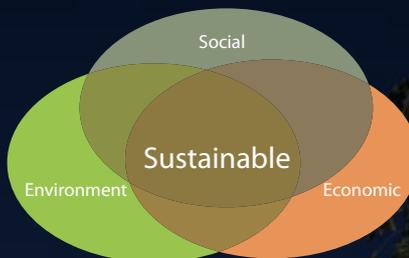




Sustainable Development

Green building supports a built environment that is socially, environmentally and economically responsible. These are the three pillars of sustainable development.

While it is important to promote environmental sustainability, there is also a need to consider social and economic issues. Buildings must be designed with people in mind – and this will in turn lead to communities that are thriving and vibrant.



*Cascades Academy of Central Oregon Campus
Architect: Hennebery Eddy Architects, Inc.
Photographer: Josh Partee*

Meeting Social Needs

Social sustainability relies on a collaborative approach to building and community development, one that involves all stakeholders, reinforces social networks, and allows people of every age and ability to reside and participate in their community throughout their life. Sustainable communities make it easier for people to travel by foot, bicycle and transit, and they bring together residential, commercial and retail development.

The objective of green design is to create communities where people will want to live and work now and in the future. Where appropriate,

there should be preference given to renewable and recyclable materials that are regionally harvested or manufactured, and can be installed and maintained by local labour.

Once again, life cycle assessment has a key role to play in identifying the most appropriate product choices. There may be times when local materials are not the most environmentally sound choice; and it may be better to import products that have lower extraction, processing and disposal impacts.



U.S. forestry regulations, best management practices, monitoring and training programs assure that products are harvested responsibly.

Meeting Economic Needs

A green design may cost more but often saves operating costs throughout the life of the building – through more efficient lighting and better windows, smaller and less costly HVAC, better use of materials, and reduced demolition costs. A green building is also likely to maintain a higher value.

A 2009 report by the U.S. General Services Administration studied 12 sustainably designed buildings and found they not only cost less to operate and have excellent energy performance, but that occupants are more satisfied with the overall building than those in typical commercial buildings.¹

While it is often hard to quantify, studies show that environmental air quality improvements can actually improve performance and productivity, and may reduce the time lost to illness. In Nevada, a post office was renovated at a cost of \$300,000 to lower the ceiling and install energy-efficient lighting. It was estimated that energy savings would pay back the total cost in about 13 years – and that productivity gains through improved employee efficiency and reduced errors would return the full cost in less than a year.

¹Assessing Green Building Performance. A Post Occupancy Evaluation of 12 GSA Buildings. Pacific Northwest National Laboratory (2008) www.gsa.gov/graphics/pbs/GSA_Assessing_Green_Full_Report.pdf

Responsible Forest Products

Builders can use their buying power to improve forest management by choosing wood products they know are from legal, sustainable sources. This demonstrates their corporate social responsibility and shows customers they care about the environment.

Illegal logging is an urgent global problem that leads to the loss of wildlife habitat and public revenues. Lower prices for illegal forest products distort global markets and discourage sustainable forest management.

Private and public procurement policies are increasingly requesting proof that forest products are derived from known and legal sources.

These policies generally accept wood from certified sources as evidence of both legality and sustainability.

North America is a world leader in forest certification. It also has comprehensive governance structures, and can assure buyers that its forest products are harvested legally and sustainably.





Photographer: Michael Bednar

U.S. Resource Communities

In the United States, forest products provide economic opportunities for people in communities across the country. About one million workers are employed in the forest products sector. Forest products account for approximately six per cent of the total U.S. manufacturing GDP and is among the top ten manufacturing sector employers in 48 states. Forest products in the U.S. generate over \$200 billion a year in sales and about \$54 billion in annual payroll.

Source: USDA Forest Service. Accessed 4/15/14. <http://www.fs.fed.us/research/forest-products/>

Green buildings

- Mitigate climate change
- Use less energy and water
- User fewer materials
- Reduce waste
- Are healthy for people and the planet