

OUTDOOR STRUCTURES

Outlasts and outperforms

September 2014 Newsletter

Written by Ted Stubbersfield

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Dear Reader



Broken plastic bollard and Intact hardwood traffic barriers in a park opposite my home

The first order of traffic barriers I ever supplied, way back in 1984, (for the mathematically challenged that is 30 years ago) was installed in a park directly opposite my home. [See comments in the July 2014 newsletter under handrail design](#). They have only ever received two coats of oil in all that time and normally nothing is ever done to them. There was a large amount of material involved yet there have been minimal replacements. I would advise the council to budget for replacement in about 20 years time. Can you really hope for better service?

You can imagine my surprise when new bollards that are being installed in the same park are made from plastic. Well it is a modern product so it has to be better, right, as one manufacturer says they are "long lasting and require less maintenance than traditional materials". But it is not so simple. Quite frankly I think I could break them off at ground level if I tried and already some of them have broken. Feedback from customers has told how whole rows of them have been broken off by the bullbars on 4 wheel drives. Try doing that with one of my bollards! It is far from clear that plastic product lasts longer and will require less maintenance.



So am I saying wood is better in every application? It does not follow. Take this bollard on the right which is meant to take a vehicle impact. When this streetscape was being developed I had a deputation of three employees from that council and the designer. They wanted to know how to make it a success as replacements were going to be very difficult. It was simple enough:

- Use Durability 1 in ground timber
- Form expansion joints along the length
- Cap the top
- Set in no fines concrete

Now I would probably say add a pole bandage as well in this specific application. The drawings were duly prepared and not one piece of advice was adopted. I later sold them caps but that will not stop the premature decay in the ground. Steel, with tar epoxy at the base and concrete filled would have been better

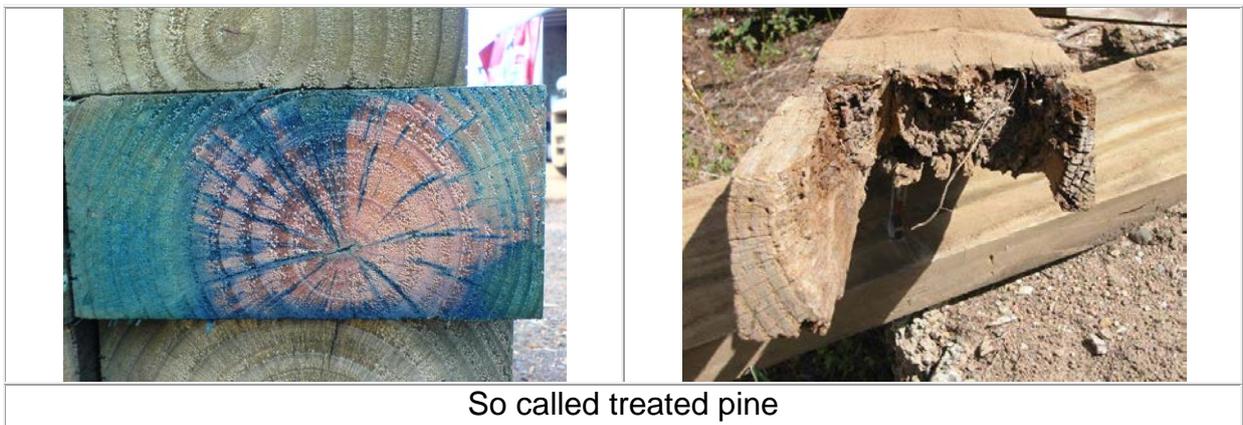
than timber used contrary to best practice. Plastic of course would be a non starter.

Why does plastic even get a look in? And this I am afraid lies solely with the timber industry that have been their own worst enemies and dare I say landscapers who have looked to maximise profits at the expense of quality.



These four images clearly show why plastic is making inroads. Compared to these low quality and low price timber barriers and bollards, plastic is a better option. These examples were not a case of poor specification as our product had been asked for. The difficulty is getting some contractors to realise that a specification actually means something. Invariably our main customers are local and state government as they are not looking to maximise profit, they want trouble free items. Trouble free items will always be dearer than a landscaping sleeper with a slope on the top.

But compared to a well supplied and installed hardwood bollard, plastic will always be a poor second choice. But what about pine?



The difficulty with pine is getting material that is truly treated to H4. The image above and to the left shows the cross section of a pine bollard where the timber has been treated with a die to show the treatment. There is a large portion in the centre which is very clearly untreated. It can never be treated with conventional processes as the heart of pine is just as untreatable as the heart of hardwood. The second image on the right shows how this untreated section decays leaving the treated sapwood on the outside.



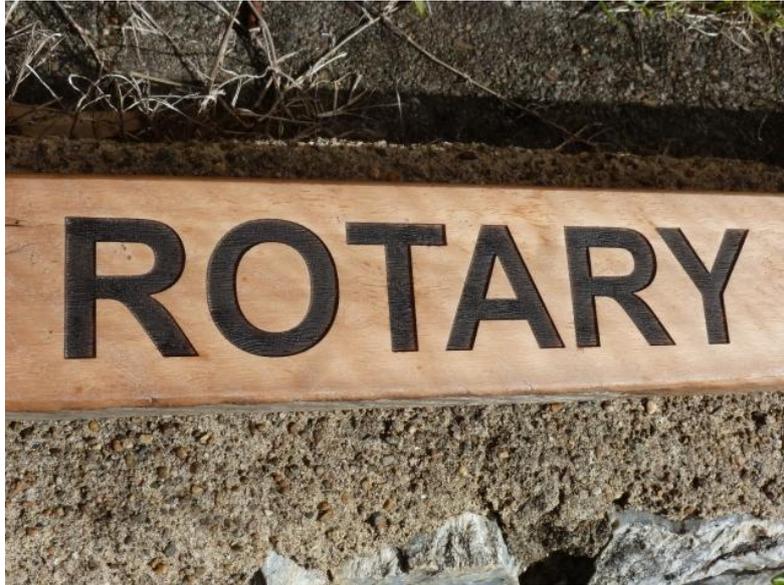
This can be countered by the process of incising (see image to the left) but I do not know anyone in Queensland doing it. Incising forms slits along the length of the piece that fill with chemical thus protecting the heart. When incising you have to ensure that it is done to a depth of 10 mm. The piece shown was from a trailer load of incised timber I purchased but found it was only done to a depth of 3 mm. I had to virtually give it all away in the end as it would not pass registration under the Timber Utilisation and Marketing Act here in Queensland at the time. It was an act of gross stupidity to get rid of this Act now anything goes in the timber industry from some suppliers. I suppose that is another argument for plastic! The pine rails also are far more easily broken than hardwood.

If there is one final argument against plastic it has to be that they look dreadful. Take these spotted gum customised eclipse bollards we are preparing for a customer. The client wanted something that will make his shopping centre stand out from the rest and he will certainly have that. The spotted gum is dressed and has two coats of Tanacoat.

So, if you are thinking of plastic think of Joan Rivers who died recent. She had said of her plastic surgery that when she died she would send her body to Tupperware. You could not say it was a good look. You can colour plastic as much as you want to try and look like timber but it is still plastic and can never have the beauty you are seeking. Leave plastic to Tupperware and be more careful in how you purchase your timber.



Laser Etching (Not a paid commercial)



A client recently obtained a sample of unoiled spotted gum to experiment with laser etching a sign for a seat he was purchasing. I was aware of laser cutting of timber but living in country the etching process had passed me by. I think the result is very impressive and of course it can be done on a variety of materials, not just timber. This particular sign was done by Laws Laser in Geebung (Ph 3865 3244). This would be very good in conjunction with our traffic barrier rails.

New Barrier Fence Coming



Over the years I have had a good friendship with Mr Kurata of [Kurata Co., Ltd](#) in Japan as well as his Australian representative Claus Jehne. On his last visit to Australia Mr Kurata showed me images of a fence he made for the Nihon Daira Zoo near Shizuoka (not far from Mt Fuji). I realised that we had profiles similar that would allow us to produce an Australian fence inspired by this fence. I would never have thought of producing a full oval version of the Cruiserline rail and mounting it sideways.

We intend to make available our Australian fence in 1, 2, 3 and 4 rail options. If you have any interest, contact me or [Keith Smith](#). There will be more next month.

[Induction Course for Timber](#)

My first induction course is coming up at the end of the month. I have had some useful feedback about possible content for them, If you have any thoughts on this and how it might suit your organisation please contact me Topics could include but not be limited to:

Timber Preservation.

Hardwood Grading.

Timber Decks – Designing for Durability,

Utilising Small Diameter Hardwood.

The Seven Deadly Sins of Timber Design.

[Blog being written for Timber+DESIGN Magazine](#)

My seventh blog written for Timber+DESIGN web magazine is on [timber finishes on external timber](#). Timber+DESIGN is a very useful magazine for those interested in timber that has been used imaginatively.

[Click here for a link to the website of Timber+DESIGN magazine.](#)

[Blog on surface finish of decking](#)

[Blog on whether decking should be a product in its own right](#)

[Blog on whether plastic decking all its cracked up to be](#)

[Blog on H4 and H5 treatment](#)

[Blog on whether to use stainless or galvanised fasteners.](#)

[Blog on using the correct decking fastener.](#)

To be on the mailing list, contact Kay Phillips [through this link](#).

Next month's blog is expected to be on joist width on weather exposed decks.

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:

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Wood Research and Development

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