

X-factor

structural
laminated
timber
products,


techlam®



IMAGE: WELLINGTON INTERNATIONAL AIRPORT, SOUTH TERMINAL
Products used: Curved Glulam 'X' Columns and Decorative Ceiling Beams

NEW ZEALAND'S LARGEST GLULAM MANUFACTURING FACILITY.

Our business has evolved over the past 25 years to meet the changing needs of architects and structural designers, but has retained the family values and integrity Techlam was built on.

We have a strong emphasis on operational excellence and our production facilities operate under a rigid TQM (Total Quality Management) system. Staff are trained in CMI (Competitive / Lean Manufacturing), giving us the ability to respond quickly and accurately to the demands of the market.

Examples of our design solutions can be found throughout New Zealand, the South Pacific and Australia, where we export timber products and project manage installations.

Techlam is proudly 100 percent New Zealand owned and operated, based in Levin.

OUR CORE VALUES

Honour our commitments

By embracing integrity, we hold ourselves accountable to our customers, partners and our team.

Laminated Teamwork

Everyone runs, carries, and passes the ball – we all share the goal.



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IMAGE: FIJI MARRIOTT RESORT, MOMI BAY
Products Used: Curved Techlam 'Tusk' Beams, Columns

CREDENTIALS YOU CAN TRUST.

THE ENVIRONMENT

At Techlam we respect the environment and the wellbeing of the earth. We have a wastage programme that ensures all by-products and adhesives are disposed of without impact on the environment, and any off cut timber is carefully converted into energy for heating.

Techlam successfully meets certification for FSC®. We continue to take the sustainable pathway in our business, the cost of this is superficial to the benefits it creates for our clients.

We recently participated in an industry wide programme for an Environmental Product Declaration (EPD). Our EPD shows the environmental impact of our products from beginning to end.

INDUSTRY CERTIFICATION

- AS/NZS 1328:1998, Glued Laminated Structural Timber
– Licence No. 2929
- AS 5068, Timber Finger Joints in Structural Products
– Licence No. 2930
- Licenced FANZ/Expan Fabricators
– Licence No. FANZ 0011
- FSC® Chain of Custody Certification
– No. SGSHK-COC-510001 – FSC-C130502
- New Zealand Made
– Licence No. 806740
- Environmental Product Declaration
– Registration No. S-P-00997



OUR CORE VALUES

Thrive On Challenges

The experience of a journey using structural solutions with innovation at its best.

Mutual Respect

Interest, care, and support for all.



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IMAGE: ARO HĀ WELLNESS RETREAT

Products Used: Fully Detailed 3D pergolas, Simple Portal Frames

OUR CAPABILITIES.

DESIGN AND ENGINEERING SUPPORT

We have a team of designers, detailers and structural engineers to provide technical support for your project. We will work with you every step of the way to help achieve your vision.

CONNECTION DETAILING

With experienced and qualified joiners on our team, we can source and pre-fit many different types of structural timber connections in our plant, allowing significant reductions in time spent on site and reducing the need for site cutting or epoxying.

We provide the full package, including bolted steel brackets, epoxy fixed rods, and the timber beams, all ready to assemble on site. This approach ensures components are quickly and easily installed, saving you time and money.

MANUFACTURING

The lamination process is inherently flexible and we can produce standard glulam in sizes ranging from 45mm x 45mm up to 270mm x 1800mm x 30m long and much larger. Our glulam is made using European mechanical presses which can be configured to produce custom and often complex curved shapes.

At Techlam – New Zealand's largest structural glulam timber manufacturing facility – we have the experience and capability to tackle any laminated timber challenge.

OUR CORE VALUES

Techlam Momentum

A culture of continuous improvement to build a better future for everyone.



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WORKING WITH US.

To ensure a successful relationship, we endeavour to work to the framework set out below. We do understand that not all projects will follow this exact format, but we believe that this framework can assist with clarifying the different processes and responsibilities throughout your project.



COST ESTIMATE AND PRELIMINARY DESIGN

At the early evaluation stage of a project, basic drawings in any format are suitable for us to evaluate and provide guidance on likely member sizes and project cost indication. Where a preliminary design is required from our design team and/or our engineers to establish the scope of the project, we will always provide a quotation prior to proceeding.



FULL STRUCTURAL DESIGN AND SPECIFICATION

Once we have your agreement, we proceed with full structural design and specification. Depending on the scope, this document will include relevant producer statements along with full plans and specifications for presentation to council.



SHOP DRAWINGS

As with other factory-manufactured components, prior to manufacture, fully dimensioned workshop drawings of the components must be created, including the location of all slots, pre-drilling and penetrations as required. Techlam require full client approval and sign off of these drawings, including sign off by the project architect or engineer.



FINAL PROPOSAL

Upon completion of the full design, our QS team will a detailed Schedule of Quantities, and dependant on scope, a fixed price proposal. Once we have your approval, we will then schedule the project for production.



MANUFACTURE AND DELIVERY

Techlam proceeds with the manufacture of the product, along with any required detailing set out in the specification document. We will provide indicative lead times for delivery, dependant on workload at the time of acceptance. Accurate lead times can only be established upon approval of drawings and we will work with you to ensure satisfactory delivery times.



TECHLAM PRODUCT TECHNICAL SPECIFICATIONS

Techlam provides Product Assurance Supplier Statements (pass™) for specifiers to include in their specification. These statements can also assist with the acceptance of consents.



ARO HĀ WELLNESS RETREAT

SOUTHERN ALPS

Location: Wyuna Preserve

Client: Aro Hā Wellness Retreat

Architect: Tennent + Brown Architects

Structural Engineer: Dunning Thornton Consultants

Builder: Triple Star Project Management

Products Used: Fully Detailed 3D pergolas, Simple Portal Frames

Date: Spring 2013

OUR CHALLENGE

The earlier stages of this project were supplied by another supplier, and there were many issues with poor connections and substandard detailing. This caused significant delays in the erection of the first (somewhat smaller) structure.

Techlam became involved just prior to the project really starting to get underway.

OUR SOLUTION

We worked with the project managers to root out the main issues causing the problems earlier.

Together, we decided that the entire structure would need to be pre-assembled in our plant, before being disassembled and packaged for delivery. All knife plates and hardware was checked and tested for correct fit.

The product was delivered to site, and assembled together perfectly with no issues.



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WELLINGTON INTERNATIONAL AIRPORT

TERMINAL SOUTH EXTENSION

Location: Wellington

Client: WIAL

Architect: Warren and Mahoney®

Structural Engineer: BECA

Builder: Hawkins Group

Products Used: Curved Glulam 'X' Columns
and Decorative Ceiling Beams

Date: 2016

OUR CHALLENGE

Techlam got involved at the tender stage of the project liaising with Wellington International Airport, head contractor Hawkins Construction and architects Warren and Mahoney to devise the best way to produce this complex element of the project along with the ceiling beams.


"Techlam NZ was commissioned to manufacture the large columns that support the structure to the South West Pier. Running along the length of the extension the X columns not only look good great but are also an important structural element," says Brett Hamilton, General Manager of Techlam NZ.

OUR SOLUTION

The stunning curved Glulam X columns are arguably one of the most striking features of the Wellington International Airport terminal south extension. The decision was made to manufacture and fully assemble the curved glulam columns at Techlam NZ's manufacturing plant.

"This ensured a controlled environment so each joint was exact and could then be transported to site using specialist transport fully finished and assembled. We had to ensure everything was very precise. Because the columns were both an aesthetic and structural element there was very little room for tolerance," explains Brett.

Made from Radiata pine the columns and beams had to be treated to H 1.2 standards, which meant careful selection of timber to ensure the timber didn't show any form of pigment staining in its finished form. Brett says manufacturing the columns was complex and required a lot of handcrafting to get right. "Due to precise tolerances as well as the expertise of the Hawkins team, installation time was kept to a minimum, just 20 minutes to install each X column."



**"THE CARE AND ATTENTION TO DETAIL
AND CONSIDERATION OF REDUCED
TOLERANCES PROVED INVALUABLE
DURING THE INSTALLATION"**

STEVE KEMP

Senior Structural Engineer – BECA Wellington Office



**25
years
young**

techlam®

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CCCS JUBILEE CHURCH

WESTERN SAMOA

Location: Malua, Upolu, Western Samoa

Client: Congregational Christian Church of Samoa

Architect: Evan Ngau Chun

Structural Engineer: Kirk Roberts

Builder: CCCS/Shanghai Construction Group

Products Used: Glulam 'Box' Rafter Beams, Glulam Purlins

Date: Winter 2016

OUR CHALLENGE

Malua is a small village on the Samoan island of Upolu. The name originates from the Samoan word "Maluapapa" which is translated 'shelter under the rock'.


CCCS have been building the new church for the last several years, and the massive structure is slowly taking shape.

Techlam became involved in this project early in 2015, and it was soon realised that the roof design was going to need a lot of changes to enable it to perform in the cyclone prone area.

OUR SOLUTION

Techlam worked with the church and engaged our engineer to redesign the structure so it was stronger, and more importantly for the client, more efficient and less costly to build.

We created a design that incorporated a 'box beam' configuration. This meant that we could create a beam that matched the width of the concrete columns already poured on site, enabling a seamless transition from the walls through to the rafter beams. The beams are a massive 19.0 metres above the floor level.



**"CCCS WOULD NOT BE ABLE TO
COMPLETE THAT PROJECT WITHOUT
YOUR CONTRIBUTION... WE PRAY THAT
THE GOOD LORD CONTINUE TO BLESS
YOUR COMPANY."**

GENERAL SECRETARY
CCCS Samoa



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FIJI MARRIOTT RESORT

MOMI BAY

Location: Savusavu Road, Momi Bay, Nadi, Fiji

Client: Marriott® International Hotels & Resorts

Architect: Buchan Group/CArch Studio Architects

Structural Engineer: HLK Jacob

Builder: Fletcher Construction – South Pacific

Products Used: Curved Techlam 'Tusk' Beams, Columns

Date: 2016/17

OUR CHALLENGE

In November 2014, Fletcher Building was named as a construction partner in the redevelopment of Bridgecorp's ill-fated Momi Bay resort – a contract worth approximately NZD \$130 million after the project was officially restarted by the country's Prime Minister, Commodore Frank Bainimarama.

FCC were appointed by the client, Fiji National Provident Fund to undertake remediation works and complete the 250-room hotel on Fiji's main island Viti Levu in late 2014. Situated between Fiji's two most popular resort areas, Denarau and the Coral Coast, Momi Bay offers luxury hotel style accommodation.

Techlam NZ became involved shortly after Fletchers appointment and it soon became obvious that there was a lot of work to be done.

OUR SOLUTION

The resort was in a less than half finished state. Techlam had to identify which parts of the structure had to be replaced, which parts could be kept and reinstated, and obviously the remainder that had never been manufactured.

Techlam worked closely with FCC-SP over many months coordinating the glulam members and arranging shipment. Some of the main tusks weighed several tonnes each and freight from NZ to site had to be managed carefully.

The finished resort looks stunning and includes three restaurants, two swimming pools, fitness and recreation centres, gift shops, tennis courts and a spa with eight treatment rooms, 114 free-standing bures and 136 standard rooms. 22 of the bures are overwater – the first man made lagoon based resort in Fiji. The resort created over 500 local jobs.



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