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 owernership.

The two largest umbrella certification programs are the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (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.

photo: Michael Bednar

How to Include Certified Wood in Design

- Green rating systems offer optional credits for including third-party certified wood-based materials among the building components; the contribution of certified wood to total cost of installed materials determines the points awarded. Most rating systems include wood used in structural framing and in general dimensional framing, flooring, subflooring, wood doors, and finishes.
- There are four primary forest certification programs operating in North American today: SFI, FSC, CSA, and ATFS. All but FSC are endorsed by PEFC, a European-based organization that evaluates and provides mutual recognition of forest certification standards worldwide. Certification in all cases requires third-party verification against a published, transparent standard. Different rating systems allow for different certification programs, with some more inclusive than others.
- The feasibility of using certified wood should be determined 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.

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.sfiprogram.org
Provides information about the Sustainable Forestry Initiative (SFI) forest and wood certification program.

www.ca.fsc.org
Provides information about the Forest Stewardship Council (FSC) forest and wood certification program.

www.pefccanada.org
Provides information about PEFC Canada.

www.csasfmforests.ca
Provides information about the Canadian Standards Association (CSA) forest and wood certification program.

www.certificationcanada.org
Provides information of forest management certification in Canada.

Photo: Brudder

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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.

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

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.

Prince George Airport Expansion, Prince George, BC
Architect: mcfarlane | green | biggar
Photo: mcfarlane | green | biggar

Prince George Airport Expansion

Prince George is the largest city in northern British Columbia. It has been a centre for forestry for more than a century, but in recent years the city has successfully broadened its economic base with the establishment of the University of Northern British Columbia and with the growth of wilderness tourism which attracts thousands of visitors each year from Europe.

An elegant system of Douglas-fir glulam and steel portal frames lifts a continuous glass skylight above the surrounding flat roofs, bringing daylight into the heart of the building. Bands of horizontal Douglas-fir sunscreens, mounted alternately on the east and west sides of the spine, filter the light and create an ever-changing shadow play on the walls and floor of the concourse

As the most important gateway to the city, the new airport has successfully redefined the image of Prince George. The elegance and economy of expression celebrate the precision of contemporary craftsmanship and the increased emphasis now being placed on value-added, engineered wood products and environmental stewardship.

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.

FOREST MANAGEMENT CERTIFICATION:

Canadian Standards Association's (CSA) Sustainable Forest Management Standards (www.csasfmforests.ca)

- 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.

Forest Stewardship Council (FSC) (www.ca.fsc.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.

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

American Tree Farm System (www.forestfoundation.org/american-tree-farm-system)

- ATFS is the largest and oldest sustainable family woodland system in America, internationally recognized, meeting strict third-party certification standards.
- ATFS is a program of the American Forest Foundation.