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July 2011

## Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition*.

This section must be carefully reviewed and edited by the Architect to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all "Specifier Notes" after editing this section.

Section numbers are from *MasterFormat 2011 Update*.

### SECTION 05 73 13

#### GLAZED DECORATIVE ALUMINUM RAILINGS

Specifier Notes: This section covers Digger Specialties, Inc. "Westbury<sup>®</sup>" model "C70 Veranda" glazed decorative aluminum railings. Consult Digger Specialties, Inc. for assistance in editing this section for the specific application.

#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Glazed decorative aluminum railings.

##### 1.2 REFERENCE STANDARDS

Specifier Notes: List reference standards mentioned in this section, complete with designations and titles. Delete reference standards not included in this edited section. This article does not require compliance with reference standards, but is merely a listing of those used.

- A. AAMA 2604 – Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
- B. AAMA 2605 – Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- C. ANSI Z97.1 – Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings.

### 1.3 SUBMITTALS

Specifier Notes: Edit submittal requirements as required. Delete submittals not required.

- A. Comply with Section 01 33 00 – Submittal Procedures.
- B. Product Data: Submit manufacturer’s product data, including installation instructions.
- C. Shop Drawings: Submit manufacturer’s shop drawings, including plans, elevations, sections, and details, indicating dimensions, tolerances, materials, components, fabrication, fasteners, hardware, mounting, finish, options, and accessories.
- D. Samples: Submit manufacturer’s samples:
  - 1. Aluminum railings.
  - 2. Standard color samples.
  - 3. Each shade of glass panels.
- E. Manufacturer’s Certification:
  - 1. Submit manufacturer’s certification that materials comply with specified requirements and are suitable for intended application.
  - 2. Submit Code Council Research Report (CCRR) No. 0163.
- F. Test Reports:
  - 1. Structural Tests: Submit structural performance test report from manufacturer for glazed decorative aluminum railings.

Specifier Notes: Include AAMA 2604 or AAMA 2605 in the following sentence. Coordinate with Article 2.3 Finishes in this section.

- 2. Coatings: Submit verification that manufacturer has successfully tested their powder coating process and powder coating finish in compliance with [AAMA 2604] [AAMA 2605] specifications.
- 3. Testing: Performed by qualified, independent testing laboratories.
- G. Cleaning Instructions: Submit manufacturer’s cleaning instructions.
- H. Warranty Documentation: Submit manufacturer’s standard warranty.

### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Delivery and Acceptance Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
  - 1. Store and handle materials in accordance with manufacturer's instructions.
  - 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
  - 3. Store materials in clean, dry area.
  - 4. Keep materials dry.
  - 5. Protect materials and finish during storage, handling, and installation to prevent damage.

**1.5 WARRANTY**

- A. Warranty Period: Lifetime.

**PART 2 PRODUCTS**

**2.1 MANUFACTURER**

- A. Digger Specialties, Inc., PO Box 241, Bremen, Indiana 46506. Toll Free (800) 446-7659. Phone (574) 546-5999. Fax (574) 546-5099. Web Site [www.diggerspecialties.com](http://www.diggerspecialties.com). E-mail [info@diggerspecialties.com](mailto:info@diggerspecialties.com).

**2.2 GLAZED DECORATIVE ALUMINUM RAILINGS**

- A. Glazed Decorative Aluminum Railings: "Westbury" aluminum railing.
  - 1. Model: "C70 Veranda".
  - 2. Railings:

Specifier Notes: Specify railing dimensions. Consult Digger Specialties, Inc. for availability of custom heights from 10 to 42 inches and custom lengths from 10 to 72 inches.

- a. Height: [36 inches] [42 inches] [ \_\_\_\_\_ inches].
- b. Length: [3 feet] [4 feet] [5 feet] [6 feet] [ \_\_\_\_\_ inches].

Specifier Notes: Specify stair railing dimensions. All stair railings are custom ordered. Consult Digger Specialties, Inc. for availability of custom heights from 10 to 42 inches and custom lengths from 10 to 48 inches. Stair railing length is measured from the inside of the post to the inside of the post from a horizontal line (not the length of the rail).

- c. Stair Railings:
  - 1) Height: \_\_\_\_\_ inches.
  - 2) Length: \_\_\_\_\_ inches.

Specifier Notes: Specify **one** of the following **three** posts.

3. Posts, 2 inches by 2 inches:
  - a. Material: 6063-T6 aluminum.

Specifier Notes: Specify railing post and stair post heights. Specify through railing posts or crossover railing posts.

- b. Through Railing Posts: 2 inches by 2 inches by [37 inches] [43 inches].
- c. Crossover Railing Posts: 2 inches by 2 inches by [36 inches] [42 inches].
- d. Corner Crossover Railing Posts: 2 inches by 2 inches by [36 inches] [42 inches].
- e. Stair Posts: 2 inches by 2 inches by [47 inches] [53 inches].
- f. Wall Thickness: 0.090 inch.
- g. Welded plate adjustable leveling system.
- h. Flair: 2-piece, zinc die-cast alloy.

Specifier Notes: Specify 2-1/2-inch by 2-1/2-inch by 0.125-inch "Power Post" posts for IBC compliance.

4. Posts, 2-1/2 inches by 2-1/2 inches: "Power Post".
  - a. Material: 6063-T6 aluminum.

Specifier Notes: Specify railing post and stair post heights.

- b. Through Railing Posts: 2-1/2 inches by 2-1/2 inches by [37 inches] [43 inches].
- c. Crossover Railing Posts: 2-1/2 inches by 2-1/2 inches by [36 inches] [42 inches].
- d. Corner Crossover Railing Posts: 2-1/2 inches by 2-1/2 inches by [36 inches] [42 inches].
- e. Stair Posts: 2-1/2 inches by 2-1/2 inches by [47 inches] [53 inches].
- f. Wall Thickness: 0.125 inch.
- g. Welded plate adjustable leveling system.
- h. Flair: 2-piece, zinc die-cast alloy.
5. Posts for Core Drilling, 2 inches by 2 inches:
  - a. Material: 6063-T6 aluminum.

Specifier Notes: Specify railing post and stair post heights. Specify through railing posts or crossover railing posts.

- b. Through Railing Posts: 2 inches by 2 inches by [45 inches] [51 inches].
- c. Crossover Railing Posts: 2 inches by 2 inches by [42 inches] [48 inches].
- d. Corner Crossover Railing Posts: 2 inches by 2 inches by [42 inches] [48 inches].
- e. Stair Posts: 2 inches by 2 inches by [55 inches] [61 inches].
- f. Wall Thickness: 0.090 inch.
- g. Flair: 2-piece, zinc die-cast alloy.
6. Glass Panels:
  - a. Type: Tempered glass, ANSI Z97.1.

Specifier Notes: Standard glass thickness is 1/4 inch. Consult Digger Specialties, Inc. for availability of 3/8-inch thick glass.

- b. Thickness: [1/4 inch] [3/8 inch].
- c. Exposed Edges: Polished.

Specifier Notes: Specify shade of glass.

- d. Shade: [Clear] [Bronze] [Gray].
  - e. Gaskets: EPDM rubber. Full length of glass panels inside top and bottom rails.
7. Top Rails:
- a. Type: Straight.
  - b. Material: 6005-T6 aluminum.
  - c. Width: 1-3/4 inches, 0.085-inch wall thickness.
  - d. Thickness: 1-3/8 inches, 0.085-inch wall thickness.
  - e. 90-Degree Corners: Welded.
  - f. No open bottoms.
  - g. Insert: PVC extrusion.
8. Bottom Rails:
- a. Type: Straight.
  - b. Material: 6005-T6 aluminum.
  - c. Width: 1-3/4 inches, 0.085-inch wall thickness.
  - d. Thickness: 1-1/4 inches, 0.085-inch wall thickness.
  - e. 90-Degree Corners: Welded.
  - f. No open bottoms.
  - g. Insert: PVC extrusion.
9. Post Caps:

Specifier Notes: Specify style of post caps.

- a. Style: [Flat] [Ball].
- b. Material: Zinc die-cast alloy.

Specifier Notes: Specify type of stair rail mounts. Hidden screw mounts for level installations are standard. Swivel mounts and adjustable crossover mounts are optional.

10. Stair Rail Mounts: [29 to 41 degrees] [Swivel stair mounts, 0 to 42 degrees] [Compound swivel stair mounts, 0 to 41 degrees vertical, 0 to 41 degrees horizontal] [Adjustable crossover mounts].

Specifier Notes: Angle swivel mounts allow straight rail to come off a post at an angle. Delete angle swivel mounts if not required.

11. Angle swivel mounts.

### 2.3 ALUMINUM CONTINUOUS HANDRAIL

- A. Aluminum Continuous Handrail:
1. ADA compliant.
  2. Material: 6063-T52 aluminum.

Specifier Notes: Specify the height of the continuous handrail. Continuous handrail is field installed.

3. Height: [ \_\_\_\_\_ inches] [Indicated on the Drawings].
4. Handrail:

Specifier Notes: Handrail is available in 8-foot, 10-foot, and 16-foot lengths.

- a. Nominal Diameter: 1-3/8 inches.
- b. Wall Thickness: 0.140 inch.
5. Internal connectors.
6. Collar Rings: 1/8 inch, covers handrail splices.
7. Handrail Returns: Continuous, 180 degrees.
8. Wall Returns: Tapered, 1 piece.

Specifier Notes: Specify angle of handrail elbows.

9. Handrail Elbows: [5 degrees] [31 degrees] [34 degrees] [36 degrees] [Indicated on the Drawings].
10. 90-degree handrail elbows.
11. Inside corner mounts.
12. Wall mounts.
13. Internal End Caps: Beveled.

## 2.4 FINISHES

Specifier Notes: Specify powder coating type. AAMA 2604 powder coating is standard. AAMA 2605 powder coating is an optional upgrade.

- A. Powder Coating: [Verified AAMA 2604 compliant] [Verified AAMA 2605 compliant].
1. VOC: 0.

Specifier Notes: Specify the desired color. Consult Digger Specialties, Inc. for availability of custom colors.

- B. Color:
1. AAMA 2604 Powder Coating: [Black Fine Texture] [Chocolate] [Clay] [Evergreen] [Gloss Beige] [Gloss White] [Metallic Bronze] [Metallic Bronze Fine Texture] [Sandy Shore] [Satin Black] [Silver] [Speckled Walnut] [ \_\_\_\_\_ ].
  2. AAMA 2605 Powder Coating: [Black Fine Texture] [Evergreen] [Gloss Beige] [Gloss White] [Metallic Bronze] [Metallic Bronze Fine Texture] [Satin Black] [ \_\_\_\_\_ ].

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine areas to receive glazed decorative aluminum railings.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

### **3.2 INSTALLATION**

- A. Install glazed decorative aluminum railings in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install glazed decorative aluminum railings plumb, level, square, true to line, and rigid.
- C. Fit exposed connections to form tight, hairline joints.
- D. Attach glazed decorative aluminum railings securely in place using anchors and other components supplied or approved by manufacturer.
- E. Attach glazed decorative aluminum railings to supports as indicated on the Drawings.
- F. Ensure exposed surfaces of glazed decorative aluminum railings are smooth with no sharp, rough, or uneven areas.
- G. Do not damage material finishes by welding, cutting, or abrading.

Specifier Notes: Edit the following paragraph as required.

- H. Site Tolerances:
  - 1. Variation from Plumb, Posts: Maximum 3/32 inch in 3 feet.
  - 2. Offset from True Alignment: Maximum 1/4 inch in 12 feet of length, non-accumulative.
  - 3. Align handrails so variations from level for horizontal members and variations from parallel, with rake of steps and ramps for sloping members: Maximum 1/4 inch in 25 feet of length, non-accumulative.

### **3.3 ADJUSTING**

- A. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- B. Remove and replace damaged components that cannot be successfully repaired as determined by Architect.

### **3.4 CLEANING**

- A. Clean glazed decorative aluminum railings promptly after installation in accordance with manufacturer's instructions.
- B. Remove labels and temporary protective coverings.
- C. Do not use harsh cleaning materials or methods that could damage glass or finish.

**3.5 PROTECTION**

- A. Protect installed glazed decorative aluminum railings to ensure that, except for normal weathering, railings will be without damage or deterioration at time of Substantial Completion.

**END OF SECTION**