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This Manu-Spec® utilizes the Construction Specifications Institute (CSI) *Project Resource Manual* (PRM), including *MasterFormat™*, *SectionFormat™* and *PageFormat™*. A Manu-Spec is a manufacturer-specific proprietary product specification using the proprietary method of specifying applicable to project specifications and master guide specifications. Optional text is indicated by brackets []; delete optional text in final copy of specification. Specifier Notes precede specification text; delete notes in final copy of specification. Trade/brand names with appropriate product model numbers, styles and types are used in Specifier Notes and in the specification text Article titled "Acceptable Material." Metric conversion, where used, is soft metric conversion.

This Manu-Spec specifies composite decking products manufactured by NewTechWood America. Revise Manu-Spec section number and title below to suit project requirements, specification practices and section content. Refer to CSI MasterFormat for other section numbers and titles.

06 73 00
COMPOSITE DECKING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Composite decking.
 2. [].

Specifier Note: Revise Paragraph below to suit project requirements. Add section numbers and titles per CSI MasterFormat and specifier's practice.

- B. Related Sections:

Specifier Note: Include in this Paragraph only those sections and documents that directly affect the work of this section. If a reader of this section could reasonably expect to find a product or component specified in this section, but it is actually specified elsewhere, then the related section number(s) should be listed in the Subparagraph below. Do not include Division 00 documents or Division 01 sections since it is assumed that all technical sections are related to all project Division 00 documents and Division 01 sections to some degree. Refer to other documents with caution since referencing them may cause them to be considered part of the Contract.

1. [Section 054000 – Cold-Formed Metal Framing for structural metal support framing].
2. [Section 061000 – Rough Carpentry for structural wood support framing].
3. [].

Specifier Note: Paragraph below may be omitted when specifying manufacturer's proprietary products and recommended installation. Retain References Paragraph when specifying products and installation by an industry reference standard. List retained standard(s) referenced in this section alphabetically. Indicate issuing authority name, acronym, standard designation and title. Establish policy for indicating edition date of standard referenced. Contract Conditions Section 01 42 00 - References may establish the edition date of standards. This Paragraph does not require compliance with standard(s). It is a listing of all

references used in this section. Only include here standards that are referenced in the body of the specification in PARTS 1, 2 and/or 3. Do not include references to building codes at any level.

1.2 REFERENCE STANDARDS:

- A. ASTM International (ASTM):
 - 1. ASTM D2395 – Standard Test Methods for Specific Gravity of Wood and Wood-Based Materials.
 - 2. ASTM D7032 – Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite and Plastic Lumber Deck Boards, Stair Treads, Guards, and Handrails.
 - 3. ASTM G154 – Standard Practice for Operating Fluorescent Ultraviolet (UV) Lamp Apparatus for Exposure of Nonmetallic Materials.

Specifier Note: Article below includes submittal of relevant data to be furnished by Contractor before, during or after construction. Coordinate this article with Architect's and Contractor's duties and responsibilities in Contract Conditions and Section 01 33 00 – Submittal Procedures.

1.3 SUBMITTALS

- A. Product Data: Standard specifications, and descriptive literature for primary and secondary products, including:
 - 1. Spec-Data product information sheets.
 - 2. Catalog cut-sheets.
 - 3. Color charts.
 - 4. Safety Data Sheets (SDS).
 - 5. Building code evaluation reports.
 - 6. Sample warranty forms.
- B. Shop Drawings: Graphic information specifically prepared for this Project, including:
 - 1. Dimensioned plans, elevations, and construction details indicating full extent of composite decking work complete with substrate construction, decking patterns, attachments, accessories, conditions at adjacent materials, perimeters and penetrations.
 - 2. Verified field dimensions.
 - 3. [].

Specifier Note: Samples are actual products intended to illustrate specified products to be used on the Project. Sample submittals are commonly necessary for characteristics such as color, texture, and other appearance issues.

- C. Selection Samples: Color chips for initial color selection prepared on same material as specified products.
- D. Verification Samples: Actual decking and trim pieces, 12 inches (305 mm) long, illustrating color, texture and finish selected by [Architect].

Specifier Note: Specify submittals to document manufacturer's storage, installation and other instructions.

- E. Manufacturer's Instructions, including:
 - 1. Delivery, storage and handling.
 - 2. Preparation and Installation.
 - 3. Maintenance.

Specifier Note: Select following paragraph for Projects seeking LEED® Certification.

- F. LEED Submittals: Manufacturer's sustainable design information for obtaining credits toward LEED Certification of this Project by use of specified products.

Specifier Note: NewTechWood provides a commercial and residential series of warranties for composite decking and accessories. Select type of warranty, and coordinate with Contract Conditions and Section 01 78 36 – Warranties.

- G. [Commercial Product Warranties: Manufacturer’s commercial series of prorated limited warranties including; 10-years against manufacturing defects of composite decking, 20-years against manufacturing defects of metal clips, and 25-years against staining and fading of composite decking.]
 - H. [Residential Product Warranties: Manufacturer’s residential series of prorated limited warranties including; 25-years against manufacturing defects of composite decking, 20-years against manufacturing defects of metal clips, and 25-years against staining and fading of composite decking.]
- 1.4 QUALITY ASSURANCE
- A. Installer Qualifications: Manufacturer’s authorized dealer-installer.
 - B. Installation Documents: Maintain manufacturer’s installation instructions, approved submittals, and related documents on-site throughout construction period, to confirm proper installation, until Final Inspection and acceptance by [Owner].
 - C. Mock-Up:
 1. At location directed by [Architect], install minimum 48 inch (1219 mm) long by 48 inch (1219 mm) high, free-standing, sample deck panel using specified composite decking boards, trim, accessories and substrate construction to show:
 - a. Support framing.
 - b. Blocking, furring and fashing.
 - c. Attachment details.
 - d. Clearances and gaps between members.
 - e. Decking pattern, texture, and color.
 - f. Trim details.
 - g. Workmanship.
 2. Prepare mock-up, for [Architect’s] approval, before start of decking work. Prepare additional mock-ups, if required by [Architect], until approved.
 3. Maintain approved mock-up during construction to establish required standard of workmanship, and basis of comparison for installation of decking work. Do not remove approved mock-up until directed by [Architect].

1.5 DELIVERY, STORAGE AND HANDLING

Specifier Note: Coordinate Article below with Contract Conditions and with Section 01 60 00 – Product Requirements.

- A. Deliver, store and handle composite decking in accordance with manufacturer’s instructions.
- B. [____].

PART 2 PRODUCTS

Specifier Note: Retain Article below for proprietary method specification. Add product attributes, performance characteristics, material standards and descriptions as applicable. Use of such phrases as “or equal”, “approved equal” or similar phrases may cause ambiguity in specifications. Such phrases require verification (procedural, legal and regulatory) and assignment of responsibility for determining “or equal” products.

2.1 COMPOSITE DECKING BOARDS

Specifier Note: Include in the following Paragraph; manufacturer’s name, address, phone number, fax number, email address and website URL.

- A. Manufacturer: NewTechWood, Ltd.; 19111 Walden Forest Dr., Suite B; Humble, TX 77346; Tel: 281-570-6450; Fax: 281-661-1167; Email: richard@newtechwood.com; Website: www.newtechwood.com .
1. Single Source Responsibility: Furnish primary products, secondary products, and warranty for work of this Section from same source.

Specifier Note: Substitution procedures must either be in the Contract Conditions or in Section 01 25 00 – Substitution Procedures. Do not include substitution procedures here.

2. Substitutions: Not allowed.

Specifier Note: Include an overall description of the system, assembly, product or material. Include required properties or characteristics that do not obviously belong under other titles. Examples: configuration, size and color.

- B. Description: Ultrashield Naturale Composite Decking composed of recycled hardwood fiber and high-density polyethylene (HDPE) core, encased in 1/64 inch (0.5 mm) to 1/32 inch (0.7 mm) thick UV and stain resistant plastic shell with core and shell co-extruded under high temperature forming a single combined product; meeting ASTM D7032 and ASTM G154.
1. Board size: 5 1/2 inches (138 mm) wide by 9/10 inch (22.5 mm) thick by 16 feet (4.87 m) long.

Specifier Note: Select from 4 decking board profiles: US07 Cortes Series solid board without grooves for stair treads or deck boards; US01 Magellan Series solid board with grooves both sides for deck boards; UH02 Voyager Series hollow core board with grooves both sides for deck boards; and US33 Columbus Series solid board with grooves one side and bottom for step or perimeter deck edges.

2. Profile: [US07 Cortes Series] [US01 Magellan Series] [UH02 Voyager Series] [US33 Columbus Series].

Specifier Note: Select from 6 colors.

3. Color: [Westminster Grey] [Peruvian Teak] [Brazilian Ipe] [Spanish Walnut] [Hawaiian Charcoal] [Roman Antique]; matte finish.
4. Texture: Embossed wood grain one side, smooth one side.
5. Properties:
 - a. Density: 7.2 lb/ft³ (115.3 kg/m³); meeting ASTM D2395.
6. Installation method: Concealed fasteners and exposed composite screws.

2.2 ACCESSORIES

Specifier Note: Select one of two available concealed fastener systems.

- A. Concealed Fasteners: PCHFS-50, T-Clip System for concealed attachment of decking boards with 1/8 inch (6.4 mm) gap between boards.
- B. Concealed Fasteners: MGS-50, Mini Gap System for concealed attachment of decking boards with 1/16 inch (1.6 mm) gap between boards.
- C. Starter Clips: SC-25 for concealed attachment of decking boards at front edges of stair treads, exposed outside edges of decks, and butted up against vertical walls, barriers, or penetrations.

Specifier Note: Select one or both of the following two accessories to meet Project requirements. Some exposed fasteners are usually required for any Project.

- D. End Caps: Plastic closures to cover exposed ends of Voyager Series hollow core decking boards.
- E. Fascia board: Fabricated from same material as decking boards, matching deck board color, for covering support framework at exposed locations.
- F. Exposed Fasteners: Type and size composite screws recommended by composite decking manufacturer.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that conditions of work previously installed under other sections or contracts are acceptable for installation of composite decking in accordance with manufacturer's instructions and approved submittals.
 - 1. Notify [Architect] of unacceptable conditions upon discovery.
 - 2. Do not proceed with preparation and installation until unacceptable conditions have been corrected.
- B. [].

Specifier Note: Specify actions required to prepare the surface, area or site for incorporation of the section's primary products. Describe requirements for exposure or removal of existing assemblies, components, products or materials.

3.2 PREPARATION

Specifier Note: Specify preparatory work required prior to installation/application/erection of primary products.

- A. Prepare substrate to receive composite decking in accordance with manufacturer's instructions, and approved submittals.
- B. [].

3.3 INSTALLATION

- A. Install composite decking in accordance with manufacturer's instructions, and approved submittals.
- B. [].

3.4 CLEANING

- A. Clean-up packaging, waste material, and construction debris daily during installation; legally dispose of in accordance with authorities having jurisdiction.
- B. Upon completion, remove surplus materials, remaining debris, tools and equipment.
- C. [].

Specifier Note: Specify protection methods completed after installation, but prior to acceptance by the owner. Protection of surrounding areas and surfaces during application or installation is included under PART 3, Preparation. Include only statements unique to this Section.

3.5 PROTECTION

- A. Protect installed products from damage during subsequent construction until Final Inspection and acceptance by [Owner].
- B. Repair damage to adjacent materials caused by installation of composite decking.
- C. [].

END OF SECTION