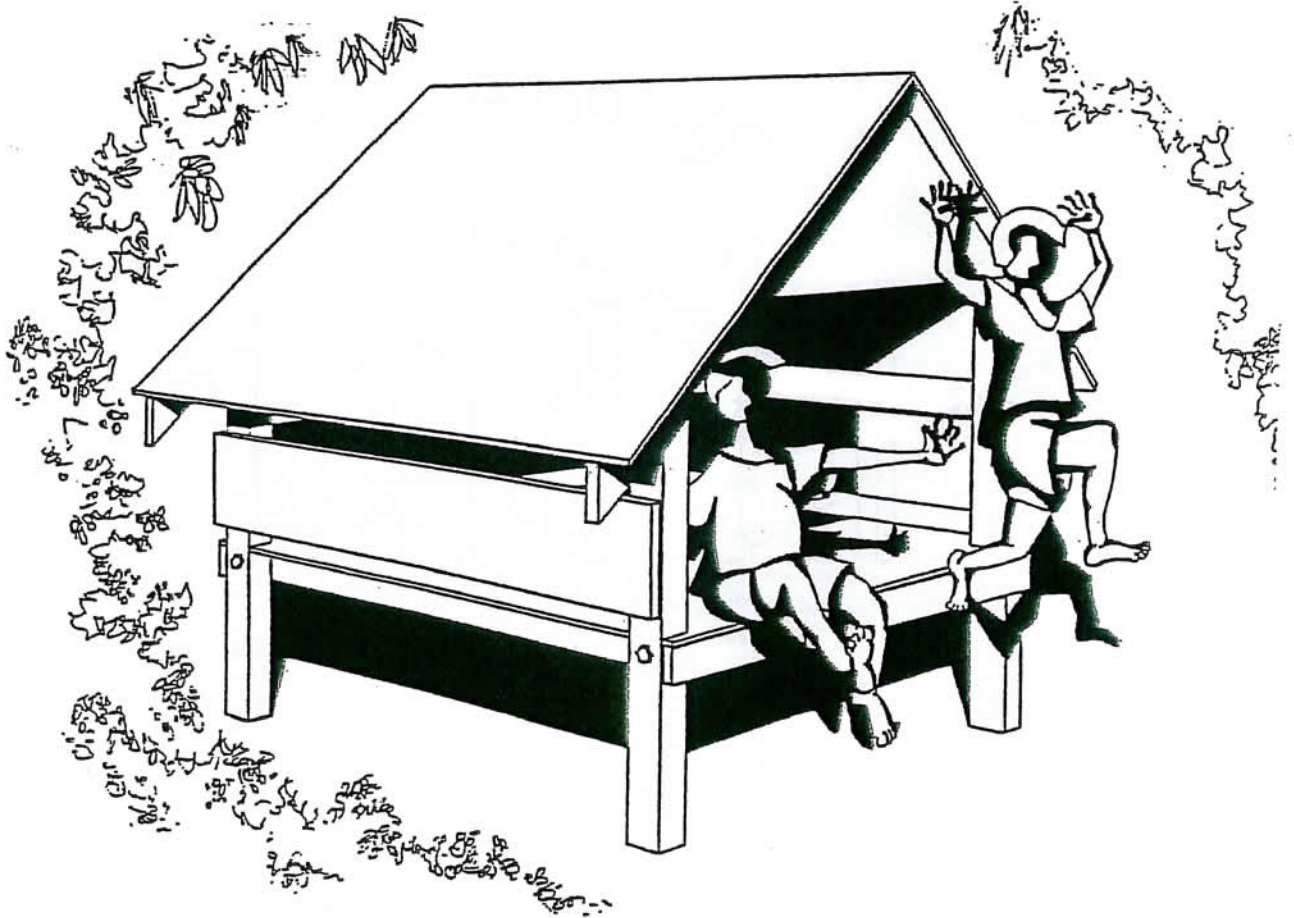




How To Build A CUBBY HOUSE Using PAA Plywood

Every young person dreams of owning a Cubby House, where the gang meets to plan their secret activities, or where the girls play house with their friends. Here is a Cubby House of simple basic design which any handyman can build.



Introduction

This design is for a Cubby House on a flat level site. For sloping sites, take some of the posts deeper, or use posts of different lengths. However, remember that a Cubby House should always be close to the ground for safety reasons.

In ground timber posts should be of preservative treated pine, or a durable hardwood. All of the timber and plywood should be stained or painted for protection. To maintain the appearance of the Cubby House, the surface finishes should be re-applied at regular intervals.

Specify only PAA branded structural plywood and consult your local plywood distributor on what materials are available and suitable for this exterior exposed application.

For exterior work, all fasteners (screws, bolts, nails, etc.) should be galvanized.

Although exact sizes are quoted, continuously check dimensions as work proceeds and adjust sizes where necessary.

Tools required

Post hole shovel, saw, carpenter's mitre square, measuring tape or rule, pencil, hammer, nail punch, chisel, electric drill, drill bits, straight edge, spirit level, spanner, sandpaper block, paint brushes.

Materials required

Plywood

3 sheets 2400 × 1200 × 15mm CD grade structural plywood minimum stress grade F11.

Timber 2 pieces 70 × 70mm 2700mm preservative treated pine or durable hardwood — Posts

5 pieces 90 × 35mm 2400mm sized seasoned softwood — Joists, Rafters

2 pieces 70 × 35mm 2400mm sized seasoned softwood — Purins

The minimum stress grade of the timber is to be F5

Hardware

8/125 × 10mm galvanized cup head bolts, nuts and washers

16/30 × 2.8mm galvanized clouts (joist hangers)

40/50 × 2.8mm galvanized bullet head nails (floor)

75/50 × 2.8mm galvanized flat head ring shank nails

(gable, roof, rails)

20/65 × 3.15mm galvanized bullet head nails

(joists, purins)

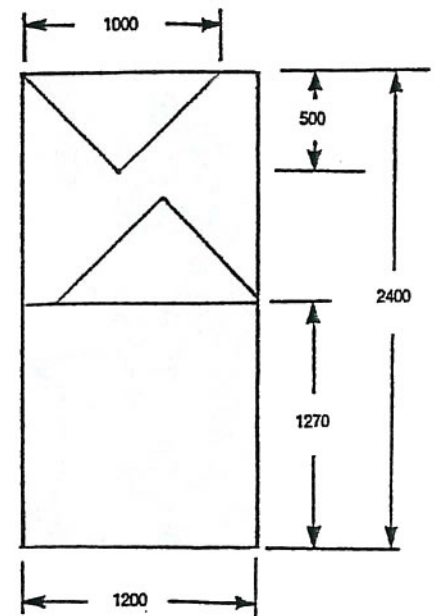
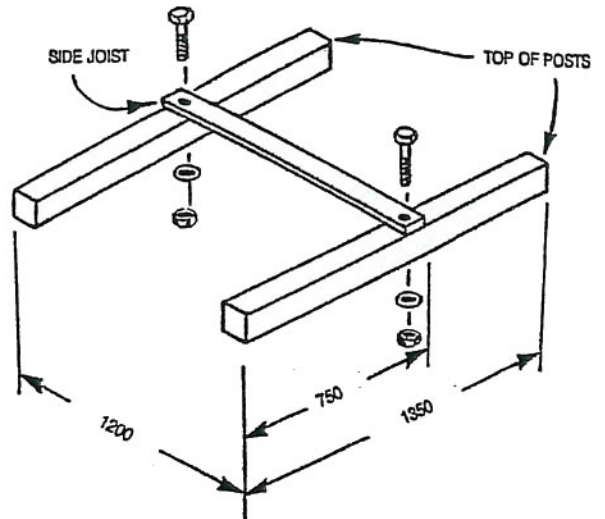
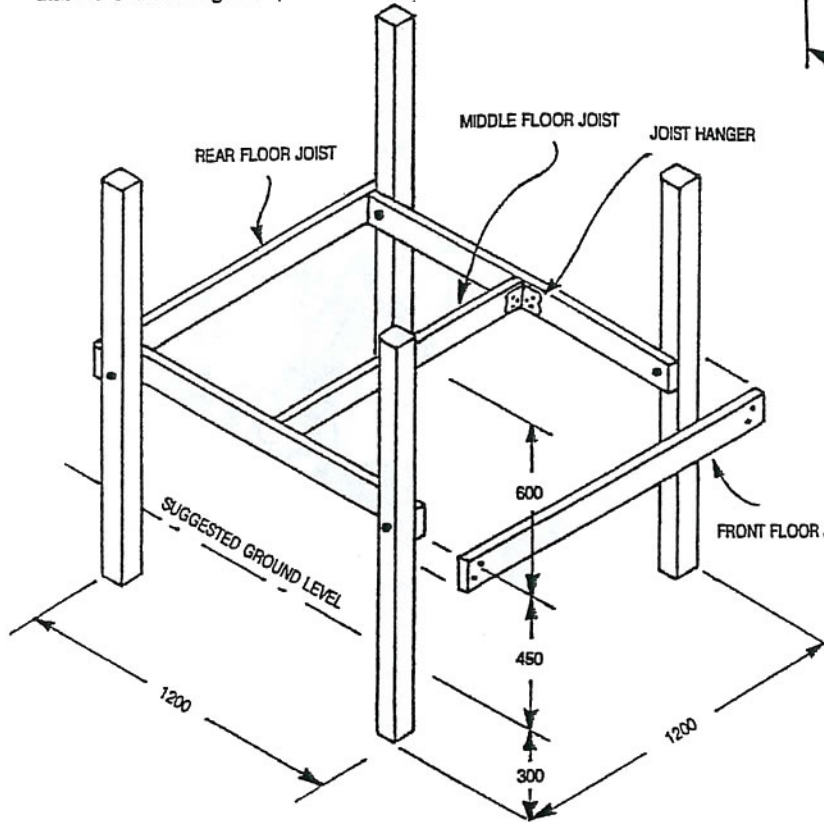
2/62 × 38mm joist hangers (alternatively, 4 only minigrips)

Miscellaneous Materials

1450mm length of 110mm aluminium cored dampcourse
 100% Acrylic stain blocking primer and acrylic latex exterior paint (alternatively, water repellent timber preservative).

1. Posts & Joists

Cut four 70 x 70mm 1350mm long. Mark the position of the top of the floor joist level 750mm from the bottom end of each post. When posts are embedded 300mm into the ground on a flat site this will provide approximately 450mm clearance to the bottom of the flooring. Cut four floor joists 1200mm long. Place two posts flat on ground and parallel to each other such that the outside edges of posts are 1200mm apart.



CUTTING PLAN FOR FLOOR AND GABLE ENDS

Position a joist on the marks on the post which locate the top of the floor level, and temporarily nail the joist before drilling bolt holes. Permanently fasten the joist with bolts, nuts and washers. Repeat for the second pair of posts and other side joist.

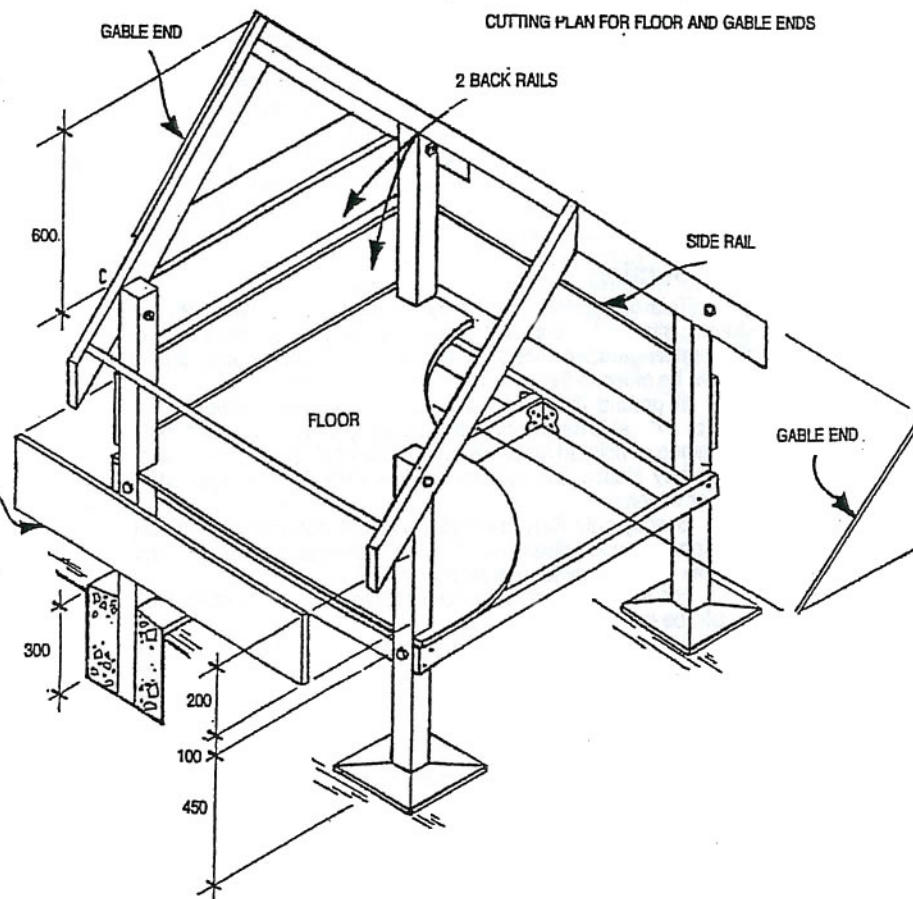
With assistance and on a flat surface, temporarily stand both sets of posts vertically in a 1200mm overall square, with the side joists on the inside edge of posts. Permanently nail on front and back floor joists using two 65mm nails each. The joists must be at the same level as side joists, and fixed to the outside edge of the posts. It is good practice to pre-drill nail holes at the ends of timber to prevent splitting, and also to use a "dolly" to facilitate nailing. Measure correct length for the middle joist, which, for the sizes given should be close to 990mm. Cut the middle joist to length and permanently fix to the side joists using the 62 x 38mm joist hangers and two 30mm clouts per each nailing face.

2. Install Frame & Floor

Dig or bore four post holes in a 1200mm square pattern. The holes should be 300mm deep and 300mm diameter or 300 x 300mm square. For clay soils, excavate an additional 100mm and infill with gravel or similar. Consolidate base by ramming.

Place frame into holes, and by use of a spirit level on floor joists check level of the frame. Adjust by adding and ramming dirt in the holes. Fill in holes with the remaining soil and ram to consolidate the base.

Measure and cut the floor panel from a 2400 x 1200 x 15mm sheet of plywood. The front and back of floor should finish flush with front and back floor joists. The length should be close to 1270mm. Notch the plywood to fit around the posts. Fix the plywood to floor joists with 50mm galvanized bullet head nails at 150mm centres. The balance of the plywood sheet will be required for the gable ends.

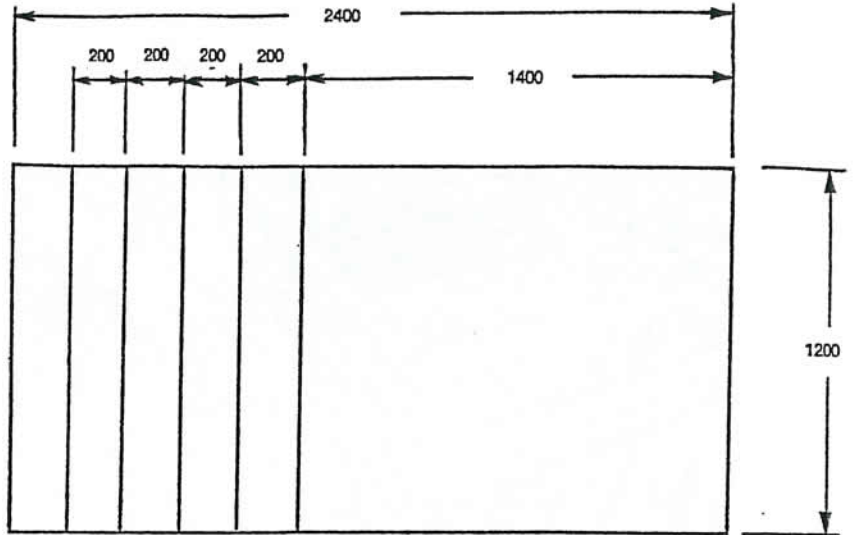
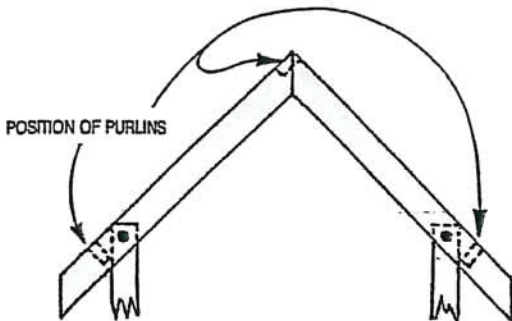


3. Roof

Cut four rafters 1200mm in length from the 90 × 35mm timber. Mitre cut each end of each rafter at an angle of 45°. Cut two gable ends 1000mm wide by 500mm high from the balance of the plywood sheet used for floor. Connect two rafters on a flat surface using the gable end. Fix the gable ends to the rafters using 50mm galvanized flat head nails at 150mm centres. Finish tops of gable ends flush with tops of rafters.

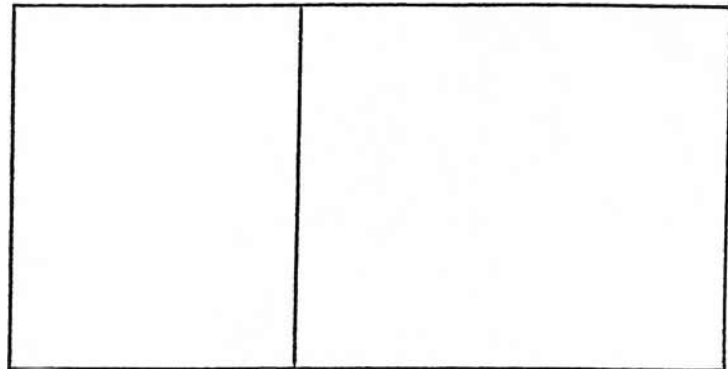
Temporarily fix the rafters in position to the top of posts using 'G' clamps or nails.

Check each gable end for alignment in the same plane and equal overhangs. Drill and permanently bolt rafters in position.



Cut three purlins 1200mm long from 70 × 35mm timber. Install the top purlin so that the top surfaces are flush with the tops of rafters. Skew nail the purlin to the rafter with two 65mm bullet head nails at each joint. Install the two lower purlins so they run close to but outside the posts and have the top surface flush with the top of the rafter.

Cut two roof sheets 1400 × 1200 from each remaining sheet of plywood. Fix the roof sheets to rafters and purlins using 50mm galvanized flat head nails at 150mm centres. Roof sheets should provide approximately 50mm overhang to the front and rear. Form ridge capping from aluminium dampcourse by bending at 90°. Fit the roof capping to the roof apex before final nailing of plywood roof. Fit the roof capping and plywood to the roof frame with common 50mm galvanized flat head nails at 150mm centres.



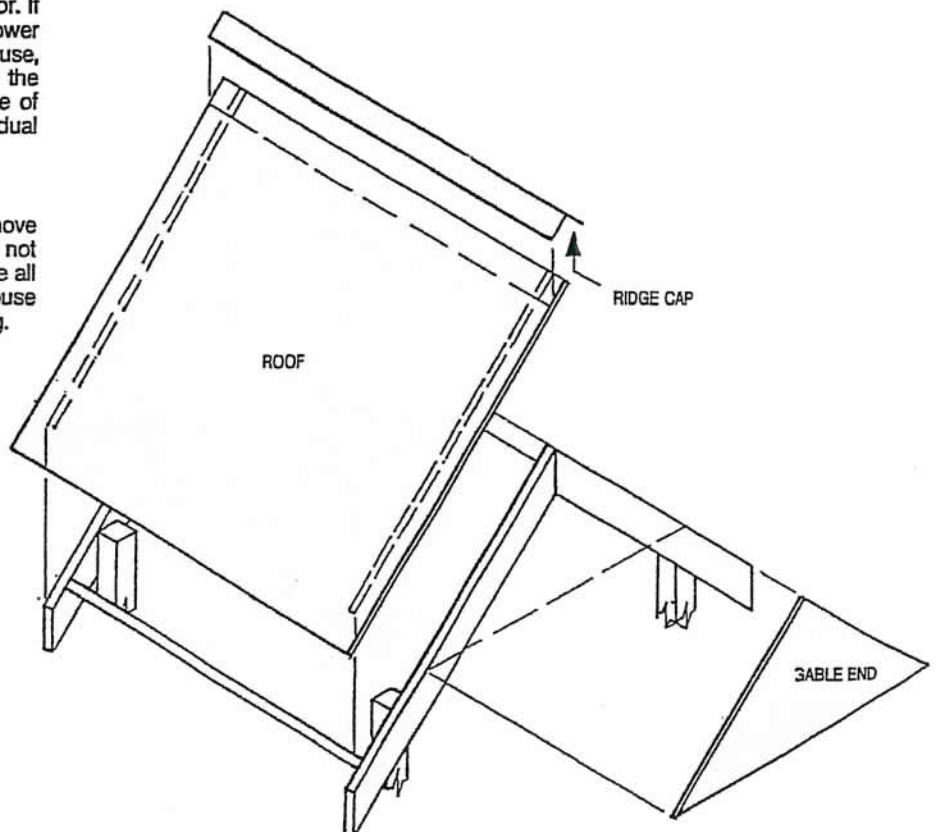
CUTTING PLAN FOR ROOF PANELS AND RAILS

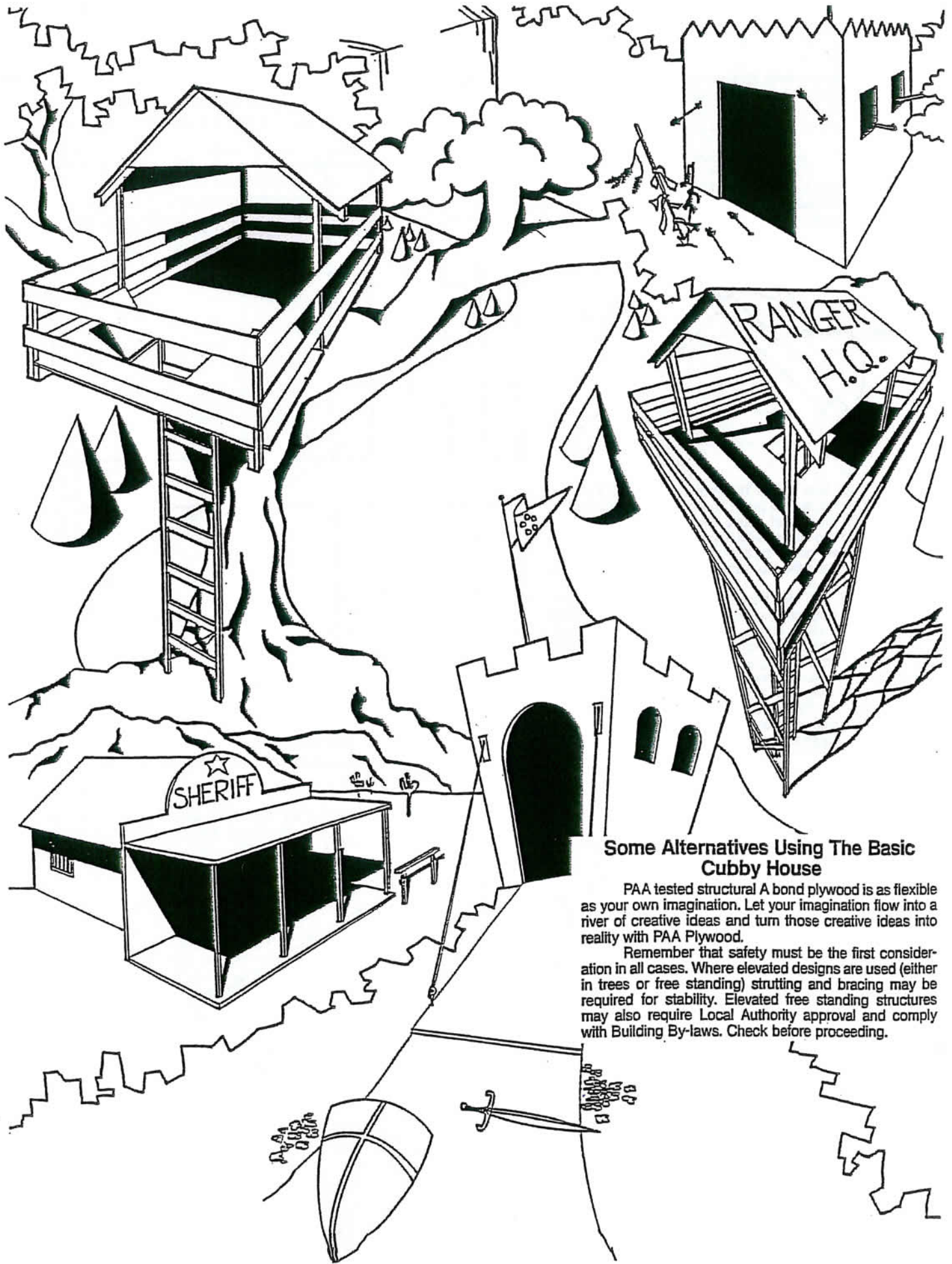
4. Rails

Cut four side rails 200mm × 1200mm from the remainders of roof plywood sheets. Nail the rails to the posts using 50mm galvanized flat head nails. Keep the lower rail edges level and position 100mm above floor. If required the final rail can be used to fit between the lower rail and the gable on the rear of the Cubby House, tapering the two ends at 45° to match the top of the rafters. Alternatively, the rear rail could be one piece of plywood 400mm × 1200mm depending on individual taste.

5. Completion

Round lower corners of roof and rafters to remove the sharp corners. Ensure the ridge capping does not project beyond roof sheeting. With sandpaper remove all sharp edges and corners, and finish your Cubby House with quality exterior finishes to complement its setting.





Some Alternatives Using The Basic Cubby House

PAA tested structural A bond plywood is as flexible as your own imagination. Let your imagination flow into a river of creative ideas and turn those creative ideas into reality with PAA Plywood.

Remember that safety must be the first consideration in all cases. Where elevated designs are used (either in trees or free standing) strutting and bracing may be required for stability. Elevated free standing structures may also require Local Authority approval and comply with Building By-laws. Check before proceeding.

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