



®

**EcoFence**

Transforming outdoor spaces

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## **Introduction to EcoFence**

Proudly brought to you  
by DynaGroup, EcoFence  
was developed by New Zealand  
-based Laminata to deliver  
a truly innovative fencing system.

Beautiful, sustainable and  
strong – EcoFence is an ideal,  
ready-to-assemble solution.



**DYNAGROUP**  
TRANSFORMING OUTDOOR SPACES

# The benefits

EcoFence is designed using premium timber components, which will enhance the aesthetic value and appeal of your fence. With a 'good-neighbour' design, EcoFence looks great on both sides. The 'no climb' construction makes the fence ideal for childcare centres, while the durable beauty of the fence also suits lifestyle communities, aged care facilities or high end residential developments.

## ◇ Acoustic properties

- Constructed with solid timber components. When installed as per the standard drawings, it can be classified as an acoustic fence
- Achieves 15kg/m<sup>2</sup> density rating, which covers almost all requirements for residential, retail and commercial developments

## ◇ Eco-friendly

- Mini-CLT planks preservative treated with MicroPro treatments
  - MicroPro suitable for use in high-contact areas, such as childcares and education centres
  - MicroPro comes with a Greentag certification
  - MicroPro is a non-arsenic treatment, giving you peace of mind
- Other timber components treated with other non-arsenic treatments, such as ACQ or Tan-E
- Mini-CLT planks use downgrade or reject timber in its construction. This provides a use for timber otherwise destined to be scrapped or burned
- Components all come from sustainably managed forest plantations in Northland, NZ and Queensland, Australia. Full traceability and transparency
- Wood is one of the most environmentally friendly mainstream building materials used across the world – naturally, wood stores the carbon that it absorbs from the atmosphere, which helps to mitigate the greenhouse effect



# The benefits

## ◇ Look

- EcoFence is designed using premium timber components, which will enhance the aesthetic value and appeal of your fence – typically, a commodity timber fence uses the lower end grades, and that look is reflected on your fence
- Choose between an all-timber design, or the contrasting timber/metal look
- This design is a ‘good-neighbour’ design, meaning it is identical both sides – this means that both you and your neighbour, or road users, get the ‘good side’
- Horizontal or vertical plank look

## ◇ Construction

- The construction of EcoFence is simple and easy – custom made components ensure that it joins together easily
- Large plank sizes, reducing the time to install

## ◇ Longevity and maintenance

- Cross Laminated Timber (CLT) planks are designed to stop the twisting, warping and bending that comes with the natural weathering of timber
- Tongue and groove connections between components ensure they stay straight over time
- To minimise the aged ‘grey look’ of timber, ensure you use a suitable oil (or paint if you prefer) – see Page 9 for more information on oiling and pre-oiling

## ◇ Ideal applications

- Childcare
- Aged care and retirement living
- High end residential
- Commercial (non-industrial) such as medical and retail



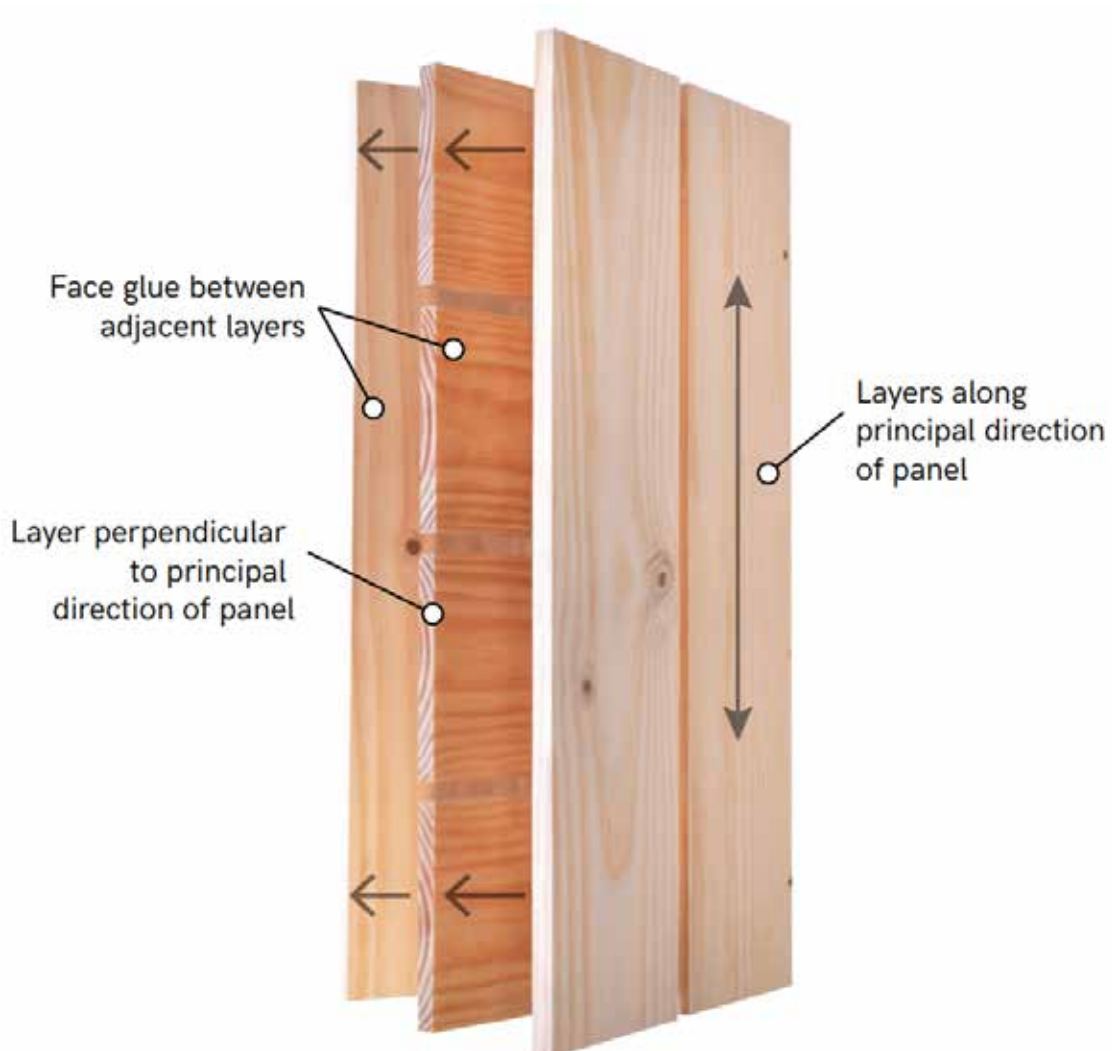
# The benefits

## ◇ What is Cross Laminated Timber (CLT)?

CLT is an innovative wood product that was introduced in the early 1990s in Austria and Germany and has been gaining popularity in residential and commercial applications in Europe.

## ◇ EcoFence and CLT

CLT panels consist of several layers of lumber boards stacked crosswise at 90 degrees and glued together on their wide faces. Lumber in the outer layers of the CLT panels are oriented to run parallel to the major span direction to maximise the span capacity.



# Design information



# Design information

Using tongue and groove assembly, our fencing solutions are designed to be high performing, durable and a practical alternative to traditional timber paling fences.

## ◇ Non-acoustic fencing design

This information is provided for standard soil conditions only.

Orientation	H				V			
Height	1.3m	1.5m	1.8m	2.0m	1.2m	1.5m	1.8m	2.0m
Post span	1.82m	1.82m	1.82m	1.82m	2.5m	2.5m	2.5m	2.5m
Footing diameter	300mm	300mm	300mm	300mm	300mm	300mm	300mm	300mm
Footing depth	800mm	1000mm	1200mm	1200mm	900mm	1100mm	1200mm	1200mm

### Disclaimer

The above information is intended to be a guide only. There are multiple factors on any site that can affect the structural integrity of a fence, such as proximity to buildings, shielding elements, other soil conditions, and many more. Any installer needs to satisfy themselves that the footing size is right for their job.

## ◇ Acoustic fencing design

When designed as an acoustic fence, the fence structure needs to be engineered by a certified structural engineer. The key requirements of acoustic fencing is that there is no gaps anywhere in the fence, and this provides a 'solid hoarding wall' and therefore a much higher loading. DynaGroup cannot provide any standard information pertaining the footing depths in these applications, and we recommend you engage the services of a certified structural engineer. In addition, a geotechnical report on the soil may also be required.





# Acoustic properties

## Sound Insulation Prediction (v9.0.20)

Program copyright Marshall Day Acoustics 2017  
 Margin of error is generally within  $R_w \pm 3$  dB  
 - Key No. 5020  
 Job Name:  
 Job No.: Initials:S.F.  
 Date:16/08/2019  
 File Name:CLT Rw Ctr 26 29mm.ixl

CONSULTING ENGINEERS



Notes:  
 Prepared by: Sam Fraser  
 Position: Senior engineer - Acoustics

Approved by: Sasho Temelkoski - RPEQ 13551  
 Position: Manager - Acoustics

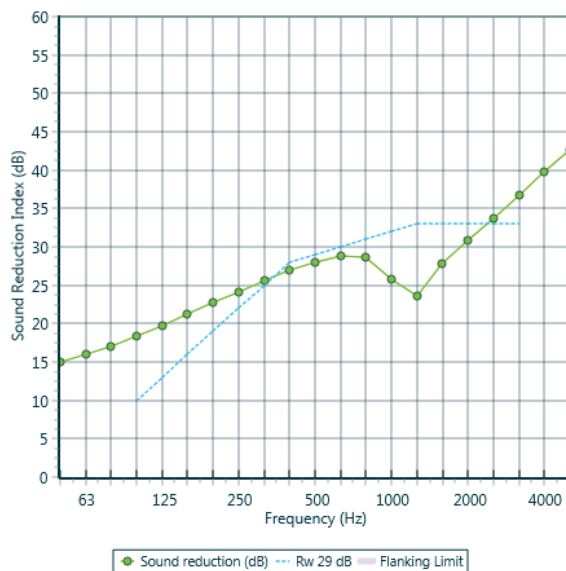
**R<sub>w</sub> 29 dB**  
 C -1 dB  
 C<sub>tr</sub> -3 dB

Partition surface mass = 16 kg/m<sup>2</sup>

## System description

Panel \* : 1 x 29 mm Cross Laminated Timber (p:550 kg/m<sup>3</sup>,E:2GPa,η:0.02, ps:16 kg/m<sup>2</sup>, fc:1173 Hz)

freq.(Hz)	R(dB)	R(dB)
50	15	
63	16	16
80	17	
100	18	
125	20	20
160	21	
200	23	
250	24	24
315	26	
400	27	
500	28	28
630	29	
800	29	
1000	26	26
1250	24	
1600	28	
2000	31	30
2500	34	
3150	37	
4000	40	39
5000	43	



Bottom line results:

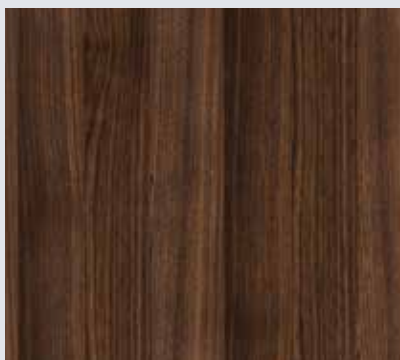
- RW rating 29dB
- 16kg/m<sup>2</sup> surface density

# Oiling

Timber is a natural product and will naturally age in any climate. The harsh Australian climate can degrade timber significantly, due to UV radiation, and temperature and moisture variations. By using the right oils, you can significantly reduce the effects of weathering on the timber. In addition, you can enhance the image, both initially and long term.

## ◇ Pre-oiling

DynaGroup has invested in the required equipment to pre-oil the timber components in the factory. The benefits of this is that it is done in a controlled environment, and with your preferred colour. DynaGroup use the Equisol Pro E365 timber oil, one of the premium oils on the market. Tested in harsh subtropical rainforest climates, Equisol Pro E365 nourishes and protects timber against the effects of moisture and sunlight through enhanced UV absorbers and minimises the effect of mould and algae. Easy application and maintenance with no cracking, peeling or blistering. Equisol Pro E365 comes in six colour tones, in addition to clear, to help you specify the right look for your project.



Dark Brown



Medium Brown



Red Brown



Pale Brown



Black



Grey

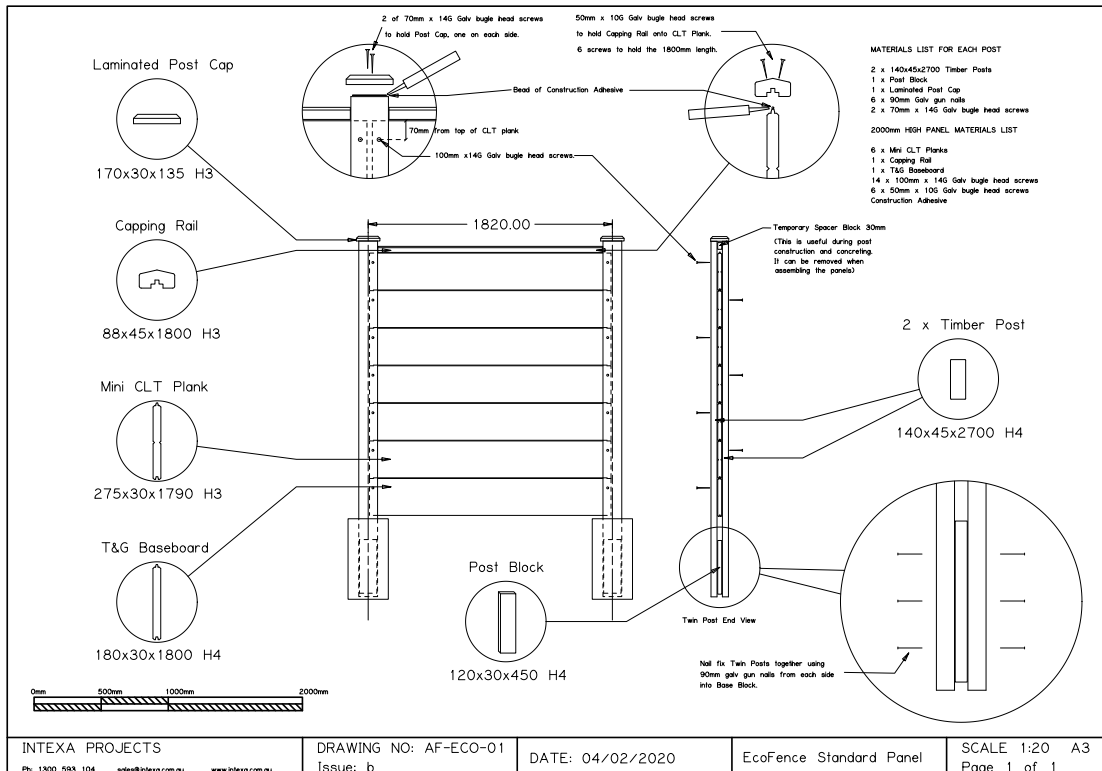
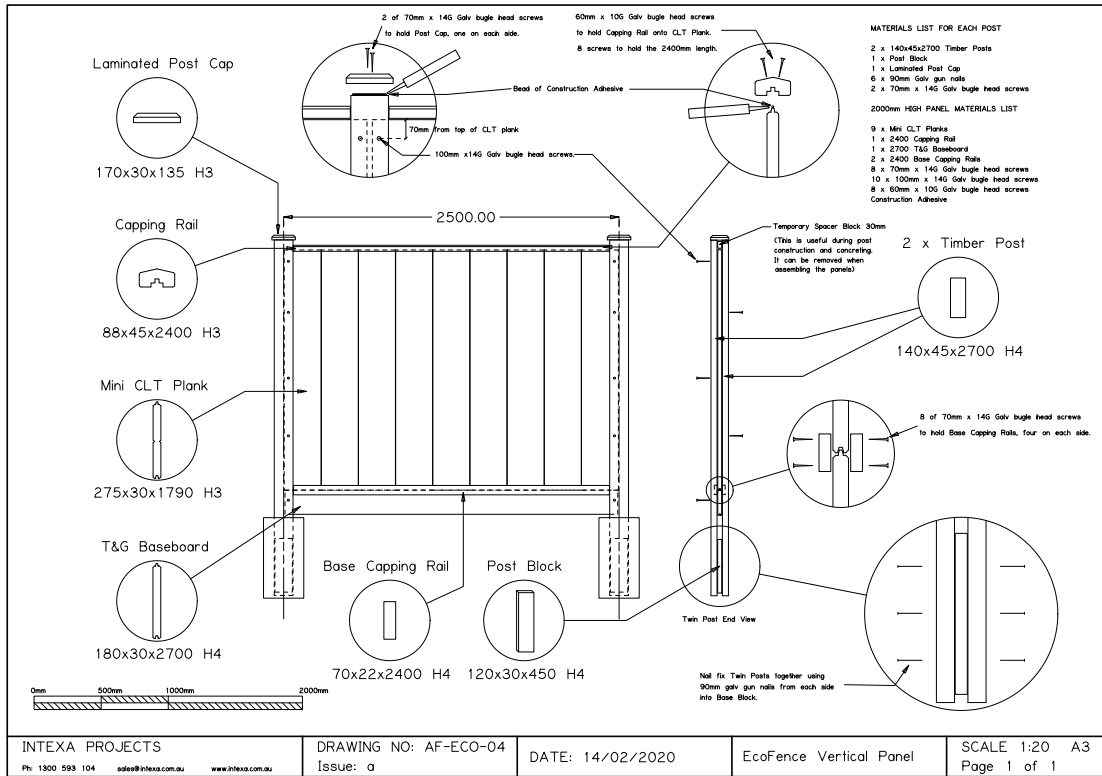
## ◇ Other coatings

Painting or staining of your fence on-site (after installation) can be done too. The finish on all components is semi-smooth and will make for an easy painting job. For best results, DynaGroup recommends re-coating the fence every 1-2 years depending on how exposed it is. This will ensure that your fence continues to look at its best for many years.

# Standard drawings

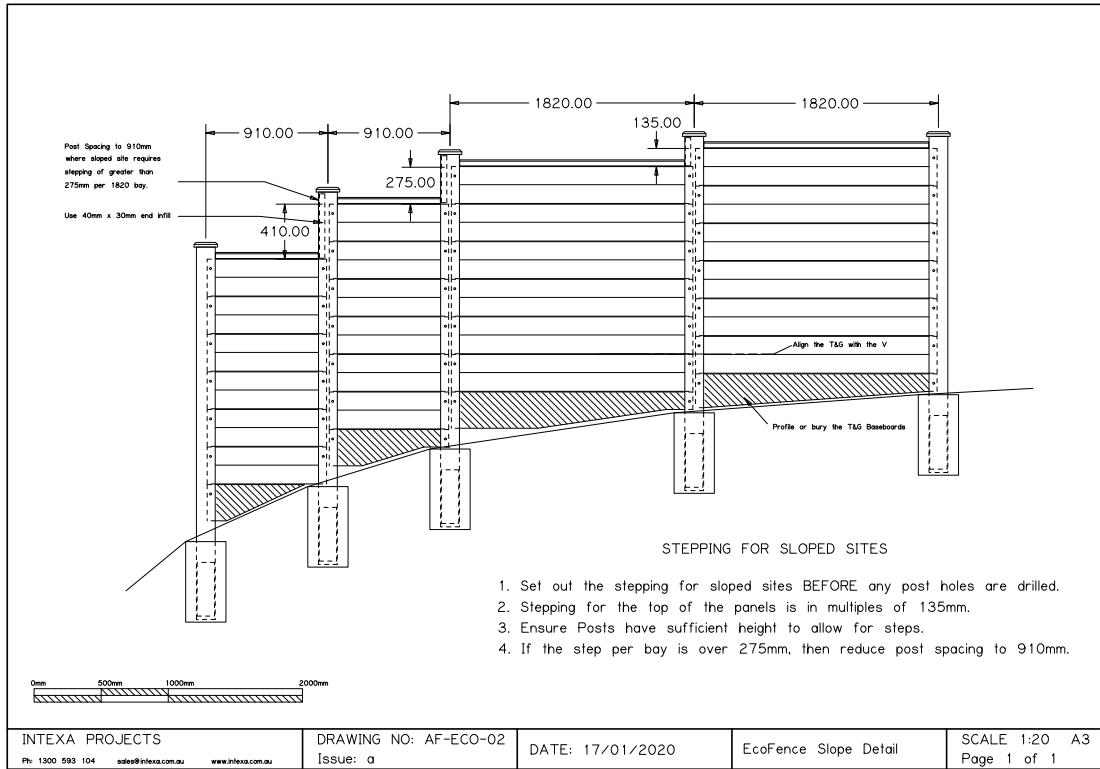
All drawings shown below are available for download from the DynaGroup website.

## ◆ AF-ECO-01 – EcoFence standard panel

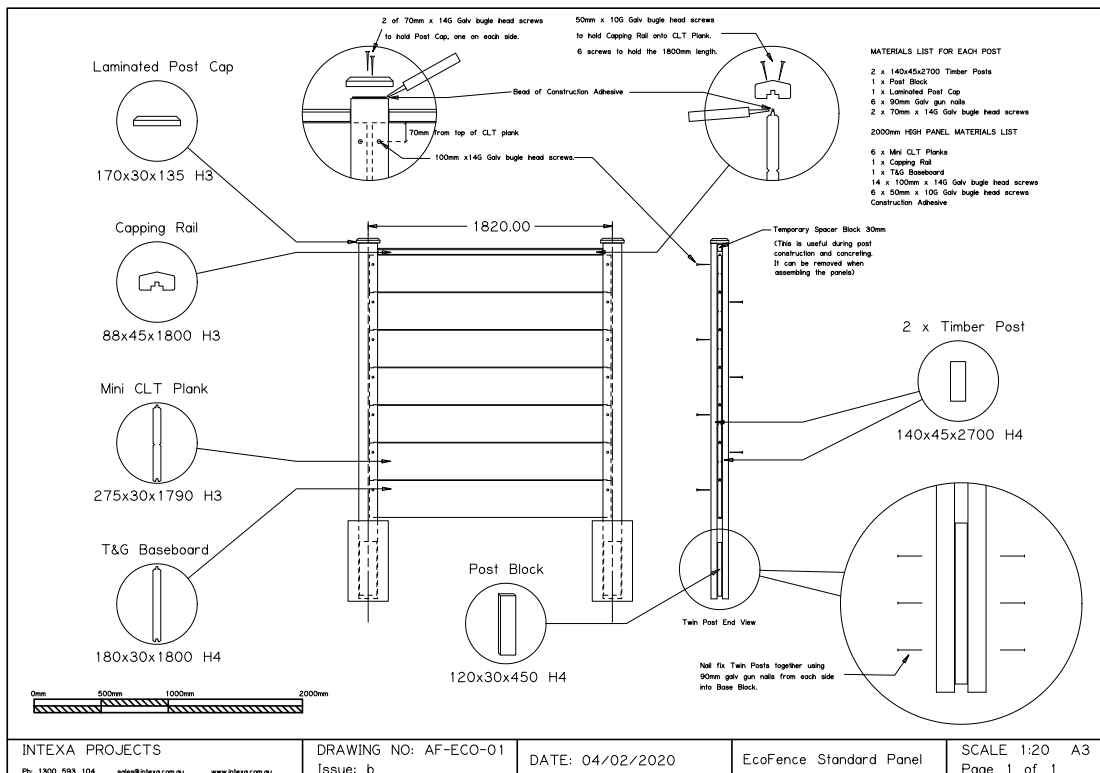


# Standard drawings

## ◆ AF-ECO-02 – EcoFence slope detail



## ◆ AF-ECO-02 – EcoFence slope detail



# Inspiration



◆ Pelican Waters Residential Subdivision – Caloundra, QLD



# Inspiration



◆ New Zealand



# Inspiration



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Find out more

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