposure to UV light and to ensure dryness with a positive slope for drainage. Do not store in contact with the ground or with materials that might cause staining, damage, scratching, or other surface damage.

1.08 WARRANTY

A. At project closeout, submit manufacturer's limited ten-year warranty covering product with separate finish warranties as specified in the Finishes section of this document. Warranty only available when the system is installed and fabricated by an installation contractor that has been approved and trained by the manufacturer's representative to follow the recommended guidelines.

PART 2 – PRODUCTS

2.01 MANUFACTURER

A. Basis of Design: MillerClapperton – www.millerclapperton.com

MillerClapperton
7948 Second Flag Drive, Suite 200
Austell, GA 30168

info@millerclapperton.com
1-800-676-6717

B. Substitutions: None

2.02 ARCHITECTURAL LOUVERED VISION SCREEN BARRIER

A. Model: Bladescreen Model 5V as manufactured by MillerClapperton

B. Description: Horizontally oriented blades secured to attachment braces mechanically fastened to vertical structural supports provided by others. Blade spacing shall be 5" O.C.

C. Thickness: minimum 0.094"

D. Aluminum Extrusions for Blades and Braces: ASTM B211, Alloy 6063-T5, 6063-T6 or 6061-T6

E. Fasteners: Stainless Steel

2.03 FINISHES

A. Mill Finish

B. AAMA 2605: 70% Fluoropolymer PVDF resin coating conforming to AAMA 2605 shall be furnished on Blades unless specified otherwise.

1. 20-year finish warranty

C. AAMA 2603: 100% Highly Durable Polyester Resin Powder Coat or Liquid Coat system shall be offered on Braces to diminish solar glare.

1. No finish warranty for exterior applications.

D. AAMA 2604: Wood Grain Finishes via bonded sublimation film coatings consisting of polyurethane powder coatings.

1. 10-year finish warranty

E. Anodized Finishes

1. Class I Clear Anodized to Comply with Aluminum Association AA-C21A41.
2. Class I Color Anodized to comply with Aluminum Association AA-C21A44.

2.02 FABRICATION

A. General: Field-fabricate Architectural Louvered Vision Screen Barrier systems in accordance with written instructions and approved submittals.

B. Fasteners: Fasteners shall be stainless steel in accordance to prevent corrosive interaction between dissimilar metals.

C. Corner Conditions: Open-joint and mitered corner conditions shall be field-fabricated by the installer in accordance with approved shop drawings and manufacturer recommendations.

D. Blades are supplied with square-cut ends (90°). Where mitered corners are required, blades shall be field-cut to 45° by the installer.

PART 3 – EXECUTION

3.01 EXAMINATION AND PREPARATION

A. If required per project conditions, field measurements of the site condition are to be taken before beginning fabrication work and notification of any material modifications and resulting schedule adjustment shall be formally documented.

B. Verify that conditions of roofing substrates previously installed under other sections are acceptable. Notify General Contractor or Construction Manager immediately upon discovery of any tears, holes, or other damages to the membrane or barrier.

C. Verify that vertical structural support members and anchorages installed under other sections are acceptable for product installation and have been installed within acceptable tolerances.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

A. Install the Architectural Louvered Vision Screen Barrier as indicated in the drawings – ensuring the system is installed plumb, level, and true in alignment with other materials.

B. Field cut and trim component parts in accordance with manufacturer's recommendations.

C. Do not install damaged, deformed, or defaced blades. Remove and replace any blades or braces damaged during installation.

3.03 ADJUSTING AND CLEANING

A. Adjusting:

1. Remove and replace components damaged beyond repair as a direct result of the installation. After installation, repair and replacement shall become the responsibility of the General Contractor.

2. Repair blade components with minor damage such that repairs are not discernible at a distance of 10 feet (3m) from the surface at a 90-degree angle.

3. Remove and replace brace components damaged beyond repair.

4. Any additional protection, after installation, shall be the responsibility of the General Contractor.

5. Remove from project site damaged components and other debris attributable to work of this section.

B. Cleaning:

1. Final cleaning shall not be part of the work of this section.

END OF SECTION

# PRODUCT FINISHES

Finish Options:

Bladescreens are available in a variety of spray and powder coated finishes from known manufacturers such as PPG, Valspar, Akzo Nobel, Decoral, and others. Custom finishes are a normal part of doing business in architecture and we are set up with strong relationships with leading firms specialized in coating extrusion profiles.

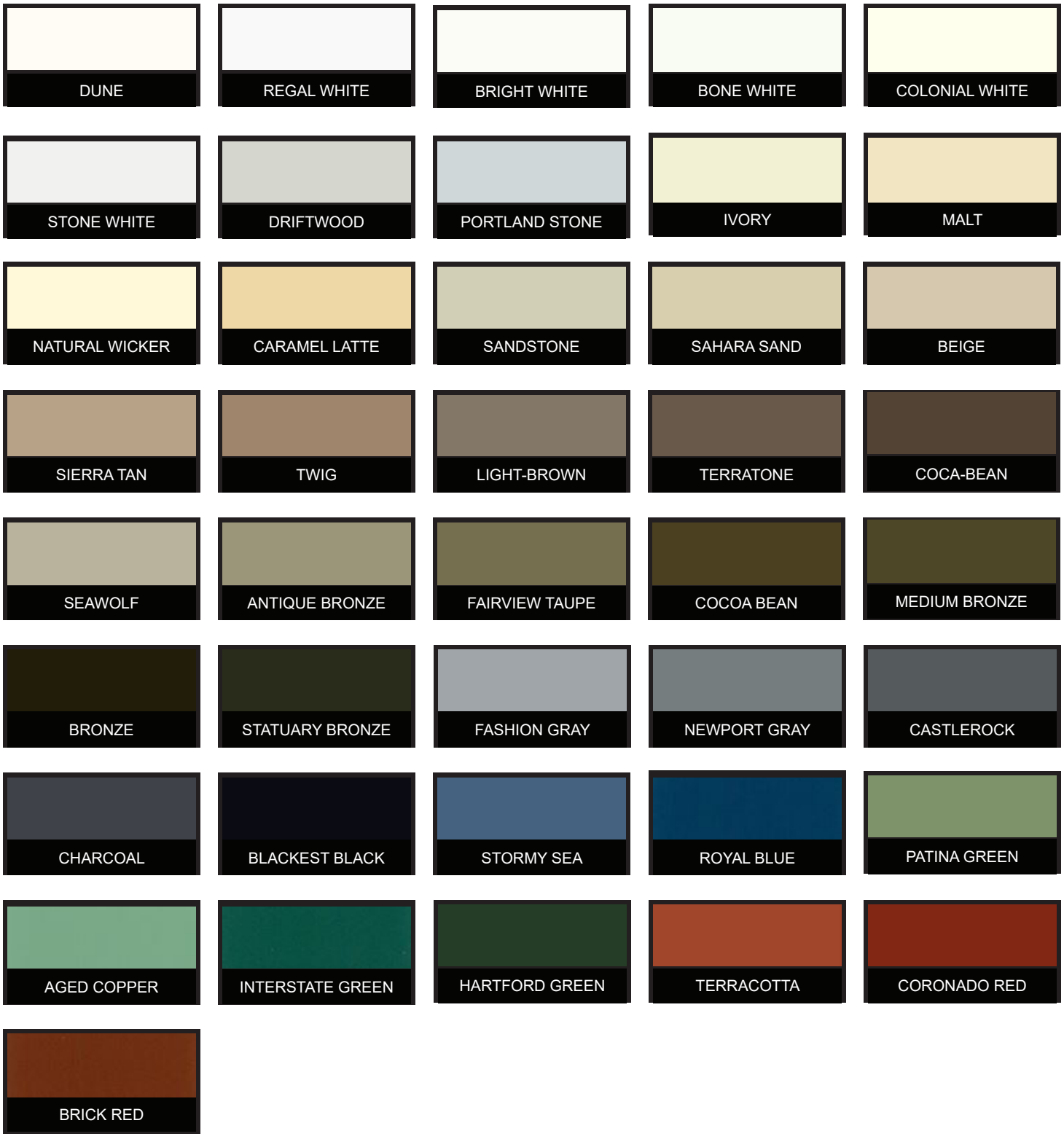
Color Families:

| | |
|---|---|
| Finishes | • AAMA 2605 finishes with 20 Year Finish Warranty:<br>Liquid Spray: Fluoropolymer (PVDF) Kynar 500<br>Powder Coat: Fluoropolymer (PVDF) Kynar 500<br><br>• AAMA 2604 finishes with 10 Year Finish Warranty:<br>Sublimation powder coat via Decoral process<br>Wood grain and stone Design Effects<br><br>• Anodized Finshes:<br>Sulfuric Acid Anodization Class I to comply with AAMA 611 and Aluminum Association AA-C21A41<br>Class I Clear Anodized<br>Class I Color Anodized<br>Warranties granted per specific project<br><br>• AAMA 2603 Gray for Brace Piece by request only. No warranty.<br><br>• Mill Finish |
| Color Options | • 85 spray coat colors in 2-Coat Solid, 2-Coat Mica, and 3-Coat Metallic<br><br>• 50 sublimation powder coat Design Effects |

Warranties:

| | |
|---|---|
| Warranties | • Product: Limited ten-year warranty<br><br>• Finishes: Per paint system selected<br><br>• Availability: Warranty only available when the system is fabricated and installed by an approved installation subcontractor. |

# FINISHES: 2-COAT SOLID



# CLEANING AND MAINTENANCE

BladeScreens™ is an architectural louver system that is used in a variety of applications where a site barrier is desired such as roof equipment screens and simple façade design elements. BladeScreens™ are finished with high-performance exterior coatings designed for long-term exposure in exterior architecture. Under circumstances where post-installation cleaning or periodic building cleaning is required, the following recommendations and guidelines should be considered.

1. Attempt to execute periodic cleaning of panels to coincide with window washing in order to avoid the build-up of contaminants and the necessity of deeper, more intense cleaning.

2. Always use non-abrasive materials cleaning solutions and soft surfaces such as soft sponges, soft nylon brushes, or cloths for cleaning.

3. Always test clean a small inconspicuous area before large scale cleaning.

4. First attempt to clean surfaces with warm water and a soft sponge or cloth. If needed, progress to mild, non-abrasive household cleaners such as dish detergent or window cleaner. Always follow up with a clean water rinse.

5. For deeper cleaning or removal of surface contaminants and adherents, the following progressive cleaning solution steps are recommended:
    - Soft soap and water at a 1:3 ratio applied and left to soak for a few minutes before removal via clean water rinse.
    - Organic solvents applied directly to the stain. These include alcohols, mineral spirits, turpentine, ketones, and lacquer thinner. Only leave in contact with the surface for one minute before removal via step 4a. For persistent adherents clean mechanically with the aid of non-abrasive tools such as wooden or plastic spatulas. Do NOT use Acetone or Paint Remover.
    - Mirachem® 500 and water at a 1:5 ratio applied directly to the stain followed by step 4a.
    - For silicone residues and adhesives use silicone remover or consult the adhesive manufacturer for removal instructions followed by step 4a.

6. Conduct a final rinse with clean water to remove all residues and eliminate streaking.

7. For further consultations or recommendations on persistent, hard to remove materials, please contact us directly for additional information.

# BLADESCREENS

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