



CHAND ENGINEERING CONSULTANTS LTD.

CONSULTING ENGINEERS & PROJECT MANAGERS

**CYCLONE WINSTON PRELIMINARY ASSESSMENT
SCHOOLS, HEALTH FACILITIES AND PUBLIC BUILDINGS
FOR
FIJI INSTITUTION OF ENGINEERS &
DEPARTMENT OF NATIONAL PLANNING
(MINISTRY OF FINANCE)**



NAME OF FACILITY: Nagigi SDA Primary School
TYPE: Primary School
LOCATION: Nagigi, Vanua Levu
DATE OF ASSESSMENT: 21 March 2016

JOB NO: 16-124
GOVERNMENT FACILITY NUMBER: GFN-189

DISCLAIMER: THIS REPORT HAS BEEN PREPARED FOR THE BENEFIT OF FIJI INSTITUTION OF ENGINEERS & MINISTRY OF FINANCE TO ESTABLISH THE EXTENT OF DAMAGES BASED ON A HIGH LEVEL PRELIMINARY ASSESSMENT. IN NO CIRCUMSTANCES IS THE REPORT TO BE USED FOR SCOPING OR ESTABLISHMENT OF DETAILED COSTS FOR DAMAGES. NO RESPONSIBILITY SHALL BE TAKEN FOR ANY INCORRECT OR INCOMPLETE INFORMATION DUE TO THE SHORT TIME IN CARRYING OUT THE INITIAL ASSESSMENT AS PART OF VOLUNTARY PRO-BONO SERVICE OFFERED BY CHAND ENGINEERING CONSULTANT LTD. DETAILED ASSESSMENT SHOULD BE CARRIED OUT FOR DETAILED COST AND SCOPE FOR REPAIR AND REINSTATEMENT WORKS

**RAPID ASSESSMENT TEMPLATE: CYCLONE WINSTON DAMAGED BUILDINGS
SCHOOLS, PUBLIC BUILDINGS & HEALTH FACILITIES**

INSPECTOR: AAC/ SRS/ SP
FIRM/COMPANY: CHAND ENGINEERING CONSULTANTS LIMITED

GENERAL INFORMATION

Building Name: Nagigi SDA Primary School
Type: School Block
Location: Nagigi
No. of Buildings: 4
Ariel Plan Available: YES / NO

REPORT

Page No. : 1
Building No. : 1
Building Approx Age: _____
No. of Storeys: 1

Extent of Damage Rating Description

1	Minor/Cosmetic/Water
2	Some Damage
3	Extensive but Repairable
4	Irreparable

Types of Buildings

- School Block
- Staff Quarters
- Toilet Block
- Utility Building (FEA, Services, etc)
- Divisional Hospital
- Sub-Divisional Hospital
- Health Centre
- Nursing Station
- Public Building or Facility

EVALUATION

Type of Construction	Description	Build Quality	Damage	Extent of Damage Rating	Photo No.
Floor	timber floor	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Foundations	Not Visible	1 Good 2 Average 3 Poor	No visible damage- concealed	0	N/A
Walls	timber wall	1 Good 2 Average 3 Poor	No visible damage	0	1
Rafters	150x500mm rafters	1 Good 2 Average 3 Poor	No visible damage	0	N/A
Purlins	75x50mm purlins	1 Good 2 Average 3 Poor	No visible damage		N/A
Roof	corrugated roof cladding	1 Good 2 Average 3 Poor	30% blown out	0	1
Electrical	typical standard switches, GPO's and fluorescent tubelights and bulbs.	1 Good 2 Average 3 Poor	No damage known	0	N/A
Hydraulics	None	1 Good 2 Average 3 Poor	N/A	N/A	
Windows/Doors	louver windows on standard carriers typically for all windows and timber doors.	1 Good 2 Average 3 Poor	Louvers are missing	2	N/A
Shutters	none	1 Good 2 Average 3 Poor	No shutters	0	N/A
Ceilings	Ply board ceiling typically throughout-	1 Good 2 Average 3 Poor	Water Damaged	3	N/A
Terraces/Verandah	none	1 Good 2 Average 3 Poor	N/A	0	N/A
Tiles/Floor Covering	timber floor	1 Good 2 Average 3 Poor	water damage	1	N/A
Gutters	Standard GI gutters	1 Good 2 Average 3 Poor	At least 30% guttering and down-pipes damaged	3	1
Downpipes	100mm PVC downpipes with PVC straps fixed to the 50mm steel post.	1 Good 2 Average 3 Poor	Guttering and down pipe damaged	3	1
Fascia Boards	250x30mm timber fascia board.	1 Good 2 Average 3 Poor	at least 40% fascia board are damage	3	1
Furniture/Desks etc.		1 Good 2 Average 3 Poor			
Possible Intermediate Solution	Re-construct the guttering, downpipes, flashing,fascia board and new roofing iron in accordance with NBCF.				
Possible Long Term Solution	Detailed investigation for roof framing recommended along with checks on wall capacity for uplift/lateral loads for more tolerance towards Cat.4. Much dependent upon detailed investigation by an Engineer. Considering the building age and with no major damages found, possibly repair the whole building to comply with NBCF. Option also exist to retrofit cost permitting,Estimated cost currently around \$100,000.00 to \$300,000.00 (new construction) for long term solution.				

Damage Assessment (\$) \$10,000.00 Intermediate
Basis of Calculation Engineers Estimate-TBC (note can be QS assisted)

FEES ESTIMATE:

Design/Documentation: TBC
Tender/Approval: TBC
Inspection/End Construction: TBC

**GENERAL DAMAGE
SCHOOLS, PUBLIC BUILDINGS & HEALTH FACILITIES**

INSPECTOR: AAC/SRS/SP
 FIRM/COMPANY: Chand Engineering Consultants Limited

GENERAL INFORMATION

Building Name: Nagigi SDA Primary School
 Location: Nagigi
 No. of Buildings: 9
 Ariel Plan Available: YES / NO

1 FENCING / GATES / DRIVEWAY / RETAINING WALLS ETC (INCLUDE TYPE / LENGTH ETC)

2 WATER TANKS/METERS/PLUMBING

3 POWER LINES / METERS / WIRING

4 OTHER ITEMS
Considering the building age and with 30% roof blown damages found in school building, school building need to comply with NBCF.
All the building needs to comply with engineers certificate requirement as most are used as the equaton centre for more than 3 villages
Teachers quarters has been temporarily repaired to be occupie by the staffs, it need to be re-build to comply with NBCF.

TOTAL COST ESTIMATE:

DESCRIPTION	FEE
Classroom Block 1	\$10,000.00
Classroom Block 2	\$50,000.00
Toilet Block	\$3,000.00
Staff Quarters 1	\$8,000.00
Staff Quarters 2	\$8,000.00
staff Quarters 3	\$8,000.00
Staff Quarters 4	\$90,000.00
Staff Quarters 5	\$90,000.00

TOTAL FEE ESTIMATE:

DESCRIPTION	FEE
TBC	TBC
TBC	TBC
TBC	TBC
TBC	TBC
TBC	TBC
TBC	TBC
TBC	TBC
TBC	TBC

TOTAL:	\$259,000.00

TOTAL:	

PHOTOS- BUILDING 1



Photo 1:Rear View of Main School Block



Photo 2: View of Main School Block