

This section is based on the products of Alumi-Guard, Inc., which is located at:
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Alumi-Guard™ is a manufacturer of maintenance free aluminum fencing with nationwide distribution. Alumi-Guard™ was founded upon three basic but very important principles. Our mission is to supply a high quality and durable product for a competitive price with unsurpassed customer service. That means your project can be completed with a high quality product for a fair price on schedule.

 Alumi-Guard™ fencing is constructed with heavy wall aluminum extrusions. All of the fencing is finished in Armor-Guard™ TGIC® polyester powder coating. This finish has been tested in Florida's hot, humid, high salt concentrated environment. It surpasses the 3000-hour salt spray test. That is more than double what AAMA mandates. Because Armor-Guard™ powder coating is twice as thick and twice as hard as baked on enamel finishes, it is much more durable and will look attractive for a very long time. Alumi-Guard™ offers a lifetime limited warranty on the finish and workmanship of all its materials.

SECTION 32 31 19

ORNAMENTAL METAL FENCES AND GATES

(MUNICIPAL GRADE)

1. GENERAL
	* + 1. SUMMARY
				1. Section Includes:

Retain following subparagraphs below that are required.

Ornamental fencing.

Ornamental pool fencing.

Ornamental gates and related hardware.

Concrete foundations for posts.

* + - 1. DELEGATED DESIGN FOR FOUNDATIONS OF FENCE POSTS
				1. Delegated Engineering Responsibility: Require installer of ornamental metal fences and gates to employ a professional engineer, licensed in the state where the project is located, to provide engineering design for the post foundations based on local conditions, and to affix their professional seal to the shop drawings for the foundations.
			2. PREINSTALLATION MEETINGS

Retain "Preinstallation Conference" Paragraph below if Work of this Section is extensive or complex enough to justify a conference.

* + - * 1. Preinstallation Conference: Conduct conference at Project site.
			1. SUBMITTALS
				1. Product Data: Manufacturer’s technical literature for each product specified.

Include preparation instructions and recommendations.

Include storage and handling requirements and recommendations.

Include manufacturer’s installation instructions.

* + - * 1. Shop Drawings: Elevations of fencing panels, spacing of components, hardware, and gates. Provide foundations for fence post shop drawings by professional engineer.
				2. Samples for Initial Selection: For each finish product and finish specified, sets of color chips representing manufacturer’s full range of available colors.
				3. Samples for Verification: For each fence material and for each color specified representing each color specified.

Provide samples [**24 inches**] <**Insert dimension**> square of replica of fencing panel.

* + - 1. QUALITY ASSURANCE
				1. Manufacturer Qualifications: Company specializing in manufacturing Products specified in this section with minimum five years documented experience.
				2. Installer Qualifications: Experienced with type of construction involved with specified materials and per manufacturer’s instructions.
				3. Mockups: Build mockups to verify selections made under sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.

Include [**6 foot**] <**Insert dimension**> length of fence complying with requirements.

Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

* + - 1. DELIVERY, STORAGE, AND HANDLING
				1. Transport, handle, store and protect fencing components so they are in undamaged condition when installed.
				2. Store fencing components in manufacturer’s unopened packaging to protect surfaces until ready for installation.
				3. Store fencing components off the ground in a dry, protected, covered and secure area.
			2. FIELD CONDITIONS
				1. Install fencing components only when weather conditions are in comply with manufacturer’s installation instructions.
			3. WARRANTY
				1. Manufacturer’s Warranty: Provide warranty that manufacturer agrees to repair or replace products or components that fail in materials or workmanship within the specified warranty period. Manufacturer also warrants that the powder coated finish will not chip, crack, or flake.

Warranty Period: Limited lifetime warranty - 30 years from date of installation.

For additional warranty information, see www.http://alumi-guard.com/products/warranty

1. PRODUCTS
	* + 1. MANUFACTURER
				1. Acceptable Manufacturer: Barrette Outdoor Living; 2401 Corporate Blvd, Brooksville, FL 34604. Toll Free: (877) 258-6448. Phone: (352) 754-8555. Fax: (354) 544-8442. Email: info@alumi-guard.com. Web: www.alumi-guard.com

Retain one of the following two paragraphs.

* + - * 1. Substitutions: Not permitted.
				2. Substitutions: Submit request for substitution according to Division 01 requirements.
			1. MATERIALS
				1. Aluminum, General: Provide alloys and tempers with not less than the strength and durability properties of alloy and temper designated in paragraphs below for each aluminum form required.

Extrusions: ASTM B 221.

Posts and Channels: Alloy 6005-T5.

Pickets: Alloy 6063-T52.

Plate and Sheet: ASTM B 209, Alloy 6061-T6.

Castings: ASTM B 26, Alloy ADC12.

* + - * 1. Fasteners: Screws of ASTM A 276, 410 stainless steel with heads painted to match fencing color.
				2. Accessories: As required by conditions, post caps, wall brackets, scrolls, finials, and other miscellaneous hardware fabricated of aluminum.

Retain one of the following two paragraphs for post foundations.

* + - * 1. Concrete: Types specified in Division 03 Section “Cast-in-Place Concrete.”
				2. Concrete: ASTM C 94, Option A; minimum 3,000 psi strength at 28 days.
			1. ORNAMENTAL FENCING
				1. Municipal Grade Fencing:

Aluminum Channel Sections: 1.5 inch tall by 1 inch wide; with top thickness 0.055 inch and .100 inch side wall thickness; according to ASTM F 2957.

Pickets: 3/4 inch square class according to ASTM F 2957.

Retain one or more of the following paragraphs and subparagraphs as required for project. If more than one fencing types is required, distinguish among the types on the Drawings and in this Specification.

* + - * 1. Style:

Flat Top: [**Ascot**][**Canterbury**][**Fairmount**].

Picket Top: [**Belmont**][**Hamilton**][**Victoria**].

* + - * 1. Grade: Municipal.
				2. Channels: [**2**][**3**][**4**].
				3. Picket Spacing:

Standard: 3.875 inches.

Royale:

Upper: 3.875 inches.

Lower: 1. 563 inches.

Puppy Picket:

Upper: 3.875 inches.

Lower 18 inches: 1.563 inches.

* + - * 1. Panel Length Inside Posts:

Nominal 68.63 inches OR Nominal 91.75 inches.

* + - * 1. Posts:

1. 2 inches square with [**0.093**][**0.125**] inch wall thickness.

2-1/2 inches square with [**0.075**][**0.125**] inch wall thickness.

3 inches square with 0.125 inch wall thickness.

4 inches square with [**0.125**][**0.250**] inch wall thickness.

6 inches square with [**0.125**][**0.250**] inch wall thickness.

* + - * 1. Fence Panel Height:

 [**36**][**42**][**48][54][60]** inches. **[2CH][3CH][4CH]**

 **[72]** inches. **([3CH] OR [4CH] ONLY)**

 [**84**][**96**] inches. **([4CH] ONLY)**

* + - * 1. Adornments:

 [**Finials**][**Rings**][**Butterfly scroll**][**Estate scroll**].

* + - * 1. Options:

[**Standard Bottom**][**Flush Bottom**][**Concave Picket Top]**[**Convex Picket Top**][**Radius Panel - 48 inches Minimum Radii <Insert Radii dimension>**].

\* **Excluding 8ft wide 72in tall 3-ch panels**

 **Acceptable 8ft wide 72in tall 4-ch panels**

* + - * 1. Ornamental Gates: Provide to match ornamental style specified.

Construction: Welded u-frame gates.

Height: [**36**][**42**][**48**][**54**][**60**][**72**]**[84][96]** <**Insert dimension**> inches.

Opening Width:

Retain one of the following subsubparagraphs for the gate width,

Single gate at [**36**][**42**][**48**][**60**][**72**] <**Insert dimension**> inches wide.

Two walk gates with standard hardware in a [**72**][**96**][**120**][**144**] inch wide opening.

Two walk gates with standard hardware in a <**Insert dimension**> inch wide opening.

Adornments: [**Finials**][**Rings**][**Butterfly scroll**][**Estate scroll**][**Sloped Gate**].

Options: [**01 Series arch**][**02 Series arch**] [**03 Series arch**][**04 Series arch**][**Concave Picket Top]**[**Convex Picket Top]**.

Hardware:

Retain any of the following subsubparagraphs as required by project.

Self-closing hinges.

Gravity latch.

Lever latch - single sided or double sided.

Drop-rod for one leaf of double gates.

Locking drop-rod for one leaf of double gates.

Single hole lock box.

Double hole lock box.

Pool code compliant latch.

* + - 1. FABRICATION
				1. Punch channels (horizontal rails) to allow pickets to pass through the top of the rail. The number of channels vary with the style, height, and strength as determined by manufacturer.
				2. Fasten pickets to channels with specified screws on one side of the channel only.
				3. Routed posts to allow the channels to slide in and be attached with specified screws. Affix post caps to top of posts.
				4. Fabricate gates using same components as for fencing. Walk through gates shall have adjustable self-closing hinges and shall be self-latching.
			2. FINISH

Retain one of the following two paragraphs and subparagraphs.

* + - * 1. SuperDurable Polyester Powder Coating: High performance polyester, medium glass, applied to over 2.0 mil thickness complying with AAMA 2604 with the following performance characteristics:

Meet or exceed 3,000 hour salt spray test according to ASTM B 117.

Meet or exceed a H-2H pencil hardness according to ASTM D 3363.

Meet or exceed a 5B rating on the ASTM D 3359 adhesion test.

* + - * 1. Color: [**Black**][**Matte Black**][**Florida Bronze**][**Matte Bronze**][**Light Bronze**][**White**][**Gray**]
1. EXECUTION
	* + 1. EXAMINATION
				1. Acceptance of Surfaces and Conditions:

Examine substrates to receive decorative metal fences and associated work for compliance with requirements and other conditions affecting performance.

Proceed only when unsatisfactory conditions have been corrected in a manner complying with Contract Documents.

Starting work within a particular area will be construed as acceptance of surface conditions.

* + - 1. PREPARATION
				1. Prepare the grade and remove surface irregularities, if any, which may cause interference with installation of decorative metal fences.
			2. INSTALLATION
				1. Install decorative metal fences according to manufacturer’s installation instructions.
				2. Excavate holes for posts to diameter and spacing indicated without disturbing underlying materials.
				3. Center and align posts in excavated holes to required depth. Place concrete around posts and vibrate or tamp for consolidation. Recheck vertical and top alignment of posts, verify they are plumb and level. Make necessary corrections if needed before concrete hardens.
				4. For surface mounted on hard surfaces, set posts and fasten to surface using corrosion resistant anchors. Avoid mounting over expansion or control joints.
				5. Insert notched channels into pre-punched holes on posts and fasten with specified screws.
				6. Support gates from gate posts. Avoid attaching hinged side of gate to building wall.
				7. Install gates plumb, level and secure for full opening without interference. For double gates, install drop rod. Adjust hardware for smooth operation.
			3. ERECTION TOLERANCES
				1. Maximum Variation from Plumb: 1/4 inch.
				2. Maximum Offset from Indicated Position: 1 inch.
				3. Minimum Distance from Property Line: 6 inches.
			4. CLEANING
				1. Clean decorative metal fences with mild detergent and rinse with clean water.
				2. Remove mortar from decorative metal fences using a 10 percent solution of muriatic acid followed immediately by several rinses of clean water.
			5. ADJUSTING
				1. Touch-up paint scratched surfaces using paint pens supplied by manufacturer that match fence color. Spray-paint touch-up and/or overspray is not covered under warranty.

END OF SECTION

