

SECTION 062003

CERTIFIED FINISH CARPENTRY

CSI 3-PART '**SHORT-FORM**' GUIDE SPECIFICATION
USE FOR OUTLINE OR DD ISSUES - EDIT TO SUIT PROJECT

PART 1 - GENERAL

1.1 SUMMARY

- A. Work of this Section consists of milled certified wood, and includes but is not limited to the following:
1. Millwork, molding and trim
 - a. Door casings
 - b. Window casings
 - c. Mantels
 - d. Baseboards
 - e. Chair-rails
 - f. Picture-rails
 - g. Crown molding
 2. Prefinished Paneling
 3. Board Paneling
 4. Wood treatments
 5. Accessories including, but not limited to, fasteners

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's printed descriptions of materials, components and systems, performance criteria, use limitations, recommendations and installation information.
- B. Shop Drawings: Submit keyed location plans, detailed and keyed plans and elevations indicating materials, dimensions, finishes, hardware, blocking and other attachment requirements.
- C. Samples: Submit printed color charts or sample chains indicating manufacturer's complete range for each type of material finish exposed to view. Submit 6 inch (150mm) long sample of each different profile (grain and species for clear finishes) with proposed finishes, and fasteners for Final Selection.
- D. Quality Assurance Submittals: Certificate of kiln drying (KD); Test and Evaluation Reports for wood treatments; and Qualification Statements.

NOTE: Edit LEED Requirements below to suit project.

- E. Sustainable Design (USGBC [LEED®](#)) Submittals:
1. LEED Credit MR, Materials & Resources. Submit completed LEED-NC 2.2 Submittal Templates in accordance with SECTION 017419, CONSTRUCTION WASTE MANAGEMENT, and other required paperwork as follows:
 - a. MR 4.1, 10% Recycled Content: Submit product data
 - b. MR 4.2, 20% Recycled Content: Submit product data
 - c. MR 5.1, 10% Regional Materials: Submit product data
 - d. MR 5.2, 20% Regional Materials: Submit product data
 - e. MR 6, Rapidly Renewable Materials: Submit rapidly renewable criteria.
 - f. MR 7, FSC Certified Wood: Submit chain-of-custody certificates

2. LEED Credit EQ, Indoor Environmental Quality. Submit completed LEED-NC 2.2 Submittal Templates and required paperwork as follows:
 - a. EQ 4.1, Low Emitting Materials, Adhesives & Sealants: Submit VOC Data
 - b. EQ 4.2, Low Emitting Materials, Paints & Coatings: Submit VOC Data
 - c. EQ 4.4, Low Emitting Materials, Indoor Composite Wood & Agrifiber: Submit proof of Urea-Formaldehyde Content

F. Closeout Submittals: Operation and Maintenance Data, and Record Documents.

NOTE: Edit LEED Requirements below to suit project.

1. Sustainable Design Closeout Documentation: Submit completed USGBC LEED® [worksheet templates](#) for the following credits:
 - a. MR 4.1, MR 4.2, MR 5.1, MR 5.2, MR 6, MR 7
 - b. EQ 4.1, EQ 4.2, EQ 4.4

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements: Provide fire retardant treatment that complies with FHA and HUD requirements; engineered wood displaying the APA trademark; and AWI / AWMAC / WIC Quality Certification Program labels and inspection or Certificate.
- B. Qualifications: Manufacturers, Suppliers, and Fabricators, shall be firms capable of providing Third Party Certification or affidavits that wood materials provided were sourced from sustainably managed forests. Perform installation with skilled workmen with a minimum three (3) years successful experience.
- C. Certifications: Wood timber and manufactured wood products shall be sourced from sustainably managed forests as certified by SmartWood, SCS, SGS, BVC, SFI, ATFS or CSA and displaying the FSC or PEFC label.
- D. Sustainability Standards and Certifications:
 1. Engineered wood shall be made using non-toxic glues, no added formaldehyde, and 100 percent recycled fibers or certified sustainably harvested wood.
 2. Adhesive and Sealant VOC Limits: According to South Coast Air Quality Management District [Rule 1168](#) and [GS-36](#) for aerosols.
 3. VOC Limits: As tested using U.S. EPA Reference Test Method 24 and as defined by
 - a. South Coast Air Quality Management District Rules: In areas where exposure to freeze/thaw conditions and direct exposure to moisture will not occur.
 - 1). SCAQMD [Rule 1113](#), Architectural Coatings
 - 2). SCAQMD [Rule 1168](#), Adhesive and Sealant Applications
 - b. Bay Area Air Quality Management District Regulation: For containers larger than 16 oz., for areas where freeze/thaw conditions do exist or direct exposure to moisture can occur.
 - 1). BAAQMD [Regulation 8, Rule 51](#)
 - c. California Air Resources Board: For areas where freeze/thaw conditions do exist or direct exposure to moisture can occur.
 - 1). CARB for containers 16 oz. or less.
 - d. Green Seal Standards:
 - 1). [GS-11](#), Low Odor or Low VOC Paint
 - 2). [GC-03](#), Anti-Corrosive Paints, Second Edition, January 7, 1997
 4. Composite wood and agrifiber products shall contain no added urea-formaldehyde resins.
 5. Certified Wood Materials: According to FSC-STD-40-004 chain-of-custody requirements.

- E. Prototypes: Provide materials or assemblies of each unit type for review and approval prior to benchmarking, manufacturing or fabrication production showing joints, supports, fasteners, bends, angles, corners, finishes, grain patterns and acceptable wood defects.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Delivery, Storage and Handling per manufacturer's written recommendations, and DIVISION 01 requirements.

NOTE: Delete warranty statement below if no treated lumber is to be used.

1.5 WARRANTY

- A. Manufacturer Warranty: Contractor shall provide Wood Treatment manufacturer's twenty (20) year limited warranty against structural damage due to termites, carpenter ants and fungal decay.

PART 2 - PRODUCTS

2.1 MANUFACTURERS / FABRICATORS

GREEN NOTE: For most current list of Vermont FSC Certified Products go to http://www.vtwoodnet.org/certified_wood_sources.html.

- A. Fabricator or Supplier List of FSC Certified Sustainable **Millwork** or Molding: Subject to compliance with requirements, provide products by one of the following:
 1. R.K. Miles, Inc., Manchester Center, VT; 802.362.1952x614; [SmartWood Certification](#)
 2. Lumberjack Lumber, Inc., White River Junction, VT; www.lumberjackwood.com; SCS-COC-001477 C
 3. Vermont Wildwoods, Marshfield, VT; www.vermontwildwoods.com; SCS-COC-001477 R

NOTE: Below see non-Vermont based FSC Certified companies that use northern forest timber.

4. Boyce Highlands Inc., Concord, NH; 603.753.1042; [SmartWood Certification](#)
 5. Forest Products Associates, Greenfield, MA; www.forestproductsassociates.com; SCS-COC-001477 G
 6. Holt & Bugbee Company, Tewksbury, MA; 800.325.6010; [SmartWood Certification](#)
 7. Katahdin Forest Products, Inc., Oakfield, ME; 207.757.9342; [SmartWood Certification](#)
 8. Residents' Committee to Protect the Adirondacks (CoC), Saranac Lake, NY; 518.251.4257x14; [SmartWood Certification](#)
- B. Manufacturers List of FSC Certified Sustainable **Plywood**: Subject to compliance with requirements, provide products by one of the following:
 1. Newport Furniture Parts Corp dba Newport Panels Corporation & Newport Gliders, Newport, VT; 802.334.5428x104; [SmartWood Certification](#)

NOTE: Below see non-Vermont based FSC Certified companies that use northern forest timber.

2. Atlantic Plywood Corporation, Woburn, MA; 585.458.4180; [SmartWood Certification](#)
 3. Cows Building Supply, Inc., North Amherst, MA; 413.549.0001; [SmartWood Certification](#)
 4. Hammond Lumber Company, Belgrade, ME; 207.495.1127; [SmartWood Certification](#)
- C. Fabricator or Supplier List of Sustainable VT **Millwork** or Molding: Subject to compliance with requirements, provide products by one of the following:
 1. Breznick Woodworking, Londonderry, VT; www.finewoodenfurniture.com

2. C. W. Hasert, Cabinetmakers, Rutland, VT; www.cwhasertcabinetmakers.com
3. Knight Kitchens, North Clarendon, VT; www.knightkitchens.com
4. Koenig Cedar Co., South Burlington, VT; www.koenigcedar.com; SCS-COC-001477 M
5. Shelburne Fine Woodworking, Shelburne, VT; www.sfwvermont.com
6. Vermont Custom Cabinetry, Westminster, VT; www.vermontcabinetry.com
7. Vermont Furniture Works, Stowe, VT; www.vtfurnitureworks.com

NOTE: Coordinate and edit to the correct Section numbers below.

- D. Substitution Limitations: Manufacturers of equivalent products shall be considered when submitted in accordance with SECTION 013000 or SECTION 013300, and SECTION 016000 or 016200.

2.2 DESCRIPTION

A. Regulatory Requirements

1. Hardwood Grades: NHLA American Hardwood Lumber [Grades](#)
2. Softwood Grades: NeLMA (WWPA) [Grade](#)

B. Sustainability Characteristics

GREEN NOTE. Finger-jointed lumber provides an efficient use of the timber resource allowing mills to combine shorter pieces of wood into dimensional, structural lumber.

1. [USGBC](#) LEED Rating: Comply with project requirements intended to achieve the following Rating, as measured and documented according to the USGBC LEED® Green Building [Rating System](#) and Version indicated:

NOTE: Each LEED Version requires a different credit total to achieve the desired LEED Rating.

NOTE. Select one of the following Ratings and edit the Version listed to suit your project.

- a. Rating: Certified, Silver, Gold, Platinum
- b. Version: [LEED-NC](#) v. 2.2 (New Construction)

2.3 MATERIALS

A. General:

NOTE: Clearly indicate use of finger-jointed wood if desired.

1. Hardwood: Provide open and/or closed grained solid wood lumber and veneers per performance requirements.
 2. Softwood: Provide solid wood lumber and veneers per performance requirements.
 3. Solid wood grain pattern cut
 - a. Plain sawn (flat-sawn or flat-grained)
 - b. Quarter sawn (straight-grained, edge grained or straight-grained)
 - c. Rift sawn
- B. Composite Wood Panel Products: Structural Plywood, Particleboard, Medium-Density Fiberboard (MDF), and Hardboard per SECTION 061603.
- C. Accessories

RED NOTE: Avoid specifying bright chromium plated metal finishes, the process which uses carcinogenic hexavalent chromium in a non-recyclable arsenic heavy metal salt bath.

1. Fasteners: Of appropriate type, length and durability for wood product used to securely fasten to the substrate or other wood product for the intended life, exposure, and use of the unit.

NOTE: Borate is considered safe for humans and other mammals, but is not for use in high-moisture areas.

Use boron-based preservatives for above-ground applications only.

- D. Wood Treatments: Refer to SECTION 061003, CERTIFIED ROUGH CARPENTRY.

RED NOTE: The USA phased out the use of CCA (chromated-copper-arsenate) treated wood on December 31, 2003. Hexavalent chromium and arsenic pentoxide heavy-metal compounds are known toxins, carcinogens and teratogens that does harm to people, pets and the environment.

2.4 FINISHES

- A. Shop Finishing per AWI [finish system](#): Moisture-cured or oil-based or water-based urethane or tung oil based.
1. Non-Petroleum Based Wood Finish Systems
 - a. UV resistant, non-yellowing, whey protein-based binder
 - 1). Manufacturer / Product: Vermont Natural Coatings / PolyWhey™
 - b. UV resistant, Botanical Polymerized Tung Oil
 - 1). Manufacturer / Product: Sutherland Welles Ltd. / Loc-Lamin® Wood Finishing System; Morrisville, VT; www.sutherlandwelles.com
 2. Varnishes: Tung Oil, or alkyd polyester resin, or polyurethane resin, or quick-drying or VT styrene resin
- B. Field Finishing: Per DIVISION 09.

PART 3 - EXECUTION

3.1 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install wood products until building is enclosed, wet work is complete, and HVAC system is operating and consistently maintaining temperature and relative humidity (RH) at occupancy levels, and in accordance with manufacturer's recommendations.
- B. Do not install rough carpentry materials that are wet, moisture damaged, or mold damaged.

3.2 EXAMINATION, PREPARATION AND INSTALLATION

- A. Examination, preparation and installation per manufacturer's current written instructions, industry standards, and DIVISION 01 requirements.
1. Proceed with installation only after unsatisfactory conditions have been corrected and installation area properly prepared.
 2. General: Place finish carpentry to indicated levels and lines, with members plumb, aligned, cut, scribed, shimmed as needed, and fitted.
 - a. Allow for expansion and contraction movement of wood material joints due to moisture.
 - b. Fasten or anchor materials and units in a concealed manner with fasteners appropriate to use and anticipated durability.
 3. Transparent Finish: Match wood color and grain pattern.
 4. Install preservative treated wood in accordance with requirements of applicable codes and related Division 06 Sections.

3.3 CLEANING, MAINTENANCE AND PROTECTION

- A. Provide Progress Cleaning, Waste Management, and Provide Final Cleaning per DIVISION 01 requirements.
- B. Provide Initial Maintenance per manufacturer's recommendations.
- C. Protect installed work from weather, vandalism and construction operations damage until Final Completion or Owner occupancy, whichever comes first.

3.4 CLOSEOUT ACTIVITIES

- A. Substantial Completion Requirements per DIVISION 01 requirements.

END OF SECTION

NOTE: Please **contact us** with comments, additions and deletions about this GuideSpec so we can make it better.

VERMONT SUSTAINABLE JOBS FUND

3 Pitkin Court, Suite 301E, Montpelier, Vermont 05602

Phone Number: **802.828.1260** Email: greenspecfeedback@vsjf.org

RED NOTE: Be sure to obtain the latest version of this Guide Specification.

This Guide Specification is not a completed document ready for use. It must be edited deleting, adding, or modifying text, as required to suit project requirements.

The professional stamping and the contracting parties of the Contract Documents are responsible for the accuracy of issued project specifications, including any use of this Guide Specification.

VSJF AND JMMA SPECS SHALL NOT BE LIABLE FOR DAMAGES ARISING OUT OF THE USE OF THIS GUIDE SPECIFICATION.