



April 2012 Newsletter

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AutoCad Block for Flinders Table

I promised to add a dynamic block to the designers tool section of our website by this issue. Sorry, I only have a standard AutoCad file. You need to save it before you use it.

We had to give the table a name so we have kept with the explorer names and who better than Mathew Flinders.

The Flinders is a strong table with a mixture of galvanised steel with spotted gum or ironbark tops. These materials will last for years.

We have a special introductory price. Call us for pricing.



Flinders Steel & Timber Table

Links

Designers Tools:

http://www.outdoorstructures.com.au/tpd_intro.php

Autocad drawing:

http://www.outdoorstructures.com.au/tpd_drawing.php?Drawing=flinders_bbq_table_series

Interim Brochure:

<http://www.outdoorstructures.com.au/pdf/flinders-bbq-table.pdf>

Do footbridges have to be minimalist?

I have been making bridges since 1985 and while I am passionate about them there are some that have given me a real buzz.

These are the ones that are not minimalist and purchased only because we were the lowest tenderer. Such projects were Berrinba wetlands and our arched steel bridges.

With some imagination you can lift a project beyond the ordinary to the exceptional. The **Iwakuni Bridge** in Japan is an example of how beautiful a footbridge can be when we think outside the box!

Links

Berrinba Wetlands: <http://www.outdoorstructures.com.au/gallery.php?gid=95&SID=2>

Conference paper on Berrinba Wetlands:

<http://www.outdoorstructures.com.au/pdf/south-west-enterprise-park.pdf>

Arched Steel Bridges: <http://www.outdoorstructures.com.au/gallery.php?gid=23&SID=2>



Mathematical Bridge

My bucket list is a lot different to yours. Before I cast off this mortal coil I want to build a Mathematical Bridge!

There is a great story behind this bridge at Queens College in Cambridge, it is said to have been designed by the great Isaac Newton himself and assembled without any fasteners at all.

When they came to rebuild it, the builders had lost the ability to replicate it and simply bolted it. But as our reporters appear to be taught in Journalism 101, do not let the truth get in the way of a great story. None of it is true. Despite that, the Mathematical Bridge remains one of the world's most famous footbridges and made from my passion, timber.

Are you looking to create a bridge that people are going to want to visit? The superstructure probably will not cost much more than a standard bridge but will be visited and photographed by thousands.

I would love to work with you to build a tribute Mathematical Bridge in one of your projects, I have been able to find the 1927 plans for the tribute look alike bridge at Ilfey in Oxford so it is going to be very authentic.

I think the superstructure for the Ilfey bridge will be in the range of \$20 to \$25,000 and for the Cambridge original will be \$25 to \$30,000. That includes certification and building as a kit, but not building the foundations and placing. Talk to me if it suits one of your projects. »



Bridge abutments



Lines of the Structural elements highlighted in colours

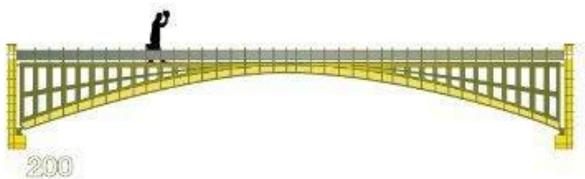
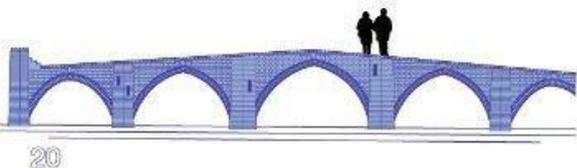
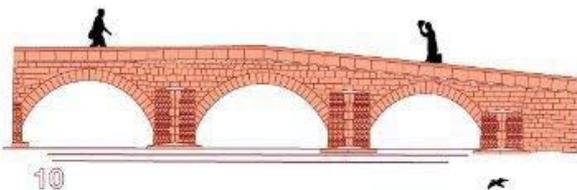
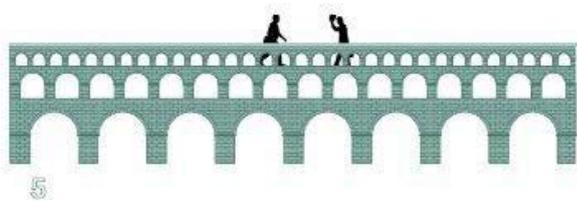
Links

Foundation and deck positions of Ilfey bridge (drawing units are inches). Read the instructions at:
http://www.outdoorstructures.com.au/tpd_drawing.php?Drawing=mathematical_bridge

Wikipedia article: http://en.wikipedia.org/wiki/Mathematical_Bridge

The Dutch and Footbridges

DEBRUGGENVANEUROPA
THE BRIDGES OF EUROPE
ヨーロッパの橋



A long time ago the Dutch learnt that there were easier ways of getting across a canal than pole vaulting it, though it is still a national sport called Fierljeppen. In fact, they have quite literally made an art of crossing canals. Generally speaking we have not gone beyond function to think seriously about aesthetics. Let me tell you about the bank note bridges. Also see in these photos below some other Dutch footbridges.



The bank notes of the euro each feature a bridge. Being politically correct the designers did not draw actual bridges but instead drew fictional bridges so no country was upset. Now these bridges are fiction no more. Each bridge is being built in a re-development in Rotterdam as small access bridges.

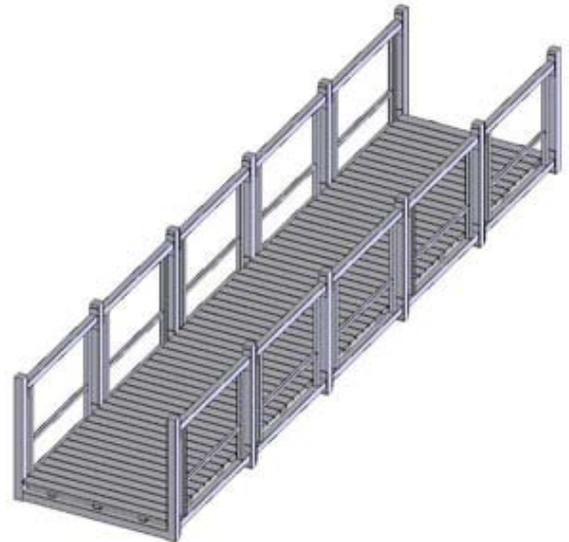
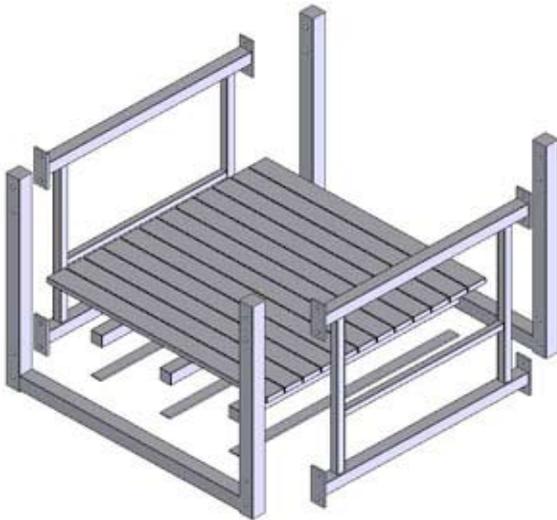
A local artist, Robin Stam came up with the idea and the details of the real bridges are even true to the colour on the notes. See the links below for images of his copies.



Link

News article on the bank note bridge: <http://www.spiegel.de/international/zeitgeist/0,1518,795930,00.html>

Segmented Bridge



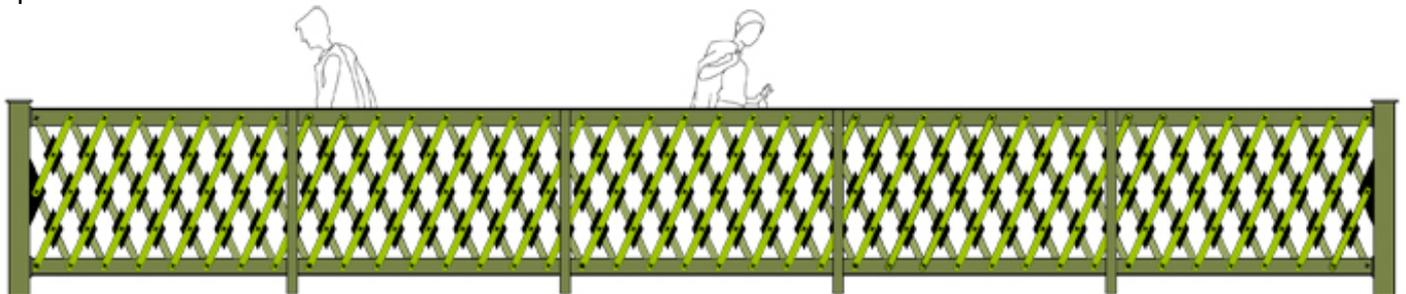
Question: What do you do when your bridge is kilometres down a path and every piece has to be carried down a path by hand or on a quad bike. I recently had an application where this is exactly the case. There were stairs on the path and the canopy in a national park was too thick to lift in a bridge. What do you do?

Answer: The segmented bridge by Outdoor Structures Australia. The bridge will span up to 12m and take the load of a quad bike. The pieces are light enough for two men to carry into site. It is a remarkably simple answer to a complex problem. Phone to discuss this bridge with us.

Heritage Lattice Truss

There are some situations that need a traditionally styled bridge for heritage or other reasons. OSA's consultant, James Pierce and Associates has been working on such a design and we will soon be able to offer you a lattice truss. A suitable location for these bridges would be near railway lines and areas that need a UK feel.

If you have ever spent time on British Rail you would have seen many of these bridges. Unfortunately we cannot find anybody that still rivets steel together but can get a bolt head that looks acceptable from the inside. Span is limited to 12 metres



Link

PDF of concept drawing: <http://www.outdoorstructures.com.au/pdf/english-lattice-truss-ped-bridge-12.pdf>

Level 1 & 2 Bridge Inspection Course

Dan Tingley of Timber restoration Systems will be running level 1 and 2 bridge inspection courses in coming months. If you inspect timber bridges these courses are a must.

Level 1 Course will be hosted by the Lockyer Valley Regional Council and be held in Laidley from May 2nd and 3rd. There are two additional reasons to attend, one is so we can meet and the other is that accommodation has been booked at Hidden Valley Resort which is a local landmark.

Level 2 Course will be held at the DPI Forestry from May 7th to 12. This course requires attendees to make repairs and then test them so the laboratory that the Forestry Department runs at Salisbury will be utilised.

Links

Level 1 Course application form

<https://rcpt.yousendit.com/1405727354/1bcfd0e4cb536393eb25185342185616>

Level 2 Course application form

<https://rcpt.yousendit.com/1405700122/82d988063b8f3c5632b653e06f6cb9b8>



EPHOD (trademark) Electronic Pulse Highlight and Outline Diagnostic testing of failed stringer in Northern Queensland to establish the reading obtained in microseconds (ms) across a known defect.

The girder defects were not visually apparent from below when inspected prior to the girder failing. Further, a sounding bore had been utilized in this log to confirm it was in satisfactory condition a few weeks before it failed.

The annulus thickness at the point of bore sounding was over 100 mm. Clearly sounding bores are not satisfactory inspection methods for old timber bridges.

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 2010 Newsletter](#). Refer to the May OSA Newsletter when assessing the suitability of quotes.

Steel Bridge Quotation Request Form

http://www.outdoorstructures.com.au/bridge_request.php?Mode=st

Timber Bridge Quotation Request Form

http://www.outdoorstructures.com.au/bridge_request.php

More information:

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

Mr. Dan Tingley

Senior Engineer

Wood Research and Development

1760 SW 3rd Street,

Corvallis OR 97333

Office 0011 1 541 752 0188

Fax: 0011 1 541 752 0195

Cell: 04 5957 6314 Or 04 28983328

dant.tingley@gmail.com

Regards

Ted Stubbersfield, Director OUTDOOR STRUCTURES AUSTRALIA

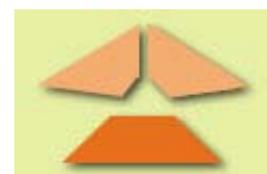
OUTDOOR STRUCTURES AUSTRALIA

E-Mail: ted@outdoorstructures.com.au

Web: www.outdoorstructures.com.au

Phone: (07) 5462 4255

Fax (07) 5462 4077



Old College Road Gatton, Australia

PO Box 517 Gatton Q 4343

Australia

ABN 29 713 463 351