

SECTION 02820 (32 31 19)

DECORATIVE METAL FENCES AND GATES

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** NOTE TO SPECIFIER ** BASTEEL Perimeter Systems; fencing and gate systems.

This section is based on the products of BASTEEL Perimeter Systems, which is located at:

1400 Magnolia Ave. Frankfort, IN 46041 Toll Free: 888-365-6645 Fax: 765-654-8755 Email: info@basteel.com Web: www.basteel.com.

[Click Here] for additional information.

BASTEEL Perimeter Systems[™] is a 4th generation family-owned business formed in 1946 to serve the tool and die industry. Our values, commitment to quality, and a focus on exceeding customer expectations helped BASTEEL expand into the fencing industry more than 30 years ago. For decades, our fencing products have earned a strong reputation for superior durability, performance and aesthetics. Today, a wide variety of BASTEEL fencing and gate systems lead the way in serving the needs of both Architectural and Security industries, relying on BASTEEL's 100% KYNAR[™] proprietary infill panels to deliver true value to our customers:

Architectural - aesthetic fence screening for roof top equipment, mechanical/utility yards, HVAC, dumpster/recycling areas.

Security - fence and gate systems that provide varying levels of perimeter security to meet site needs. Infinity Gates - robust swing-gate and cantilever gate systems that provide site access, ease of use and longevity.

BASTEEL Perimeter Systems has the products you need, and we constantly strive to exceed your expectations. We would invite you join our growing list of long-time repeat customers within the military, commercial, industrial and energy market segments.

PART 1 GENERAL

1.1 SECTION INCLUDES

** NOTE TO SPECIFIER ** Delete items below not required for project.

- A. Aluminum louver fence systems.
- B. Architectural fence systems.
- C. Cantilever gate systems.
- D. Single swing gate systems.
- E. Double swing gate systems.

1.2 RELATED SECTIONS

** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.

- A. Section 03300 Cast-In-Place Concrete.
- B. Section 02200 Earthwork.

1.3 REFERENCES

1

** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.

- A. American Architectural Manufactures Association (AAMA):
 - AAMA 621 Voluntary Specifications for High Performance Organic Coatings on Coil Coated Architectural Hot Dipped Galvanized (HDG) and Zinc-Aluminum Coated Steel Substrates.
- B. ASTM International (ASTM):
 - 1. ASTM A500/A500M-13 Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.
 - 2. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated by the Hot-Dip Process.
 - 3. ASTM D2244 Test Method for Calculation of Color Differences from Instrumentally Measured Color Coordinates.
 - 4. ASTM D4214 Test Methods for Evaluating the Degree of Chalking of Exterior Paint Films.
 - 5. ASTM F1043 Specification for Strength and Protective Coatings for Metal Industrial Fence Framework.
- C. American National Standards Institute (ANSI):
 - 1. ANSI B1.13M Metric Screw Threads: M Profile.
- 1.4 SUBMITTALS
 - A. Submit under provisions of Section 01300.
 - B. Product Data:
 - 1. Manufacturer's data sheets on each product to be used.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Typical installation methods.

** NOTE TO SPECIFIER ** Delete if not applicable to product type.

- C. Shop Drawings: Include details of materials, construction and finish.
- 1.5 QUALITY ASSURANCE
 - A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
 - B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
 - C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

** NOTE TO SPECIFIER ** Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

- D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
 - 1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
 - 2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
 - 3. Retain mock-up during construction as a standard for comparison with completed work.
 - 4. Do not alter or remove mock-up until work is completed or removal is authorized.

1.6 PRE-INSTALLATION CONFERENCE

A. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
- B. Protect from damage due to weather, excessive temperature, and construction operations.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.9 WARRANTY

A. Manufacturer's standard limited warranty unless indicated otherwise.

PART 2 PRODUCTS

2.1 MANUFACTURERS

 A. Acceptable Manufacturer: BASTEEL Perimeter Systems, which is located at: 1400 Magnolia Ave., Frankfort, IN 46041; ASD Toll Free: 888-365-6645; Fax: 765-654-8755; Email: info@basteel.com; Web: www.basteel.com.

** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

** NOTE TO SPECIFIER ** Delete article if not required.

2.2 ALUMINUM LOUVER FENCE SYSTEM

- A. Basis of Design: Aluminum Louver Fence System manufactured by BASTEEL Perimeter Systems.
 - 1. Fence Panels:
 - a. Fixed Louver Blades: Extruded tubular aluminum louver blades, inclined at 45 degrees, and spaced to provide 100 percent direct visual screening.
 1) Material Thickness: 0.125 inch (3 mm).
 - b. Framing Bars: Extruded aluminum flat bars welded to ends of louvers.

- c. Panel Height: As indicated on Drawings.
- d. Fabrication: Assemble fences into sections by welding pickets to end channels.
 1) Fabricate sections with clips for fastening to posts in field.
- 2. Square Line Posts: 4 by 4 inches (102 x 102 mm) extruded tubular aluminum sections with cast aluminum caps.
- 3. Square End and Corner Posts: 4 by 4 inches (102 x 102 mm) extruded tubular aluminum sections with cast aluminum caps.
- 4. Swing Gate Posts: 4 by 4 inches (102 x 102 mm) extruded tubular aluminum sections with cast aluminum caps.
- Top Coat Color: As determined by the Architect from Manufacturer's list.
 a. Stardust Silver.
 - 1) Super-Durable Polyester Coating.

** NOTE TO SPECIFIER ** Delete article if not required.

2.3 ARCHITECTURAL FENCE SYSTEM

** NOTE TO SPECIFIER ** Delete basis of design options not required.

- A. Basis of Design: Bennington Architectural Fence System manufactured by BASTEEL Perimeter Systems.
 - 1. Infill Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A653:
 - a. Protective Coatings:
 - 1) Under Coat: Hot dip galvanized zinc G-90 minimum.
 - 2) Top Coat: 2-coat, thermo-cured paint system.
 - a) First Coat: Primer.
 - b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621.
 - 1) Kynar 500 PVDF resin-based coating or equivalent.
 - b. Top Coat Protection: Meet performance requirements of South Florida outdoor exposure of 45 degrees.
 - 1) Color Retention per ASTM D2233: Less than five units.
 - 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
 - 2. U-Channel Rails: Formed 14 gage steel per ASTM A653. Yield Strength: 50,000 psi (344738 kPa).
 - a. Under Coat: Protective galvanized G-90 minimum.

** NOTE TO SPECIFIER ** Delete top coat option not required.

b.

Top Coat: 3-mil protective finish. Super-durable polyester powder coat.

c. Top Coat: 3-mil protective finish. Thermo-cured fluoropolymer powder coat.

- 3. Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 4. Square posts per ASTM A500: 6 x 6 inch (152 mm) steel. Hot dipped galvanized to minimum thickness of 1.8 oz. per sq ft (549 grams pe sq m), per side.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 5. Infill Fasteners per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - a. Pull Out Tensile Strength: 1236 lbs (5,500 N).

- b. Carriage Bolts and Nuts for Rails and Framing: Stainless steel.
- c. Other Fasteners: Corrosion resistant.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

- 6. Color Selection: As determined by the Architect from Manufacturer's list.
 - 7. Color Selection: Bronze.
 - 8. Color Selection: Patrician Bronze.
 - 9. Color Selection: Desert Sand.
 - 10. Color Selection: Canyon Brown.
 - 11. Color Selection: Cinder Black.
 - 12. Color Selection: Polar White.
 - 13. Color Selection: _
 - 14. Fabrication: Provide the integral components; pickets, rails, framing, posts and accessories, of an engineered fence system as detailed in Manufacturer's shop drawings or as otherwise defined by Manufacturer.
- B. Basis of Design: Cambridge Architectural Fence System manufactured by BASTEEL Perimeter Systems.
 - 1. Infill Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A653:
 - a. Protective Coatings:
 - 1) Under Coat: Hot dip galvanized zinc G-90 minimum.
 - 2) Top Coat: 2-coat, thermo-cured paint system.
 - a) First Coat: Primer.
 - b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621.
 - 1) Kynar 500 PVDF resin-based coating or equivalent.
 - b. Top Coat Protection: Meet performance requirements of South Florida outdoor exposure of 45 degrees.
 - 1) Color Retention per ASTM D2233: Less than five units.
 - 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
 - 2. C-Channel Rails and Brackets: Roll formed 14 gage steel per ASTM A653. Yield Strength: 50,000 psi (344738 kPa).
 - a. Under Coat: Protective galvanized G-90 minimum.

** NOTE TO SPECIFIER ** Delete top coat option not required.

- b. Top Coat: 3-mil protective finish. Super-durable polyester powder coat.
- c. Top Coat: 3-mil protective finish. Thermo-cured fluoropolymer powder coat.

- 3. Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 4. Square posts per ASTM A500: 6 inch (152 mm) steel. Hot dipped galvanized to minimum thickness of 1.8 oz. per sq ft (549 grams pe sq m), per side.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 5. Infill Fasteners per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - a. Pull Out Tensile Strength: 1236 lbs (5,500 N).
 - b. Carriage Bolts and Nuts for Rails and Framing: Stainless steel.
 - c. Other Fasteners: Corrosion resistant.

** NOTE TO SPECIFIER ** Top caps are optional Delete if not required.

 Top Cap: Manufactured to match infill panels using liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A65.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

- 7. Color Selection: As determined by the Architect from Manufacturer's list.
 - 8. Color Selection: Bronze.
 - 9. Color Selection: Patrician Bronze.
 - 10. Color Selection: Desert Sand.
 - 11. Color Selection: Canyon Brown.
 - 12. Color Selection: Cinder Black.
 - 13. Color Selection: Polar White.
 - 14. Color Selection:
 - 15. Fabrication: Provide the integral components; pickets, rails, framing, posts and accessories, of an engineered fence system as detailed in Manufacturer's shop drawings or as otherwise defined by Manufacturer.
- C. Basis of Design: Chesapeake Architectural Fence System manufactured by BASTEEL Perimeter Systems.
 - 1. Infill Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A65.
 - a. Protective Coatings:
 - 1) Under Coat: Hot dip galvanized zinc G-90 minimum.
 - 2) Top Coat: 2-coat, thermo-cured paint system.
 - a) First Coat: Primer.
 - b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621.
 - 1) Kynar 500 PVDF resin-based coating or equivalent.
 - b. Top Coat Protection: Meet performance requirements of South Florida outdoor exposure of 45 degrees.
 - 1) Color Retention per ASTM D2233: Less than five units.
 - 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
 - 2. C-Channel Rails and Brackets: Roll formed 14 gage steel per ASTM Ă653. Yield Strength: 50,000 psi (344738 kPa).
 - a. Under Coat: Protective galvanized G-90 minimum.

** NOTE TO SPECIFIER ** Delete top coat option not required.

b.

c.

- Top Coat: 3-mil protective finish. Super-durable polyester powder coat.
- Top Coat: 3-mil protective finish. Thermo-cured fluoropolymer powder coat.

- Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 4. Square posts per ASTM A500: 6 x 6 inch (152 mm) steel. Hot dipped galvanized to minimum thickness of 1.8 oz. per sq ft (549 grams pe sq m), per side.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 5. Infill Fasteners per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - a. Pull Out Tensile Strength: 1236 lbs (5,500 N).

- b. Carriage Bolts and Nuts for Rails and Framing: Stainless steel.
- c. Other Fasteners: Corrosion resistant.

** NOTE TO SPECIFIER ** Top caps are optional Delete if not required.

6. Top Cap: Manufactured to match infill panels using liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A65.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

- 7. Color Selection: As determined by the Architect from Manufacturer's list.
- 8. Color Selection: Bronze.
- 9. Color Selection: Patrician Bronze.
- 10. Color Selection: Desert Sand.
- 11. Color Selection: Canyon Brown.
- 12. Color Selection: Cinder Black.
- 13. Color Selection: Polar White.
- 14. Color Selection:
- 15. Fabrication: Provide the integral components; pickets, rails, framing, posts and accessories, of an engineered fence system as detailed in Manufacturer's shop drawings or as otherwise defined by Manufacturer.
- D. Basis of Design: Essex Architectural Fence System manufactured by BASTEEL Perimeter Systems.
 - 1. Infill Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A653:
 - a. Protective Coatings:

2)

- 1) Under Coat: Hot dip galvanized zinc G-90 minimum.
 - Top Coat: 2-coat, thermo-cured paint system.
 - a) First Coat: Primer.
 - b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621.
 - 1) Kynar 500 PVDF resin-based coating or equivalent.
- b. Top Coat Protection: Meet performance requirements of South Florida outdoor exposure of 45 degrees.
 - 1) Color Retention per ASTM D2233: Less than five units.
 - 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
- 2. C-Channel Rails and Brackets: Roll formed 14 gage steel per ASTM A653. Yield Strength: 50,000 psi (344738 kPa).
 - a. Under Coat: Protective galvanized G-90 minimum.

** NOTE TO SPECIFIER ** Delete top coat option not required.

b.

C.

- Top Coat: 3-mil protective finish. Super-durable polyester powder coat.
- Top Coat: 3-mil protective finish. Thermo-cured fluoropolymer powder coat.

- Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 4. Square posts per ASTM A500: 6 inch (152 mm) steel. Hot dipped galvanized to minimum thickness of 1.8 oz. per sq ft (549 grams pe sq m), per side.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.

- 5. Infill Fasteners per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - a. Pull Out Tensile Strength: 1236 lbs (5,500 N).
 - b. Carriage Bolts and Nuts for Rails and Framing: Stainless steel.
 - c. Other Fasteners: Corrosion resistant.

** NOTE TO SPECIFIER ** Top caps are optional Delete if not required.

6. Top Cap: Manufactured to match infill panels using liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A65.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

- 7. Color Selection: As determined by the Architect from Manufacturer's list.
- 8. Color Selection: Bronze.
- 9. Color Selection: Patrician Bronze.
- 10. Color Selection: Desert Sand.
- 11. Color Selection: Canyon Brown.
- 12. Color Selection: Cinder Black.
- 13. Color Selection: Polar White.
- 14. Color Selection:
- 15. Fabrication: Provide the integral components; pickets, rails, framing, posts and accessories, of an engineered fence system as detailed in Manufacturer's shop drawings or as otherwise defined by Manufacturer.
- E. Basis of Design: Windsor Architectural Fence System manufactured by BASTEEL Perimeter Systems.
 - 1. Infill Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A653:
 - a. Protective Coatings:
 - 1) Under Coat: Hot dip galvanized zinc G-90 minimum.
 - 2) Top Coat: 2-coat, thermo-cured paint system.
 - a) First Coat: Primer.
 - b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621.
 - 1) Kynar 500 PVDF resin-based coating or equivalent.
 - b. Top Coat Protection: Meet performance requirements of South Florida outdoor exposure of 45 degrees.
 - 1) Color Retention per ASTM D2233: Less than five units.
 - 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
 - 2. U-Channel Rails: Formed 14 gage steel per ASTM A653. Yield Strength: 50,000 psi (344738 kPa).
 - a. Under Coat: Protective galvanized G-90 minimum.

** NOTE TO SPECIFIER ** Delete top coat option not required.

- b. Top Coat: 3-mil protective finish. Super-durable polyester powder coat.
- c. Top Coat: 3-mil protective finish. Thermo-cured fluoropolymer powder coat.
- 3. Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.

** NOTE TO SPECIFIER ** Delete top coat options not required.

- a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
- b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 4. Infill Fasteners per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - a. Pull Out Tensile Strength: 1236 lbs (5,500 N).
 - b. Carriage Bolts and Nuts for Rails and Framing: Stainless steel.

Other Fasteners: Corrosion resistant. C.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

- 5. Color Selection: As determined by the Architect from Manufacturer's list.
- Color Selection: Bronze. 6.
- 7. Color Selection: Patrician Bronze.
- 8. Color Selection: Desert Sand.
- 9. Color Selection: Canyon Brown.
- 10. Color Selection: Cinder Black.
- 11. Color Selection: Polar White.
- 12. Color Selection:
- Fabrication: Provide the integral components; pickets, rails, framing, posts and 13. accessories, of an engineered fence system as detailed in Manufacturer's shop drawings or as otherwise defined by Manufacturer.
- F. Basis of Design: Yorktown Architectural Fence System manufactured by BASTEEL Perimeter Systems.
 - Infill Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 1. inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A653:
 - **Protective Coatings:** a.
 - Under Coat: Hot dip galvanized zinc G-90 minimum. 1)
 - 2) Top Coat: 2-coat, thermo-cured paint system.
 - First Coat: Primer. a)
 - Second Coat: Fluoropolymer containing 70 percent polyvinylidene b) difluoride by weight complying with physical properties and coating performance requirements of AAMA 621. 1)
 - Kynar 500 PVDF resin-based coating or equivalent.
 - b. Top Coat Protection: Meet performance requirements of South Florida outdoor exposure of 45 degrees.
 - Color Retention per ASTM D2233: Less than five units. 1)
 - Chalk Resistance Rating per ASTM D4214: Less than eight. 2)
 - 2. C-Channel Rails and Brackets: Roll formed 14 gage steel per ASTM A653. Yield Strength: 50,000 psi (344738 kPa).

Under Coat: Protective galvanized G-90 minimum. a.

** NOTE TO SPECIFIER ** Delete top coat option not required.

b.

Top Coat: 3-mil protective finish. Super-durable polyester powder coat.

Top Coat: 3-mil protective finish. Thermo-cured fluoropolymer powder coat. C. ** NOTE TO SPECIFIER ** Optional round posts may also be available to match existing fences. Contact the manufacturer for more information. Delete square post and top coat options not required.

- Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 3. 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.
 - Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat. a.
 - Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder b. coat.
- Square posts per ASTM A500: 6 inch (152 mm) steel. Hot dipped galvanized to 4. minimum thickness of 1.8 oz. per sq ft (549 grams pe sq m), per side.
 - Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat. a.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 5. Infill Fasteners per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - Pull Out Tensile Strength: 1236 lbs (5,500 N). a.
 - Carriage Bolts and Nuts for Rails and Framing: Stainless steel. b.
 - Other Fasteners: Corrosion resistant. C.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

- 6. Color Selection: As determined by the Architect from Manufacturer's list.
- 7. Color Selection: Bronze.
- 8. Color Selection: Patrician Bronze.
- 9. Color Selection: Desert Sand.
- 10. Color Selection: Canvon Brown.
- Color Selection: Cinder Black. 11.
- Color Selection: Polar White. 12.
- 13. Color Selection:
- 14. Fabrication: Provide the integral components; pickets, rails, framing, posts and accessories, of an engineered fence system as detailed in Manufacturer's shop drawings or as otherwise defined by Manufacturer.

** NOTE TO SPECIFIER ** Delete article if not required.

2.4 CANTILEVER GATE SYSTEM

- Α. Basis of Design: Series 4000 Cantilever Gate System manufactured by BASTEEL Perimeter Systems.
 - 1. Carriage Assemblies: Heavy-duty mono-block designed for continuous duty.
 - Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. а
 - Shield: Protects against normal ambient environmental conditions such 1) as wind, dust, dirt, damp, rain, snow and ice.
 - Bottom Track: Heavy-duty formed steel. 2.
 - Cross Section Dimensions (HxW): 3-1/2 x 4 inch (89 x 102 mm). a.
 - Weight: 7.8 lbs per linear ft. (11.61 kg per linear m). b.
 - Wall Thickness: 0.187 inch (4.75 mm). C.
 - Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sg ft (549 d. grams pe sq m), per side.
 - /performance requirements of AAMA 621. a)
 - Kynar 500 PVDF resin-based coating or equivalent. 1)
 - Top Coat Protection: Meet performance requirements of South Florida outdoor e. exposure of 45 degrees.
 - Color Retention per ASTM D2244: Less than five units. 1)
 - 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
 - f. Fasteners for Infill Pickets per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - Pull Out Tensile Strength: 1236 lbs (5,500 N). 1)

** NOTE TO SPECIFIER ** Select infill panel design from manufacturer stock options. Contact manufacturer if other infill is required.

- 3. Infill Panel Design:
- 4. Gate Frame Steel Tubing: 2 x 4 inch (51 x 102 mm), 14 gage, 0.073 inch (1.85 mm) wall.
 - Reinforcement Steel Tubing per ASTM A500: 1 x 2 inch (25 x 51 mm) 16 gage a. x 0.060 inch (1.52 mm) wall. Yield Strength: 50,000 psi (344738 kPa). b.
 - Primer: Zinc coated in accordance with ASTM F1043 type B.

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** NOTE TO SPECIFIER ** Delete topcoat option not required.
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- Top Coat: Thermo-cured finish of super-durable polyester powder coat. C.
- Top Coat: Thermo-cured finish of thermo-cured fluoropolymer powder coat. d.
- Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 5. 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.

** NOTE TO SPECIFIER ** Delete topcoat option not required.

- Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat. a.
- Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder b. coat.
- Square posts per ASTM A500: 6 inch (152 mm) steel. Hot dipped galvanized to 6. minimum thickness of 1.8 oz. per sq ft, per side (549 grams pe sq m).

			** Delete topcoat option not required.
	JUSPEL		Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
		b.	Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
** NOTE TO contact Mai			** A variety of integrated gate latching and locking mechanisms are available, assistance.
1	7.	Gate	Latch and Locking Mechanism:
	8.	Faste	ners: Corrosion resistant.
** NOTE TO	O SPEC		** Custom colors are available. Delete color options not required.
	9.		Selection: As determined by the Architect from Manufacturer's list.
	10.		Selection: Bronze.
	11. 12.		Selection: Patrician Bronze.
	12. 13.		Selection: Desert Sand. Selection: Canyon Brown.
	13. 14.		Selection: Cinder Black.
	15.		Selection: Polar White.
	16.		Selection:
	17.		cation of Gate Frame: Provide heavy-duty bottom track and mono-block carriage
			nblies, posts and accessories as integral components of an engineered gate
			m as detailed in Manufacturer shop drawings and as otherwise defined by
			facturer. Design ad each constructed to be gived and solf commenting over life of graduat
		a.	Designed and constructed to be rigid and self-supporting over life of product without need for tension cables or turnbuckles to maintain overall squareness.
		b.	Perimeter: Utilize miter cut corners and be free of sharp edges, cuts, bends
		Б.	and weld splatter prior to factory finish being applied.
		c.	Welds: Utilize silicon bronze welding wire conforming to AWS A5.7 / ER CUSI-
			A so as to inhibit corrosion.
		d.	Infill Materials: Encased on four sides by gate frame perimeter.
В.	Basis	of Des	sign: Series 6000 Cantilever Gate System manufactured by BASTEEL
В.			sign: Series 6000 Cantilever Gate System manufactured by BASTEEL ystems.
В.		neter S	ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty.
В.	Perim	neter S	ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed.
B.	Perim	neter S Carria	ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such
В.	Perim 1.	neter S Carria a.	ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice.
B.	Perim	neter S Carria a. Bottoi	ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel.
B.	Perim 1.	neter S Carria a. Bottor a.	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm).
В.	Perim 1.	neter S Carria a. Bottor a. b.	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m).
В.	Perim 1.	neter S Carria a. Bottor a.	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm).
В.	Perim 1.	Botton a. Botton a. b. c.	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m).
	Perim 1. 2.	neter S Carria a. Botton a. b. c. d.	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549
	Perim 1. 2.	Botton a. b. c. d. CIFIER Infill F	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653.
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings:
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: 1) Under Coat: Hot dip galvanized zinc G-90.
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: 1) Under Coat: Hot dip galvanized zinc G-90. 2) Top Coat: 2-coat, thermo-cured paint system.
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: 1) Under Coat: Hot dip galvanized zinc G-90. 2) Top Coat: 2-coat, thermo-cured paint system. a) First Coat: Primer.
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: 1) Under Coat: Hot dip galvanized zinc G-90. 2) Top Coat: 2-coat, thermo-cured paint system. a) First Coat: Primer. b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: Under Coat: Hot dip galvanized zinc G-90. Top Coat: 2-coat, thermo-cured paint system. First Coat: Primer. Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: 1) Under Coat: Hot dip galvanized zinc G-90. 2) Top Coat: 2-coat, thermo-cured paint system. a) First Coat: Primer. b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: Under Coat: Hot dip galvanized zinc G-90. Top Coat: 2-coat, thermo-cured paint system. First Coat: Primer. Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621.
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor a.	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. ** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: Under Coat: Hot dip galvanized zinc G-90. Top Coat: 2-coat, thermo-cured paint system. First Coat: Primer. Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621. Kynar 500 PVDF resin-based coating or equivalent.
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor a.	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. *** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: 1) Under Coat: Hot dip galvanized zinc G-90. 2) Top Coat: 2-coat, thermo-cured paint system. a) First Coat: Primer. b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621. 1) Kynar 500 PVDF resin-based coating or equivalent.
	Perim 1. 2. 0 SPE(Botton a. b. c. d. CIFIER Infill F inch (accor a.	 ystems. age Assemblies: Heavy-duty mono-block designed for continuous duty. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed. 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice. m Track: Heavy-duty formed steel. Cross Section Dimensions (HxW): 5-1/2 x 5-1/2 inch (140 x 140 mm). Weight: 14.8 lbs per linear ft. (22 kg per m). Wall Thickness: 0.236 inch (6 mm). Finish: Hot dipped galvanized; zinc coating weight of 1.8 oz per sq ft (549 grams per sq m), per side. *** Delete infill pickets if not required. Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in dance with ASTM A653. Protective Coatings: 1) Under Coat: Hot dip galvanized zinc G-90. 2) Top Coat: 2-coat, thermo-cured paint system. a) First Coat: Primer. b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621. 1) Kynar 500 PVDF resin-based coating or equivalent.

- 1) Color Retention per ASTM D2244: Less than five units.
- 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
- c. Fasteners for Infill Pickets per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - 1) Pull Out Tensile Strength: 1236 lbs (5,500 N).

** NOTE TO SPECIFIER ** Select infill panel design from manufacturer stock options. Contact manufacturer if other infill is required.

- 4. Infill Panel Design:
- 5. Gate Frame Steel Tubing: 2 x 4 inch (51 x 102 mm), 14 gage, 0.073 inch (1.85 mm) wall.
 - a. Reinforcement Steel Tubing per ASTM A500: 1 x 2 inch (25 x 51 mm) 16 gage x 0.060 inch (1.52 mm) wall. Yield Strength: 50,000 psi (344738 kPa).
 - b. Primer: Zinc coated in accordance with ASTM F1043 type B.
 - c. Top Coat: Thermo-cured finish of super-durable polyester powder coat.
 - d. Top Coat: Thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 6. Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 7. Square posts per ASTM A500: 6 inch (152 mm) steel. Hot dipped galvanized to minimum thickness of 1.8 oz. per sq ft, per side (549 grams pe sq m).
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.

** NOTE TO SPECIFIER ** A variety of integrated gate latching and locking mechanisms are available, contact Manufacturer for assistance.

- 8. Gate Latch and Locking Mechanism:
- 9. Fasteners: Corrosion resistant.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

- 10. Color Selection: As determined by the Architect from Manufacturer's list.
- 11. Color Selection: Bronze.
- 12. Color Selection: Patrician Bronze.
- 13. Color Selection: Desert Sand.
- 14. Color Selection: Canyon Brown.
- 15. Color Selection: Cinder Black.
- 16. Color Selection: Polar White.
- 17. Color Selection:
- 18. Fabrication of Gate Frame: Provide heavy-duty bottom track and mono-block carriage assemblies, posts and accessories as integral components of an engineered gate system as detailed in Manufacturer shop drawings and as otherwise defined by Manufacturer.
 - a. Designed and constructed to be rigid and self-supporting over life of product without need for tension cables or turnbuckles to maintain overall squareness.
 - b. Perimeter: Utilize miter cut corners and be free of sharp edges, cuts, bends and weld splatter prior to factory finish being applied.
 - c. Welds: Utilize silicon bronze welding wire conforming to AWS A5.7 / ER CUSI-A so as to inhibit corrosion.
 - d. Infill Materials: Encased on four sides by gate frame perimeter.

** NOTE TO SPECIFIER ** Delete article if not required.

- 2.5 SINGLE SWING GATE SYSTEM
 - A. Basis of Design: Infinity Single Swing Gate System manufactured by BASTEEL Perimeter Systems.

- 1. Heavy Duty Gate Hinge Assemblies: Designed for continuous duty.
 - a. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed.
 - 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice.
 - b. Weight Capacity: 2800 lbs. (1270 kg) per pair
- 2. Infill Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A653.
 - a. Protective Coatings:
 - 1) Under Coat: Hot dip galvanized zinc G-90 minimum.
 - 2) Top Coat: 2-coat, thermo-cured paint system.
 - a) First Coat: Primer.
 - b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621.
 - 1) Kynar 500 PVDF resin-based coating or equivalent.
 - b. Top Coat Protection: Meet performance requirements of South Florida outdoor exposure of 45 degrees.
 - 1) Color Retention per ASTM D2244: Less than five units.
 - 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
 - c. Fasteners for Infill Pickets per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - 1) Pull Out Tensile Strength: 1236 lbs (5,500 N).

** NOTE TO SPECIFIER ** Select infill panel design from manufacturer stock options. Contact manufacturer if other infill is required.

- 3. Infill Panel Design:
- 4. Gate Frame Steel Tubing: 2 x 4 inch (51 x 102 mm), 14 gage, 0.073 inch (1.85 mm) wall.
 - a. Reinforcement Steel Tubing per ASTM A500: 1 x 2 inch (25 x 51 mm) 16 gage x 0.060 inch (1.52 mm) wall. Yield Strength: 50,000 psi (344738 kPa).
 - b. Primer: Zinc coated in accordance with ASTM F1043 type B.
 - c. Top Coat: Thermo-cured finish of super-durable polyester powder coat.
 - d. Top Coat: Thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 5. Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.

6. Square posts per ASTM A500: 6 inch (152 mm) steel. Hot dipped galvanized to minimum thickness of 1.8 oz. per sq ft, per side (549 grams pe sq m).

- a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
- b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- Cane Rod Assembly: Heavy-duty 1 inch diameter (25 mm) stainless steel.
 a. Heavy duty nylon guides.
- 8. Gate Latch Assembly: Heavy-duty corrosion-resistant with provision for heavy-duty pad lock securing gate in closed position.
- 9. Fasteners: Corrosion resistant.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

- 10. Color Selection: As determined by the Architect from Manufacturer's list.
 - 11. Color Selection: Bronze.
 - 12. Color Selection: Patrician Bronze.
 - 13. Color Selection: Desert Sand.
 - 14. Color Selection: Canyon Brown.
 - 15. Color Selection: Cinder Black.

- 16. Color Selection: Polar White.
- 17. Color Selection:
- 18. Fabrication of Gate Frame: Provide heavy-duty bottom track and mono-block carriage assemblies, posts and accessories as integral components of an engineered gate system as detailed in Manufacturer shop drawings and as otherwise defined by Manufacturer.
 - a. Designed and constructed to be rigid and self-supporting over life of product without need for tension cables or turnbuckles to maintain overall squareness.
 - b. Perimeter: Utilize miter cut corners and be free of sharp edges, cuts, bends and weld splatter prior to factory finish being applied.
 - c. Welds: Utilize silicon bronze welding wire conforming to AWS A5.7 / ER CUSI-A so as to inhibit corrosion.
 - d. Infill Materials: Encased on four sides by gate frame perimeter.

** NOTE TO SPECIFIER ** Delete article if not required.

- 2.6 DOUBLE SWING GATE SYSTEM
 - A. Basis of Design: Infinity Double Swing Gate System manufactured by BASTEEL Perimeter Systems.
 - 1. Heavy Duty Gate Hinge Assemblies: Designed for continuous duty.
 - a. Bearing Assemblies: Shielded, precision-ground pre-lubricated and sealed.
 - 1) Shield: Protects against normal ambient environmental conditions such as wind, dust, dirt, damp, rain, snow and ice.
 - b. Weight Capacity: 2800 lbs. (1270 kg) per pair
 - 2. Infill Pickets: 5 inches (127 mm) wide, liquid color-coated and roll formed from 0.017 inch (4.32 mm) thick full-hard 80,000 psi (551,580 kPa) yield strength steel in accordance with ASTM A653.
 - a. Protective Coatings:
 - 1) Under Coat: Hot dip galvanized zinc G-90 minimum.
 - 2) Top Coat: 2-coat, thermo-cured paint system.
 - a) First Coat: Primer.
 - b) Second Coat: Fluoropolymer containing 70 percent polyvinylidene difluoride by weight complying with physical properties and coating performance requirements of AAMA 621.
 - 1) Kynar 500 PVDF resin-based coating or equivalent.
 - b. Top Coat Protection: Meet performance requirements of South Florida outdoor exposure of 45 degrees.
 - 1) Color Retention per ASTM D2244: Less than five units.
 - 2) Chalk Resistance Rating per ASTM D4214: Less than eight.
 - c. Fasteners for Infill Pickets per ANSI B1.13M: Series 302 stainless steel 6-Lobe pin-in security truss head, and full body shouldered.
 - 1) Pull Out Tensile Strength: 1236 lbs (5,500 N).

** NOTE TO SPECIFIER ** Select infill panel design from manufacturer stock options. Contact manufacturer if other infill is required.

3. Infill Panel Design:

- 4. Gate Frame Steel Tubing: 2 x 4 inch (51 x 102 mm), 14 gage, 0.073 inch (1.85 mm) wall.
 - a. Reinforcement Steel Tubing per ASTM A500: 1 x 2 inch (25 x 51 mm) 16 gage x 0.060 inch (1.52 mm) wall. Yield Strength: 50,000 psi (344738 kPa).
 - b. Primer: Zinc coated in accordance with ASTM F1043 type B.
 - c. Top Coat: Thermo-cured finish of super-durable polyester powder coat.
 - d. Top Coat: Thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 5. Square posts per ASTM A500: 4 inch (102 mm) high strength steel. Yield Strength: 50,000 psi (344738 kPa). Zinc coated per ASTM F1043 type B.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.

- b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 6. Square posts per ASTM A500: 6 inch (152 mm) steel. Hot dipped galvanized to minimum thickness of 1.8 oz. per sq ft (549 grams pe sq m), per side.
 - a. Top Coat: 3-mil thermo-cured finish of super-durable polyester powder coat.
 - b. Top Coat: 3-mil thermo-cured finish of thermo-cured fluoropolymer powder coat.
- 7. Cane Rod Assembly: Heavy-duty 1 inch (25 mm) diameter stainless steel.
 - a. Heavy duty nylon guides.
 - b. Quantity: One per gate.
- Slide Bolt Assembly: Heavy-duty stainless steel. 1 inch (25 mm) diameter stainless steel with provision for a heavy-duty pad lock securing gate in closed position.
 Fasteners: Corrosion resistant.

** NOTE TO SPECIFIER ** Custom colors are available. Delete color options not required.

10. Color Selection: As determined by the Architect from Manufacturer's list.

- 11. Color Selection: Bronze.
- 12. Color Selection: Patrician Bronze.
- 13. Color Selection: Desert Sand.
- 14. Color Selection: Canvon Brown.
- 15. Color Selection: Cinder Black.
- 16. Color Selection: Polar White.
- 17. Color Selection:
- 18. Fabrication of Gate Frame: Provide gate hinge assemblies, stainless steel cane rod, gate latch, posts, gate infill material and accessories as integral components of an engineered gate system as detailed in Manufacturer shop drawings and as otherwise defined by Manufacturer.
 - a. Designed and constructed to be rigid and self-supporting over life of product without need for tension cables or turnbuckles to maintain overall squareness.
 - b. Perimeter: Utilize miter cut corners and be free of sharp edges, cuts, bends and weld splatter prior to factory finish being applied.
 - c. Welds: Utilize silicon bronze welding wire conforming to AWS A5.7 / ER CUSI-A so as to inhibit corrosion.
 - d. Infill Materials: Encased on four sides by gate frame perimeter.

PART 3 EXECUTION

3.1 EXAMINATION

- A. New installations shall be laid out by contractor in accordance with information provided by Architect. Verify field measurements, surfaces, substrates, and conditions are as required
- B. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Consult with local jurisdictional authorities regarding specific utility locations. Arrange for a local underground utility locating service to identify and locate potential below-grade utility hazards such as electric, gas, water, sewer, telecommunications and similar infrastructure prior to commencing clearing, digging, excavating or fence installation.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.

- B. Posts: Locate and space according to Manufacturer drawings. Set posts in suitable concrete footers designed and constructed for structural integrity in specific application.
 - 1. Setting of posts by other methods is permissible only as determined by Architect.
 - 2. Should contractor elect to substitute foundation design, contractor shall make sure design and construction of alternate foundation design will be sufficient for intended application.
- C. Fence installation may require limited cutting or drilling to accommodate slight variations in field measurements and normal construction tolerances. Contractor shall take reasonable precautions to make sure exposed metal surfaces are properly sealed from environment, as described below:
 - 1. Failure to properly clean, prime and finish paint exposed surfaces as described in the following steps will void the Manufacturer's Warranty
 - a. Carefully inspect fence and metal components during installation.
 - b. Remove metal shavings from drilling or cutting of posts or metal fence components.
 - c. Where drilling or cutting was deemed necessary, clean metal surfaces and apply two (2) coats of zinc-rich metal primer to thoroughly cover each cut edge or hole drilled during installation processes. Allow each coat to dry thoroughly.
 - d. Apply two (2) thin coats of Manufacturer-supplied custom touch-up paint to such locations. Allow each coat to dry thoroughly.
 - e. Inspect work and verify each drilled or cut metal surface was properly treated, as described above.

3.4 FIELD QUALITY CONTROL

- A. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.
 - 1. Inspect installation, post spacing, location dimensions and finishes.
 - 2. Document preparatory, initial and follow-up inspection in Contractor's Test and Inspection Reports.
 - 3. Contractor Test and Inspection Reports shall be available to Architect and Manufacturer upon request.

** NOTE TO SPECIFIER ** Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

B. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.

3.5 CLEANING AND PROTECTION

- A. Clean products in accordance with the manufacturers recommendations.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION