

FAIRWAY RAILING™

BY  **Envision**
OUTDOOR LIVING PRODUCTS

Section 06 81 00

CP300 COMPOSITE RAILING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Section 06 Fairway Architectural Railing Solutions CP300 Composite Railing.

1.2 RELATED SECTIONS

- A. Section 06-1100 - Wood Framing
- B. Section 06-6300 – Plastic Railing

1.3 REFERENCES

- A. ASTM D 7032-04 Standard Specification for Establishing Performance Ratings Wood-Plastic Composite Deck Boards and Guardrail Systems.
- B. ICC-ES Acceptance Criteria AC-174 Acceptance Criteria for Deck Board Span Rating and Guardrail Systems.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

Material Performance:

- A. ASTM D792 Standard Test Method for Density and Specific Gravity
- B. ASTM D638 Standard Test Method for Tensile Properties of Plastic
- C. ASTM D638 Modulus of Elasticity in Tension
- D. ASTM D790 Standard Test Method for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- E. ASTM D256 Standard Test Method for Determining the Izod Pendulum Impact Resistance of Plastics
- F. ASTM D648 Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position
- G. ASTM D2240 Standard Test Method for Durometer Hardness
- H. ASTM D785 Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulation Materials
- I. ASTM D696 Coefficient of Linear Expansion
- J. ASTM D1525 Standard Test for Vicat Softening Temperature of Plastics

Structural Performance:

- A. CP300 Composite Rail systems performance meets and exceeds design loading specified in Chapter 16 of the IBC, Section R301 of IRC, and UBC Chapter 16 when tested in accordance with ICC-ES AC174.

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B. Structural Performance has been demonstrated for a temperature range from -20 to 125 degrees F.

C. Materials used are deemed equivalent to preservative treated or naturally durable wood for resistance to weathering effects, decay, and attack from termites

D. The wood/plastic/composite material used in the guardrail system has a flame spread index of less than 200 when tested according to ASTM E84

1.5 SUBMITTALS

A. Submit under provisions of Section 01300

B. Product Data: Submit manufacturer's product data for each product required, including installation requirements

C. Shop Drawing: Provide complete details of entire railing system showing layout, components, fasteners, and anchors

D. Verification Samples: For each finished product specified, two samples, minimum size 6" long, representing actual product, color, and patterns

E. Test Reports: Submit manufacture's test reports of railing from independent testing agency to support load test requirements

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section

B. Installer Qualifications: Company specializing in installing products of the type specified in this section

C. Obtain guard rail accessories, fittings, and fasteners from a Fairway Architectural Railing Solutions dealer to ensure consistent quality standards are maintained throughout the project

D. Mock Up: Provide mock-up using acceptable products and manufacturer approved installation methods. Verify owner and architect's acceptance of product and workmanship

1. Install one railing section of each type required

2. Maintenance: Maintain mock-up during construction for workmanship comparison

3. Removal: Remove and legally dispose of mock-up when no longer needed

4. Incorporation: Incorporate mock-up into final construction

E. Pre-Installation Conference: Conduct pre-installation conference

1. Prior to commencing installation, meet at project site to review material

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selections, installation procedures, and coordination with other trades

2. Mock-ups shall be reviewed during the pre-installation conference

3. Pre-installation conference shall include the contractor, installer, Fairway Architectural Railing Solutions representative, Architect and any other relevant parties

1.7 DELIVERY, STORAGE, AND HANDLING

A. Ordering: Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays

B. Delivery: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact

C. Storage and Handling: Store materials in clean, dry, area away from other construction activities. Maintain material in original packaging until installation.

1.8 WARRANTY

A. Project Warranty: Refer to conditions of the Contract for project warranty provisions used with their permission. The manufacturer is responsible for technical accuracy

B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard warranty documents executed by authorized company official. Manufacturer's warranty is in addition to, and not a limited of, other rights Owner may have under Contract Documents

C. Warranty: Limited Warranty against defective workmanship and materials, when subject to normal and proper use, it is further warranted against surface peeling, rot, ground insects, splitting, corrosion, flaking, rusting and blistering, abnormal weathering and discoloration under conditions of normal use and service

D. Warranty: Metal and Glass Balusters – Limited Warranty for a period of 10 years beginning from date of purchase under normal conditions of use and exposure

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Contract Documents are based on products by: Fairway Architectural Railing Solutions

53 Eby Chiques Road, Mount Joy, PA 17552.

1914 South Grant Ave., York, NE 68467

B. Substitutions: Not permitted under Division 01.

2.2 MATERIALS

A. CP300 Guardrail Systems: Wood/plastic/composite material with a PVC capstock. Engineered with patented crosspolymer material for superior core properties. Excellent wear resistance – holds up under tough weather conditions. Retains its stability and rigidity in all climates. Provides the look and feel of real wood without the maintenance.

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CP300 Rail System (36" or 42" Heights) Level and Stair

1. 3 3/8" X 2 1/2" Top Cap Rail – 6', 8', 10' Lengths (White and Black)
2. Infill:
 - A. 3/4" Round Aluminum Balusters (36" and 42" Rail Heights)
 - B. 4" Tempered Glass Balusters (36" and 42" Rail Heights)
 - C. 1/8" Horizontal 316 Stainless Steel Cable Infill
3. 1 7/8" x 1 3/4" "h" Sub Rail – 6', 8', 10' Lengths (White and Black)
4. 2 1/4" X 2 1/8" Bottom Rail – 6', 8', 10' Lengths (White and Black)
5. 1 1/4" Foot Blocks with connector – (White and Black)
6. Mounting Hardware: Internal concealed powder coated stainless steel "H" Sub Rail and Bottom rail fasteners
7. Baluster Connectors:
 - A. Aluminum Baluster Connector for 3/4" Round Aluminum Baluster
 - B. Glass Baluster Shoe for 4" Tempered Glass Baluster
 - C. 316 Stainless tensioning/non-tensioning fittings for cable infill

2.3 ACCESSORIES

- A. 4" and 5-1/4" Composite Post Sleeves 39", 48" and 108"
- B. 4" and 5-1/4" Classic Post Base Trim
- C. 4" and 5-1/4" Caps
- D. Adjustable Degree Level Railing Bracket- Stainless Steel- Color Matched
- E. Adjustable Pitch Stair Railing Bracket- Stainless Steel- Color Matched
- F. Structural Post Mounts – Standard and Heavy Duty
- G. Cable Rail Structural Post Mounts – Pass Through and Termination
- H. 12V LED Lighting
 1. 4" and 5 1/4" 12V LED Post Caps
 2. 12V LED Light Strip
 3. 12V LED In Deck Light
 4. 12V LED Post Sconce
 5. LED Extension Cables
 6. 36 and 120 Watt Transformer

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7. LED Flush Pin Light
- I. 1 ½" ADA Handrail
 - 1.1 ½" X 8' or 8' 8" handrail
 2. 1 ½" End Cap
 3. 1 ½" P-Loop Return
 4. 3" Mounting Bracket
 5. Straight Rail Aluminum Connector
 6. Adjustable Angle Aluminum connector
 7. 5, 32 and 38 degree radius
 8. Quick Return Brackets
 9. Inside/Outside Corner Brackets

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that surfaces are properly prepared to receive installation of guardrails.
- B. Notify architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin until unsatisfactory conditions are corrected.

3.2 INSTALLATION

- A. Install handrail and accessories according to applicable manufacturer's instructions.
- B. Install components plumb and level, accurately fitted, free from distortion or defects.
- C. Install railings using manufacturer's supplied mounts, fasteners, and hardware.
- D. Structural post mounts shall be attached to concrete surfaces or wood structure using hardware recommended by local building codes, engineers, or architects.
- E. Install caps with appropriate PVC adhesive.

3.3 CLEANING

- A. Clean railing promptly after installation in accordance with manufacturer's instructions.
- B. Remove labels and temporary protective coverings.
- C. Do not use harsh cleaning material or methods that could damage finish.
- D. Remove construction debris from project site and legally dispose of debris.

END OF SECTION