



Laminated Timber Projects



CSIRO NUTRITION BUILDING BRIBIE ISLAND

The new CSIRO Facility establishes an Aquaculture operation at Bribie Island in a collocated facility with the Queensland Primary Industries and Fisheries (QPIF). The co-location offers a strong synergy and potential for effective collaboration and improved efficiencies. The Nutrition Building is a state-of-the-art aquaculture laboratory facility. The building includes four large laboratories and support spaces with an efficient water supply system.

The building is a very simple gable roofed shed forming very economical accommodation of a sophisticated set of services for the research operation. The complex is located adjacent to the ocean and is therefore in a corrosive marine environment. Materials selection on this project has been based on four major criteria:

- Avoidance of steel in the marine environment
- Robustness/longevity/low maintenance
- Flexibility for future alteration
- Low embodied energy





In terms of building construction, appropriate strategies have been adopted to address the harsh environmental conditions. One key environmental strategy is the use of timber in the design of the Nutrition building to avoid corrosion from salt air. The structure of the building is timber; consisting of timber columns and purlins and plywood box beams. Timber is a very durable material in a marine environment and is the most environmentally sound material known. In the growth of timber, carbon from the atmosphere is absorbed and there is very little energy used in the processing of the material (unlike steel and aluminium).

Durable Hynebeam 21s (Straight) was used for both the columns & the chords / webs of the box beam rafters. Marine grade ply was used as the sheathing material for box beams. This made for a practical manufacturing & fabrication process. The end result is a strong, light, durable & aesthetically pleasing structure.

Project Team

Architect	Architectus 07 3221 6077
Engineer	Bligh Tanner 07 3251 8599
Builder	National Buildplan 07 54402200
Client	CSIRO 07 3400 2000

Hyne products used

Rafters	Box Beams made from 120 x 85 Hynebeam 21S
Columns	155 x 85 Hynebeam 21S Select Grade
Purlins	245 x 45 Hyne LVL H3

