

CYCLONE RESILIENCE BENEFIT – MITIGATION MEASURES

ROOF IMPROVEMENTS

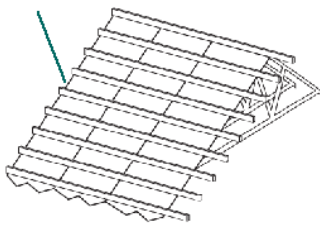
COMPLETE ROOF REPLACEMENTS

A complete roof replacement includes - not only the replacement of external cladding (e.g. - tiles, iron, steel and appropriate flashings) but also the upgrade of batten to rafter attachments, and upgrading tie-downs from rafter or truss to the top plate of the wall framing

SARKING

Roof sarking is a layer of protection placed underneath roof tiles or sheeting to help prevent wind driven rain and dust from entering the home.

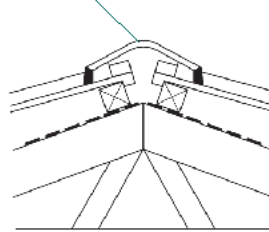
Sarking



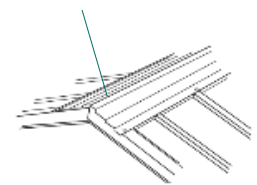
RIDGE CAPS

Ridge capping is triangular shaped tiles or sheeting that covers the joint where two faces of a roof meet.

Ridge cap



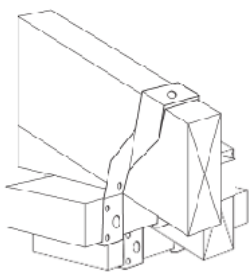
Ridge cap



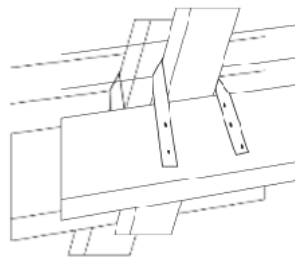
UPGRADE TO SCREW AND STRAP CONNECTION IN THE ROOF

The connections in the roofs of older homes can be strengthened by upgrading or replacing how the framing is held together. New straps or screws can be applied to any of the following:

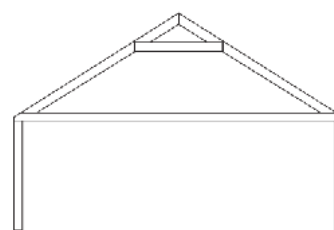
- Roof cladding to batten
- Batten to collar tie connections to the rafters
- Rafter or trusses to the top plate of the wall framing.



Rafter to wall



Batten to rafter/truss



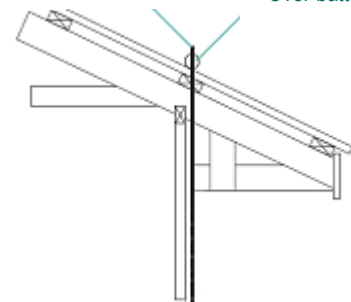
Rafter/truss to walls or collar tie

ROOF 'OVER-BATTEN' SYSTEM

This is a retrofit system that connects a beam on the top of the roof to the foundations to make the roof more secure.

Tie rod

Over-batten

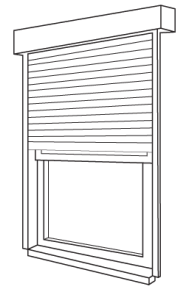


WINDOW PROTECTION

CYCLONE PROTECTION

A cyclone shutter is a specialised shutter/guard, permanently fitted to the outside of a home, which has been developed and tested to protect a home from the impact of cyclones.

Plywood coverings are sheets of plywood that can be purchased from most hardware and timber stores. These can be installed to cover windows prior to a storm or cyclone and help reduce the likelihood of damaged windows leading to wind and water ingress.



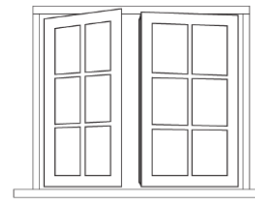
CASEMENT WINDOWS

A casement window is one that is attached to its frame by one or more vertical side hinges so that the windows open like doors.

CASEMENT WINDOW UPGRADES

Keyed locks or bolts

Keyed locks or bolts come in multiple designs and are usually fitted to the casement with a bolt that locks into the top or bottom of the frame.



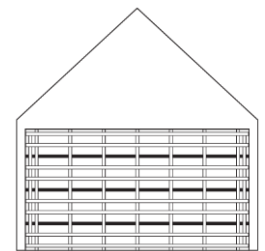
Casement or glass upgrades

Old casements and hinges can be replaced by builders, carpenters, window specialists and many other trained professionals. Indications that the casements may have been upgraded previously include: casements made from newer looking material than the frame/wall, less faded paint on the casements, drill holes from old hinges in the frame, other signs the casements are newer than the frame/wall. New glass can be installed in casement windows that meet the current building standards.

ROLLER DOOR BRACING

In 2012 the building code for roller doors changed and any roller doors manufactured after this time will automatically qualify as having the necessary bracing requirements.

Roller doors installed prior to 2012 can be strengthened by commercially available aftermarket bracing which includes bracing posts, moulded lugs, or reinforced steel rods, struts and brackets, and many other types of bracing.



After-market bracing

SHEDS

ANCHORED TO A CONCRETE SLAB

Sheds can range from small garden sheds to larger buildings. When determining if a shed is anchored to a concrete slab, first confirm that a slab has been laid. Then check to make sure that either the corner posts have been set into the slab, or that the join brackets in the bottom corners of the shed are bolted to the slab, usually with anchor bolts (u-bolts, sleeve or dyna bolts).

SHED CYCLONE PROTECTION

There are a range of companies that produce sheds that are built to higher specifications based on different wind ratings. They have additional bracing, stronger joins, and are built of thicker sheeting. These sheds sometimes have company stickers or branding on them specifying the wind rating they are designed for. Contacting the local council for building approval records can help determine if the shed is rated for the appropriate wind region.

Commercially available aftermarket cyclone kits can be purchased and installed to reinforce a shed to help reduce the risk of it sustaining damage during high winds. These reinforcements can be in the form of stronger joins or additional support beams to be installed along the roof and walls.

Cyclone conversion kit

