



## September 2012 Newsletter

Written by Ted Stubbersfield for

**Infrastrucxion Pty Ltd**

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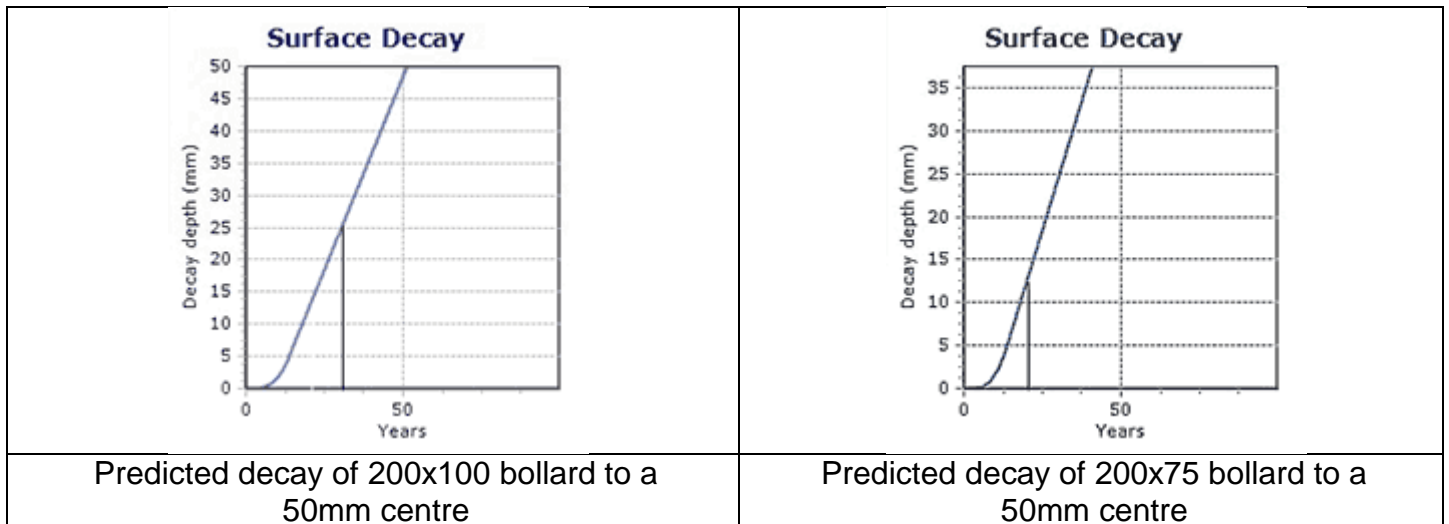
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Dear Reader

### **Reader Requires an Old Pigtail or Eye Bolt**

One of our readers requires a 20 year old (approx,) 12 mm Australian made pig tail or eye bolt as used in swing sets. This is needed for forensic testing to compare against a failed imported product. If any of my readers can help please contact me and I will direct you to the person who needs it. It will make interesting reading in a future newsletter.

### **200x100 or 200x75 bollards?**



Increasingly, we are seeing designers specify 75mm thick bollards instead of 100mm. Is the reduced price cost effective? If we run the figures through the design life software we see that, with a 200x100 bollard, after 25 years there is 50mm of timber left. With a 75mm bollard the same amount of timber is left after only 18 years. Fortunately I am experiencing longer life than that but the point is that you are losing perhaps a third of the life of the bollard. The cost saving on material is not very large and they still cost the same to install. We feel that the cost saving is not worthwhile when the asset owners interests are considered.

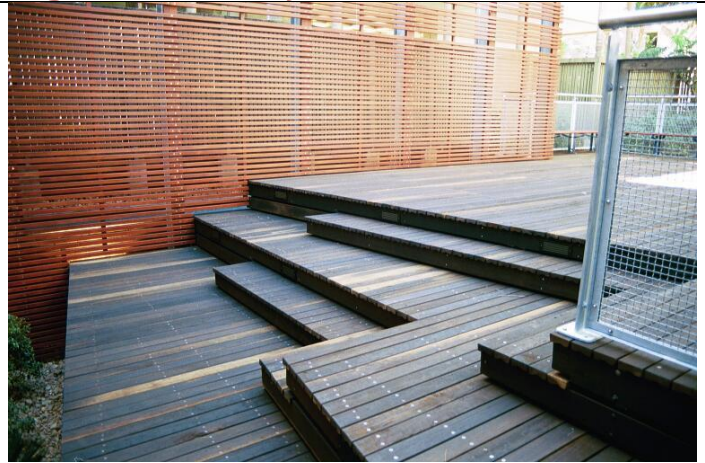
The first bollard order we supplied was in 1985 and it is opposite my home so I get to look at it

often. The decay is minimal, mind you; we had 10 years of drought.

## Oils Aint Oils (Apologies to Castrol)



Film forming finish on dressed timber is deadly



CN Oil used on natural sawn face Deckwood.  
Film finish on wall only

There is a saying that you cannot make a silk purse out of a sows ear. It is true of timber also. I was contacted about a possible consultancy concerning a deck that had gone badly wrong. Within two weeks of laying, the timber started cupping and splitting and after two months it was a total disaster. The supplier came and had a look at it and told the poor builder that it did this because the timber was not oiled! Fortunately the builder was not silly and started asking questions of the right people.

After a little digging I found out that the timber supplied was red balau. Now ordinary balau is bad enough but what is red balau? A direct quote from the sales spiel (see below) describes it as *Very durable. Extremely resistant from insect attack, fungal attack, and preservation treatment* and another producer saying *known for its hardness, beauty and natural durability*. But if you look at the Queensland Government assessment of the timber it is very inappropriate to use as decking. As frequently happens, sales info conflicts with scientific info (see the link below. If you are not getting your decking info from us I despair about what you are being told.

Clearly no amount of oil is going to make this decking appropriate. The analogy is using the most expensive car wax on a Great Wall sedan. It might sparkle but it will never turn it into a Mercedes. So do not expect too much from your oil e.g. compensating for using low grade decking. Oil only guilds the lily so as to speak. After you have got your design, material selection and construction practices right then, and only then, oil finishes the project. But what oil? There is not one answer that suits all situations reply. CN oil is the most robust oil on the market, by a long way. Unfortunately there are areas where it should not be used e.g. over water and where you can walk oil over nice white carpets. Where CN oil is inappropriate there is nothing better than Tanacoat. Below is a link to our guide on where to use the different products.

If a decking oil other than CN oil says that it is a preservative drop it immediately. There have been manufacturers that have been making unsubstantiated claims about their products. How do you check this claim.

We do not recommend film based finishes. They look pretty when new but are far too slippery when wet. As well to recoat you have to sand off between coats, something that is not going to happen. We also do not recommend dressed faces in the weather as they are too slippery and if you oil them it is even going to be worse.

### Links

Nova sales info on Red Balau

<http://www.novausawood.com/meranti-decking.aspx>

Queensland Government description of wood properties

[http://www.daff.qld.gov.au/26\\_5425.htm](http://www.daff.qld.gov.au/26_5425.htm)

Where to use CN Oil, CN Emulsion and Tanacoat.

[http://www.outdoorstructures.com.au/pdf/correct\\_surface\\_coating.pdf](http://www.outdoorstructures.com.au/pdf/correct_surface_coating.pdf)

### Sealing CCA Treated Timber

		
Leaching tests of Tanacoat sealed CCA timber		Contact tests of Tanacoat sealed CCA timber

Despite thousands of scientific studies into the effect of CCA treated timber not one credible investigation has shown that there are serious health effects from CCA. The problem is that it has not been able to prove that it is safe. The biggest problem with CCA is perception. So what do you do with existing CCA infrastructure?

Well if you had no pressing needs on your finances and you have a big budget you could just pull it all out and start again. When the APVMA restricted the use of CCA it did not ask for existing CCA treated timber to be removed. It commented that penetrating oils might seal the ti. Do they in fact work?

We cannot speak of others but we can say that Tanacoat is very effective in sealing CCA timber. Arch chemicals conducted trials of the product and showed it very effective in reducing contamination from leaching and contact. Leaching was cut in half and contact reduced to one nineteenth. See the links below for a report on the method used and another on the results.

#### Links

Test results of Tanacoat on CCA

[http://www.outdoorstructures.com.au/pdf/cca\\_timber\\_treatment\\_analysis.pdf](http://www.outdoorstructures.com.au/pdf/cca_timber_treatment_analysis.pdf)

Methodology of testing

[http://www.outdoorstructures.com.au/pdf/cca\\_timber\\_treatment\\_methodology.pdf](http://www.outdoorstructures.com.au/pdf/cca_timber_treatment_methodology.pdf)

## Forgive Me Father For I have Sinned



The Timber Design Assistance consultancy offered by Ted Stubbersfield can put you in the drivers seat when contractors supply you with material like this.

I received an email recently from one of our friends that started *Forgive me father for I have sinned!* He was referring to the fact that he had committed one of our seven deadly sins of timber design. (We have a very good PowerPoint by that name hence his comments). One image sent (not the ones above) showed a 200x200 post split in 2. Now specifying 200x200 is difficult if you are not using the Pioneer Post but the miller knows full well what can be expected to happen and the landscaper is paid to know. There were no surprises in the outcome. We, incidentally, would never have supplied the product.

The outcome is that the designers have agreed to having me cast a fatherly eye over the plans before they go to tender. This is something you should consider also. The cost is moderate. We do not interfere with the architectural intent; just assist with specifications that can be difficult.

My phone number is 0414 770 261 and my email is edgarstubbersfield@gmail.com

### Bridge Quote Requests

If there is any doubt that OSA make the best kit bridges in the country look at the [Berrinba Wetlands Project](#) . Not all bridges are equal. After encountering three bridges in one month that did not meet the Bridge Code I wrote the [May 2012 newsletter](#). Refer to it when assessing the suitability of quotes.

[Steel bridge Quotation Request Form](#)

[Timber Bridge Quotation Request Form](#)

#### More information:

If you have timber road/rail/heritage bridge issues, we suggest you talk to:

Mr. Dan Tingley  
Senior Engineer

### Infrastruxion Pty Ltd

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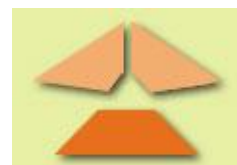
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