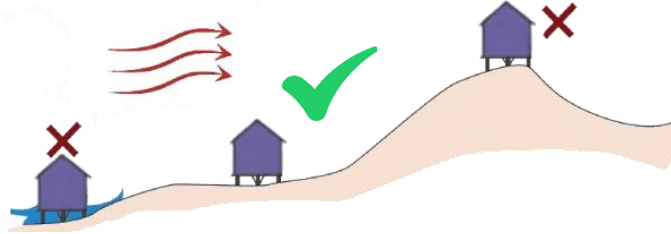


Site your House Safely

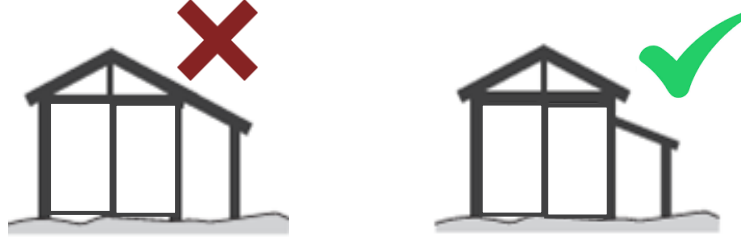
Avoid potential hazards, such as :

- Unstable slopes or ground
- Loose soils
- Landslides
- Floods

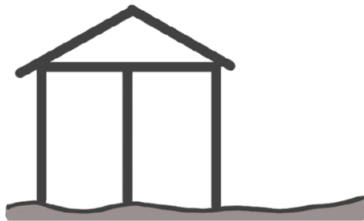
DON'T BUILD ON LANDSLIDE, don't construct on the edge of a cliff or flooding area



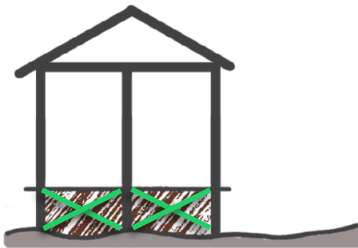
PORCHES AND VERANDAS SHOULD BE BUILT SEPARATELY FROM THE MAIN STRUCTURE = allow independent movement and reduce stress on the main frame.



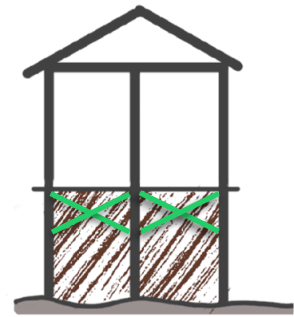
ENSURE PROPER ELEVATION AND FOUNDATION DESIGN to address earthquake risks safely.



On ground level

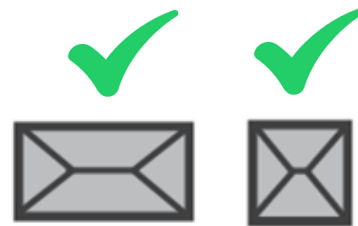
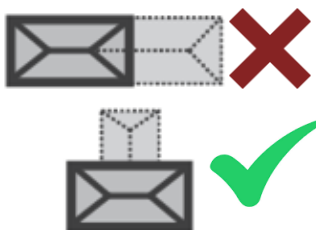


2 ft raised over highest flood level



6 ft raised over highest flood level

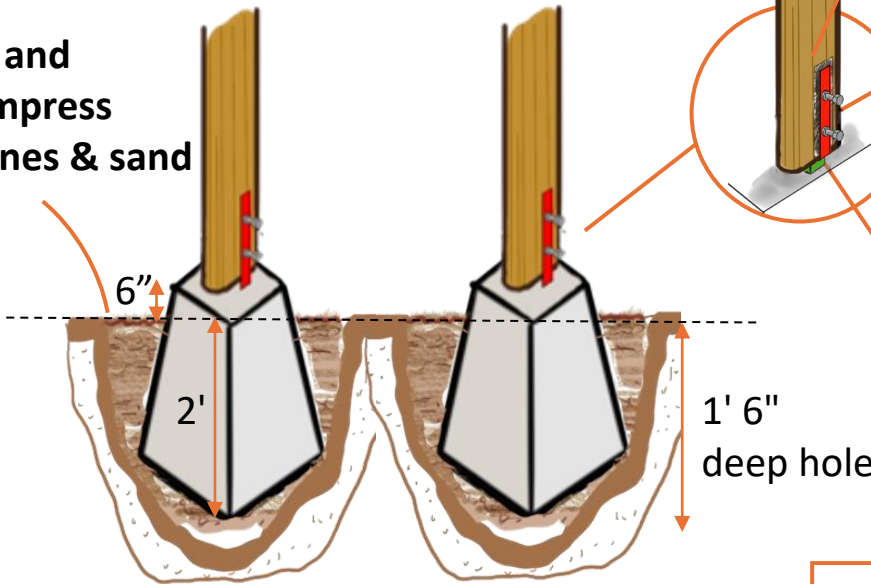
Length of the house < 3 x Width



Pre-cast footing

- **HOLE DEPTH** : Dig a 1' 6" deep hole and wide enough
- **FOOTING TOTAL HEIGHT**: 2' high.
- **FOOTING HEIGHT UNDER THE SURFACE**: 1' 6"
- **FOOTING HEIGHT OVER THE SURFACE**: 6"

Fill and compress stones & sand



Cut the Myaw post surface flat so the metal plate sits steady!

Use metal plate and clout nails to fix the Myaw post

Use washer or any plane surface to prevent water absorption

Keep posts vertical for a strong and stable structure!

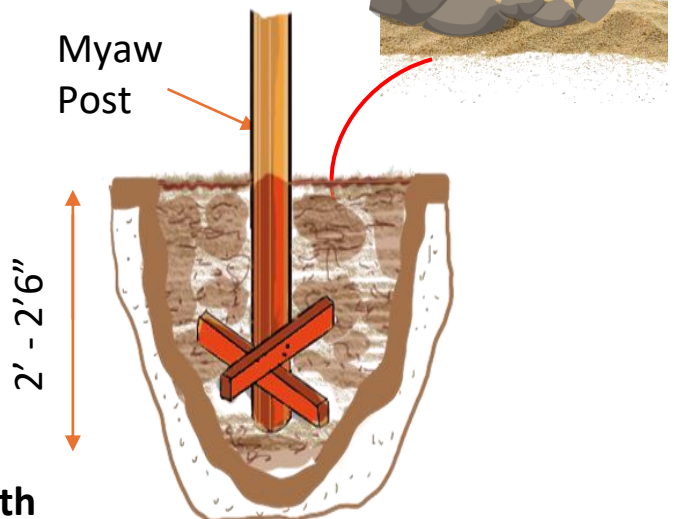
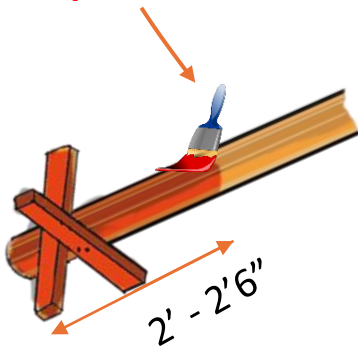
Embedded footing

- **HOLE DEPTH** : 2' or 2'6" deep hole and wide enough
- **FOOTING TOTAL HEIGHT**: 2' or 2'6" high.

Protection from termites:

ADD ENGINE OIL to the embedded post!

Fill and compress stones & sand

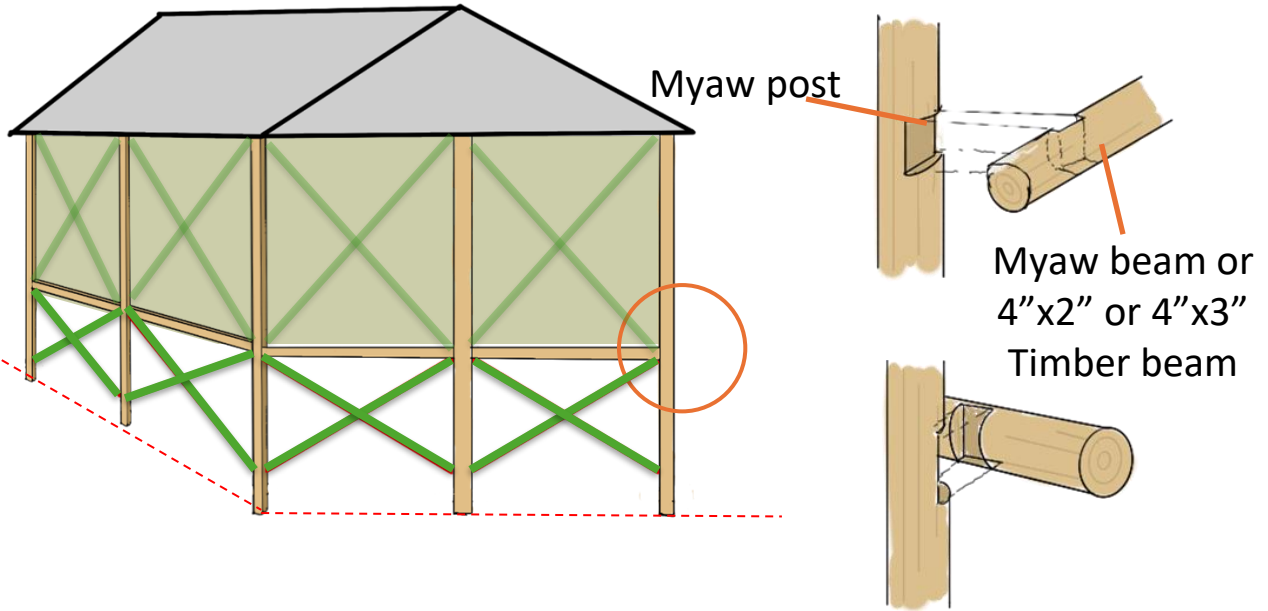


anchors increase foundation strength

Flooring

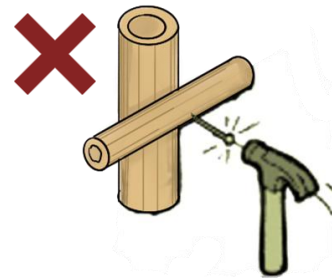
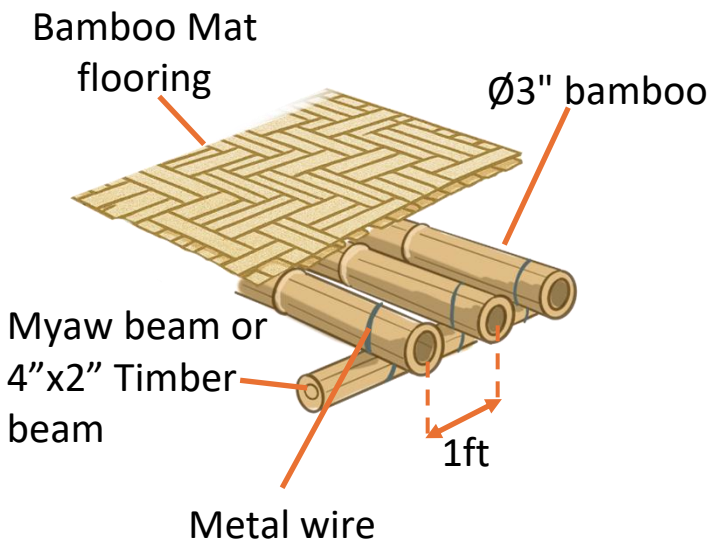
Myaw post and flooring connection

Carve the Myaw post and beam to interlock securely, ensuring a stable and durable joint.

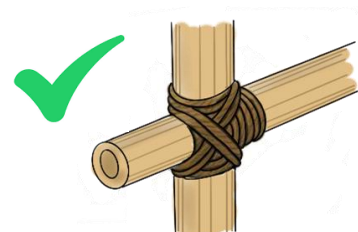


Flooring structure

Ø3" bamboo installed each 1ft attached with wire to the myaw beams



DON'T NAIL THE BAMBOO, IT CRACKS!

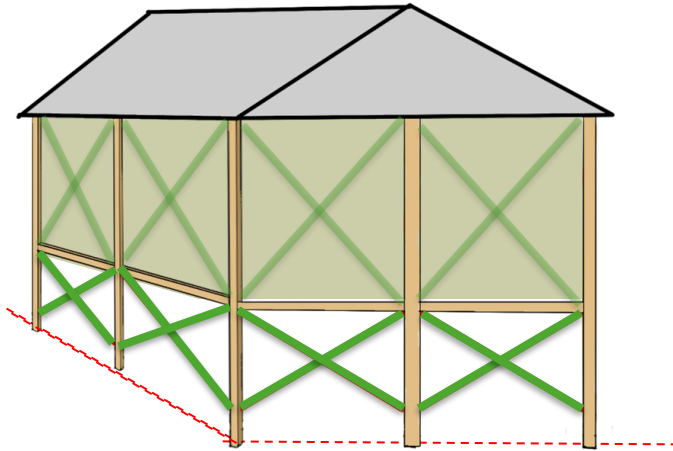


USE DURABLE MATERIALS:
Nylon ropes, strong coconut fiber ropes, or binding wire

Bracing

Bracing below the flooring structure.

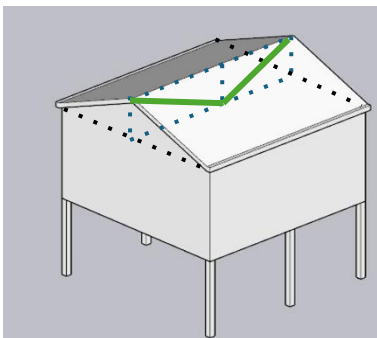
Prioritizing the connections between myaw posts and myaw beams/timber beams



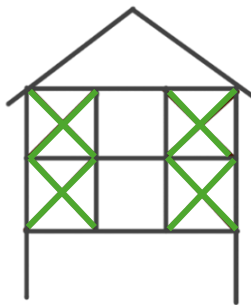
USE STRONG BRACING

by nailing timber battens or bamboo sticks!

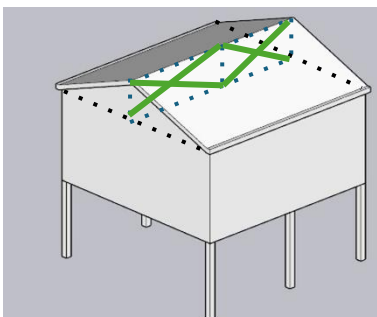
✓ Bracing helps keep your house stable!



- Brace between roof trusses or rafters

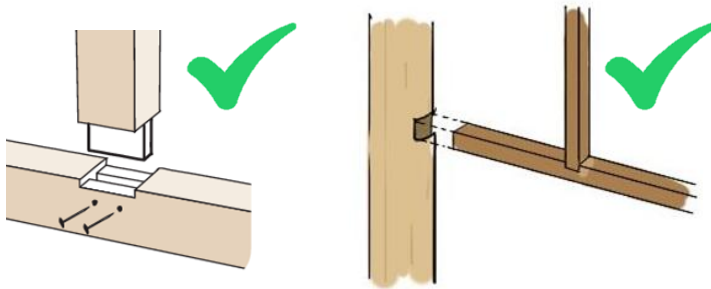


- All corners should be braced

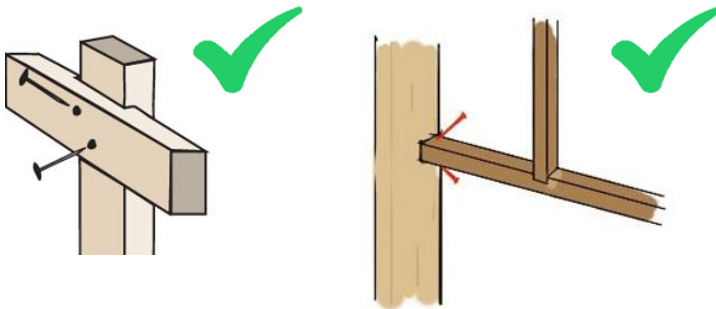


- **Cross corner bracing (45° bracing)**
- Brace around doors and windows

Walls



Carve the Myaw post to fit the timber frame



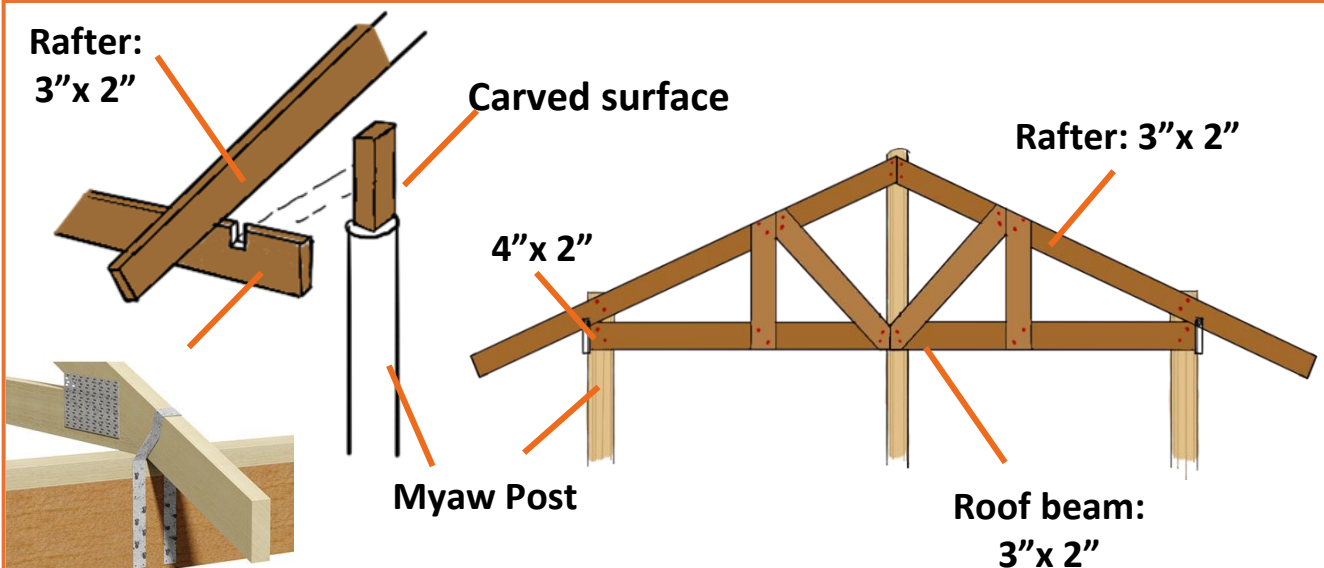
Nail the timber diagonally to the Myaw post



Add earth oil painting on bamboo walling to prevent insect attack

Roof truss

To ensure uniformity and save time, construct all trusses simultaneously by stacking them one on top of the other or using one as a template.



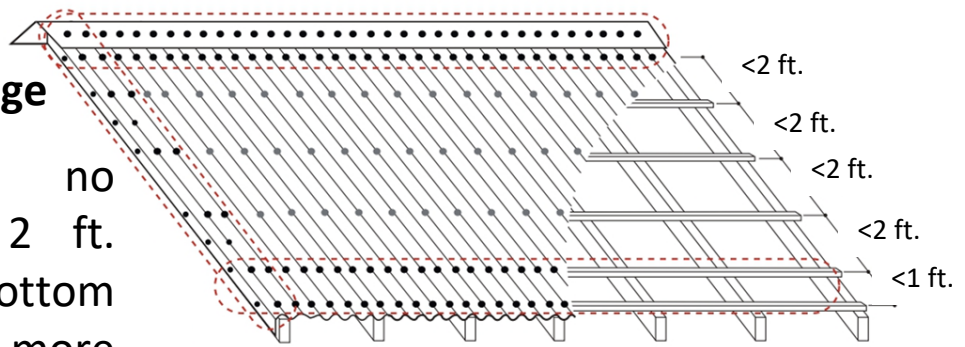
For stronger solution, use cyclone straps if available

- Use 2 small nails per junction (2" or 2.5")

A Good House Needs a Good Roof – CGI Roof

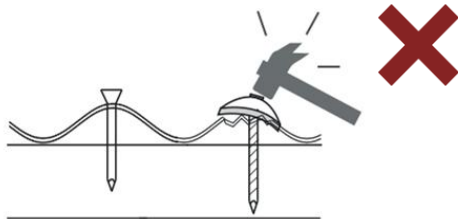
- Use **0.4 mm thickness gauge**

- **Purlins** are no more than 2 ft. apart, for bottom batten no more than 1 ft. apart.

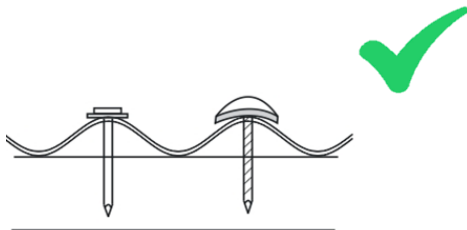


- Use more nails at the ridge and eaves

Do not flatter when nailing !

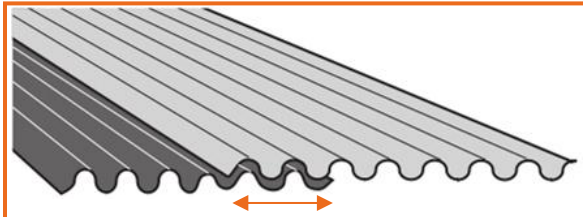


Regular nail



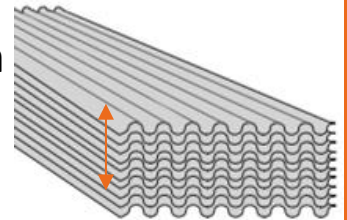
Flat head nail & metal washer

Umbrella nail & rubber washer

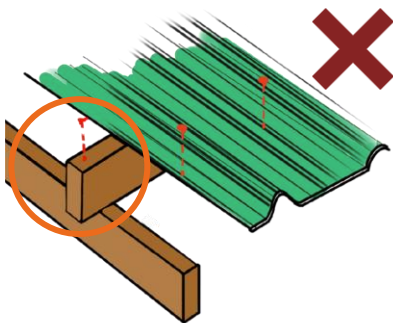


Have a minimum **overlap of 2 corrugations** between sheets

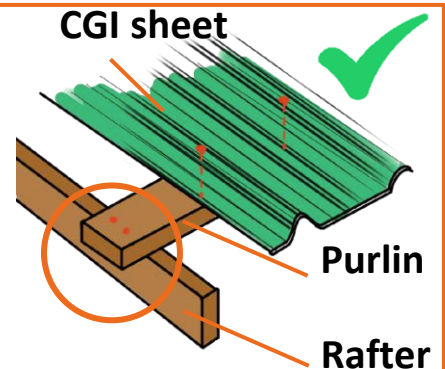
Don't stack in piles higher than 4 ft



Always wear gloves and helmet for safety!

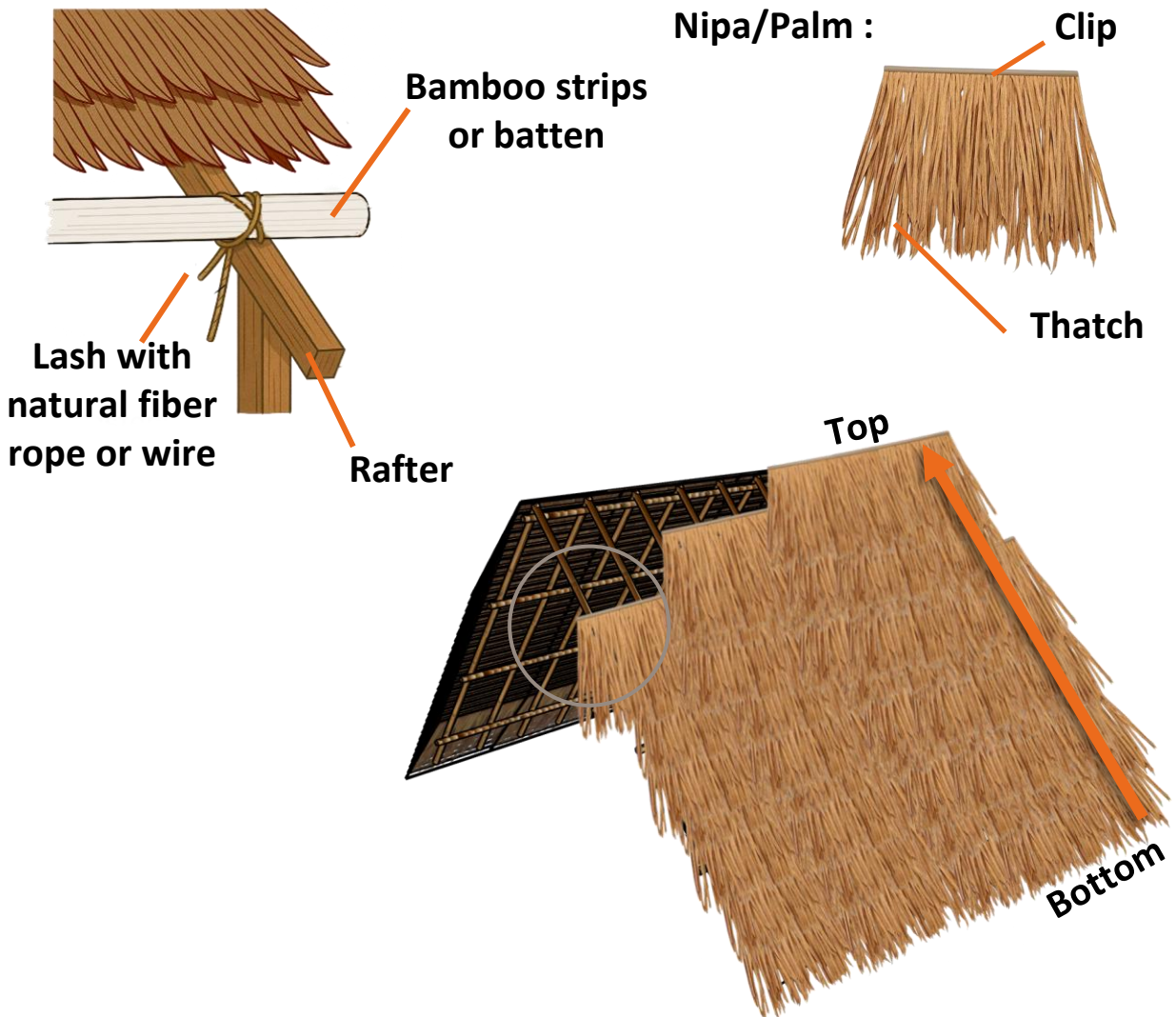


Secure roofing materials firmly !
Using appropriate fasteners to prevent them from becoming hazards.



A Good House Needs a Good Roof – Nipa Hat/Palm Roof

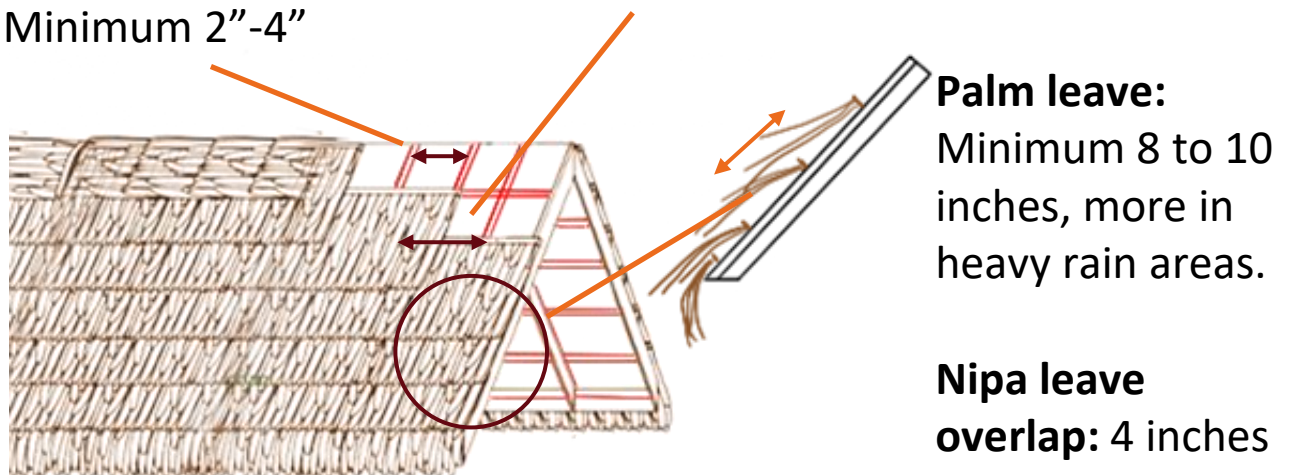
Build your Nipa Hat Roof from Bottom to Top (eaves to ridge)



Horizontal overlap (side-to-side):
Minimum 2"-4"

Spacing between purlins 1'x1'

Vertical overlap (along the slope)



Health and Safety Measures



Use **high-visibility temporary fencing** to secure the site and trenches from unauthorized access.



Undertake **daily clean-up of activity area and good housekeeping** to prevent trips, slips and falls.



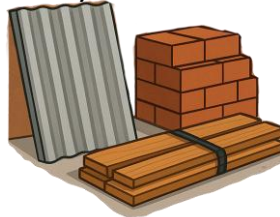
Use the **right PPE & Wear gloves** when handling materials with sharp edges such as CGIs.



Do not carry out roofing works or handle CGI sheets on windy or rainy days.



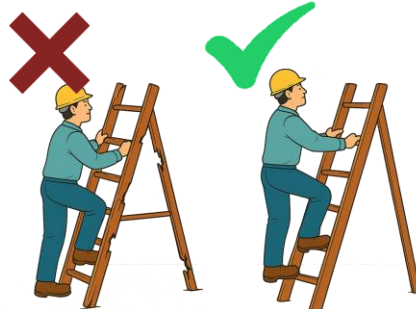
If reinforcement bars protrude from the ground, **place a cap on them** (it can be a plastic bottle).



Clean and tidy working area. Organize and properly store materials.



Do not smoke near flammable items, such as paint, bamboo and nipa/palm leaves.



Use undamaged ladders if you need to climb up to the roof.



Ensure careful **handling of Asbestos!** [Consult UNDP guidance on asbestos.](#)



Secure loose materials that have the potential to fall.



DANGER
Electric shock risk

Be careful of electric shocks from broken electric cables lying on the floor



Perform on site sorting, identify the disposal pathway for each of them