



2011 First Trip: What is needed?

Craiger and Kerry went to the island for 4 days in June 2011 to scope out the work required and to perform a few repairs whilst they were there.

They discovered:

- A partially built dining hall with significant structural flaws
- 2 pit toilets (not toilet blocks, toilets) for the entire school population of over 100 people
- A limited water supply from rusty roofs. The cook buckets this water across the playing field to use in the kitchen.



Typical School colors and style



The boys' dormitory that is in need of replacement



Dormitory interior. Teenage boys, little air movement



Some of the students



School toilets. Squat style over a septic tank



A new dining hall was started in 2005 but not completed. It was built by locals from another village on the island and some of their construction techniques were, at best, a little dodgy. The foundations went in OK but the plans were not as well followed as they should have been when it came to constructing other structural elements – like columns and trusses. The money ran out and short cuts were taken. Columns were too small, exposed steel was rusting and the trusses were constructed from random wood. The purlins were too small and too far apart. Plus numerous other problems.

2012 Second Trip: Work gets underway

In May 2012 a team of Rotarians and skilled friends went to the school over a two week period and, with the help of the local villagers, achieved the following:

- Structural repairs to the new dining hall columns, trusses and purlins
- Kitchen built, window frames in, walls plastered and painting well underway
- A new composting toilet (half the village turned up to help with this and the plans were left there so they can build more in both the school and the village)
- A new water tank - with new corrugated iron on the roof, and water piped to suitable locations in the school
- Repairs to the library window screens to stop the wasps eating the books



The Dining Hall Interior



Poor column/roof support



Framing up the windows



Door construction – and introducing the local kids to an electric drill and putting them to work



Fixing up the roof trusses



And adding roof bracing



Two expert builders (Emile and Richard) arrive in the second week and install new timber columns to tie into the repaired trusses and the steel in the floor.



The walls freshly plastered



A few of the locals are excellent plasterers



The far end wall – with exposed untreated purlins. These were later cut off and the iron flashed.



The other end wall complete after plastering, painting and flashing.



Painters getting the windows ready for the insect screens ...

And Alan's lovely screens in place.



Completing the kitchen

Composting Toilet Construction

The school had a bare minimum of toilets so the idea was to build a composting toilet using the Composting Toilet Construction Manual written by Eric Tawney, a Peace Corp volunteer in conjunction with the Vanuatu Government.

www.cee.mtu.edu/sustainable_engineering

Supervision of the construction of the precast slabs prior to Kerry's arrival. Once Kerry arrived in the second week the toilet was constructed.

Many of the locals turned out to assist keen to learn how to do it themselves. A printed copy of the manual was left for the villagers to refer to in the future



Building the framework



Pouring the concrete



Four days later Kerry turns up to start supervising the moving of the slabs



Carrying the slab – to the far end of the field



Walls in approximate position



The bamboo floor of the tank 100mm off the floor. This is covered in grass and keeps the solids off the floor allowing the liquid to drain. Marine ply doors were constructed as the end wall



Thunder box installation. Once one tank is filled this tank is closed off and the seat moved to the other tank. When that fills the first tank is shovelled out as good useable compost

The thatched roof going on. A good thatch and bamboo walls last 25 to 30 years. The vertical pipes at the back remove the smell

School Water Supply and Girls Dorm



Old classroom being turned into a new Girls' Dormitory ...



And re-roofed, so the water can be collected in the tank we installed last year...



Girls' Dorm almost complete ...



Water supply. Many of the roofs are rusty! We installed a new 2 metre stretch of roofing on an existing building at a high point on the school grounds (gravity feed for dining hall) in 2012 and installed a new tank with pipes leading to stand pipes outside the dining hall, cookhouse and dorm. 2014 saw this completed.

We ascertained that a new boys' dormitory was not required as the school roll had not increased and there were existing buildings able to be converted to a dormitory as required.

However experiencing contact with villagers suffering severe gastric problems (including ourselves), we think caused by polluted water, shifted our aim to the supply of more water tank storage. We were also asked to help with water supply to a recently established Aid post nearby.

On our fourth trip (2014) Waitakere Rotary supplied a smaller water tank, gutters and sink unit for the new aid station, again with the help from the Harold Thomas Rotary Trust. Insect mesh fitted to the windows of the aid station and completed the water system.

Dunedin North Rotary provided school desk materials, musical equipment and an extensive computer system. They also provided an additional 6000 litre water tank.

Fortunately some jobs were taken care of by other organisations - the solar power system was repaired but the power supply (230V) is still on hold.

Both Waitakere and Dunedin North Rotary clubs now consider this project to be completed and are looking forward to more challenges in the future with a team from Waitakere already booked to go back to Tongoa Island in Vanuatu next month and Dunedin looking for more work !

We were pleased to receive the thanks and congratulations from Rufino Pineda the Assistant Governor of Area 9 and member of the Rotary Club of Santo who recently visited the school.

Participating Waitakere Rotarians:

Craig Hargesheimer

Kerry McMillan

Alan Pattison

Sheena Spittles

Peter Thomson