

The Cornerstone Project Certified Wood Spec

The certified wood base spec was developed collaboratively by the Cornerstone Project for use in sourcing certified wood products from Vermont. The participants created this spec with the flexibility to allow architects, designers and project teams to choose the items that work best for them.

Architect Jonathan Miller drafted the language and contributed his expertise to development of the spec. The Vermont Sustainable Jobs Fund, a Vermont-based non-profit organization, manages the Cornerstone Project.

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THE CORNERSTONE PROJECT



SECTION 06063 – CERTIFIED WOOD TYPES

PART 1– GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Finish trim wood types; hardwoods and softwoods.
 - 2. Millwork wood types, hardwoods.
 - 3. Framing wood types, softwoods.
 - 4. Wood blocking wood types, softwoods.
 - 5. Heavy timber framing wood types, softwoods.
- B. Related Documents and Sections: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.
 - 1. Section 061000 – Rough Carpentry
 - 2. Section 061300 – Heavy Timber
 - 3. Section 061500 – Wood Decking
 - 4. Section 061600 – Sheathing
 - 5. Section 061800 – Glued-Laminated Construction
 - 6. Section 062000 – Finish Carpentry
 - 7. Section 062200 – Millwork
 - 8. Section 062500 – Prefinished Paneling
 - 9. Section 062600 – Board Paneling
 - 10. Section 066700 – Closet and Utility Wood Shelving
 - 11. Section 064000 – Architectural Woodwork
 - 12. Section 064200 – Wood Paneling
 - 13. Section 064300 – Wood Stairs and Railings
 - 14. Section 064400 – Ornamental Woodwork
 - 15. Section 064600 – Wood Trim
 - 16. Section 064800 – Wood Frames
 - 17. Section 096400 – Wood Flooring
 - 18. Section 123000 – Casework
 - 19. Section 125000 – Furniture

1.3 REFERENCES

- A. American Forest and Paper Association (AF&PA), Washington DC.
<http://www.woodcom.com/woodcom/afpa/afpabp02.html>
 - 1. Sustainable Forestry Initiative (SFI) Certified (Sustainably Managed) Lumber
<http://www.aboutsfi.org/core.asp>
- B. American Lumber Standard (ALS)
 - 1. American Softwood Lumber Standard (Voluntary Product Standard 20) or PS20-99
http://www.alsc.org/geninfo_summary_mod.htm
- C. Architectural Woodwork Institute (AWI) <http://www.awinet.org> :
 - 1. AWI - Quality Standards, 8th Edition, Version 1.0, 2003.
- *(CSA below is Not currently recognized by LEED)*
- D. Canadian Standards Association (CSA) International <http://certifiedwood.csa.ca>
 - 1. Standard Z809-02
- E. IBC International Building Code, 2001, Chapter ____.
- F. Metafore. <http://www.certifiedwood.org/>
- G. Forest Stewardship Council (FSC) Certified (Sustainably Managed) Lumber
http://www.fsc.org/en/how_fsc_works/policy_standards/princ_criteria and www.fscus.org
 - 1. Rainforest Alliance 'SmartWood' Program. Richmond, VT
<http://www.smartwood.org>

2. Scientific Certification Systems 'Forest Conservation Program' (FCP) Emeryville, CA.
<http://www.scscertified.com>
3. SGS Systems and Services Certification Inc. Qualifor Program Rangeley, ME
<http://www.sgsqualifor.com>
4. BVQI Jamestown, NY
<http://www.bvqina.com>

H. NeLMA., Northeastern Lumber Manufacturers Association. www.nelma.org

• *(SFI below is Not currently recognized by LEED)*

- I. Sustainable Forestry Initiative (SFI) 3rd Party Certification, Washington DC
 1. Third Party SFI – American Forest & Paper Association Certified
www.afandpa.org/Content/NavigationMenu/Environment_and_Recycling/SFI/The_SFI_Standard/The_SFI_Standard.htm
 2. Third Party SFI – AM Tree Farm Certified
www.treefarmssystem.org/aboutfarming/standards.cfm
- J. United States Department of Commerce Standard PS20-99 (refer to 'B' above)
 1. Procedures for the Development of Voluntary Product Standards
- K. United States Green Building Council (USGBC) <http://www.usgbc.org>

1.4 PERFORMANCE REQUIREMENTS

- A. Rough Lumber: Department of Commerce / ALS Standard PS20-99
- B. Structural Lumber: BOCA National Building Code, 1996, Chapter 23; Design values as specified in AFPA ND
- C. Finished Lumber:

• *(Language below is subject to the aesthetic and environmental judgment of the project design team and can be varied to suit.)*

• *(Lower Grades, larger knots, and contrasting or no color requirements are recommended to increase the chance that a certified supplier can more completely provide certified lumber for your project and to more completely use the entire tree.)*

• *(Owners and the A/E must understand that more time is required by the A/E in order to select what exposed wood pieces go where as there are wide sapwood/heartwood variations as well as grain patterning, if the wood is to be clear sealed.)*

1. AWI 8th Edition, Grade 3, Table 100-S4.
2. NHLA, National Hardwood Lumber Association, Select & Better.
3. NeLMA., Northeastern Lumber Manufacturers Association. www.nelma.org, Grade 2 & Better.

• *(Language below relates to specific wood uses such as architectural casework, wood blocking, wood flooring, etc. These requirements are subject to the aesthetic and environmental judgment of the project design team should be studied, coordinated with the standard used, and individually specified to suit. To utilized more of the certified tree specify larger the knots and a varied color.)*

4. Architectural Casework:
 - a. Allowable checks: None.
 - b. Sound Knots: Not exceeding 3/8", and no knots within _" of millwork edges.
 - c. Color: [Select wood for uniform [sapwood] [heartwood] color.] [Select wood for contrasting heartwood and sapwood coloring.] [Delete color requirement.]
 - 1.) Aesthetic juxtaposition of heartwood/sapwood and grain patterns to be reviewed by Architect in the field.

1.5 SUBMITTALS

A. LEED Submittal: Submit paperwork requirements for each proposed credit.

• *(Delete paragraph if this is not a LEED project.)*

1. Credit MR 7: Certificates of chain-of-custody signed by manufacturers certifying that products specified to be made from certified wood were made from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC 1.2, "Principles and Criteria." Include evidence that mill is certified for chain-of-custody by an FSC-accredited certification body.
- B. Certification: That wood and/or wood products are from sustainably managed forests as certified, including chain of custody, by the lot owner, broker, vendor, mill, fabricator and manufacturer through the:
 1. Forest Stewardship Council (FSC) 'Principles and Criteria', Washington, DC
 - a. Rainforest Alliance 'SmartWood' Certification Program, Richmond, VT
 - b. Scientific Certification Systems 'Forest Conservation Program' (FCP), Emeryville, CA.
 - c. SGS Systems and Services Certification Inc. Qualifor Program Rangeley, ME
 - d. BVQI, Jamestown, NY

• *(SFI and CSA below are Not currently recognized as certifiers by the LEED (MR Credit 7) process.)*

2. Sustainable Forestry Initiative (SFI) 3rd Party Certification, Washington DC
 - a. Third Party SFI – American Forest & Paper Association Certified
 - b. Third Party SFI – AM Tree Farm Certified
3. Canadian Standards Association (CSA) International, Standard Z809-02.

1.6 QUALITY ASSURANCE

• *Choose below based on LEED certification, state purchasing requirements or size of local forest to harvest.)*

- A. Forests Harvested: Wood harvested from sustainably managed forests located less than [500] [250] miles from the project site. [in the state of Vermont.]
 1. Include harvesting select trees from the project building site that are scheduled for removal.
 2. Other trees, harvested from the project building site, scheduled for removal and not acceptable for incorporating as milled lumber into the project are to be converted using one or more of the following methods:
 - a. Sawn into lumber for pallets, etc.
 - b. Sawn into firewood
 - c. Chipped and used for mulching on site
 - d. Made into combustible wood chips or pellets.
 3. GC to provide estimate on weight of trees, in order to keep tally for job-site recycling.
- B. Wood Milling: Wood milled [into lumber located less than [500] [250] miles from the project site.] [in the state of Vermont.]
- C. Manufacturers / Fabricators: Companies specializing in manufacture of wood products specified and located [less than [500] [250] miles from the project site.] [in the state of Vermont.]

• *(Use of 250 miles as based on the Northern Forest region. 500 miles is acceptable for USGBC's LEED certification but ranges outside the Northern Forest.)*

- D. Source Documentation: Certification or affidavit that wood complies with quality assurance standards A, B and C.

1.7 QUALITY ASSURANCE INTENT:

- A. Wood satisfying this specification shall to the greatest extent possible comply with the quality assurance provisions of Article 1.6. However, this may not be possible in all cases. In the event that all of the provisions of Article 1.6 cannot be met the order of priority to satisfy the intent of this specification is to satisfy paragraph 'A' first, then 'B', then 'C' and finally 'D'.

1.8 ENVIRONMENTAL REQUIREMENTS

- A. (Potential) Proposed LEED Credits:
1. Credit MR 3.0 – Resource Reuse.
 2. Credit MR 5.1 – Regional Materials.
 3. Credit MR 5.2 – Regional Materials.
 4. Credit MR 6.0 - Rapidly Renewable Materials.
 5. Credit MR 7.0 - Certified Wood.

PART 2 – PRODUCTS

2.1 HARDWOODS

- A. Provide solid wood and veneers per performance requirements. Provide [plain] [quarter sawn] lumber and [sliced] [rotary] veneers as indicated. Do not provide finger-jointed wood unless clearly indicated in the Contract Documents. Provide hardwood called out by the Contract Documents from the following list of wood types:

• *(See the Drawings and/or Related Sections in Part 1 – General for other places wood types should be called out.)*

1. Type 1: Red Alder, [Alnus rubra.]
2. Type 2: American Hophornbeam, also known as Ironwood, [Ostrya virginiana.]
3. Type 3: White Ash, [Fraxinus americana.]
4. Type 4: Trembling Aspen, [Populus tremuloides.]
5. Type 5: American Basswood, [Tilia americana.] (limited quantities.)
6. Type 6: American Beech, [Fagus grandifolia.]
7. Type 7: Black Birch, also known as Sweet Birch or Cherry Birch, [Betula lenta.]
8. Type 8: Yellow Birch or White Birch (Yellow sapwood), [Betula alleghaniensis.]
9. Type 9: American Black Cherry, [Prunus serotina.]
10. Type 10: White Maple, also known as Sugar Maple, [Acer sacharrum.]
11. Type 11: Red Maple, [Acer rubrum.]
12. Type 12: White Oak, [Quercus alba.]
13. Type 13: Northern Red Oak, [Quercus rubra.]
14. Type 14: Red Oak, [Quercus borealis.]
15. Type 15: Yellow Poplar, American Tulipwood, [Liriodendron tulipifera.] (limited quantities.)
16. Type 16: Butternut (Walnut family,) [Juglans cinerea.]
17. Type 17: Black Walnut, [Juglans nigra.] (limited quantities.)
18. Type 18: Sycamore, [Platanus occidentalis.] (limited quantities.)

2.2 SOFTWOODS

- A. Provide solid wood and veneers per performance requirements. Provide plain or quarter sawn lumber and sliced or rotary veneers as indicated. Do not provide finger-jointed wood unless clearly indicated in the Contract Documents. Provide softwood called out by the Contract Documents from the following list of wood types:

1. Type 19: Eastern White Cedar, [Thuja occidentalis.] (limited quantities.)
2. Type 20: (Eastern) Hemlock, [Tsuga canadensis.] (sawblade breaking hard knots make milling difficult.)
3. Type 21: Jack Pine, [Pinus banksiana.] (SPFs)
4. Type 22: Red Pine, [Pinus resinosa.] (SPFs: Good for structural uses and accepts pressure treatment.)
5. Type 23: Eastern White Pine, [Pinus strobus.]
6. Type 24: White Spruce, [Picea glauca.]; Red Spruce, [Picea ruben]; and Black Spruce [Picea mariana.] (SPFs and blocking)
7. Type 25: Tamarack, [Larix laricina.]
8. Type 26: Balsam Fir [Abies balsamea.] (SPFs)

PART 3 – EXECUTION

3.1 VERMONT CONTACT FOR ASSISTANCE IN FINDING CERTIFIED WOOD SUPPLIERS MEETING THESE SPECIFICATIONS:

- A. Forest Products Specialist, Vermont Sustainable Jobs Fund, Tel: 802-828-1260; www.vsjf.org

3.2 OTHER CONTACTS TO FIND CERTIFIED WOOD SUPPLIERS IN NORTH AMERICA:

- A. SmartGuide to Green Building Wood Sources and Rainforest Alliance SmartWood Certified Companies <http://www.rainforest-alliance.org/programs/forestry/smartwood/find-certified-products.html>
- B. Metafore Search Engine for FSC/SFI/CSA Certified Companies <http://www.certifiedwoodsearch.org/searchproducts.aspx>
- C. FSC Germany Data On FSC Certificates <http://www.fsc-info.org/>