**This specification must be edited for project-specific requirements. It should be reviewed by a qualified civil or geotechnical engineer, architect, or landscape architect familiar with the site conditions.**

**SECTION 06 73 00 – COMPOSITE DECKING**

PART 1 - GENERAL

1.1 SUMMARY

1. Section Includes: Composite wood decking approved for direct ground and water content.
2. Related Sections:
	1. Section 06 11 00 – Wood Framing

1.2 REFERENCES

1. Reference Standards:
	1. ASTM International (ASTM).
		1. ASTM C518 Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
		2. ASTM D1037 Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials.
		3. ASTM D1621 Standard Test Method for Compressive Properties of Rigid Cellular Plastics.
		4. ASTM D1761 Standard Test Methods for Mechanical Fasteners in Wood.
		5. ASTM D7032 Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails.
		6. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.
	2. American Wood Council (AWC).
		1. AWC NDS National Design Specification for Wood Construction.
	3. American Wood Protection Association (AWPA).
		1. AWPA E1 Standard Method for Laboratory Evaluation to Determine Resistance to Subterranean Termite.
	4. International Codes Council (ICC).
		1. ICC- ES AC174 Acceptance Criteria for Deck Board, Span Ratings and Guardrail Systems (Guards and Handrails).
	5. US Green Building Council (USGBC).
2. LEED V4 LEED (Leadership in Energy and Environmental Design): Green Building Rating System Reference Guide for Building Design and Construction.

1.3 SUBMITTALS

1. Product Data: Manufacturer’s standard specifications and descriptive literature, including:
	1. Manufacturer’s product technical data sheets.
	2. Manufacturer’s installation instructions.
	3. Safety Data Sheets (SDS).
2. Samples: One 4 inch long decking sample illustrating size, profile, color, and surface finish.
3. Certificates: Product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria, and physical requirements.
4. Warranty: Manufacturer’s published warranty document, including:
	1. Manufacturer’s 50-year structural warranty, from date of substantial completion, covering defects in materials.
	2. Manufacturer’s [30-Year Elevate] [40-Year Meridian] [50-Year Vision] fade and stain warranty.
5. Sustainable Design (LEED) Submittals:
	1. LEED Submittals: In accordance with Section [01 35 21 – LEED Requirements].
	2. Submit verification for items when appropriate as follows:
		1. MR2-A Recycled Content.
		2. MR5 Regional Materials.
6. Maintenance Data: Manufacturer’s instructions on care and cleaning of composite wood

1.4 QUALITY ASSURANCE

1. Installer: Experienced in performing work similar to work of this Section

1.5 DELIVERY, STORAGE & HANDLING

1. Deliver materials in accordance with manufacturer’s written instructions.
	1. Deliver materials in manufacturer’s original, unopened, undamaged packaging with identification labels intact and product name and manufacturer clearly visible and sizes to suit project.
2. Store materials protected from exposure to harmful environmental conditions, clean, dry, frost-free and at recommended temperature and humidity levels.
	1. Store composite wood level and flat, off ground or floor, with supports at each end and maximum 24 inches on center.
	2. Do not stack composite wood to heights greater than 8 feet high.
	3. Cover composite wood with waterproof covering, vented to prevent moisture buildup.

PART 2 - PRODUCTS

2.1 MANUFACTURER

1. MoistureShield Inc; 801 Jefferson St, Springdale, AR 72764; Phone: (866) 729-2378, (479) 756-400; Email: info@moistureshield.com; Website: [www.moistureshield.com](http://www.moistureshield.com)
2. Substitutions: Not permitted under Division 01

2.2 PERFORMANCE REQUIREMENTS

1. Comply with ICC-ES Report VAR-1015.
2. Composite Wood Decking: To ASTM D7032 and ASTM D1037.
3. Surface Burning Characteristics: To ASTM E84 Class C or Class III.
4. Insect Resistance: To AWPA E1.

2.3 MATERIALS

1. Decking: Slip, scratch, mold and mildew resistant composite wood decking with high recycled content and approved for direct ground and water contact.
	1. Acceptable material: MoistureShield, Inc., [Series Name] [Color Name]
2. Decking: Reclaimed wood and polyethylene plastic with additives for coloring and inhibiting fungal and algal growth; free from toxic chemicals.
	1. Profiles:
		1. Deck board: [1 × 5.4] [2 × 4] [2 × 6] [2 × 8] inches × [12] [16] [20] feet long [with edge grooves for concealed fastening] [with solid edge].
		2. Fascia Trim Board: [0.67 × 11.25] inches × 12 feet long.
	2. Series: [MoistureShield Series Name].
	3. Colors: [MoistureShield Color Name].
	4. Recycled content:
		1. 95% total recycled content.

2.4 ACCESSORIES

1. Mechanical Fasteners: To ASTM D1761.
	1. [Carbon steel] [or] [Stainless steel] [composite wood screws] of length in accordance with composite decking manufacturer’s written recommendations.
2. Hidden Fasteners:
	1. [Carbon steel] [or] [Stainless steel] deck clips capable of elevating deck boards above joists.
		1. Acceptable material: MoistureShield hidden fasteners
	2. Plastic deck clips with [Carbon steel] [or] [Stainless steel] pre-inserted screw.
		1. Acceptable material: MoistureShield hidden fasteners

PART 3 - EXECUTION

3.1 INSTALLER

1. Use only installers who have training and experience of work similar to the work of this Section.

3.2 EXAMINATION

1. Verification of Conditions: Verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for composite wood decking installation in accordance with manufacturer’s written recommendations.
	1. Visually inspect substrate in presence of consultant.
	2. Inform consultant of unacceptable conditions immediately upon discovery.
	3. Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Consultant.
	4. Starting installation of composite wood decking implies substrate conditions are acceptable for Work of this Section.

3.3 INSTALLATION

1. Install composite wood decking in accordance with manufacturer’s written recommendations.
2. Do not use composite decking material for structural applications.
3. Deck Design: To AWC NDS.
4. Layout and install joists at [16 inch maximum on center when decking will be installed perpendicular to joists] [12 inch maximum on center when deck boards will be installed at an angle to joists].
5. Do not exceed maximum spans in accordance with manufacturer’s written recommendations.
6. Ensure joists are level, plumb and square.
7. Install deck boards [in pattern indicated] [perpendicular] [diagonally] to joists [with hidden fastener deck clips] and secure with mechanical fasteners.
	1. Use 2 fasteners at each joist support.
	2. Allow [3/16] [1/4] inch side-to-side spacing between deck boards.
	3. Allow 1/8 inch minimum end-to-end spacing at butt joints between deck boards.
		1. Stagger butt joints on decks longer than 20 feet.
		2. Stagger butt joints in adjacent rows.
		3. Install sister joists to support butt joint ends as needed.
8. Cut deck boards true and square to length after securing.
9. Install fascia trim boards as indicated.

3.4 CLEANING

1. Perform daily progress cleaning.
	1. Leave work area clean at end of each day.
2. Upon completion, remove surplus materials, rubbish, tools and equipment.
3. Collect recyclable waste and dispose of at appropriate recycling facilities.
4. Final Cleaning: Clean composite wood surfaces according to manufacturer’s maintenance guidelines.

3.5 PROTECTION

1. Protect applied composite wood decking from damage during construction.
2. Repair or replace adjacent materials damaged by installation of composite wood decking.

END OF SECTION