



SECTION 06152

DECKING AND RAILING SYSTEMS

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Structural deck drainage systems. (DryJoist)
- B. Structural deck drainage systems. (DryJoistEZ)
- C. Aluminum interlocking deck boards. (AridDek)
- D. Aluminum railings. (Wahoo Rail)

1.2 RELATED SECTIONS

- A. Section 05500 - Metal Fabrications.
- B. Section 06100 - Rough Carpentry.

1.3 REFERENCES

- A. American Architectural Manufacturers Association (AAMA): AAMA 2603.02 - Voluntary Specifications, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels
- B. National Fire Protection Association (NFPA): Fire Resistive Standards for Fire Protection.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets for products specified, including but not limited to:
 - 1. Performance characteristics.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Installation Instructions.

- C. Shop Drawings: Architect and manufacturer approved shop drawings showing details including but not limited to locations, components, anchorage requirements, trim details, accessories, tolerances, clearances and relationship to adjacent construction.
- D. Selection Samples: Two complete sets of samples representing manufacturer's full range of available materials and finishes.
- E. Verification Samples: For each material and finish specified, two samples representing actual finishes.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Member of North American Deck and Railing Association (NADRA).
- B. Installer Qualifications: Demonstrated successful experience with applications of similar size and scope with products specified in this section.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations and industry standards.
 - 1. To stack, mate neighboring boards face to face and water channel to water channel. evenly spaced support blocks and on a level flat surface.
 - 2. Do not exceed 4 ft (1219 mm) on center.
 - 3. Do not stack above 3 ft (76 mm).
 - 4. Do not stack multiple bundles.
 - 5. Do not store varying profiles within the same stack.
 - 6. Keep the finished face protected from abrasions and rough surfaces.
 - 7. Do not handle or drag in a manner where the "Face" could become scratched.
 - 8. Do not stack unsheathed.
 - 9. Do not allow grit such as sand to become wedged in between faces of two boards.
- B. Store products in manufacturer's or fabricator's original containers and packaging, with labels clearly identifying product name and manufacturer. Protect from damage.

1.7 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.

1.8 SEQUENCING AND SCHEDULING

- A. Conference: Convene a pre-installation conference to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

1.9 WARRANTY

- A. Manufacturer's Standard Limited Warranty:
 - 1. Limited Lifetime Warranty for Structural Deck Drainage Systems: Components of system to be free from manufacturing and structural defects.
 - 2. Leak-Proof Guarantee: Systems will not leak from joint seams in normal wet weather conditions when installed according to manufacturer guidelines.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Wahoo Decks, which is located at: 1604 Athens Hwy. ; Gainesville, GA 30507; Toll Free Tel: 877-270-9387; Tel: 770-532-8411; Email: [request info \(Jon@wahoodecks.com\)](mailto:Jon@wahoodecks.com); Web: www.wahoodecks.com
- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 STRUCTURAL DECK DRAINAGE SYSTEMS (DRYJOIST)

- A. Structural Deck Drainage Systems: DryJoist as manufactured by Wahoo Decks.
 - 1. Compliance:
 - a. Aluminum: Meets specifications and guidelines for aluminum structures as recommended by AA ASM 35 and AA ADM 1 and required by International Building Code (IBC).
 - b. Outdoor Exposure: Meets durability requirements of AAMA 2603.02.
 - 2. Wind Lift: Minimum tested pull-out value of 2 inch (51 mm) long No. 12 DryJoist screw is 350 lb (158 kg).
 - 3. Description: Interlocking design creates uninterrupted structural platform, with water collection/diversion feature on top and paint finished bead board ceiling on bottom; designed for attachment at 8 inches (203 mm), 16 inches (406 mm) or 24 inches (610 mm) on-center.
 - 4. Materials: 6005-T5 Series Marine grade aluminum.
 - 5. Finish: White powder coat finish, factory applied to visible side of profiles.
 - 6. Construction: Extruded.
 - 7. Assembly: Tongue and groove.
 - 8. Allowable Span: 8 ft (2438 mm) maximum without frame support, perpendicular to ledgers.
 - 9. Allowable Cantilever: Maximum allowable edge cantilever is 18 inches (453 mm).
 - 10. Modulus of Elasticity: 10,000,000 lbs/in².
 - 11. Second Moment of Inertia: 0.8076 in⁴.
 - 12. Density: 0.09754 lbs/in³.
 - 13. Minimum Aluminum Thickness at Attachment Points: 0.140 inches (3.56 mm)
 - 14. Minimum Aluminum Yield Strength: 36,000 psi.
 - 15. Minimum Fastener Width/Diameter: 0.211 inches (5.36 mm).
 - 16. Minimum Fastener Width/Diameter: 0.25 inches (6.35 mm).
 - 17. Weight:
 - a. By Length: 1.50 lb (0.68 kg) per linear ft (254 mm).
 - b. By Area: 2.25 lb (1 kg) per square ft (92903 mm²).
 - 18. Drainage:
 - a. Integrated 2 inch (51 mm) deep water channels.
 - b. Pitch: Minimum 1/8 inch (3 mm) downward pitch per linear foot is recommended by manufacturer.
 - 19. Flashing:
 - a. Flashing/Fascia on Rim Joists: Secure flashing along the entire length of Outer DryJoists.
 - b. Ledger Flashing: Two part flashing system; secure the first component of flashing prior to DryJoist install.
 - 20. Overhangs: Provide optional 2 inch (51 mm) overhang beyond header joist on drainage side; designed to prevent backsplash.
- B. Components:
 - 1. Joists: DryJoists; flange edge and flange receiver edge to mate with other

joists.

- a. Available Widths: 8 inches and 4 inches.
 - b. Profile Wall Thickness: Minimum of 0.70 inches (1.78 mm).
 - c. Profile Depth: 2 inches (51 mm).
 - d. Profile Lengths: As scheduled and indicated on Drawings.
 - e. Profile Lengths: 8 ft (2438 mm).
 - f. Profile Lengths: 12 ft (3658 mm).
 - g. Profile Lengths: 16 ft (4877 mm).
 - h. Profile Lengths: 20 ft (6096 mm).
 - i. Profile Lengths: 24 ft (7315 mm).
 - j. Profile Lengths: 26 ft (7925 mm).
2. Double Receivers: DryJoist Double Receivers; 'S profiles,' both sides have a 'Receiver' design.
 3. Joint Covers: Locks together angles of neighboring joists; prevents water from entering 'Screw Channels.'
 - a. Attachment: Do not pierce or compromise with fasteners.
 4. Anchor Rails
 - a. Continuous Inside the water channels.'
 - b. Design: Permit 'Anchor Clips' to attach at any location within water channels, providing an additional, secure area for fasteners without compromising waterproof design.
 - c. Anchor Clips: 6 inches (152 mm), 4 inches (102 mm) on center.
 - d. Fasteners/Attachment: No. 14 SS fasteners can be drilled through boards and directly into 'Anchor Clips'; eliminates need to penetrate water channel.
 5. Outer/End Joists: Function as perimeter/outermost profiles.
 - a. Width: 4 inches (102 mm).
 - b. Design: Incorporates 'Flash Receiver' to secure either standard or pre-bent flashing; provides finished appearance along Rim Joists or outer edges of deck.

2.3 STRUCTURAL DECK DRAINAGE SYSTEMS (DRYJOISTEZ)

- A. Structural Deck Drainage Systems: DryJoistEZ as manufactured by Wahoo Decks.
 1. Compliance:
 - a. Aluminum: Meets specifications and guidelines for aluminum structures as recommended by AA ASM 35 and AA ADM 1 and required by International Building Code (IBC).
 - b. Outdoor Exposure: Meets durability requirements of AAMA 2603.02.
 2. Materials: 6005[UNICODE CHAR NOT COVERED: 8208][HEX CHAR NOT COVERED: 5d]T5 Series Marine grade aluminum, 50 percent recycled content.
 3. Fabrication: Extruded.
 4. Strength: 400 lbs per square foot (psf) at maximum joist spacing of 24 inches (610 mm) on center.
 5. Modulus of Elasticity: 10,000,000 lbs/in.
 6. Second Moment of Inertia: 0.48 in.
 7. Density: 0.09754 lbs/in.
 8. Width: 6 inches (152 mm).
 9. Drainage: Minimum 1/8 inch (3 mm) downward pitch per linear foot is recommended.
- B. Components:
 1. Width Availability: 6 inches (152 mm) and 4 inches (102 mm).
 2. Main Joists: DryJoist-EZ joists.
 3. Multi-Joists: DryJoist-EZ Multi joists.
 4. Starter Joists: Field-Fabricated from Multi-JOISTS.

5. Profile Wall Thickness: Minimum of 0.70 inches (1.78 mm).
6. Profile Depth: 2 inches (51 mm).
7. Profile Lengths: As scheduled and indicated on Drawings.
8. Profile Lengths: 8 ft (2438 mm).
9. Profile Lengths: 12 ft (3658 mm).
10. Profile Lengths: 16 ft (4877 mm).
11. Profile Lengths: 20 ft (6096 mm).
12. Profile Lengths: 24 ft (7315 mm).
13. Hardware: No. 10 stainless steel screws.

2.4 ALUMINUM INTERLOCKING DECK BOARDS (ARIDDEK)

- A. Aluminum Interlocking Deck Boards: AridDek manufactured by Wahoo Decks.
 1. Compliance:
 - a. Aluminum: Meets specifications and guidelines for aluminum structures as recommended by AA ADM 1 and required by International Building Code (IBC).
 - b. Outdoor Exposure: Meets durability requirements of AAMA 2603.02.
 2. Design: Interlocking boards provide gapless, single layer watertight decking surface.
 3. Material: 6005-T5 Series Marine grade aluminum.
 4. Finish Type: Powder coating.
 5. Color: As scheduled and indicated on Drawings.
 6. Color: Sandstone.
 7. Color: Ash Grey.
 8. Fabrication: Extruded.
 9. Hidden Fastener System: Integral, no pre-drilling required,
 10. Hardware: No. 10 stainless steel screws.
 11. Strength: 400 lbs per square foot (psf) at maximum joist spacing of 24 inches (610 mm) on[UNICODE CHAR NOT COVERED: 8208][HEX CHAR NOT COVERED: 5d]center.
 12. Drainage:
 - a. Pitch: 1/8 inch (3 mm) downward pitch per linear foot is recommended.
 - b. Overhang: 2 inch (51 mm) overhang beyond the header joist on drainage, to prevent possible backsplash,
 13. Available Lengths: Provide extrusions as scheduled and indicated on Drawings.
 - a. 2 ft (610 mm) - 26 ft (7925 mm) lengths for delivery.
 - b. 36 ft (10973 mm) lengths for factory pick-up.
 14. Weight:
 - a. By Length: 1 lb (0.45 kg) per linear foot (305 mm).
 - b. By Area: 2 lb (0.9 kg) per square foot (92904 mm²).
 15. Start Boards:
 - a. Design: Incorporates tongue receivers to accept main boards.
 - b. Width: 5-1/2 inches (140 mm),
 16. Main Boards:
 - a. Design: Can be ripped lengthwise to cover non-standard deck widths; this feature is unique to AridDek; incorporates tongues and tongue receivers to accept other boards.
 - b. Width: 6 inches (152 mm).
 17. Finish Boards:
 - a. Design: Incorporates tongues to fit into receivers of main boards.
 - b. Width: 5-1/2 inches (140 mm).
 18. Trim and Channel Plugs: To provide finished appearance.
 - a. Design: Serves as drip edge on drainage side.
 - b. Types: Edge Trim and T Trim.

- c. Trim Lengths: Up to 24 feet.

2.5 ALUMINUM RAILINGS (WAHOO RAIL)

- A. Aluminum Railings: Wahoo Rails as manufactured by Wahoo Decks.
 - 1. Compliance: Meets durability requirements of AAMA 2603.02 and National Safety Standards and Codes Railing; non-flammable.
 - 2. Rail Sections: Pre-cut, pre-drilled boxed kits.
 - 3. Model RK36-BR:
 - a. Rail Post Height: 36 inches (914 mm).
 - b. Color: Antique bronze.
 - 4. Model RK36-M:
 - a. Rail Post Height: 36 inches (914 mm).
 - b. Color: Mocha.
 - 5. Model RK36-W:
 - a. Rail Post Height: 36 inches (914 mm).
 - b. Color: White.
 - 6. Model RK42-BR:
 - a. Rail Post Height: 42 inches (914 mm).
 - b. Color: Antique bronze.
 - 7. Model RK42-M:
 - a. Rail Post Height: 42 inches (914 mm).
 - b. Color: Mocha.
 - 8. Model RK42-W:
 - a. Rail Post Height: 42 inches (914 mm).
 - b. Color: White.
 - 9. Materials: 6005[UNICODE CHAR NOT COVERED: 8208][HEX CHAR NOT COVERED: 5d]T5 Series Marine grade aluminum, 45 percent recycled content.
 - 10. Fabrication: Extruded.
 - 11. Finish Type: As scheduled and indicated on Drawings.
 - 12. Finish Type: Baked polyester coating.
 - 13. Finish Type: Baked enamel finish.
 - 14. Hardware: Stainless steel screw tops, color matched to rail system, powder-coated.
 - 15. Mounting: As scheduled and indicated on Drawings.
 - 16. Mounting:
 - a. Bottom Rails: Attached to rail posts approximately 2-1/2 inches (63.5 mm) above deck surface.
 - b. Hinged Rail Support Brackets: Pivoting face on proprietary Hinged Rail Support Bracket facilitates positioning when securing angled guard rails.
 - c. Fixed Rail Mounting: Proprietary, low profile design, secures connection between horizontal rail sections and rail posts; color matched to rails.
 - d. Application: As scheduled and indicated on Drawings.
 - e. Application: Pedestal installation, does not require installation inside or outside of deck frames;
 - 1) Bases: 4-1/2 inch (114 mm) square base.
 - 2) Hole Spacing: 3-3/4 inches (953 mm).
 - f. Application: Fascia mount installation.
 - g. Application: Stair Rail installation.
 - 1) Stair Kits: As scheduled and indicated on Drawings
 - 2) Stair Kits: Model RKS-BR, antique bronze.
 - 3) Stair Kits: Model RKS-M, mocha.
 - 4) Stair Kits: Model RKS-W, white.
 - 17. Rail Posts:
 - a. Design: With fluted tubing and decorative post caps.
 - b. Thickness: 1/8 inch (3 mm).

- c. Profile: 3 inches x 3 inches (76 mm x 76 mm).
 - d. Rail Post Skirts: Two piece caps, attach to rail posts for a finished appearance.
 - e. Post Caps: Press fit onto rail posts, provides finished appearance.
18. Picket Rails: Including but not limited to handrail ribbons, bottom rail ribbons and pickets.
- a. Pickets: 1 inch (25 mm) square, aluminum x 0.06 inches (1.5 mm).
 - b. Spacing Between Pickets: 3-1/2 inch (89 mm), 4-1/2 inches (114 mm) on center.
 - c. Bottom Rails: 1.81 inches x 1 inch x 1/16 inch (460 mm x 25 mm x 1.6 mm).
 - d. Handrails: 2-1/2 inches x 1.31 inches x 1/16 inch (63.5 mm x 332 mm x 1.6 mm).

PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

- A. Prepare substrates using the methods recommended by the manufacturer for achieving best result for the substrates under project conditions.
- B. Do not proceed with installation until substrates have been prepared using the methods recommended by the manufacturer and deviations from manufacturer's recommended tolerances are corrected. Commencement of installation constitutes acceptance of conditions.
- C. If preparation is the responsibility of another installer, notify Architect in writing of deviations from manufacturer's recommended installation tolerances and conditions.

3.2 INSTALLATION

- A. Installation: Install in accordance with manufacturer's instructions. Do not walk on installation until installation is complete and profiles have been secured to frame.

3.3 CLEANING AND PROTECTION

- A. Clean installed products in accordance with manufacturer's recommendations, with water and mild soap; do not use acidic or abrasive cleaning solutions.
- B. Protect installed products until completion of project.
- C. Touch-up, repair or replace damaged products before substantial completion.

END OF SECTION