

Pukehiki Community Church 1868

The Restoration Story – A Photographic Record



PUKEHIKI COMMUNITY CHURCH – THE RESTORATION STORY (To November 2023)

BACKGROUND (Pre-2020)



2007: The historic Pukehiki Church on Otago Peninsula looked to be in tidy condition, though the piles needed attention.



2008/09 saw the repiling works completed and drainage works undertaken



2014: After a 5 year break to repay loans for the repiling and drainage works, Stuart Robertson, a local joiner/builder was asked to repair a couple of weatherboards. **Which opened a can of worms!!**

2014/16: Alas everything was found to be in an overwhelming state of decay with a new disaster at every turn. Repairs to the south western part of the church were extensive, highlighting the major renovation task now faced by the Trust relating to the rest of the church structure



2020 – STAGE 1 RESTORATION

After 3 years of fund raising and the preparation of a Conservation Report, work commenced on the staged restoration of the external fabric of the church – to the extent that funds raised would allow (STAGE 1). This covered restoration of the front Bell Tower, re-roofing of the church, and restoration of some walls and windows. Stuart Robertson (lead joiner/builder), with Graeme Carr and Tom Leckie, get stuck in!



February 2020: With scaffolding erected the Bell Tower could be inspected. Again, deterioration and rotting timbers were found at every turn.



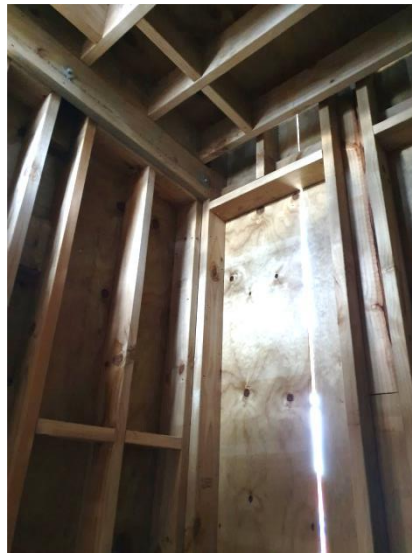


February 2020: The main support posts of the tower were badly riddled with borer and the windows and louvres badly decayed. The tower needed to be rebuilt.

March 2020: Starting again!

Tower reconstruction commenced, with temporary ply cladding placed for weatherproofing pending restoration of the eight timber louvres and two windows to the exact original details.

Note the revelation of the original 1868 church frontage (untouched since then), as it was before the Bell Tower was added in 1884.



March 2020: Work progressed on to the south-west wall, with removal of the large window for repair



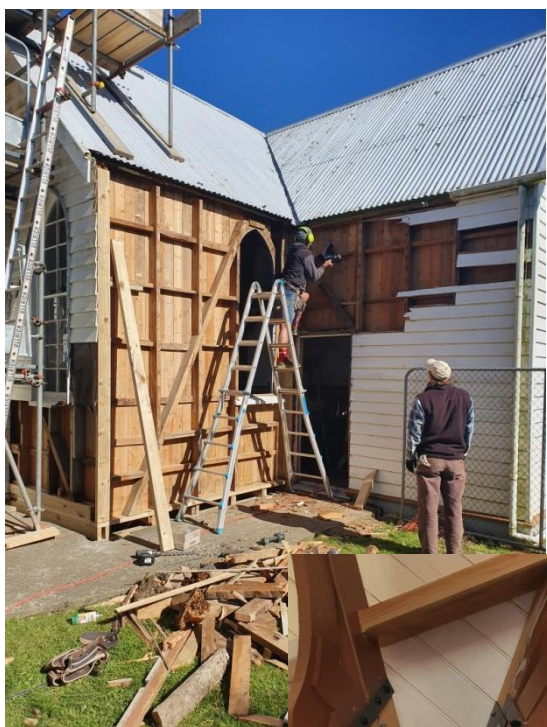
Stuart's fabrication of the new window frame looks impressive.



The repair of windows and louvres involved precise splicing of new and existing timbers to retain the historic fabric of the church, but new timbers were often required.



March 2020: Work then continued on to the SE walls with more decayed timber found everywhere. Even the arch support (arrowed) was rotten, as was the ceiling sarking that had to be cut back for repair.



... and then Covid hit ...

June 2020: After a nearly 2-month Covid-19 break, work finally resumed, with a start on the roof replacement (10th June 2020).



Completion of the tower is presently delayed pending restoration of the eight tower timber louvres and the two windows, along with other Stage 1 windows, all of which are being restored to the original tower detailing (as shown below):



August 2020: By August, the new roofing and the painting of eaves, fascias and soffits was complete bar a few finishing details. The completion of work on the bell tower, walls and windows was pending restoration of the tower louvres and windows being carried out off-site.



October 2020:

After 3-months's restoration in Stuart Robertson's workshop at Sandymount, (see "The Work of a Craftsman"), the restoration of the eight tower louvres, the two tower windows, the large southern window, and the four smaller Stage 1 windows was finally complete. Work commenced back on site, starting first with the installation of the tower windows (across).



November 2020:

Work on the tower is progressing well, though recreating the original construction detailing by Walter Riddell 150 years ago is proving to be a very demanding and intricate process. While these details are being faithfully recreated, attention is being paid to long term weatherproofing, such as the fitting of fabricated stainless steel flashings over the windows and stainless steel sill flashings (arrowed).



Reinstating the original square corner detailing has proven to be a challenging construction detail:



At the top of the tower, the restored louvres are being reinstalled



17 December 2020

Finally! Just 3 days before the 2020 Carol Service, the tower scaffolding comes down to reveal the finished Bell Tower.



A strong community effort quickly converted the church from a construction site to a clean and tidy state all ready for the Carol Service the next day.

That Carol Service saw a packed church and was a wonderful celebration of the work completed to date.



January / February 2021

Work resumed on site mid-January, after the Christmas break, with attention turning now to the 'front' south east walls, windows and side door. Work on the walls and windows proved to be extremely complex and time consuming, pushing the anticipated Stage 1 completion date to April/May. With the structure of the original church crooked in every direction, and the resource consent requiring reinstatement of the corner box profile detailing, every weatherboard, window trim, corner trim, and base sill needed to be individually measured and profiled; temporarily tacked in place to confirm accuracy; removed; all profiled end grains treated and sealed against moisture ingress; and, finally, reassembly, this time with the application of sealant at the butting ends of all timbers.



Graeme fitting and trimming the square corner detail



External square corner detail



Internal square corner detail



New side door installed



Interior lining around windows reinstated



By the end of February the SE walls and windows were finally complete and work moved back on to the large southern wall

March 2021

SE corner by the second side doorway – more rotten studs, (and a new corner pile needed).



And a start is made on installing the new window on the left side of the bell tower



April 2021

Great progress this month and the three builders, Stuart, Graeme and Tom, are hard at work. The new window to replace the one removed in 2015 is now in place and work is continuing on the end wall with the large window.



...and talk about crooked walls!! The wonderful eccentricity of the building is being carefully retained:



(Compare stud spacing top and bottom)

May 2021 - and the start of **STAGE 2**

By early May work has continued around the corner to the 'Stage 2' walls. New weather boards have been fitted and are looking good – BUT NOTE that all these weatherboards are only temporarily fitted. All are individually numbered as they now have to come off for end grain sealing and final fitting.



June 2021



Interior finishing work on the Stage 1 restoration is well underway – with the church interior looking like a joinery workshop! Replacement of the corner light fittings with new uprights, plus spotlights 'hidden' in the rafters is part of the Stage 2 works just commencing.

July / August 2021



By late August, all four remaining Stage 2 windows have been removed for restoration and further exterior work on site has paused pending the work required on these. The August Level 4 Covid lockdown has however, delayed restoration of the windows due to the unavailability of key materials.

October / November 2021

Work is now well advanced on the window restoration – you can never have too many clamps!



Supply shortages due to the latest Covid lockdowns (insulation, plywood, weatherboards, and laminated timber) has delayed work back on site by close to two months, with work now expected to resume on site late November.

In the meantime work has progressed on the installation of the new water tank,



Broad Bay local, Peter Henderson (right), helped at times by John Middleton and Steve Munro, is an absolute constant at the church throughout the project, painting weatherboards and anything else needed whenever Stuart snaps his fingers!

Peter's skill as a painter is exceptional – another craftsman like Stuart!



Late November - December 2021

Building work finally resumes on site



Scaffolding is erected on the end gable and Walter's original construction is revealed!! All studs are cut by the diagonal bracing giving the wall its great flexibility, - noticed when you simply lean on the wall!

December 2021

On closing for the 2021/22 Christmas break, our head craftsman joiner and builder, Stuart muses:

“Probably fair to say this has been the worst wall for work required to prepare due to deformation, but not much decay apart from the corner studs. However other areas of decay were getting established and would soon have become very significant.

The south quadrant, facing the library, that I repaired in 2017, has been the winner for the worst condition collectively; severe decay and insect attack, closely followed by the tower, which was also crumbling.

As we only have one wall left to reframe it's now fair to say without a doubt that the course we set with regards the repair strategy and scope has been the right one. The previous piecemeal patching and painting would only have led to a more highly degraded structure which in a few more years' time would most likely have led to demolition.”



January 2022

After a damp start to 2022, work once again resumes on the northern walls. The external meter box is readied for relocation inside, in accordance with the Conservation Plan.



Walter Riddell's unique construction of the large NE window is revealed

February – March 2022

Where is the sunshine! Inclement weather throughout February and March, and the loss of builder Graeme due to a shoulder injury means progress has slowed. Thank you Graeme for two solid years of wonderful craftsmanship.

But by the end of March the end is in sight. The new NE large window is now in place, as is the smaller side window.



The new switchboard and meter box is now installed



... and yes, the church is still a construction work-site inside!

April 2022

Progress continues, and by Easter, we have the installation of the final large window on the NW gable wall, and more weatherboards in place.

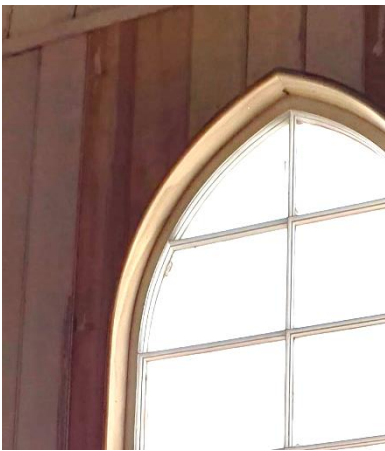
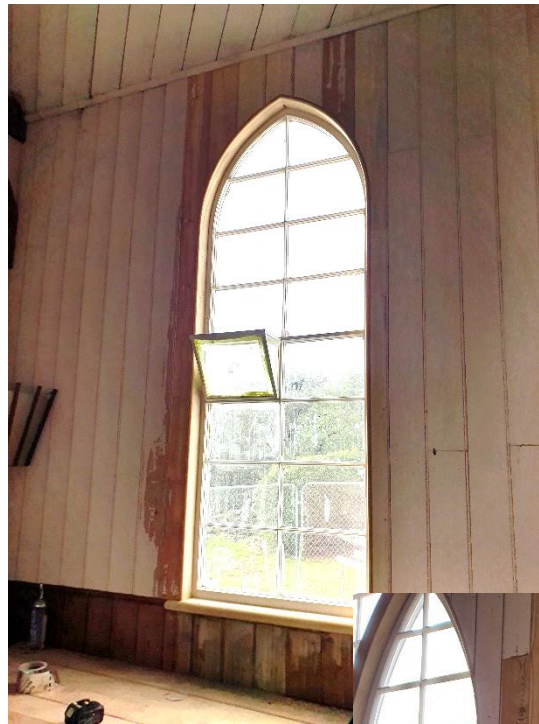


May - July 2022

Completion of the exterior restoration finally! Remaining weatherboards installed, painting completed and, finally, removal of all scaffolding come June. A few finishing touches to go, but the church a sight to behold!



Finishing off inside, around all the new windows, is time consuming.



Stuart's attention to detail is displayed everywhere, right down to bending the timber for the window lining (left), machining new panelling (right), and new windowsills (below).



PVC guttering to Foyer now replaced



New taps for washing down the church

July sees attention turning to finishing off a variety of tasks, including new guttering at front and commissioning of the new water pump. Planning is underway for the paving replacement and the new channel detail around the front of the church to keep the ground separated from the foundation timbers.

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August - September 2022

With the approach of Spring, earthworks get underway to spread topsoil around the church, uplift the existing asphalt, regrade the areas to be repaved, and excavate around the front of the church for the new channel detail.



Getting ready for the new paving



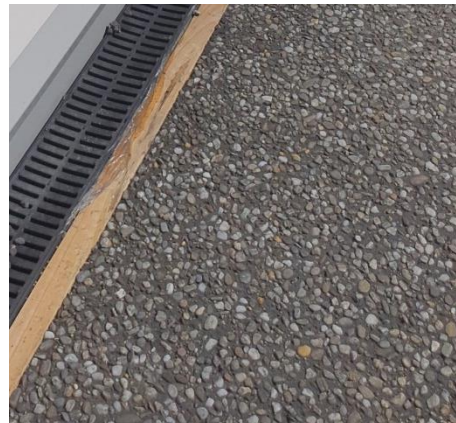
Preparing for the new strip drain around the front of the church

October – December 2022

Finally, after close on 3 years solid work the exterior restoration is complete. The church looked stunning in the October snowfall.



...and the new paving has just finished everything off superbly, all ready for the Christmas Carol Service:



2023 STAGE 3

February – March 2023

After a pause over December/January, detailed planning for all the various Stage 3 works started in earnest.



Further excavation under the church was undertaken to accommodate the new heat pump unit and associated large ducting.



To avoid the outdoor unit being visually intrusive on the side of the church, and to protect it from the Peninsula weather conditions, the unit is to be housed in a small shed across in the bushes to the West. A trench with ducting for the electrical wiring and heating pipework is installed.

April 2023

The church is now full of scaffolding and Sims & Blue have a team of painters hard at work.



Can't get higher than this!



One rafter is seriously riddled with borer and has to be replaced

May 2023

Right on target, work gets underway on restoration of the stone 'dykes', originally built by Robert Landreth, who built many of the local peninsula stone walls, including at Larnach Castle. Now stonemasons, Steven Kilroy and Parry Jones, work their magic in the Pukehiki mist to restore the Pukehiki Church stone walls back to their original glory:



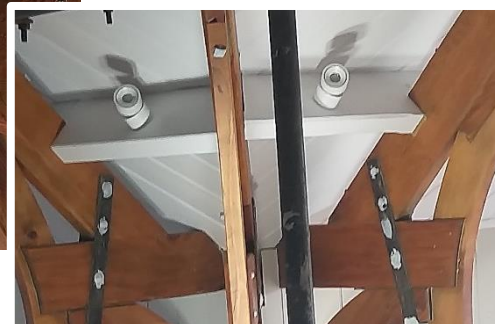
Talk about hard workers! Working 7 days / week the walls are soon complete and look wonderful.



With the interior painting well advanced, attention is now turning to the new lighting and (simple) sound system, and the new heating system.

June 2023

By late June, the interior painting is all but complete, the high level lighting installed, and the two speakers for the sound system installed and tested. The stripped and oiled arch beams look wonderful.



Stuart's arch repairs emulate Walter's original design perfectly

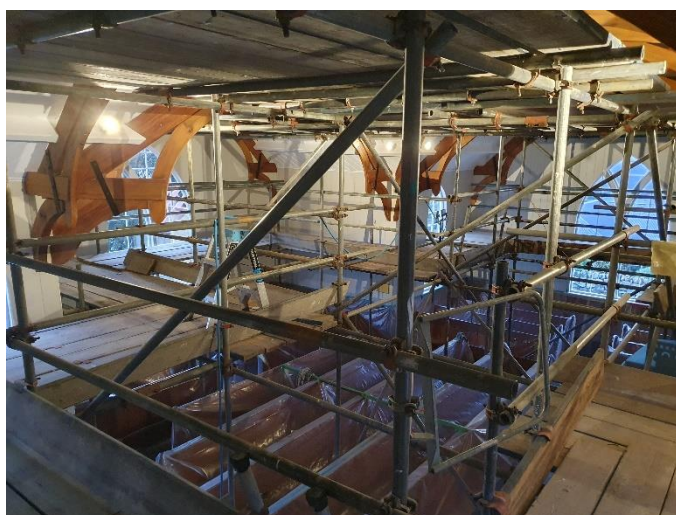


... and with the lights on, we get a glimpse of the new colour scheme

July 2023

Last glimpse at the scaffolding before it all comes down - near the end of July.

Time now for all the finishing touches



Pukehiki Community Church – The Restoration Story (to November 2023)

August 2023

With the scaffolding down, the restored arches look wonderful against the new paintwork. Work now continues on sanding and oiling the pews.



Progress is being made on the new heat pump heating system – the underfloor ducting is substantial! The main heating unit is cunningly located under the hidden floor beneath the pulpit area.

... and Stuart's craftsmanship is ever evident in this sneak preview of the new replica gates made from Siberian Larch.



September 2023

Nearly there! Time for the finishing touches. A pity to cover Stuart's craftsmanship on the gates in white paint, but necessary to match both the original 1880's gate detail, and the gothic arch shape of the windows.



Stuart's craftsmanship continues to the corner lampshades, also from Siberian Larch, requiring a 5-degree angle on the tongue-in-groove jointing to get the required circular shape. They are then stained to match the wainscoting timber below.

Now, time to put up all the wall hangings, paintings and plaques, and historical displays for future record.

October 2023

Time for the finishing touches, preparing for the weekend of celebration at the end of the month. A professional photo shoot captures the church Trustees, plus Stuart:



Back Row L to R: David Lyttle, Stuart Robertson (Restoration Carpenter), Derrick Railton, Maarten van Eerten;
Front Row L to R: Hugh O'Neill, Helen Davidson, Pat Robertson, Fran Hammond, John Aldis

The photo shoot shows the wonderful restoration achieved, inside and out.



Inside, the stripping of the arches back to natural timber, offset by the freshly painted walls and ceiling, has made an amazing difference; and Peter and his team’s restoration of the pews and wainscoting is nothing short of superb.



... and finally the Restoration Celebration weekend, with a well attended Public Open Day on Saturday 28th October

The new sound system allows quieter voices to be easily heard during the historical presentations given



Then on Sunday, a well-attended Restoration Celebration Service.

Chair of the Trust Derrick Railton, welcomes all to the service, and introduces the Rev. Richard Dawson (seated), great grandson of the third minister at Pukehiki Church



IN REVIEW

The 2018 *Condition Assessment and Repair* report prepared by Salmond Reed Architects set out (on page 4) the work and improvements targeted in the restoration project, as follows

- Replacement of defective exterior cladding, fascia board, spouting
- Install building wrap, insulation
- Repaint exterior
- Repair of windows
- Insect treatment (borer)
- Interior painting and varnish
- Repair and secure roof structure
- Replacement of roof
- Take down and rebuild tower using current design
- Repair bell-hanging
- Upgrade heating and lighting, and install sound system
- Remove & replace entrance paving to accommodate ground levels
- Install 25,000 litre water tank and high-pressure pump for maintenance and fire
- Repair of stone walls, landscaping of grounds, new signage

All of this work is now complete, as the foregoing photos show. The final restoration cost is close to \$715,000, as the following table shows:

Stage	Scope	Funded Budget	Actual Cost
Stage 1	Exterior	\$326,800	\$324,789
Stage 2	Exterior, water, electrical & lighting	\$225,000	\$217,989
Stage 3	Interior & siteworks	\$160,000	\$172,726
Totals		\$711,800	\$715,054

Note: Final cost subject to small amendment once final invoices received.

The close-to-finalised restoration cost of \$715,000, compares to the original 2018 project estimate by Quantity Surveyors Chas E George and Sons of \$1,095,200. This 34% saving on the original cost estimate has been achieved through a number of factors, including:

- 1,100hrs of direct, voluntary, fund raising and project management time by Trustee and Civil Engineer Derrick Railton
- Less call on the contingency sums included in the original estimate
- Prudent management between tendering definable work and undertaking other work at hourly rates, thereby largely avoiding sub-contractor margins and establishment costs
- Direct purchase of materials, avoiding contractor margins, AND
- The exceptional management, craftsmanship and skills of Stuart Robertson (and his team) who has led the project physical works throughout

Completion of this project marks the end of a 10-year restoration journey that began back in 2014.