



# Bridge Decking Structural Plywood

*+ Hardwood Bridge  
Building Components*







***Cost effective  
and sustainable***



## *Cost effective and sustainable, engineered plywood bridge decks and timber components shorten construction times and extend the service life of bridges.*

Australia's vast network of timber bridges have an average age of 82 years! With tens of thousands of ageing timber bridges throughout Australia, plywood bridge decks are an engineered alternative to hardwood timber decking. Plywood is designed for engineering flexibility, faster installation and reliable performance in regional, coastal and tropical environments.

Engineered timber products are a viable option for repairing, refurbishing or replacing timber bridge structures. The new Bridge Code AS/NZS 5100:2017 recognises this with a shift from its dominant focus on steel & concrete, to include composites, rehabilitation materials and engineered timber.

Factors such as corrosion and vibrations from heavy vehicles will influence the degradation of timber bridges.

Engineered timbers provide councils with a cost-effective asset management strategy to reduce lifecycle costs and extend the service life of bridges by renewing and restoring bridge components. The cross lamination of plywood bridge decking can extend the life of the timber frame by absorbing heavy vehicle vibrations that cause fasteners to loosen, increasing wear on timber joints and accelerating deterioration.

As a low-cost alternative to steel and concrete, timber is also a proven performer in coastal locations, is less susceptible to corrosion and can last up to five times longer than steel. Plywood bridge decks work with hardwood structural components to deliver a reliable alternative to steel and concrete construction.



*Macks Bridge, QLD*



*Burnett Creek, QLD*

# Bridge Decking

Evolution Forest Products' structural grade plywood bridge decking is manufactured to AS/NZS 2269:2008, is responsibly sourced from plantation timbers and is PEFC certified. It's engineered for performance with a cross laminated structure that evenly distributes longitudinal and lateral stiffness.

A reliable alternative for hardwood timbers, plywood bridge decking can be cantilevered to widen bridges and used with a variety of support structures. Its versatility is highlighted during installation as the bridge deck can be easily trimmed on site, cut with a chainsaw and drilled for fixing. Plywood bridge decking is manufactured to a range of stress grades and treated to H4 for protection against termites and environmental degradation.



Treatment Level  
H4



Stress Grade  
F11, F14, F17



Bond Strength  
A bond, E0

# Hardwood Bridge Building Components

Structural hardwood timbers deliver a viable and cost-effective alternative to complete concrete replacement for corbels, girders, pilings, ballasts, head stocks and running boards. Our native hardwood girders, corbels and piles are manufactured to a stress grade of F22 or F27 with round or octagonal profiles.

Our ballasts, head stocks and running boards are all hardwood components that are envelope treated to H5 levels of protection. These lightweight alternatives to steel and concrete are easy to handle on site for the renewal or replacement of rural bridges, walkways and footbridges.



Treatment Level  
H5



Stress Grade  
F22, F27

## Bridge Decking Sheet Sizes

Width	1200mm std. Other widths available.	  
Length	Made to order up to 12m	
Thickness	75mm, 90mm, 155mm, 170mm	



# Sustainability

*Responsibly sourced timber is one of our building industry's most sustainable resources. Trees remove carbon from the atmosphere as they grow and when harvested this carbon remains locked in the timber for life; about half the dry weight of timber is carbon!*

*As the Wood Encouragement Policy (WEP) is adopted by more local councils, responsibly sourced timber is gaining popularity as a reliable, cost effective alternative to steel and concrete. It's easy to handle at up to 25% the weight of concrete!*

*Timber processing also has a significantly lower carbon footprint than many other building products. If you convert 1m<sup>3</sup> of concrete for 1m<sup>3</sup> timber you can prevent up to 90,000kg of carbon dioxide being emitted to the atmosphere.*

*Timber is the renewable, recyclable, low carbon emission and cost-effective alternative for Australia's Bridge Renewal Program.*



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Branches in Sydney, Melbourne, Brisbane

**[evolutionfp.com.au](http://evolutionfp.com.au)**

