



Timber recycles carbon

Getting it right: a 12-step strategy for using timber in your building project

A decision to use timber to complete an environmentally friendly building project delivers “green” benefits “from seed to sawdust”. The timber you select has already helped remove CO₂ from the atmosphere and has enhanced soil and water quality as a growing tree. Its milling process has used far less energy than other building product manufacturing processes. As part of your building, the timber locks away carbon gasses as solid carbon. And when the time for renovation or demolition comes, future generations will be thankful that the timber you chose can be reused, recycled or disposed of with little environmental impact.

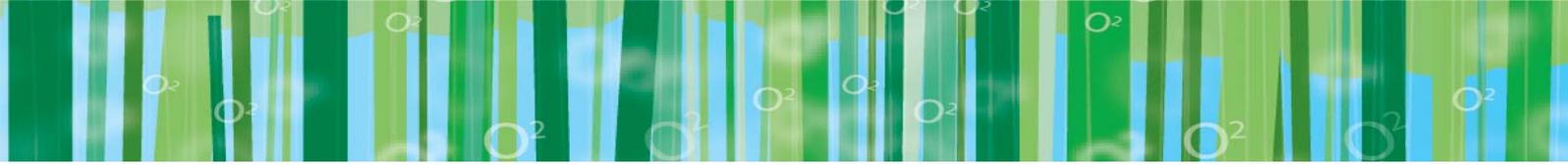
Here are the 12 steps to a successful timber purchasing, application and disposal strategy.

1. Consider timber for your building project at the beginning of the design stage

When designing a building project, consider opportunities to minimise environmental impacts of the project’s design. Consider the embodied energy of the building materials, passive design elements to make the most efficient use of natural cooling and heating opportunities, and the additional energy reduction measures such as insulation and energy efficient appliances to minimise operational energy use during the life of the project. With appropriate orientation, ventilation and shading, light weight timber construction will generally come out on top in terms of embodied energy and operational energy within Queensland’s warm climate.

2. Choose the right timber for the right project

Critical to achieving the best result from timber is to ensure that the timber being specified is suited to the project. Consideration needs to be given to structural requirements, desired appearance and durability. The various timber options to meet these needs should be evaluated. Timber Queensland can provide substantial guidance to help you choose the right timber for the right project.



3. Consider your structural requirements

Your project's structural requirements should be considered when determining the right timber to use. A series of Australian Standards details the design requirements for various timbers that have differing structural properties. Influencing your timber selection will be strength requirements, structural member size, stress grades, species, availability and cost.

4. Consider the appearance of the right building product

Timber's natural beauty is often an important feature supporting decisions about its use. Consider timber's characteristics that enhance appearance. Timbers with a high level of "feature" can add to a building project's character, while at the same time reducing waste in the production process. Provided the timber selected is properly graded and suited to the application, the appearance of structural timbers will have no detrimental effect on its performance as a structural timber.

5. Ensure the timber's durability matches the needs of the project

When selecting timber for particular applications, consider its exposure to the elements, design detailing, the finish and the ongoing maintenance that will be required. Various timbers are naturally durable, while the durability of others is improved by preservative treatments.

6. Consider the impact of disposing

From the beginning of the design stage, think about the end. What happens when the need for renovation or demolition arrives? Of all building products, timber provides the least environmental concerns when it comes to reuse or disposal. However, be aware that using some treated timber brings specific disposal requirements. Glues and composite products can also make disassembly and reuse difficult. Fortunately, waste management technology is advancing rapidly, providing more efficient recycling and disposal methods. Some disposal options include:

- Recycling and re-manufacturing – involving the reuse of structural and appearance products as well as re-manufacturing into value-added products such as flooring, joinery or decking.
- Mulching – some commercial waste management businesses offer on-site or off-site use of timber building residues for mulching. This can be an effective way of limiting the cost and improving the efficiency of building residue disposal.
- Recovered energy – timber residues can be used to generate environmentally sustainable heat and/or power, providing an important opportunity to reduce waste and recover energy.

- Landfill – when other avenues for reuse and recycling have been exhausted, then landfill disposal may be the most appropriate option.

Acquiring the right timber

When you have determined the appropriate timber specifications, consider which timber should be sourced from whom. Here are further steps for a successful timber purchasing, application and disposal strategy.

7. Choose certified and labelled timber products

Certified and labelled timber products should be sought in the first instance. Certification provides the simplest means of establishing the legality and sustainability credentials of the timber you buy. At this stage the availability of certified product is limited, however a number of timber producers are currently pursuing chain-of-custody certification which should see certified timber become more readily available in the Queensland market..

8. Consider a local product – it is “good stuff”!

Queensland-produced timber is good stuff! Around 85 per cent of timber produced in Queensland is sourced from certified forests. By buying Queensland timber, you are almost guaranteed the resource will be harvested from certified forests and the emissions associated with transport will be limited when compared with timber from other sources. Ensure you ask your timber supplier about the origin of the timber you select as well as their plans for chain-of-custody certification.

9. Be proud of Australia’s good governance arrangements and high standard of forest management

Australia’s world-standard regulatory regime for timber production means timber purchasers can have a very high level of confidence in the sustainability of Australian timbers. All Australian states comprehensively regulate timber production operations to minimise impacts on the environment. Many Australian timber growers already have certification under either the AFS or the FSC.

10. Ensure imported timber is legal and traceable

As Australia is a net timber importer, Australian building projects will require imported timber to be used at some times. If your building project needs imported timber, plywood, engineered wood products or joinery, ask your supplier to demonstrate its legality and traceability. A risk assessment of the imported timber’s country of origin, a survey of suppliers

for evidence of legality throughout the supply chain, and verification from “high risk” suppliers are important to help ensure the credentials of the timber being supplied. Timber Queensland’s *Guide to ensuring the legality of imported timber* can assist greatly in this regard.

11. Consider engineered wood products

The increasing development and availability of engineered wood products (EWPs) provides an efficient range of timber products that deliver environmentally friendly timber solutions – particularly where longer spans or higher strength are required. Use EWPs to complement the sizes and lengths available in solid timber to increase design options and economies for a whole timber solution.

12. Consider recycled timber

Timber also has the wonderful characteristic of be able to be recycled. Recycled timber is a feature in many public and private building developments. For example, timber pylons submerged for more than a century as wharves on the Brisbane River have successfully been used as structural and featured timber in public developments throughout Australia. Some chain-of-custody systems are applicable to recycled timber and these provide the purchaser with a further assurance that the timber is from recycled origin. Consider using recycled timber for your next building project. Timber Queensland can recommend recycled timber suppliers.

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