

Ted's News

January 2021

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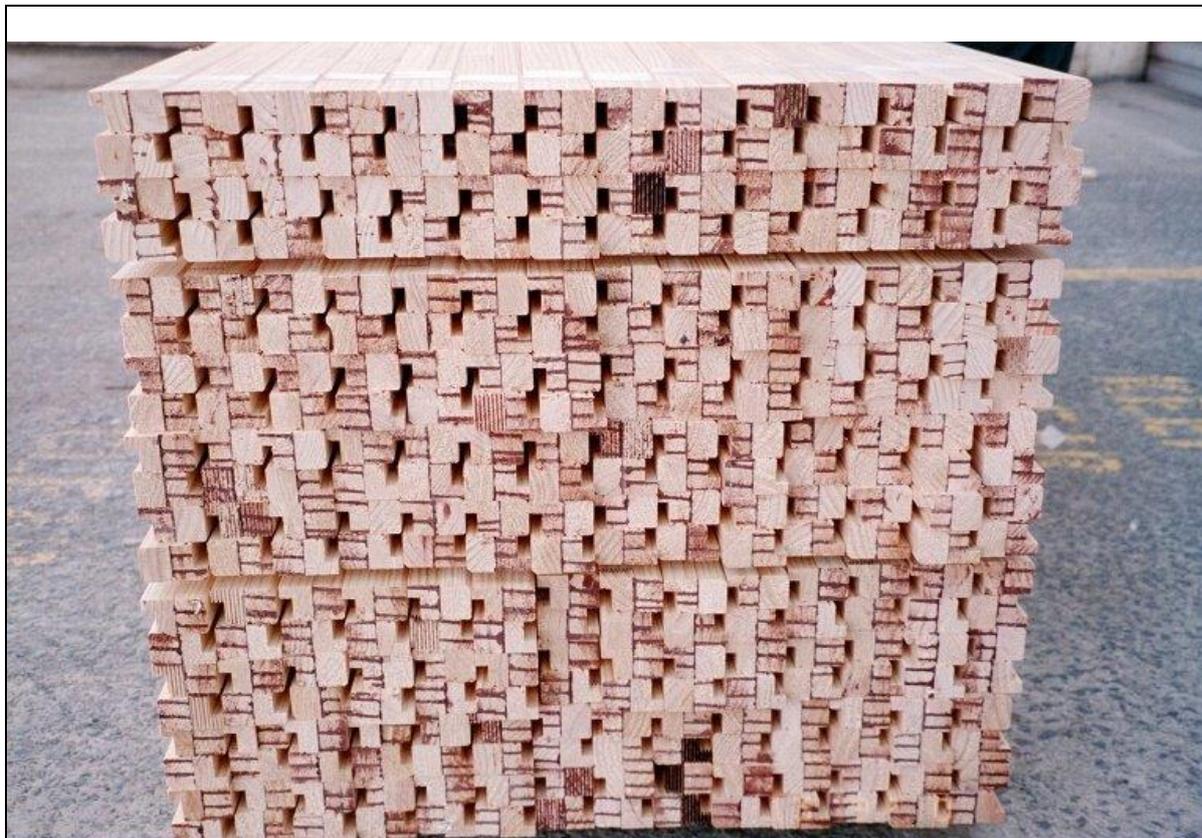
[Correct Use of LOSP Treated Pine Handrail](#)



These LOSP treated handrails are very sad indeed, all the more considering they were less than three years old and the builder was saying this was not a problem. Obviously, it is, and it is an

outcome you need to avoid in your specification and construction. LOSP or light organic solvent preservative was introduced to Australia in 1977 by Protim, who bought the first plants into the country. The process then used a formula called "Protim 80 WR" which was a mixture of pentachlorophenol (PCP), tributyltin oxide (TBTO) as the fungicide, and dieldrin as the insecticide. Those active ingredients have now been replaced by less toxic and more environmentally friendly organic actives. But the important thing is that it was intended for fully finished products such as window components. Protim guaranteed a 20 mm penetration into the end grain which allowed them to give a 25-year guarantee for products treated using their plants and chemical.

[Any doubts about the importance of getting it right see this video](#)



Prefinished window components from the 70/80's ready for LOSP treatment.
Image Courtesy of Mark Iley/LOSP Reference Library

But what we have here is very different. Instead of a fully finished component, a length of finger jointed timber is cut into shorter lengths on-site. The sapwood is required to be fully penetrated with preservative but not the heartwood other than for an 8 mm envelope. This means that, for all intents and purposes, there is likely to be insufficient if any chemical in much of the end grain of any heartwood that may be present. It is absolutely essential to provide an approved preservative to the sawn end.



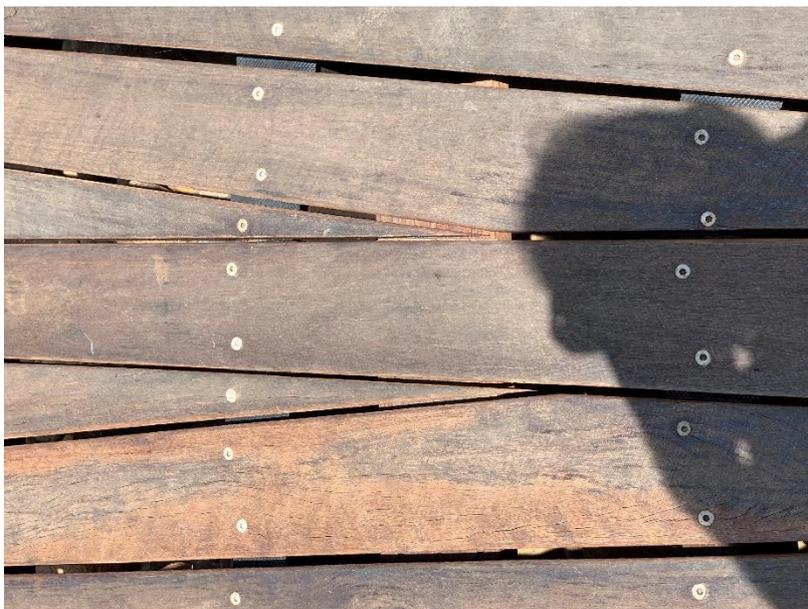
If I had to hazard a guess as to what happened in the handrail in the opening images I would say that the ends weren't sealed with a preservative rather simply just cut to length, Alternatively, the ends may have been painted which you can do with hardwood, but with pine, the moisture that is trapped inside almost guarantees decay. My preference between the two sealants from Arch Wood Protection above is Ecoseal as, with its green colour, you can inspect and confirm that the end has been sealed. So, when specifying pine, handrail ensure you have a note about sealing the end of the handrail and note the required sealant otherwise it will be ignored or simply get painted.

But then, I would not use treated pine but pay whatever it costs for F22 unseasoned spotted gum or ironbark. Clint from CB Architectural Timbers could probably sort out your needs for this (0414 364 193).

[Here is a link to purchase my guide to timber preservation \(\\$55\)](#)

[Here is a link to purchase my guide to commercial barriers \(\\$22\)](#)

[This Guide is Essential for Playground Professionals](#)



The guide, *Timber in Playgrounds* claims to represent best practice when using timber elements in playgrounds. Recently, I inspected a playground Constructed after the guide was written that incorporated timber boardwalks. I found five items that, in my opinion, were risks to safety in the short term and a further three that are likely to impact the satisfactory long-term life of the structures. One of the immediate concerns is shown

in the image above. The builder dealt with a change in direction by introducing long pointed tapered pieces. Ignoring the fact that they are likely to break where the screws are, unrestrained timber will move. In this case, if it bows upwards, it could easily slice open a child's foot. In my opinion, the

change of direction should have been dealt with by using a number of full-length tapered deckers with a minimum small end dimension of 60 mm. This was all covered in the guide and the checklist as were another three of the short-term risks I identified. The fifth was just a basic dimension from the disability code. The long-term issues were also dealt with. I wrote a report to the asset owner giving my opinion and advised them to take it up with the certifier. If he was willing to carry the risk, well and good, but I certainly would not have. That is the difference experience makes.

Respected architect and good friend, Ralph Bailey, who is very skilled with timber and [playground design](#), and I completed this guide last year and we have been adjusting it as better images come to hand. It is a big claim to represent "best practice" and, without a doubt, it is the best book on the subject as it appears to be the only book on the subject. This book will take a playground professional, whether it be an architect, certifier, or inspector through what details have to be given attention and provides a design checklist to ensure matters have been given consideration. Very importantly it guides professionals, few of whom have timber expertise, through inadequate standards that do not have the force of law. While Ralph and I are grateful to those who have purchased a copy, frankly, we cannot understand why this is not in the library of anyone who has anything to do with playgrounds. After inspecting one very bad timber playground, Ralph reminded me that this book is not about making money but about saving lives, and yes, it was that bad.

[Here is a link to purchase the guide \(\\$55\)](#)

Note: Ralph and I are available as consultants should you have an issue creating to a timber playground but the best time to engage us is while it is only lines on paper.

[Index to Past Issues](#)

If you are a new reader or just want to find details on a particular topic such as 150x150 mm posts - [here is a link to an index to articles back to 2015](#).

[We Can Start CPD Courses Again](#)



Did you know that Wilson Timbers/Outdoor Structures will have me come to your office, subject to the ever-changing regulations, and deliver one or two of my CPD sessions for free? We can even do it with Teams if you are further away. These are serious training times with real learning outcomes. The only condition is that, with travel, we can do it in a day from Gatton in Queensland. Here are the nine courses available:

Topic 1: Timber Preservation

Topic 2: Hardwood Grading

Topic 3: Timber Decks - Designing for Durability

Topic 4: Utilising Small Diameter Hardwood

Topic 5: The Seven Deadly Sins of Timber Design

Topic 6: Timber Joints

Topic 7: Architectural Timber Battens

Topic 8: Timber 101 (Optimally Topics 8 & 9 to be presented together)

Topic 9: Boardwalk Design (Optimally Topics 8 & 9 to be presented together)

[To learn more about these courses visit my website.](#) [Contact Stuart Madill by email to arrange a time](#) or call his mobile 0403 385 707.

Need a Timber Consultant or Expert Witness?

I have over 45 years of experience in the industry and can assist you with many of your timber needs.

Inspection – I can assess timber products on their performance, fitness for purpose or cause of failure. I also examine whether best practice was used in design and construction. I have recently completed inspections on boardwalks, bollards, support beams and external timber furniture.

Grading - Quite literally, I have written the book on the subject. Recent experience has shown that up to 30% of timber supplied may not be to grade.

Design - I can provide detailed technical drawings and advice. I can also review already prepared drawings.

Reports - I have authored many books on timber and can prepare a report providing recommendations and practical instructions on how to rectify issues.

Trainer and Presenter – I can provide tailored training to meet your CPD needs and also have experience at lecturing to universities and presenting at conferences.

Please note as I am now employed as a Senior Timber Consultant with the firm BCRC all large and complex consultancies and requirements for an expert witness will be handled in conjunction with them. Existing consulting arrangements remain unchanged and I am also available to assist on small projects. For more information see www.bcrc.com.au or [download their capability brochure here.](#)

My Next Writing Project



With *Timber in Playgrounds* put to bed, I have been pondering my next timber guide. It is likely to be *Utilising Small Diameter Hardwood*. I have been putting that off for years. A guide to timber in the power industry needs to be written but there is no market and no one will pay me to write it. In the meanwhile, I have been revising my book *Ephesus, The Nursery of Christianity*. Here is a bit of Ephesian trivia.

After the death of Alexander the Great in 323 BC the "Funeral Games" started when his Macedonian generals divided the empire among themselves and then started warring for more of each other's territory. Lysimachus king of Thrace made an alliance with Ptolemy 1 Soter of Egypt which allowed him, with the Egyptian naval support to take and keep the strategic port of Ephesus. He married Ptolemy's sister, Arsinoe, and, in just a few years, rebuilt a new city inside a wall, eight kilometers long, seven metres high and three metres thick. Eventually, Lysimachus was killed in battle in 281 BC fighting a Seleucid-Ptolemaic coalition. Arsinoe, who by that time had poisoned Lysimachus's heir, escaped the city and went to Egypt where, in c. 274 BC she married her full brother Ptolemy II despite all he had done to destroy the work of her husband. She took on the role of Queen and co-ruled with her brother who had her proclaimed as a god and ensured she was worshipped. Her role as a ruler was unprecedented and opened the way for later Ptolemaic queens, Cleopatra being the most famous. - And you thought modern politics and the antics of politicians' private lives was strange, it is incredibly sane compared to this!

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Edgar Stubbersfield

Mail: edgarstubbersfield@gmail.com

Web: www.deckwood.com.au



Phone: 0414770261