



TENNESSEE VALLEY METALS, INC



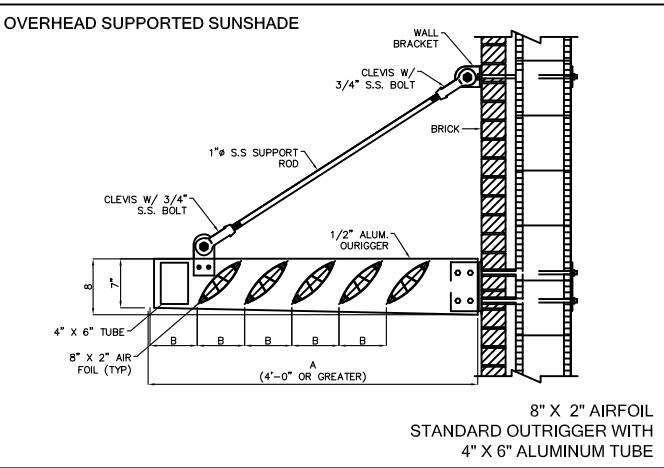
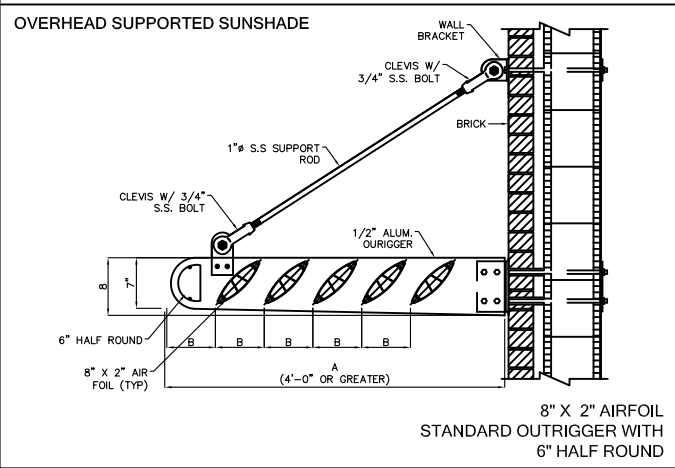
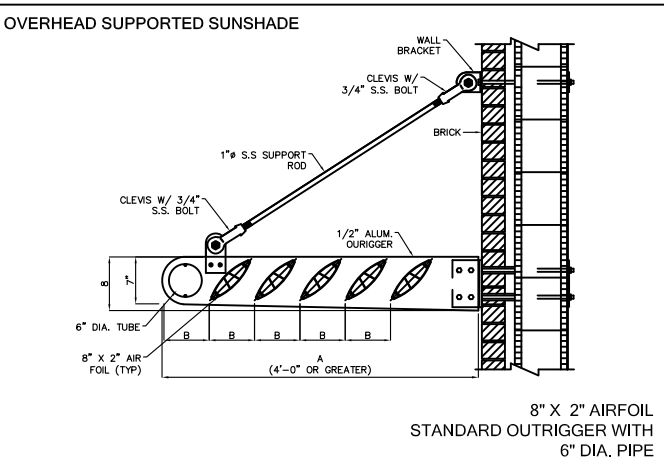
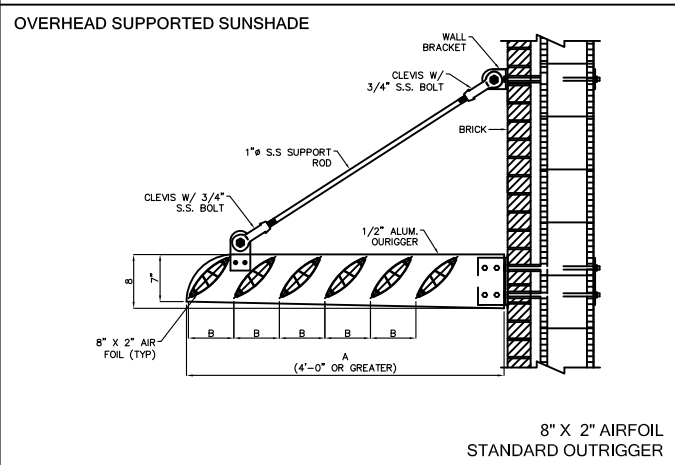
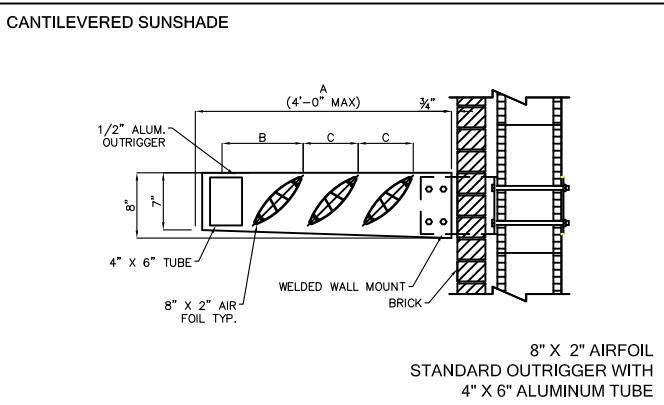
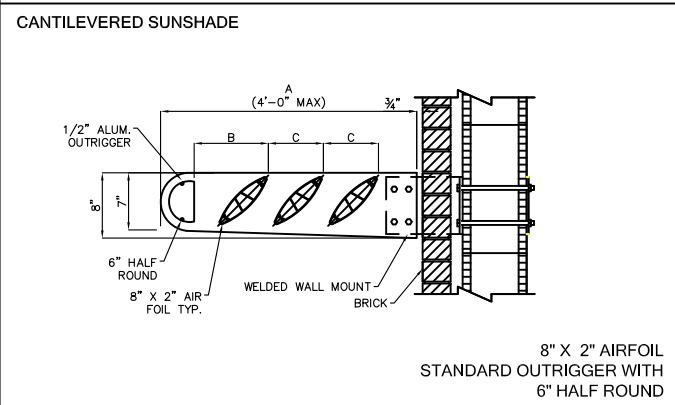
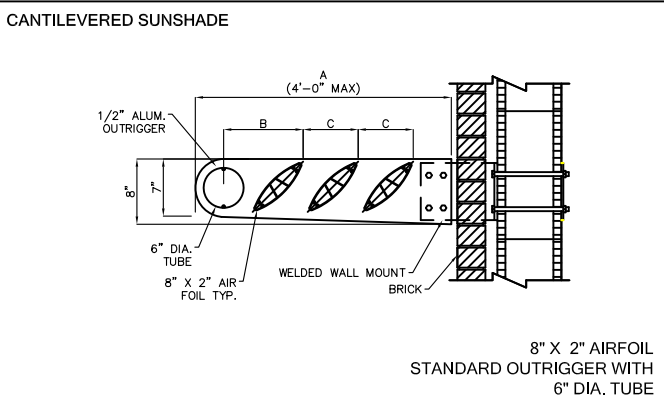
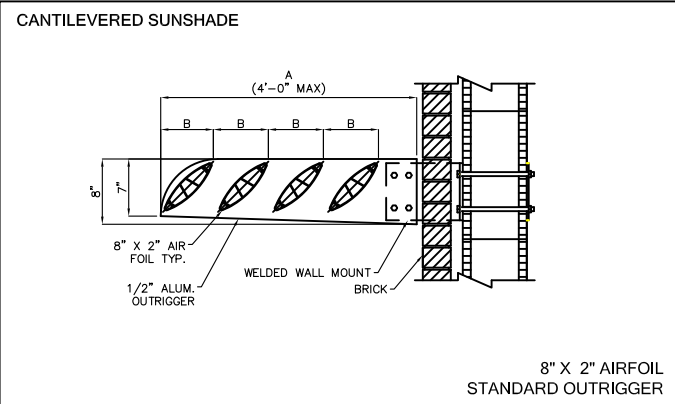
ARCHITECTURAL SUNSHADES

[www.tvmetals.com](http://www.tvmetals.com)

# AIRFOIL SUNSHADES

## CANTILEVERED/OVERHEAD SUPPORTED MODELS

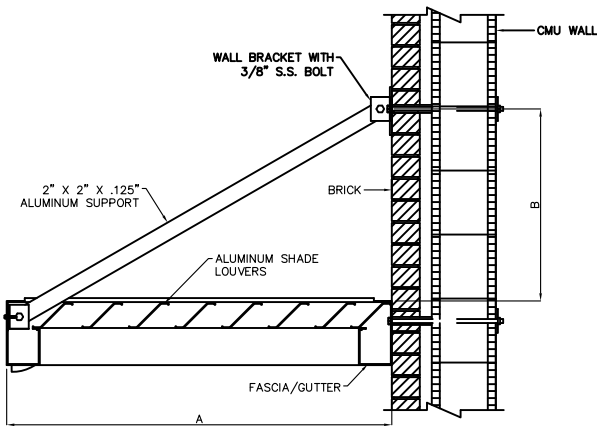
NOTE: SECTIONS BELOW REPRESENT  
A FEW POSSIBILITIES. SUNSHADES CAN  
BE MODIFIED TO MEET MOST BUILDING DESIGNS.



# LOUVERED SUNSHADES

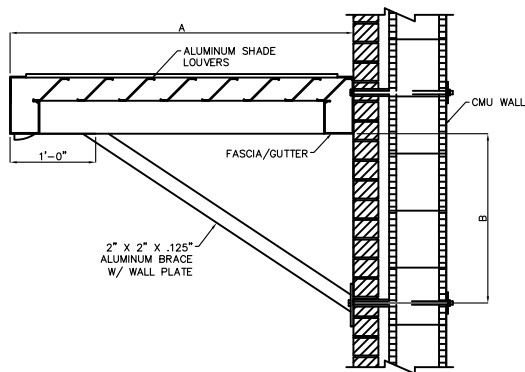
## CANTILEVERED/SUPPORTED MODELS

OVERHEAD SUPPORTED SUNSHADE



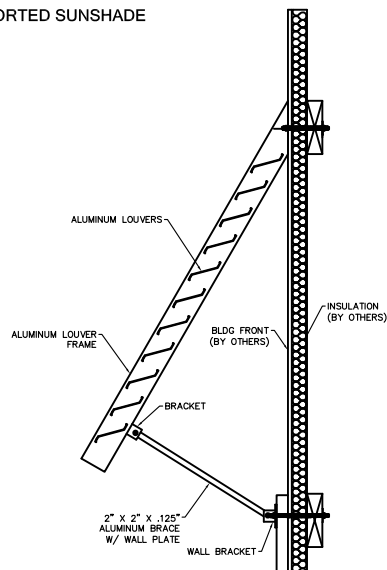
LOUVERED BLADES  
6" , 7" OR 8" FASCIA  
2" X 2" X .125" OVERHEAD ALUMINUM SUPPORT

SUPPORTED SUNSHADE



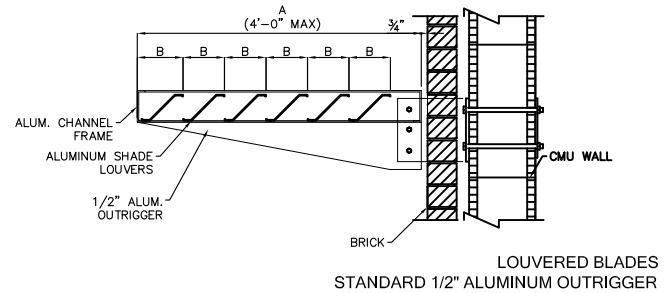
LOUVERED BLADES  
6" , 7" OR 8" FASCIA  
2" X 2" X .125" ALUMINUM BRACE

SUPPORTED SUNSHADE

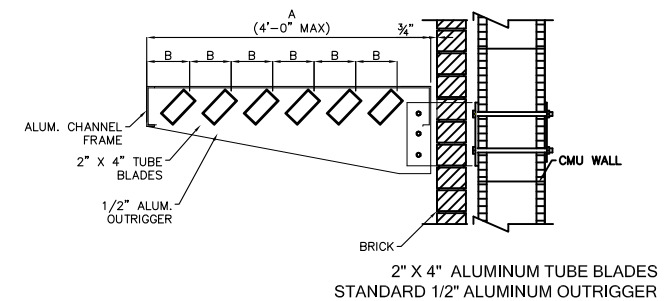


LOUVERED BLADES  
2" X 2" X .125" ALUMINUM BRACE

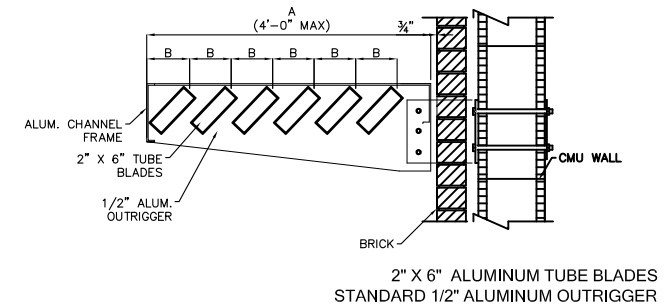
CANTILEVERED SUNSHADE



CANTILEVERED SUNSHADE






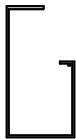
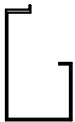


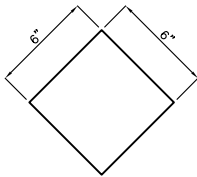
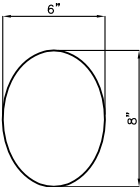
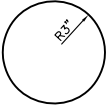
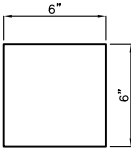
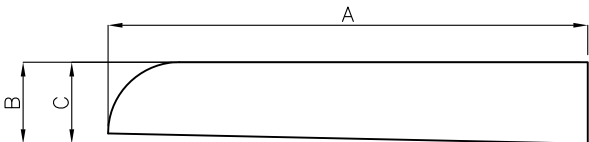
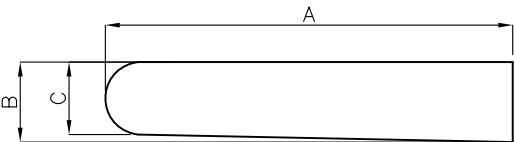
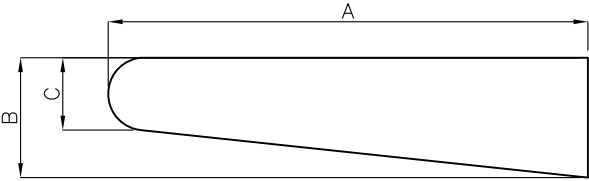
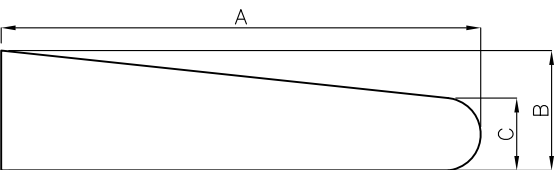
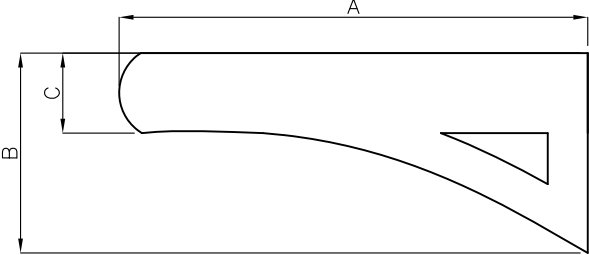
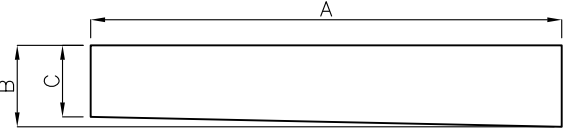


CANTILEVERED SUNSHADE



# SUNSHADE OPTIONS

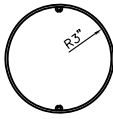
AIRFOILS, LOUVERS, WALL PLATES, OUTRIGGER PLATES

AIRFOILS AND LOUVERS				
				
STANDARD Z-LOUVER	8" AIRFOIL	6" AIRFOIL	2" X 6" ALUMINUM TUBE	2" X 4" ALUMINUM TUBE
FASCIA				
				
8" FASCIA	7" FASCIA	6" FASCIA	5" FASCIA	
WALL PLATES				
				
6" DIAMOND WALL PLATE	6" X 8" OVAL WALL PLATE	6" DIA. WALL PLATE	6" SQUARE WALL PLATE	
OUTRIGGERS				
				
STANDARD OUTRIGGER		RADIUS EDGE OUTRIGGER		
				
TAPERED OUTRIGGER WITH RADIUS EDGE		REVERSED TAPERED OUTRIGGER WITH RADIUS EDGE		
				
RADIUS ED OUTRIGGER WITH RELIEF		SQUARE OUTRIGGER		

# SUNSHADE OPTIONS

## NOSINGS, STANDARD COLOR OPTIONS

### NOSINGS



6" DIA.  
NOSING



4" DIA.  
NOSING

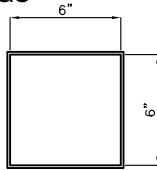


6" HALF ROUND  
NOSING

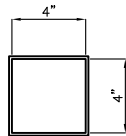


4" HALF ROUND  
NOSING

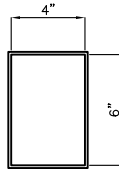
### NOSINGS



6" X 6" NOSING



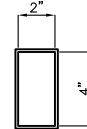
4" X 4" NOSING



4" X 6" NOSING



4" X 6" NOSING

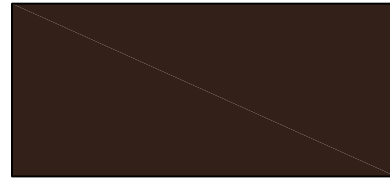


2" X 4" NOSING

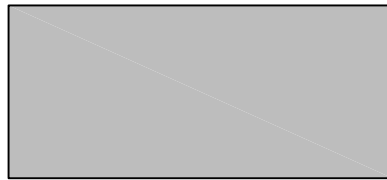
### STANDARD COLOR OPTIONS



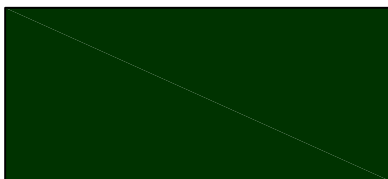
WHITE



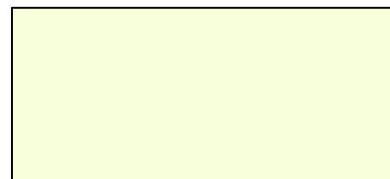
BRONZE



CLEAR ANODIZED



EVERGREEN



IVORY

\*We also provide custom colors with our 30-foot powder coating oven and booth. Please call for additional information and to check availability.

\*\*Due to limitations of printing processes, this color chart is not an accurate representation of our actual colors. Sample chips are available on request at no charge.

# SPECIFICATIONS

## EXTERIOR SUN CONTROL DEVICES

### 10705 - EXTERIOR SUN CONTROL DEVICES

#### PART 1 GENERAL

##### 1.01 SUMMARY

A. This section Includes: Design, fabrication, and installation of extruded aluminum sun control assemblies, horizontal and/or inclined fixed configuration.

B. Products furnished but not installed under this section: Anchors.

C. Related Sections included the following:

1. Division 5 "Structural Steel".

##### 1.02 REFERENCES

A. American Society for Testing and Materials (ASTM)

B. American Architectural Manufacturers Association (AAMA)

##### 1.03 SYSTEM DESCRIPTION

A. Design Requirements: Provide sun control devices/assemblies capable of withstanding the effects of loads and stresses from dead loads, live loads, snow loads, snow drift loads, wind loads, and normal thermal movement without evidencing permanent deformation of assembly or components including blades, frames, and supports; noise or metal fatigue caused by blade rattle or flutter; or permanent damage to fasteners and anchors. Comply with all applicable codes.

1. Dead Load: As required by applicable building code.
2. Live Load: As required by applicable building code.
3. Snow Load: As required by applicable building code.
4. Snow Drift Load: As required by applicable building code.
5. Wind Load: Uniform pressure (velocity pressure) of (Insert Design Criteria) lb./sq. ft. (Insert Design Criteria Pa), acting inward or outward.
6. Thermal Movements: Provide assemblies that allow for thermal movements resulting buckling, opening of joints, overstressing of components, and other detrimental effects:

- A: Temperature Change (Range): 120 deg F 67 deg C), ambient; 180 deg F

(100 deg C), material surfaces.

##### 1.04 SUBMITTALS

A. Product Data: Manufacturer's technical and descriptive information, specifications, and installation instructions for sun control devices, anchors, and accessories.

B. Shop Drawings: Include plan dimensions, elevations, and details. Include details showing profiles, angles and spacing of blades, frames and supports. Include unit dimensions related to supporting and adjoining structure. Include anchorage details and locations.

C. Samples:

1. Selection: Manufacturer's full range of colors for the factory applied finishes.
2. Verification: 3-inch-square samples of each finish selected on the substrate specified.

D. Design Data: Design calculations bearing the seal of a Registered Professional Engineer, licensed in the state where the project is located. Include a comprehensive analysis of design loads, including dead loads, live loads, snow loads, snow drift loads, wind loads, and thermal movement. Identify the moment and shear forces transferred to the structure or supports through the installation connections.

##### 1.05 QUALITY ASSURANCE

A. Manufacturer Qualifications: At least five years experience in the design, fabrication, and erection of sun control devices.

B. Installer Qualifications: Have sun control devices installed by manufacturer, third party installation is not acceptable.

C. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

##### 1.06 PROJECT CONDITIONS

A. Field Measurements: Verify actual supporting and adjoining construction by field measurements before fabrication

indicate recorded measurements on approved Shop Drawings. Coordinate construction to ensure that sun control assemblies/devices fit properly to supporting and adjoining construction and coordinate schedule with construction schedule to avoid delaying the Work.

B. Established Dimensions: Where field measurements cannot be made without delaying the work, verify dimensions and proceed with fabricating of sun control assemblies without field measurements. Coordinate construction to ensure that sun control assemblies correspond to established dimensions.

#### PART 2 PRODUCT

##### 2.01 MANUFACTURERS

A. Basis of Design:

**Tennessee Valley Metals, Inc.**  
**190 Industrial Park Road**  
**Oneonta, AL 35121**  
**800.551.2579**  
**205.274.9501 fax**

##### 2.02 MATERIALS

A. Aluminum Extrusions: ASTM B 221, 6063 alloy, T5 or T52 temper.

B. Aluminum Sheet: ASTM B 209, 3003 or 5005 alloy, temper as required for forming or as recommended by metal producer for specified finish.

C. Aluminum Castings: ASTM B 26/B 26M, alloy 319.

D. Fasteners: Same basic metal and alloy as fastened metal or 300 series stainless steel, unless otherwise indicated. Do not use metals that are incompatible with joined materials.

1. Use types and sizes to suit unit installation conditions.
2. Use Phillips flat-head screws for exposed fasteners, unless otherwise indicated.

E. Anchors and Inserts: Type, size, and material required for loading and installation indicated. Use ferrous metal or hot-dip galvanized anchors and inserts for exterior installations and elsewhere, as needed, for corrosion resistance. Use toothed steel or expansion bolt devices for drilled-in-place anchors.



# SPECIFICATIONS

## EXTERIOR SUN CONTROL DEVICES

F. Bituminous Paint: One of the following:

1. Cold-applied asphalt mastic: SSPC-Paint 12, containing non asbestos.
2. Cold-applied asphalt emulsion: ASTM D 1187.

### 2.03 FABRICATION

A. General:

1. Assemble sun control devices in factory to minimize field splicing and assembly. Disassemble units as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
2. Assemble sun control devices using mechanical fasteners or welding only. Join components with a minimum of two filet welds, each 1-inch-long, produced with the Pulse Gas Metal Arc Welding (GMAW/MIG) process with a minimum 0.125 inch, throat. Comply with AWS D1.2 and D1.3.
3. Maintain equal sun control blade spacing, including separation between blades and frames to produce uniform appearance.
4. Provide supports, anchorages, and accessories required for complete assembly
5. Join frame members to one another and to fixed sun control blades with mechanical fasteners, concealed from view when possible. Bolt connections between frame members only as necessary.

B. Components:

1. Blade: Specify blade type, material and thickness, as indicated.
2. Outrigger: Specify outrigger type, material and thickness, as indicated.
3. Fascia: Specify fascia type, material and thickness, as indicated.

D. Factory Finishing: Finish designations prefixed by AA comply with the system established by the AAMA for designating aluminum finishes. Finish sun controls after assembly.

1. Baked-Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited

chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: Thermosetting, modified-acrylic enamel primer/topcoat system, except with a minimum dry film thickness of 1.5 mils (0.04 mm), medium gloss), complying with AAMA 2603. Apply baked enamel complying with paint manufacturer's specifications for cleaning, conversion coating, and painting.

2. Powder Coating Finish: AA-C11C22R1x (Chemical Finish: cleaned with degreaser; Chemical Finish: medium matte etching; Organic Coating: TGIC-polyester with a minimum dry film thickness of 1.5 mils, medium gloss), complying with AAMA 2603. Apply powder coating complying with paint manufacturer's specifications for cleaning and painting.

3. High performance Organic Coating Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride



BLACK CREEK INTEGRATED SYSTEMS  
IRONDALE, AL



TURKEY CREEK  
KNOXVILLE, TN



At TVM, our mission is to offer the highest quality architectural products with a commitment to quality, pride in craftsmanship and premium customer experiences. We strive to provide a safe workplace that encourages creativity and growth for everyone. We are motivated to be an organization that positively impacts the customer, the employee and the communities in which we serve.

Established in 1980 as Tennessee Valley Supply, the Tennessee Valley Metals we know today was formed in 1993 to focus on aluminum canopy systems. Since then, TVM has grown steadily and has recently opened warehouses and installation centers in Robertsedale, Alabama and Timmons ville, South Carolina. We have also recently added a 34-foot powder coating booth and oven to offer customers additional paint and color options.

For more information on Tennessee Valley Metal, Inc. and the products we offer please visit us online at [www.tvmetals.com](http://www.tvmetals.com) or contact us by phone at 1-800-551-2579.

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CANOPIES WALKWAY COVERS SUNSHADES