

St Annes Church, Wanganui East & Te Kura O Kokohuia
Mark Southcombe
BSM Group Architects, Wanganui Office

St Annes Church, Wanganui East



Figure 1: Interior View of the St Annes Church

The design for St Annes Church uses simply supported laminated timber roof beams onto a hidden steel portal and ring frame structure. It has a clear-finished plywood ceiling. The reasons for specifying and using the materials are as follows.

Acoustics were an important factor for our ceiling specification. A good church requires a hard reflective ceiling to provide optimal acoustic reflections. Speech should be readily heard. Music and singing should be supported by the acoustic environment.

The aesthetic qualities of the timber beams and ceilings were another reason for the material selection. The timber is a 'warm' in colour, natural material. There is also a tradition of timber ceilings in New Zealand church design that the use of pine ply ceilings and beams allowed us to be a part of in a contemporary way. The expression of the laminated timber and suppression of the steel structure also allowed us to create some visual mystery about how the structure works – a sense of structural lightness. This was important in helping us to create what we hope is an uplifting hopeful space, suited to contemplation and prayer.

Pine in New Zealand has historically been regarded as a 'cheap' material and it actually is an economic material. In an adventurous project for what at \$450,000.00 was less than many house budgets the economy of every element was important, including the ceiling. We used selected 'B D' ply in a carefully detailed way with negative edge details. It was prefabricated and prefinished complete with modular lengths of purlins prior to installation. The cost of the finished ceiling element was competitive with a stopped and painted gib alternative. The ceiling does 'double duty' as a ceiling Structural diaphragm as well. We used square drive button head stainless steel screw connections in a simply set out exposed way to fulfil both structural and aesthetic criteria.

Pine is also a sustainable timber. It was important to the client and ourselves that the materials used be sustainable. In an era where there is no longer a ready availability of native timbers, and when there is sometimes difficulty sourcing alternative timbers from sustainably managed forests pine is in a category all of its own. It is readily available and we think it has a real beauty that has perhaps been overlooked or devalued in the past because of the materials ready availability, economy, and use for materials such as packing crates and pallets.

In our experience there have been some real problems with the reliable supply of finishing grade pine plywood in New Zealand. 'A' grade-finishing ply has not been readily available over the last few years due to technical difficulties with its manufacture. This is surely a growing and important potential market with huge potential for a plywood manufacturing company with an eye to the future. There is definitely a demand to be able to specify this product in our office and we suspect there to be a large and increasing demand for the product throughout the whole building industry.

Te Kura O Kokohuia

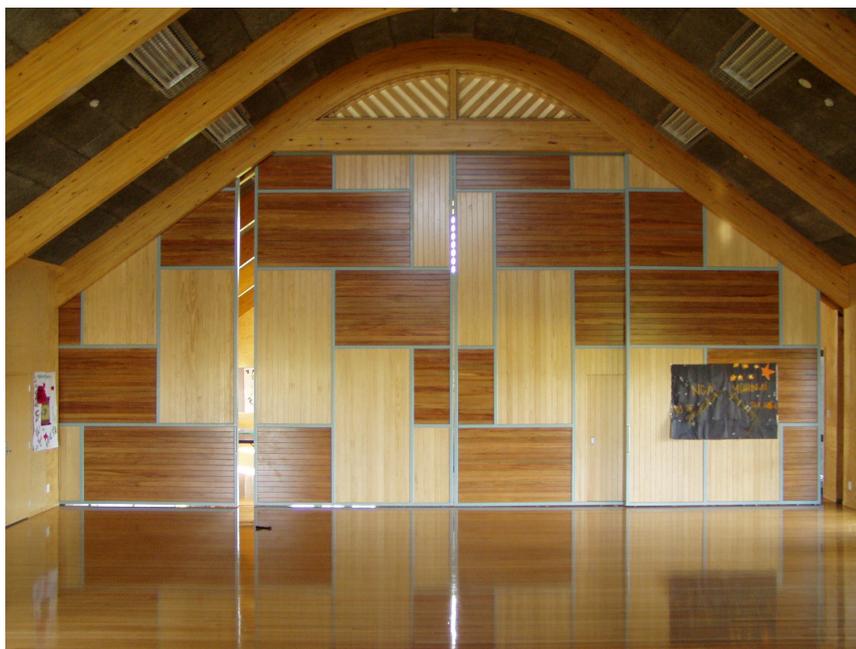


Figure 2: Interior View of Te Kura O Kokohuia

This project was for a new Maori secondary department to an existing Maori primary school. The exterior cladding for the Whare Runanga and classrooms are a combination of stained plywood panels, stained Triclad plywood weatherboards, and painted Hardies Titan. The roof beams for the main Whare Runanga and the remainder of the school blocks including the relocatable components are all laminated timber. The interior walls to the Whare Runanga were a combination of clear-finished plywood and strandboard.

In a similar way to the St Annes project, aesthetics and sustainability played major roles in the material selections for Te Kura O Kokohuia

The Kura was to face a Marae Atea, ceremonial open space. It was to be influenced by the traditional Whare form but it is not a marae meeting house; it is a school Whare Runanga – a lesser assembly and hui place that does not compete with the mana of established Marae. Deep laminated timber beams with curved apexes are the primary structure through the full length of the house and onto the front porch. The beams extend up to 9m high by 12 m wide and give a massive scale to the spaces. For the teaching block wing the curved beams extend outside to create clear-story windows with sunshade overhangs.

The interior beams contrast with naturally finished 38mm Woodtex ceilings specified for their acoustic absorption and material surface qualities. On the interior of the Whare Runanga clear finished ply and strandboard combine with the windows in a carefully proportioned patterning to help create a sense of the traditional in an abstract way. All natural and clear finishes are used to highlight the natural material qualities in a direct way.

The client preference was for the use of native timbers on this project. This was not possible for cost, availability and sustainability reasons. The sustainability of pine was seen by the client to be consistent with Maori values and traditional Maori resource management – despite the timber itself being an introduced timber.

These rooms get significant community as well as school uses, so the robustness of the natural timber materials were also an important factor. These spaces are at times used for sports and entertaining uses as well as traditional sleeping and teaching uses.

Both of the projects rely on and benefit greatly from the material properties of the natural timber products used. We think that together the two projects demonstrate the beauty, integrity and potential of pine as a very architectural resource.