

SECTION 061003

CERTIFIED ROUGH 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 includes but is not limited to the following:
1. Wood Boards: Select or common
  2. Dimension Lumber: Structural light framing, light framing, studs, decking, structural joists and planks
  3. Timbers: Beams and stringers, posts and timbers
  4. Wood treatments
  5. Accessories including, but not limited to, metal connector plates, structural connectors, fasteners

1.2 SUBMITTALS

- A. Product Data: Submit manufacturer's printed descriptions of materials, components, treatment systems, performance criteria, fasteners, brackets, hangers, gusset plates, adhesives, finishes, use limitations, recommendations and installation information.
- B. Shop Drawings: Submit AHJ required drawings for installed products indicated to comply with design loads including structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- C. Samples: Submit printed material for each type of proposed fastener, hanger or other accessory. Submit three (3) of each accessory for Final Selection.
- D. Quality Assurance Submittals: Certificates of Grade and 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, and other required paperwork as follows:
    - a. MR 5.1, 10% Regional Materials: Submit product data
    - b. MR 5.2, 20% Regional Materials: Submit product data
    - c. 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
- 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 5.1, MR 5.2, MR 7

b. EQ 4.1

1.3 QUALITY ASSURANCE

- A. Regulatory Requirements: Provide fire retardant treatment that complies with FHA and HUD requirements.
- B. Qualifications: Supplier shall be a firm capable of providing Third Party Certification that wood materials were sourced from sustainably managed forests.
- C. Certifications: Wood timber and manufactured wood products shall be sourced from sustainably managed forests as certified by SmartWood, SCS, BVC, PwC, and displaying the FSC or PEFC or PEFC Member label.
- D. Sustainability Standards and Certifications:
  - 1. Adhesive and Sealant VOC Limits: According to South Coast Air Quality Management District (SCAQMD) [Rule 1168](#) and [GS-36](#) for aerosols.
  - 2. VOC Limits: As tested using U.S. EPA Reference Test Method 24 and as defined by
    - a. SCAQMD: 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](#)
  - 3. 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](http://www.vtwoodnet.org/certified_wood_sources.html) .

- A. FSC / [SmartWood Certified Resource Managers](#) of Vermont Timber
  - 1. Essex Timber Company, LLC, Ipswich, MA; 978.356.5995; [SmartWood Forest Management Public Summary](#) (*manages old Champion International lands*)
  - 2. Fountain Forestry Incorporated, Montpelier, VT; 802.223.8644; [SmartWood Forest](#)

[Management Public Summary](#)

3. Marsh-Billings-Rockefeller National Historical Park, Woodstock, VT; 802.457.3368; [SmartWood Forest Management Public Summary](#)
4. Redstart Forestry, Corinth, VT; 802.434.5491; [SmartWood Forest Management Certification Assessment](#)

B. FSC Certified Lumber Wholesalers in VT:

1. Currier Farms Forest Products, Danville, VT; 802.684.8128; SW-COC-1120 C and SCS-COC-001477 E
2. Lumberjack Lumber, Inc., White River Junction, VT; www.lumberjackwood.com; SCS-COC-001477 C
3. Vermont Family Forests, Bristol, VT; 802-453-7728; www.familyforests.org; SCS-COC-001477 D

C. Lumber Wholesalers in VT:

1. Richard S. Ward Lumber Co., Shelburne, VT; 802.985.5201
2. Champlain Hardwoods, Essex Junction, VT; 802.878.5000
3. Jack Tarmy Lumber Co., Brattleboro, VT; 802.257.0427
4. Mansfield Forest Products, Shelburne, VT; 802.425.7500

D. FSC Certified Sawmills in VT:

1. Allard Lumber Company, Brattleboro, VT; www.allardlumber.com
2. Gagnon Lumber, Inc., Pittsford, VT; 802.483.6550
3. S.A.W. Mill, Morrisville, VT; 802. 888.2700

E. Sawmills in VT List: (200+/- sawmills. [Search link](#))  
(http://www.vtfrp.org/util/for\_utilize\_sawmill\_search.cfm)

F. Kiln-Dried Processors in VT List:

1. AJ Wesolow Sawmill, Morrisville, VT; 802.888.2700
2. Brattleboro Kiln Drying (a Cersosimo Company), Brattleboro, VT; 802.254.4528
3. Caledonia Kiln Corp., Saint Johnsbury, VT; 802.748.3528
4. Morse Hardwoods, Essex Junction, VT; www.morsehardwoods.com
5. Stevens Kiln Drying, Wolcott, VT; 802.472.5013

G. Conventional Kiln-Dried Lumber Yard Processors in VT List:

1. Ames True Temper, Inc., Wallingford, VT; 802. 446.2601
2. Britton Lumber Company, Inc., Fairlee, VT; 802.333.4388
3. Cersosimo Lumber, Co., Brattleboro, VT; www.cersosimolumber.com
4. Clifford Lumber, LLP, Hinesburg, VT; 802.482.2325
5. Cyr Lumber, Inc., Milton, VT; 802.893.4448
6. Granville Manufacturing Company, Granville, VT; www.woodsiding.com
7. Lathrop's Maple Supply, Bristol, VT; 802.453.2897
8. Stanley Tools, Pittsfield, VT; 802.746.8311

H. Dehumidification Kiln-Dried Lumber Yard Processors in VT List:

1. Carl Gerbeth Construction, St. Johnsbury, VT; 802.748.8412
2. Clarendon Hardwood Bowls, West Rutland, VT; 802.438.2345
3. Granville Manufacturing Company, Granville, VT; www.woodsiding.com
4. Kerber Farms & Mill, Guilford, VT; 802.257.0614
5. Mill River Lumber, Ltd, North Clarendon, VT; www.millriverlumber.com

6. P & R Lumber, Wolcott, VT; 802.472.6636
7. S.A.W. Mill, Morrisville, VT; 802. 888.2700
8. Woodspirit, Pownal, VT; 802.823.5510

I. Trucking Contractors in VT List

1. Paul Fournier, Hinesburg, VT; 802.482.2617
2. HRS Transportation, Bristol, VT; 802.453.2147
3. Weston Pulpwood Sales, Inc., Essex Junction, VT; 802.864.4365

J. Substitution Limitations: Manufacturers of equivalent products shall be considered when submitted in accordance with DIVISION 01.

2.2 DESCRIPTION

A. Regulatory Requirements

1. Mechanically Graded Lumber: Machine stress-rated lumber (MSR) or machine evaluated lumber (MEL) and grade stamped as conforming to the American Lumber Standard or Southern Pine Inspection Bureau (SPIB) and ASTM D6570.
2. Visually Graded Lumber: Lumber visually graded by trained graders for appearance and strength factors according to [PS20](#) rules as enforced by regional organization like [NeLMA](#) and others.

B. Sustainability Characteristics

**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. Applicable LEED Credits: Performance requirements of the following LEED Categories and Credits apply to this Section and shall be met:
  - a. MR 5.1, MR 5.2, MR 7
  - b. EQ 4.1

2.3 MATERIALS

A. General:

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

1. Hardwood: Provide 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. Structural and Framing Lumber:

1. Per [US DoC PS20](#) or Canadian [NLGA](#), and applicable [grading rules](#) of the inspection agency, as certified by ALSC's Board of Review for wood species as included in the Work:
  - a. NeLMA Grading Rules: Northeastern Lumber Manufacturers Association.
2. Factory mark each piece of lumber with grade stamp of inspection agency indicating grade, species, moisture content at time of surfacing, and mill.
3. For exposed lumber, mark grade stamp on end or back of each piece, or omit grade stamp and provide certificates of grade compliance issued by inspection agency.

## 2.4 WOOD TREATMENTS

**RED NOTE: The USA phased out the use of CCA (chromated-copper-arsenate) treated wood on December 31, 2003.**

- A. Decay and Insect-Resistant Wood: American Wood-Preservers Association [AWPA Standards](#); use only hexavalent chromium-free and arsenic-free treatment materials.

**GREEN NOTE: Naturally rot-resistant, untreated wood species have an average service life roughly equivalent to and sometimes better than treated lumber (9-50 yrs) depending on the species, treatment, and application.**

1. Naturally Rot Resistant or Very Resistant (Untreated) Wood Species in accordance with Forest Products Laboratory 1999 Wood Handbook, Table 3-10: Heartwood (average untreated lifespan)
2. Waterborne Preservative Material: AWPA P5 using one or more of the following materials.

**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.**

3. Lumber Preservative Treatment by Pressure Process: AWPA C1, C31; free of halogens, sulfates and ammonium phosphate.
4. Fire-Retardant Treatment by Pressure Processes: AWPA P17 Lumber; ASTM D1435
5. Kiln-Dried After Treatment (KDAT) Moisture Content: 19 percent maximum for lumber and 18 percent for plywood.
6. Hygroscopic Requirements: Per ASTM D3201 at relative humidity up to 95 percent.

## 2.5 ACCESSORIES

- A. 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. Hexavalent chromium-free coating.
- B. Multipurpose Construction Adhesive: Formulation complying with ASTM D3498 with a VOC content of 70 g/L or less, that is recommended for indicated use by adhesive manufacturer.
- C. Glue: NAF aliphatic-resin, polyurethane, or resorcinol wood glue recommended by manufacturer for general carpentry use that complies with LEED Credit EQ 4.1 requirements.

## PART 3 - EXECUTION

### 3.1 FIELD CONDITIONS

- A. Do not install rough carpentry materials that are wet, moisture damaged, or mold damaged.
- B. Existing Conditions: Locate concealed framing, blocking and reinforcements that support woodwork and document on shop drawings before work is enclosed. All preparatory support work shall be subject to inspection and approval.

### 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. Install wood framing per ANSI / AF&PA [NDS-2005](#), unless otherwise noted.
  3. Provide structural and fire blocking in furred spaces, stud spaces, and other concealed cavities as indicated, and as required by AHJ. For perimeter blocking anchorage spacing requirements refer to FM Data Sheet 1-49.
  4. Fasten or anchor materials and units in a concealed manner with fasteners appropriate to use and anticipated durability. Attach rough carpentry work to substrate securely by anchoring and fastening as indicated, complying with ICC Table 2304.9.1, Fastening Schedule, and ICC-ES / [ESR-1539](#), which may supercede the ICC National Evaluation Report [NER-272](#).
  5. Fasten wood and wood products though sound wood, sorting and selecting to avoid characteristic imperfections like knots and checks.
  6. 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.

### 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](mailto: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.**

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