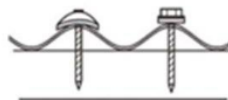


1. Corrugated Galvanized Iron (CGI) Sheets should be **24 gauge**
2. CGI Sheets should overlap **min 2,5 corrugation** (wave/ridge) to prevent leaks
3. Use **Twisted Umbrella Nails** with **Washers**, or **Roofing Screws** with **Washers**
4. Make sure the fastening goes **min 50mm** into the purlins
5. Ridge, Eaves and Overhangs need fastening **every 75mm**, all other places **every 150mm**
6. Roof Capping should be made of material the same quality as sheeting and fastened **every 75mm**



Twisted umbrella nail & roofing screw with washers

Remember:

- Ridge Beam 2"x 8"
- Rafter 2"x 6" – Maximum space between rafters 60cm
- Purlins 2"x 4" – Maximum space between purlins 60cm
- Wall Plate 4"x 4" – Maximum space between fastening point 90cm
- CGI Sheets 24 Gauge
- Roofing fastening every 75mm at all the edges, rest 150mm
- Roof capping fastened every 75mm
- Hurricane Straps or Brackets at all joints, NO Timber Connectors
- Always seek advice before starting any kind of Build Back projects

Notes: _____



The material in this leaflet has been extracted from several documents, all following the National Houses Standard, and are based on the shelter construction material used by the Dominican RC, in their response to the Hurricane Maria.

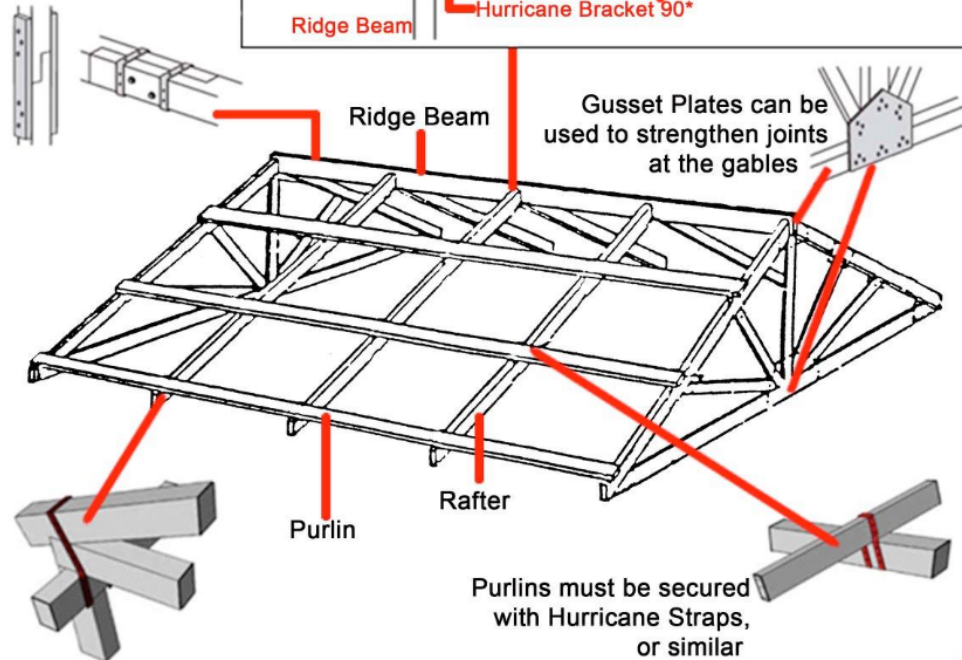
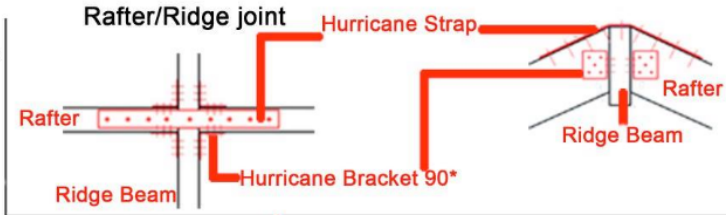


International Federation of Red Cross and Red Crescent Societies

A few simple steps to build, or rebuild, your roof safer in case of hurricanes or earthquakes

1. Make sure all wooden joints are strongly secured to each other with nails in an angle, or screwed together, and reinforced with hurricane straps to improve high winds resistance.
2. Rafters should be reinforced with collars one-third down from the ridge beam (and gusset plates at the gable) to have strength in strong winds.
3. Connect the wooden roof structure proper to the walls with hurricane straps or brackets, depending on the condition of the walls.
A strong roof requires a strong fastening to the walls.
4. Quality materials are an investment in your home and family, and they will last longer.
5. Always think twice before working at heights, remember to put yourself before your roof.

Use Fishplate or Hurricane Straps to increase strength in horizontal and vertical joints

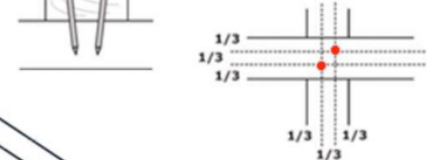


Rafters must be secured to the Wall Plate with Hurricane Straps or similar

Reinforce the Rafters with 2" x 4" Collars fitted one third down from the Ridge Beam

1. The slope of the roof should be at least 25° (6:12) and not exceed 40° (10:12)
2. Extensions of eaves and overhang should be at least 150mm and not exceed 450mm
3. A roof attached to wooden structure should be secured with hurricane straps that are **SCREWED** into the wall, at least 200mm down the wall. In concrete walls, the roof has to be secured with hurricane straps that are **BOLTED** in place at least 300mm down the wall or ring beam
4. Porches and extensions should **NOT** be structurally attached

Strengthen the structure by using a **SCREW** or at least **TWO NAILS**, in an angle, in each joint



Offset the nails to prevent the timber from splitting