

Wood Specification: Certified Wood

Forest certification verifies the sustainability of forest management. Third-party chain-of-custody certification traces wood material from point of harvest to its end use, including all stages of processing, transformation, manufacturing, and distribution; it may also include on-product labelling. More than 50 independent forest certification programs exist worldwide, reflecting the diversity of forest types, ecosystems, and ownership.

The two largest umbrella certification programs are the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification schemes (PEFC). PEFC endorses the Canadian Standards Association (CSA), the Sustainable Forestry Initiative (SFI) and the American Tree Farm System (ATFS), three standards functional in North America in addition to FSC. While the various programs differ, most promote sustainable forest management through principles, criteria, and objectives.

Why Certified Wood Adds Value

- Wood is an excellent environmental choice for any new construction or renovation project. It grows naturally. It is renewable and recyclable. Wood from well-managed forests is sustainable over the long term. Forest certification shows customers that the wood comes from well-managed forests.
- By providing a credible means to assure customers that wood products come from legal and responsible sources, third-party forest certification can provide an incentive for sustainable forest management and continual improvement of forest practices.



Terminology

Chain of custody:

a procedure for tracking a product from the point of harvest or extraction to its end use, including all successive stages of processing, transformation, manufacturing, and distribution.

Sustainable forestry:

management that maintains and enhances the long-term health of forest ecosystems for the benefit of all living things while providing environmental, economic, social, and cultural opportunities for present and future generations.

Resources

www.certificationcanada.org: provides information about the certification programs used in Canada along with national statistics and information for buyers.

www.naturallywood.com: provides a database of British Columbia-based suppliers of certified wood, plus a wealth of other resources.

www.buildgreenwithwood.com: a community for professionals to share innovations, connect with industry news, and find out more about building green with wood from sustainably managed forests.

How to Include Certified Wood in Design

- Green rating systems offer optional credits for including a minimum percentage of certified wood-based materials (based on cost) among the building components. Most rating systems include wood used in structural framing and in general dimensional framing, flooring, subflooring, wood doors, and finishes. Temporary uses such as formwork, bracing, scaffolding, sidewalk protection and guard rails, and furniture may also be used in the calculations for certified wood use. The credits available for the use of wood range from one to six depending on which green building rating system is applied.
- It is important to determine the feasibility of using certified wood at the outset of the design process. Establish a project goal for certified wood products that is consistent with the desired rating system. Identify components of the design that can use certified wood, and research the availability of wood products from certified sources that can support design goals.
- For manufactured products (e.g., windows), only new wood and pre-consumer recycled fibre are eligible for certified wood credits. Wood products made from reclaimed, salvaged, or post-consumer recycled content are accounted for under other credits. Pre-consumer recycled wood is considered part of new wood.

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Procedure

- Determine which certification system the wood will be sourced through.
- Specify the requirement for certified wood in the contract documents.
- Track certified wood purchases and retain any associated chain-of-custody documentation.
- Collect copies of vendor invoices for each certified wood product.
- Maintain a list that identifies the percentage of certified wood in each purchase.
- Develop a spreadsheet for calculating the amount of new wood, pre-consumer recycled wood, and certified wood needed for the project. For each wood product, specify the percentage of certified wood to be used, based on cost.

$$\text{percentage of certified wood} = \frac{\text{certified wood material value (\$)}}{\text{total new wood material value (\$)}} \times 100$$

Pre-design: check to see which certified wood products are readily and locally available and work these into the design.

Pre-design: check which forest certification is acceptable. This will depend upon the green building rating system the project is following (many have adopted an inclusive approach).

Design: focus on big-ticket items that can contribute to multiple credits.

-OR-

Where dealing with large volume of a certain type of wood product (e.g., framing lumber), price regionally available certified wood to determine whether a rating system credit can be achieved.

-OR-

Weigh the value of using certified wood against the use of local wood that has other environmental merits. Do a life cycle assessment to determine the best option.

Design: create a baseline budget and assess the goals.

Contract Documentation: tabulate and calculate the required percentage of certified wood in a spreadsheet. Reassess as needed.

Construction: advise the builder and trades of the scope and requirements of the certified wood products. Track materials and products that are required to be from certified sources and obtain certificates as necessary.



Percy Norman Aquatic Centre

During the 2010 Olympic and Paralympic Winter Games, the new Percy Norman Aquatic Centre in Vancouver, British Columbia was a venue for curling events and a marshalling area for athletes. In keeping with the Vancouver Board of Parks' ongoing commitment to sustainability, this facility was built to meet Leadership in Energy and Environmental Design (LEED®) Gold criteria.

The Aquatic Centre features a solid wood roof supported on Douglas-fir glulam beams that span up to 130 ft (43 m) across the main pool area. At the east end of the building, the beams are supported on outwardly inclined Douglas-fir glulam columns of similar cross-section, with steel structure V supports picking up the other end of the beams. It features glulam beams made from certified wood.

What to Ask Suppliers

- Identify vendors, suppliers, and manufacturers and coordinate with them early to ensure a supply of the "brand" of certified wood that is acceptable to the particular green building rating system.
- Ask for copies of all relevant chain-of-custody certificates and confirm they are in good order for all relevant products prior to purchasing them.
- The market currently does not hold competitive materials to wood (concrete, steel, glass, plastics) to the same level of accountability for chain-of-custody certification. Ask suppliers of non-wood products about the level of stewardship and standards that apply to these other materials.

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATION:



International Organization for Standardization (ISO) (www.iso.org)

- ISO 14001 is a standard for environmental management systems that is applicable to any type of organization.
- Many of British Columbia's major forest companies have their environmental management systems certified to ISO 14001, for either their manufacturing facilities and/or their forest management practices.

FOREST MANAGEMENT CERTIFICATION:



Canadian Standards Association's (CSA) Sustainable Forest Management Standards (www.csa-international.org)



- CSA is an independent, not-for-profit organization accredited to develop standards in Canada.
- CAN/CSA Z809 and CAN/CSA Z804 are both National Standards of Canada based on internationally recognized criteria that are adapted to local conditions through a transparent public participation process.

- CSA offers a PEFC product label and a chain-of-custody certification standard.
- 56% of the certified forests in British Columbia are certified under CSA.



Forest Stewardship Council (FSC) (www.fsccanada.org)

- FSC is an international non-governmental organization that promotes responsible management of forests.
- It endorses regional standards based on its international principles and criteria adapted to local conditions.
- It offers a product label and a chain-of-custody certification standard.
- 5% of the certified forests in British Columbia are certified under FSC.



Programme for the Endorsement of Forest Certification (PEFC) (www.pefccanada.org)

- PEFC is the world's largest certification umbrella organization. As an international non-government organization, it supports sustainable forest management through assessment and endorsement of national forest certification schemes.
- The standards of the Canadian Standards Association (CSA), the Sustainable Forestry Initiative (SFI) and the American Tree Farm System (ATFS) are endorsed by PEFC.



Sustainable Forestry Initiative (SFI) (www.sfiprogram.org)

- SFI is a non-profit organization that promotes responsible forest management in the USA and Canada.
- It offers a product label and a chain-of-custody certification standard.
- 39% of the certified forests in British Columbia are certified under SFI.