



## **CRS Haiyan**

**How to intervene with Repair ?**

## **Why Repairs ?**

Post disaster Self Recovery needs to be support with adequate resources and technical support and many homes that are partially damaged and with proper technical support can be repaired to be safe and livable.

## **Why Technical Guidance for Repairs ?**

Repairs need technical guidance during the process and to promote consistent message with Repairs to Build back better.

CRS will use **Shelter cluster guidance: Build back better** and refer the **UN-Habitat Guidelines/ Standards for Climate change & DRR Sensitized house design and Site plans** until the TWG agrees on any common messages and Technical guidance for Repairs.

## **Who do we support ?**

CRS supports to repair Houses that can be repaired to be Structurally safe and can help to provide a minimum of 18 Sqmt of enclosed livable space ( Min 3.5 Sqmt/ Person) within the set selection criteria set.

**Define Repairs:**

**What is TYPE B: Major Repair?**

**Major Damage Category is determined if the Structure is**

- a) Have main components like Roof/ Wall completely damaged or vulnerable to future disasters.
- b) Has walls/ Roof damaged and need to be demolished and rebuilt.
- c) Has foundations/ main structural frames damaged.
- d) Has structure that has been rebuilt but vulnerable to disaster and will need to be rebuilt to build back better.

**What is TYPE C: Minor/ Light Repair ?**

**Minor/ Light Repairs is determined if the structure is**

- a) Structurally safe and needs support for completion ( Eg: GI sheets/ Doors/ Windows/ Flooring)
- b) Structurally safe but needs adequate strengthening for future disaster ( Eg: Bracing/ anchoring etc)

**Package for TYPE B – Shelter/ Wash**

Total Assistance Value	33,000 PHP for 18 Sqmt + Latrine repair
CGI Sheets and Plain sheets shall be distributed by CRS. ( Material from Ausaid, E-durable shelter is distributed)	Balance amount for Material purchase shall be provided by Vouchers/ Cash Grant. ( Umbrella Nail/ Nails/ Cement/ Tie Wire/ Coarse Gravel/ Sand/ Lumber/ Pin Hinge/ Marine Ply/ Amakhan/ Deform bar/ Sealant/ Glass/ Labor)

**Package for Type C- Shelter**

Total Assistance Value	20,000 PHP for 18 Sqmt + Latrine repair
CGI Sheets and Plain sheets shall be distributed by CRS. ( Material from Ausaid, E-durable shelter is distributed)	Balance amount for Material purchase shall be provided by Vouchers/ Cash Grant. ( Umbrella nail/ Nail/ Cement/ Tie wire/ Coarse gravel/ Sand/ Lumber/ Pin hinge/ Marine ply/ Amakhan/ Deform bar/ Sealant/ Glass/ Labor)

**Details on Tranche for Shelter Repair:**

**Type B: Major Damage ( 33,000 PHP)**

Tranche 1: **16,500 PHP**

**If Materials for repairing 18 Sqmt of enclosed livable space is procured by the Beneficiary and verified on the site after the 1<sup>st</sup> Tranche- Proceed to CGI + Plain Sheet**

Tranche 2: **Distribute upto 20 CGI Sheet + 2 Plain CI sheet ie. 10,000 PHP**

**If the Main structural components are repaired as per the guidance to Build back better for 18 Sqmt of enclosed livable space and verified on site after the 2<sup>nd</sup> Tranche- Proceed to release 3<sup>rd</sup> Tranche.**

Tranche 3: **33000 -{ 16500+ Cost of 20 CGI & 2 Plain Sheets}= 6500 PHP**

**Verify that the family has completed and has 18 Sq mt of enclosed livable space- Proceed for completion certification**

**NOTE: If Beneficiaries don't need CGI Sheets and Plain sheet they will not be eligible for additional cash. ie. They receive only 23,000 PhP Houses with Concrete Structure should be evaluated on case by case basis.**

**Type C: Minor/ Light Repair (20,000 PHP)**

Tranche 1: **5,000 PHP + Up to 20 CGI & 2 Plain Sheet ie.10,000 PHP**

**IF Materials for repairing 18 Sqmt of enclosed livable space is being installed/ Repaired by the Beneficiary and verified on the site after the 1<sup>st</sup> Tranche or CGI/- Proceed to release 2<sup>nd</sup> Tranche**

Tranche 2 : **20,000 – {5,000+ cost of 20 CGI & Plain Sheet } = 5000 PHP**

**Verify that the family has completed and has 18 Sq mt of enclosed livable space- Proceed for completion certification**

**NOTE: If Beneficiaries don't need CGI Sheets and Plain sheet they will not be eligible for additional cash. ie. They Receive only 10,000 PhP**

**Details on Tranche for Latrine Repair in the Recovery Phase:**

**Superstructure** (for repairs with existing septic tank).

Cash Grant Range	CASH AND MATERIALS COMBO
i. Roof, posts, wall – Php 2,300 ii. Toilet bowl, cement, sand, gravel - Php 3,000 iii. Labor cost – PhP 1,500	<ul style="list-style-type: none"> <li>• Materials (GI sheets, toilet bowl and cement) – Php 4,564</li> <li>• Cash Receivable – Php 2,236</li> </ul>
<b>Total = 6800 PhP</b>	

**Full package (for new construction/recovery/relocation)**

The Budget for cast-in-situ septic tank and labour cost (Php 22,000.00). Budget is reflected in both materials and labor cost of the septic tank using cast-in-situ. Excavation and masonry works and would require skilled manpower.

CASH GRANT TRANCHES		Materials	Labor	Total
Tranche 1	Septic tank	8,996.96	3,000.00	11,996.96
Tranche 2	Superstructure	6,701.00	3,279.00	9,980.00
	<b>Total</b>	15,697.96	6,279.00	<b>21,976.96</b>

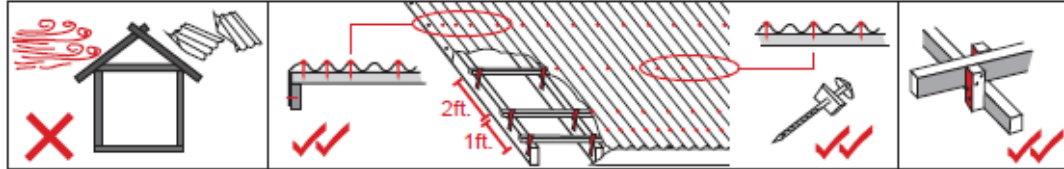
COMBO PACKAGE (CASH + MATERIALS)		Materials (less CGI, cement and bowl)	Labor	Total incl In-kind ( CGI, Plain sheet, Cement and Toilet Bowl)
Tranch 1	Septic tank	8,996.96	3,000.00	11996.96
Tranch 2	Superstructure	2,137.00	3,279.00	9,980
	<b>Total</b>	11,133.96	6,279.00	<b>21,976.96</b>

cost of CGI, plain sheets, cement and toilet bowl: **4,564.00**

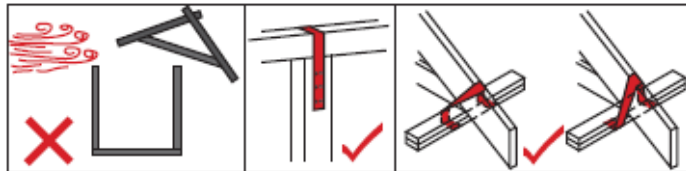
# TIPS TO BUILDING BACK SAFER

V2

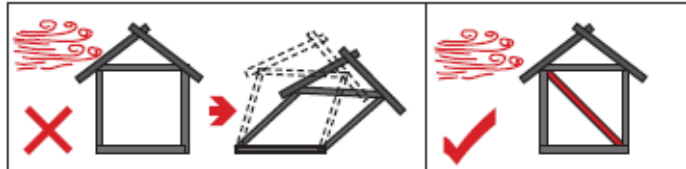
## PAG-ATOP (Roofing)



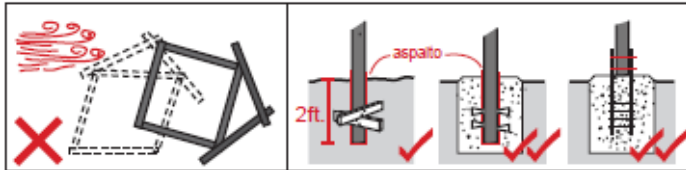
## PAGSUMPAY (Connections)



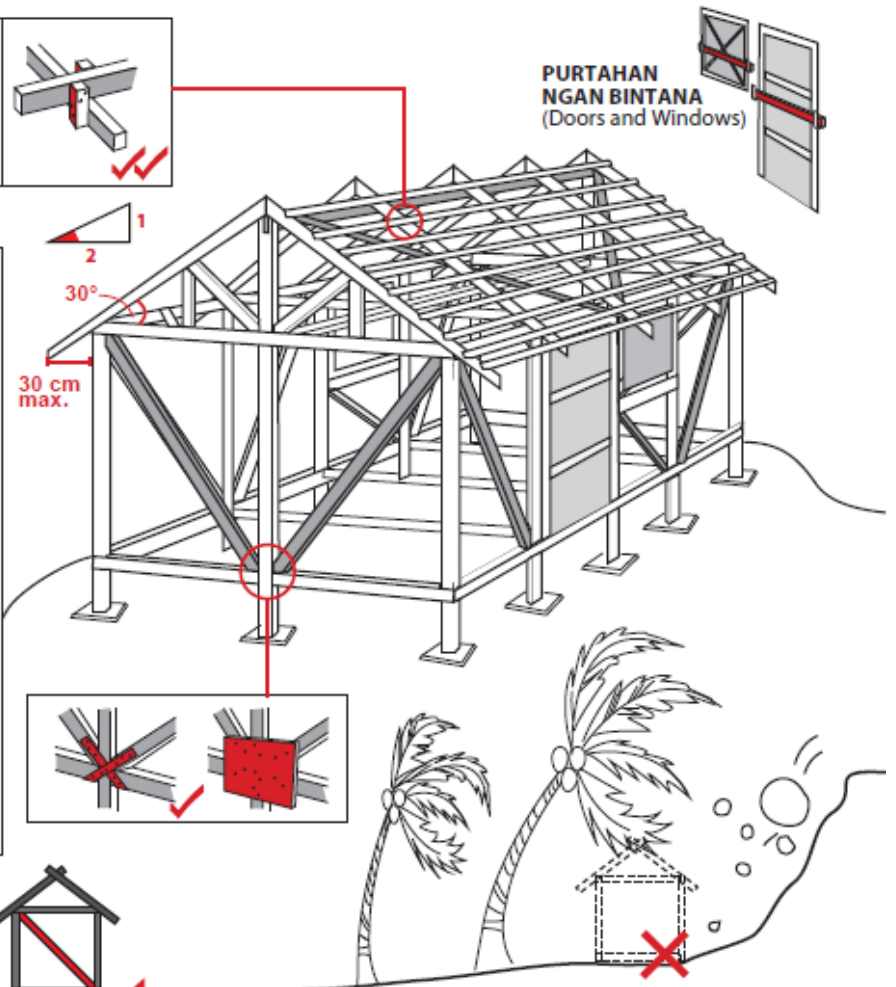
## PAG-PADIG-ON (Bracing)



## PAGPUNDASYON (Foundation)



PURTAHAN  
NGAN BINTANA  
(Doors and Windows)



## **Methodology for implementation of Repairs:**

### **Mechanics of the Voucher:**

**A Currency/ commodity Voucher will be provided which the Beneficiary will be able to exchange in the predetermined Vendors:**

- a. Voucher will be scheduled per zones.
- b. Beneficiaries will be provided the list of shortlisted vendors they can en-cash the Vouchers.
- c. Beneficiaries will be given a voucher with their names and list of materials they could qualify for according to the extent of damages.
- d. Each beneficiary shall go to the Vendor in stipulated timeframe and pick-up the items that they need.
- e. Each Vendor will have a checker to check the names and items correspond to the list.
- f. Material Specification will be displayed at each Zone/ Vendor.

- a. **CASH Grants** – a corresponding amount as highlighted in the details of tranches will be processed via an express money bank will be received by the beneficiary who opted to receive cash to Shelter repair.

### **Mechanics of Cash grant:**

- a. From the revalidated list, CRS staff will collect the names of the beneficiaries and make their ID cards
- b. List of beneficiaries with corresponding amount will be presented to the Finance with Payment Voucher
- c. Finance will request for a tracking number from the express money service bank and give back to the program staff
- d. Program staff will present the tracking number to the beneficiaries and schedule the remittance.



NAME: \_\_\_\_\_ ID No: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

HOUSEHOLD MEMBERSHIP: \_\_\_\_\_

Male: \_\_\_\_\_ Female: \_\_\_\_\_

VULNERABLE MEMBERS OF THE FAMILY:

Elderly: \_\_\_\_\_ PWD: \_\_\_\_\_ Pregnant Woman: \_\_\_\_\_ Children: \_\_\_\_\_

SOURCE OF INCOME: \_\_\_\_\_ (Rice farmer, coco farmer, fisherman, businessman, etc)

LAND TENURE:

Land Owner: \_\_\_\_\_ ARB: \_\_\_\_\_ Non-ARB: \_\_\_\_\_

## SHELTER DAMAGE ASSESSMENT FORM

PARTICULARS	QUANTITY DAMAGED	DETAILS			REMARKS
		LENGTH	WIDTH	PITCH	
<b>Roofing</b>					
Galvanized Iron Roofing					

Damage Category: Type B- Major Damage/ Type C- Minor Damage

**\*Note: Repairs Assistance should be to complete a minimum of 18 SQ Mts enclosed livable space.**

RECOMMENDATION: \_\_\_\_\_

\_\_\_\_\_

ASSESSMENT MADE BY:

\_\_\_\_\_ Date: \_\_\_\_\_, 2014



**\*Note: Repairs Assistance should be to complete a minimum of 18 SQ Mts enclosed livable space.**

**Type of Structure** (Pls Check)

Concrete

Semi Concrete

Wood or other materials

**House Location** (Pls Check)

Near the shoreline

Hillside or Mountainous area

Flat area or in the city center

### House Design Assessment

**Draw existing Floor plan and Identify the 18 MT Sq area supported for ensuring repair for Safe and dignified living.**

Pls Draw, Indicate dimension and area to be supported.

Note: CRS will support to have a minimum 18 Sqmt of enclosed livable space for Repairs .

ASSESSMENT MADE BY:

\_\_\_\_\_ Date: \_\_\_\_\_, 2014



## SHELTER REPAIR PROJECT

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# Completion Certificate

I, \_\_\_\_\_ House owner located in \_\_\_\_\_,  
(Name of Land Owner)  
Barangay \_\_\_\_\_ having Rev ID No \_\_\_\_\_ have received assistance of  
\_\_\_\_\_ from CRS.

I have used this Materials/ Cash to repair my shelter for a minimum of 18/ 24 Sq mts enclosed living space on \_\_\_\_\_.

Signed in the presence of:

\_\_\_\_\_  
Name and Signature of the House Owner

\_\_\_\_\_  
Name and Signature of CRS representative.

**WITNESSES:**

\_\_\_\_\_  
Name and Signature

\_\_\_\_\_  
Name and Signature of Brgy. Captain

# Technical Guide for Repair :

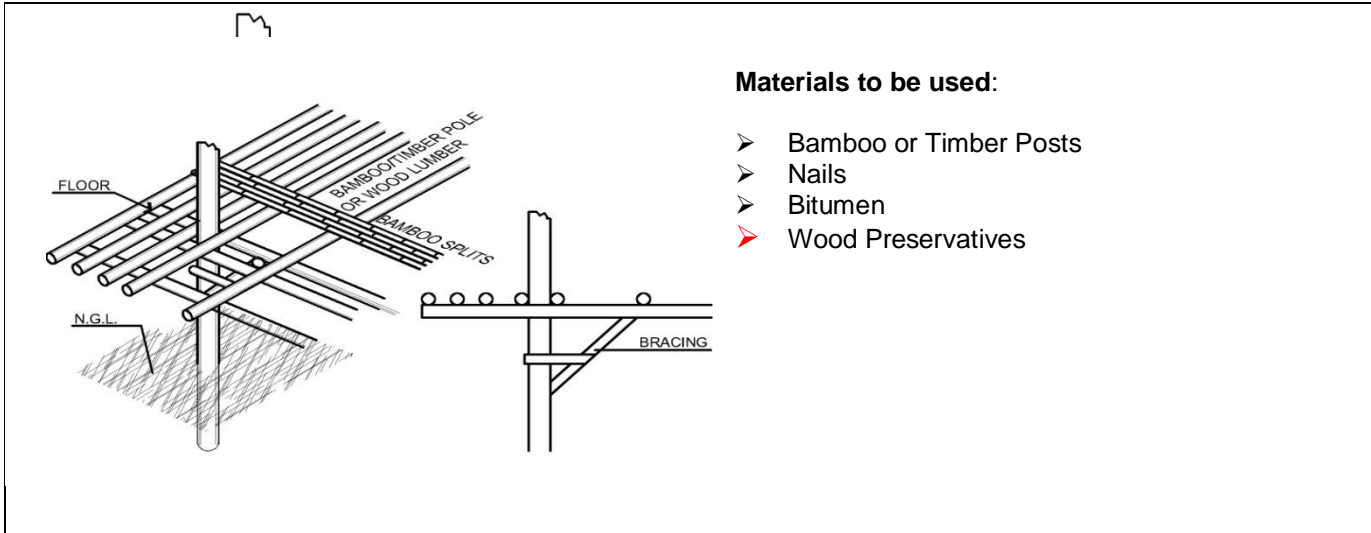
(Reference: UN-Habitat Guidelines/ Standards for Climate change & DRR Sensitized house design and Site plans)

## 1. House Foundation

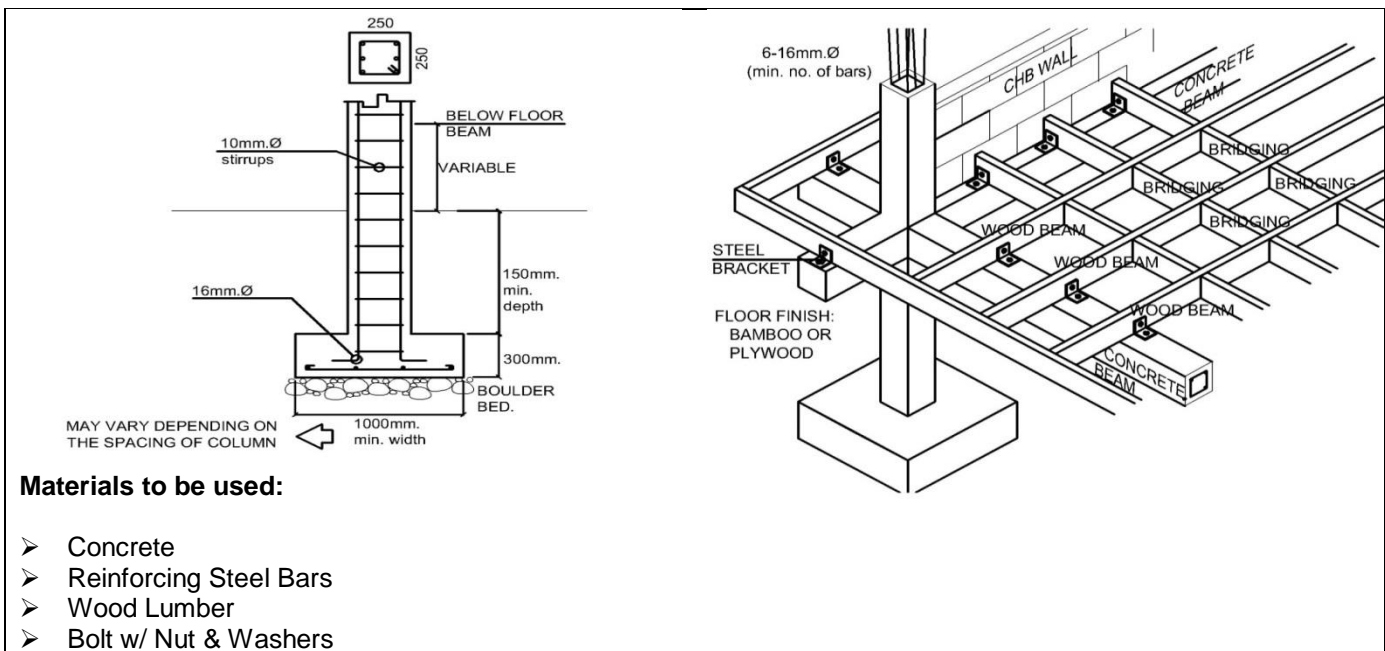
### Standards Set

Pls Check what type or nearest type of foundation existing structure has

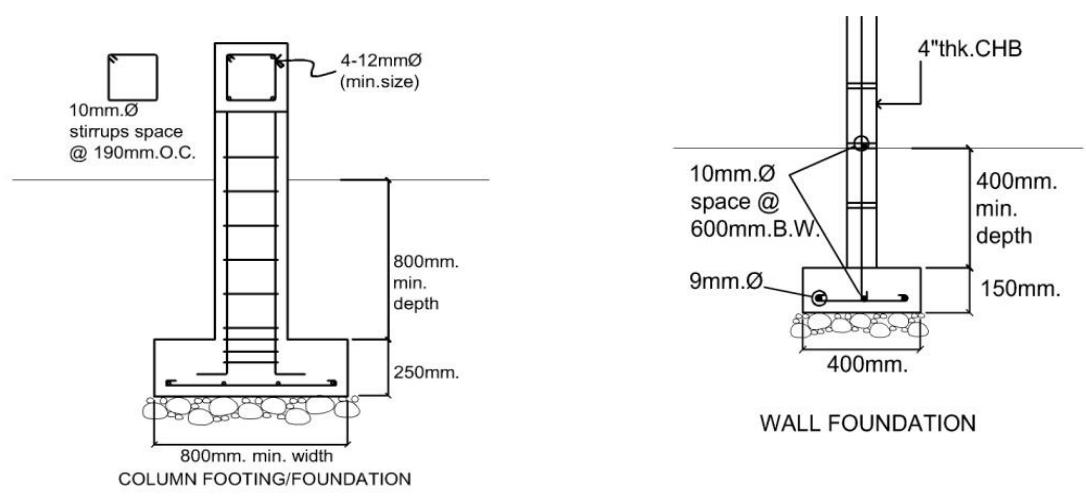
#### TYPE 1 Stilts



#### TYPE 2 stilts with concrete



#### TYPE 3: Concrete house on ground



- Materials**
- Cement (1:2:4)
  - Sand
  - Gravel
  - Boulder
  - Common Borrow
  - 10 & 12mm

<b>Guide yourself for Existing Foundation Repairs</b>	
Size of the foundation	
Remark	

**Base on comparison on the standard and existing, here is the recommended adjustment to the Foundation repairs.**

- 1.
- 2.
- 3.

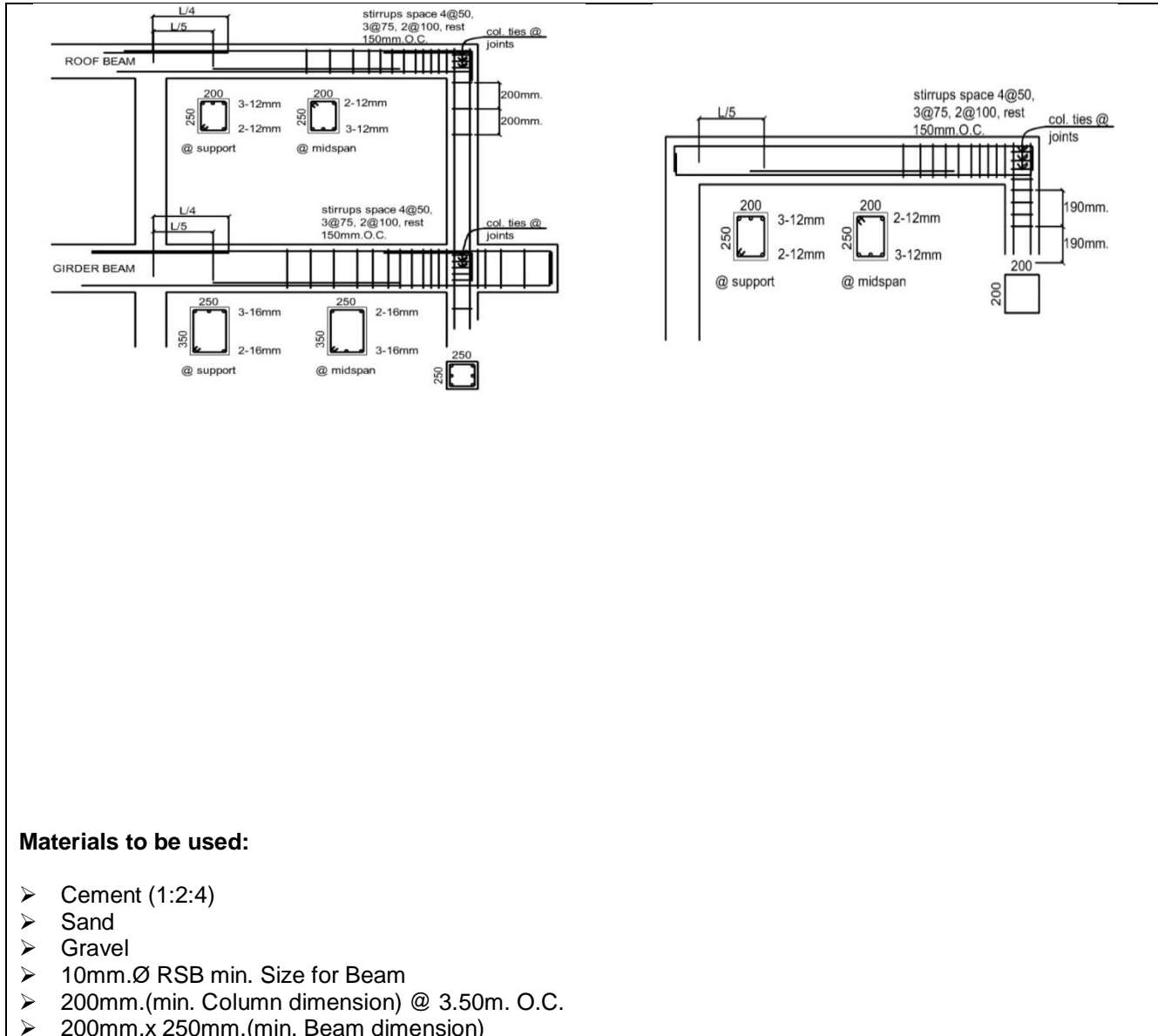
**Estimated cost:** \_\_\_\_\_ (Labor: \_\_\_\_\_ Material: \_\_\_\_\_).

**2. Columns and Beams.**

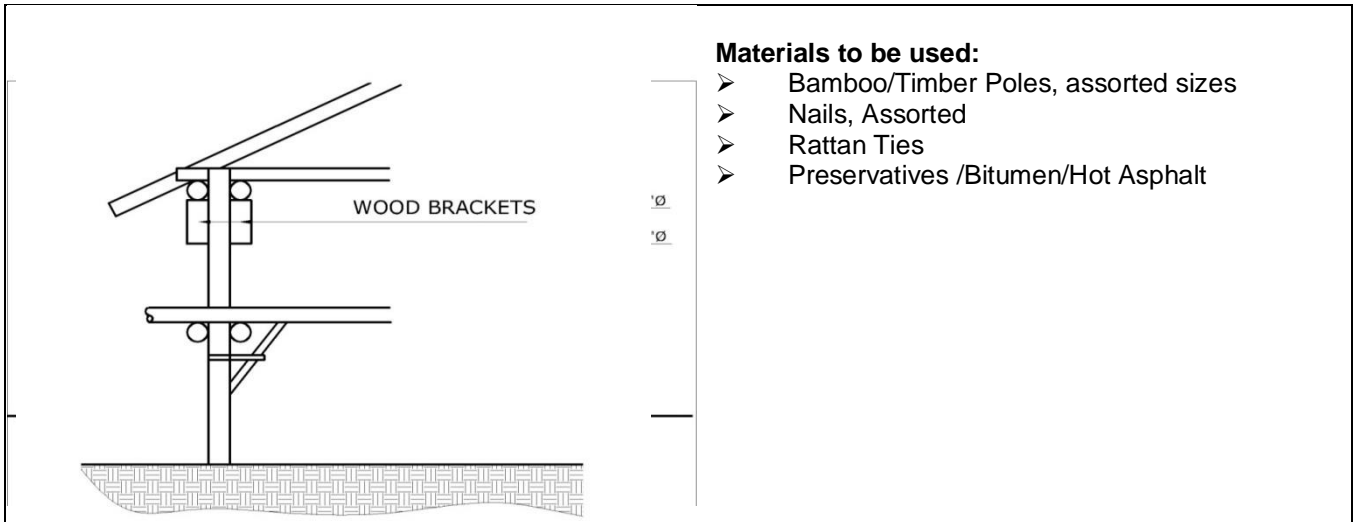
## Standard Set

Pls Check what type or nearest type of column and beams existing structure has

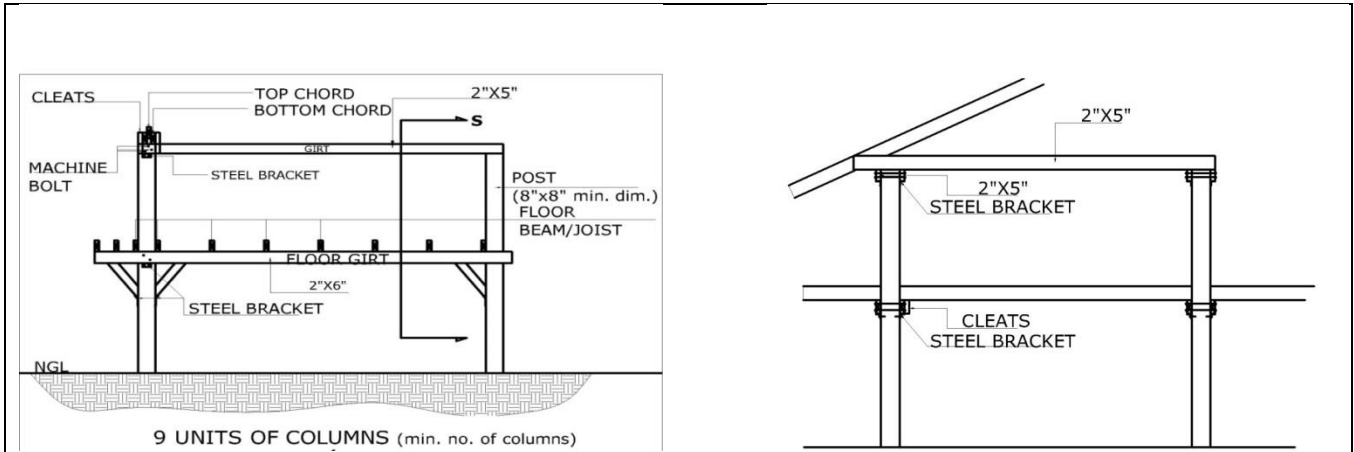
### TYPE 1 CONCRETE BEAM and CONCRETE COLUMN



### TYPE 2: COLUMN/POST & GIRTS (BAMBOO OR TIMBER)



**Type 3: BEAM & GIRTS (WOODEN COLUMN)**



- Materials to be used:**
- 8" X 8" Wooden Post (min. Dimension)
  - 2" x 4" Steel Bracket
  - 2" x 5" Roofing Girt/Beam
  - 2" x 6" Flooring Girt/Beam
  - 16mm.Ø x 100mm. Machine Bolt w/ Nuts & Washers
  - Wood Preservatives
  - Bitumen/Hot Asphalt
  - Nails, Assorted

<b>Guide yourself for Existing column and beam repairs</b>	
No of column and Beam	
Remark	



Base on comparison on the standard and existing, here are the recommended adjustment to the Columns and Beams repairs.

- 1.
- 2.
- 3.

Estimated cost: \_\_\_\_\_ (Labor: \_\_\_\_\_ Material: \_\_\_\_\_).

### 3. Walling

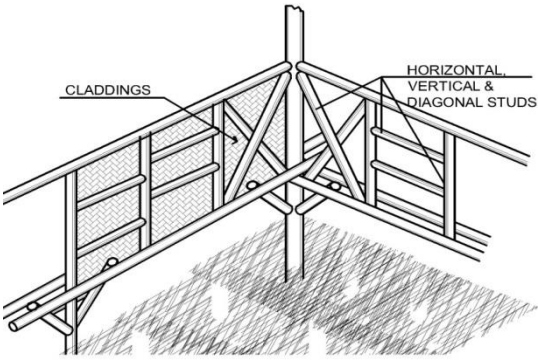
#### Standard Set

Pls Check what type or nearest type of walling existing structure has

#### TYPE 1: Bamboo splits or sawali

**Materials:**

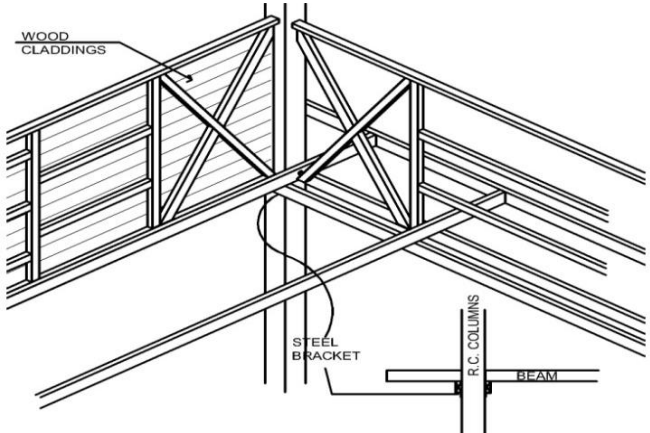
- Bamboo Splits
- Sawali
- Plywood
- Rattan



The diagram illustrates a wall structure with bamboo splits or sawali claddings. The claddings are supported by a framework of horizontal, vertical, and diagonal studs. The wall is shown in a perspective view, with the claddings attached to the studs.

#### TYPE 2: For wood

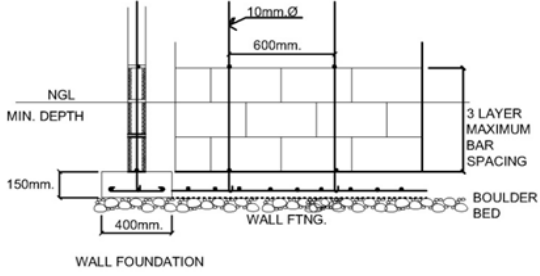
- Wood Lumber
- Nail
- Bamboo Mats/Splits or wood Cladding



The diagram illustrates a wall structure for wood cladding. The wall is supported by a steel bracket and R.C. columns and beams. The wood claddings are attached to the wall structure. The diagram shows a cross-section of the wall and the supporting structure.

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**TYPE 3: For Concrete**

<p><b>Materials to be used:</b></p> <ul style="list-style-type: none"><li>➤ Concrete Hollow Blocks</li><li>➤ Cement (1:4)</li><li>➤ Sand</li><li>➤ 10mm.Ø RSB (Min. Size)</li></ul>	
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<b>Guide Yourself on Existing Wall Repairs</b>	
Area of Walling	
Remark:	

**Base on comparison on the standard and existing, here are the recommended adjustment to the Walls repairs.**

- 1.
- 2.
- 3.

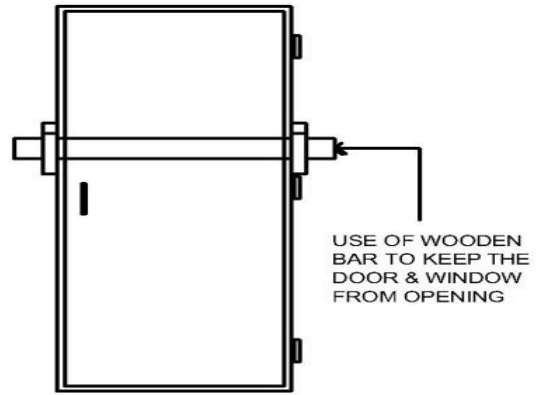
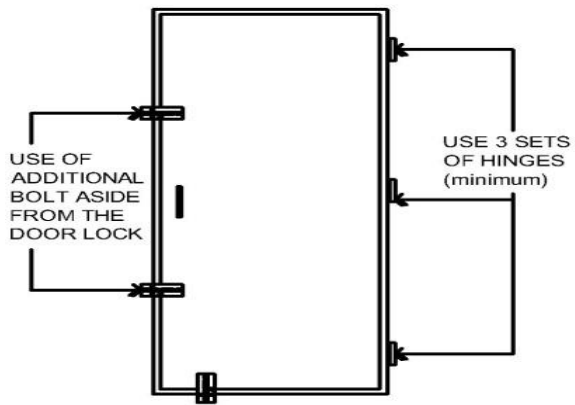
**Estimated cost:** \_\_\_\_\_ (Labor: \_\_\_\_\_ Material: \_\_\_\_\_).

**4. Openings (Doors and Windows)**

**Standard Set**

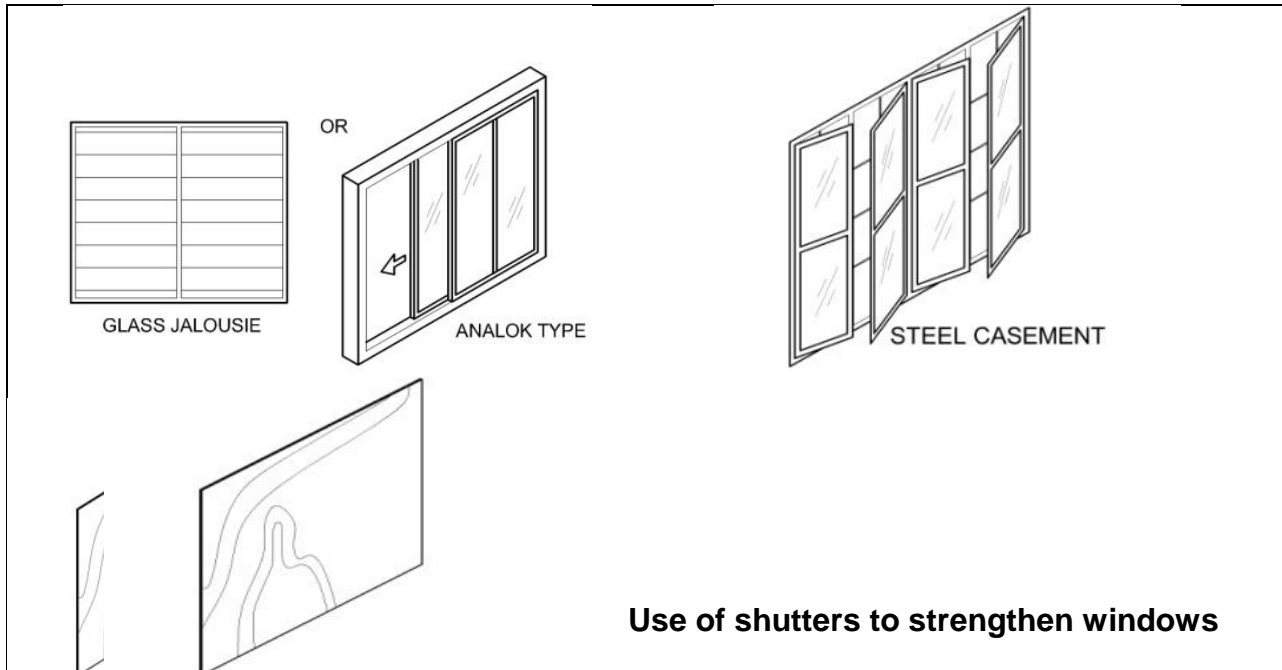
Pls Check what type or nearest type of doors and windows existing structure has

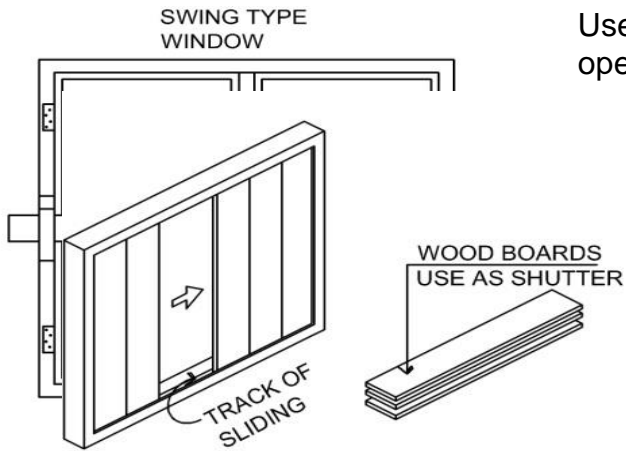




## Doors: Panel or flush Door

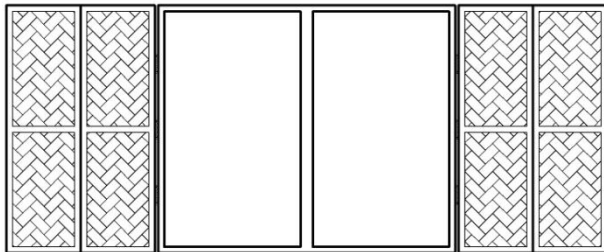
## Window



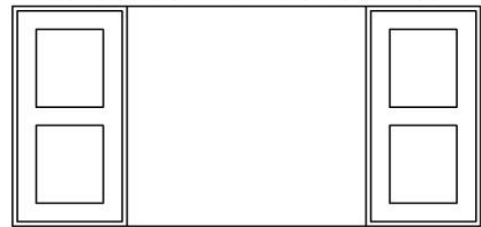


Use of a wooden bar to keep the windows from opening during strong winds

HINGED ALONG SIDE OF THE WINDOW OPENINGS



WOODEN OR PLYWOOD SHUTTERS HINGED ALONG SIDE OF THE WINDOW OPENINGS



### Guide Yourself on Existing Door and Window Repairs

No of Doors/ Windows

Remark:

Base on comparison on the standard and existing, here are the recommended adjustment to the Doors and Windows repairs.

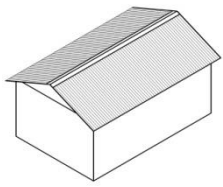
- 1.
- 2.
- 3.

Estimated cost: \_\_\_\_\_ (Labor: \_\_\_\_\_ Material: \_\_\_\_\_).

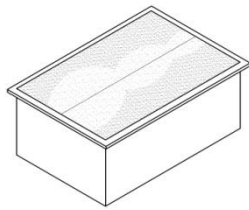
## 4. Roofing

### TYPE OF ROOFING

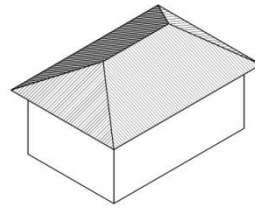
Pls. Check



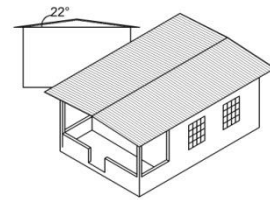
High Gable Roof



R.C. Flat Roof



Hip Roof



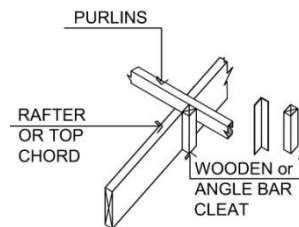
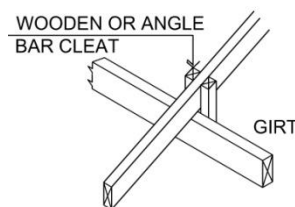
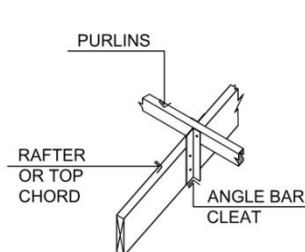
Light Weight Flat Roof

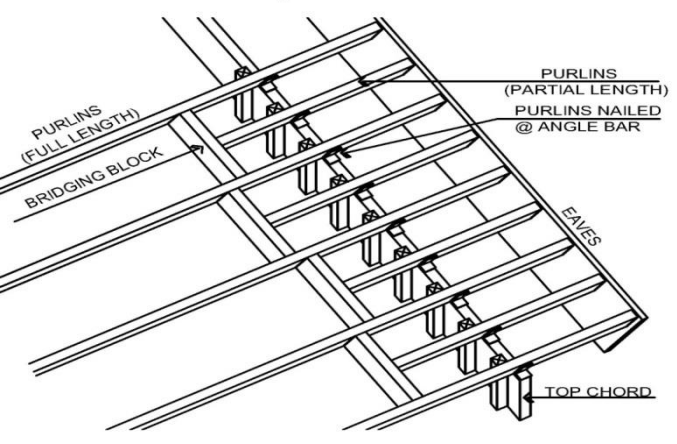
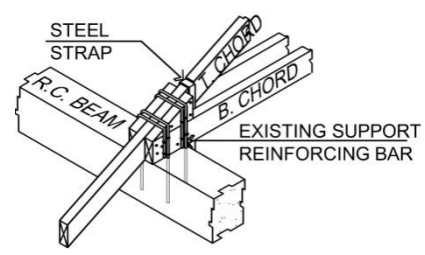
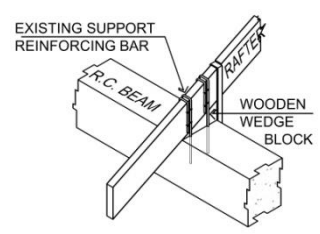
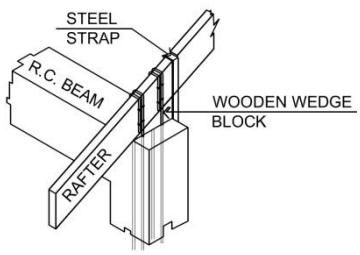
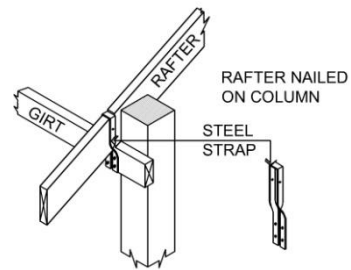
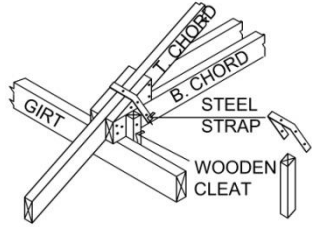
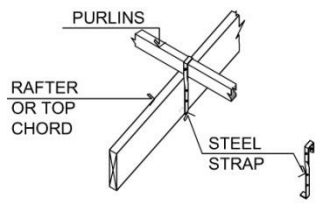
### Standard Set

### ROOF CONNECTIONS

- *For Wood and GI Sheet Roofing*

#### 1. Rafter to purlins

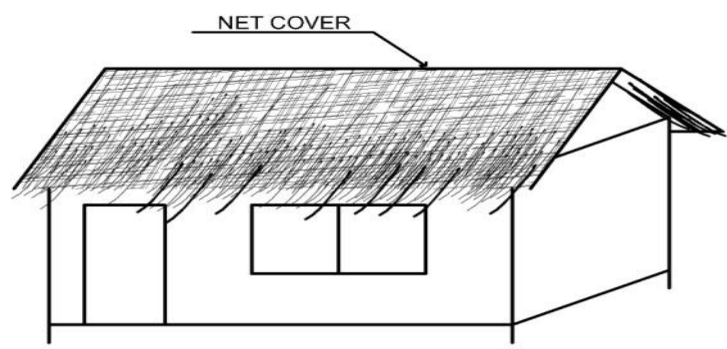




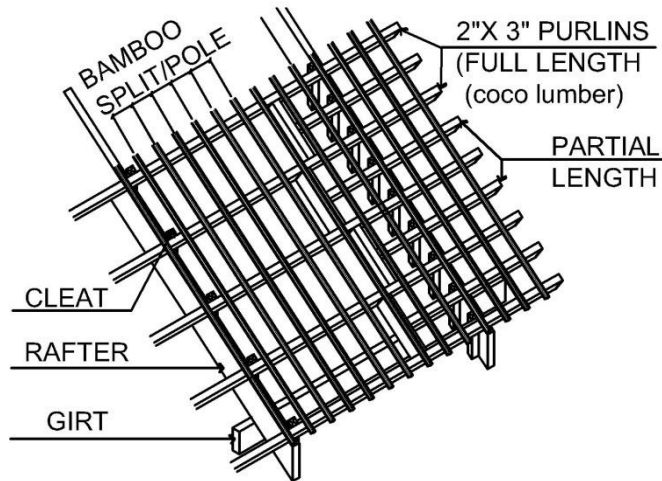
- You can also strengthen the connection by using angle bars to connect the purlins to the top cord of the wall

• **For Anahaw and Bamboo roofing**

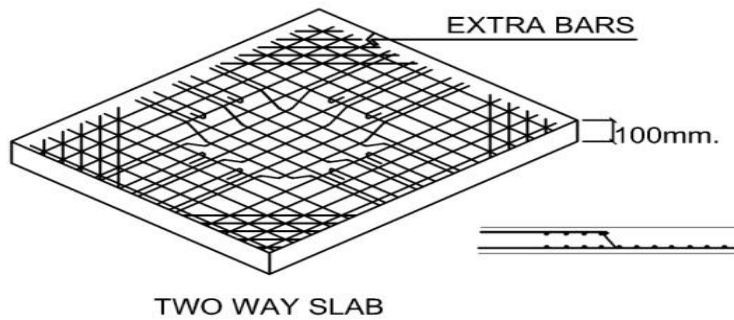
- Use of Net covers



- Use cleats to connect purlins to the rafters and bamboo split pole.



- **For Slab Roofing**



- For concrete slab roofing

Use of extra bars at the corners of the slab roofing

<b>Guide Yourself on Existing roof Repairs</b>	
Area of Roof :	
Remark:	

**Base on comparison on the standard and existing, here are the recommended adjustment to the Roof repairs.**

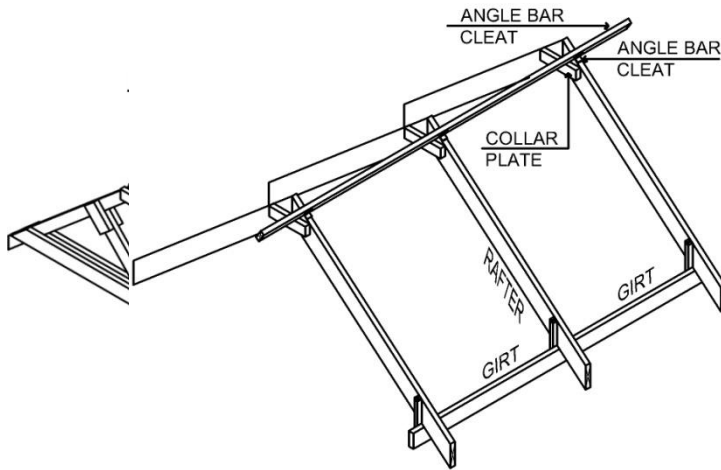
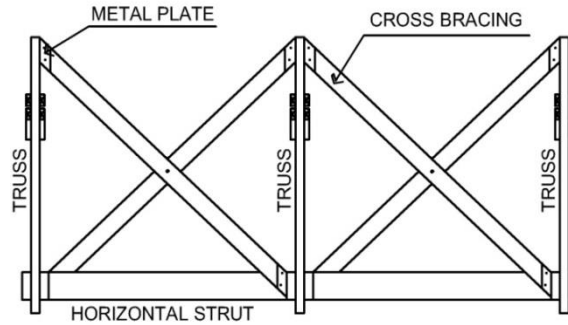
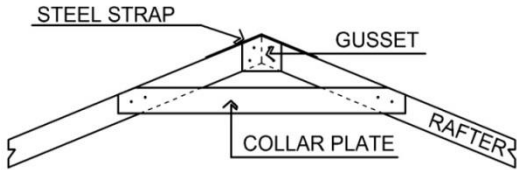
- 1.
- 2.

3.

Estimated cost: \_\_\_\_\_ (Labor: \_\_\_\_\_ Material: \_\_\_\_\_).

## 2. Trusses Connections

### Standard Set



### Guide Yourself on Existing Truss Repairs

Area of roof

Remark:

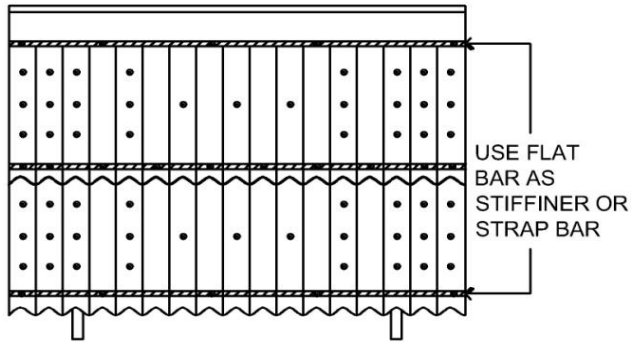
Base on comparison on the standard and existing, here are the recommended adjustment to the Truss repairs.

- 1.
- 2.
- 3.

Estimated cost: \_\_\_\_\_ (Labor: \_\_\_\_\_ Material: \_\_\_\_\_).

### 3. Purlins to GI Sheet or roofing connections

#### Standard Set



Guide Yourself on Existing Purlin to GI sheet or roofing connection Repairs
Area of roof
Remark:

Base on comparison on the standard and existing, here are the recommended adjustment to the Doors and Windows repairs.

- 1.
- 2.
- 3.

Estimated cost: \_\_\_\_\_ (Labor: \_\_\_\_\_ Material: \_\_\_\_\_).