Alby
A Boat for Oars, Sail, and Small Outboard Motor

7ft 7-1/4in x 4ft 2-1/2in x 6in - Stripped weight approximately 30kg/66lbs

Alby was designed primarily to meet the requirements of a high-capacity tender. The world is full of designs for 7-1/2 foot Praams, and you wouldn't think that there was a need for yet another example of the breed. However, the customer could not find exactly what he needed, and so a new design was born.

The main characteristics are: -

- Stitch-and-Glue construction from pre-computed plywood panels. This allows the boat to be built without the need for a strongback, mold, or full-size lofting. The resulting structure is clean and un-cluttered, and can be built in a relatively short time. All components are bonded with epoxy and glass tape, to produce a stressed-skin hull with built-in emergency buoyancy;

- High capacity due to the relatively wide hull and the way in which the chine lines run from high at the bow and stern down to a very shallow 'V' in the middle of the boat. This maximizes buoyancy and initial stability, while retaining a deeper 'V' fore and aft to reduce pounding in a chop;

- Two rowing stations to allow for proper trim with different passenger loads;

- External gunwales so that water, sand, and mud can be easily washed from the boat when she is rolled onto her side. This system dramatically reduces the labour required to install the gunwales;

- The bow transom is relatively low in comparison with the stern transom – this is designed to provide adequate height for effective mounting of a standard-length outboard, and to help with tracking under oars;

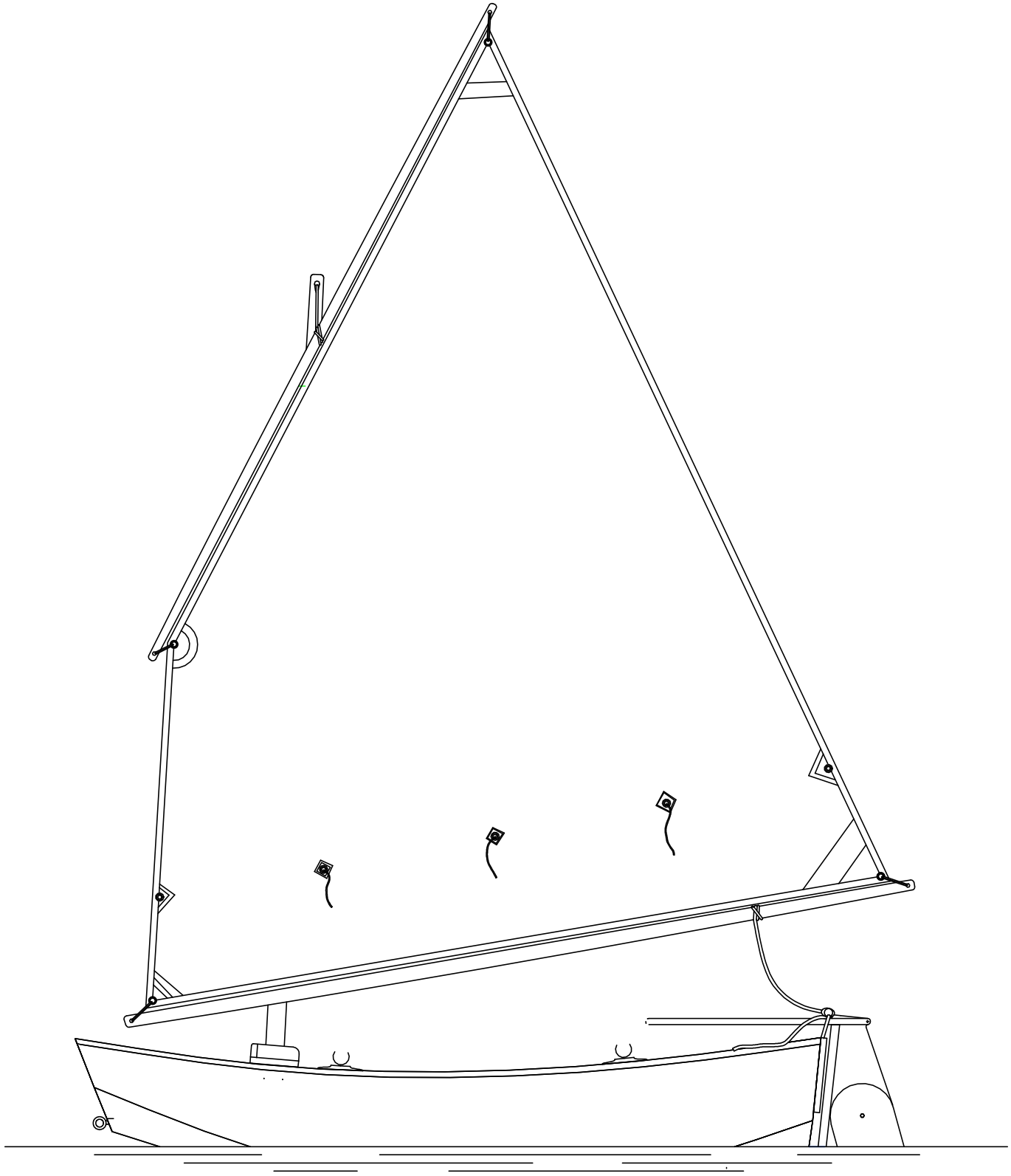
- Optional sailing rig, including centreboard and rudder details. The rig is a very simple balanced-lugsail of generous area – a set-up which gives excellent performance with minimal complication;

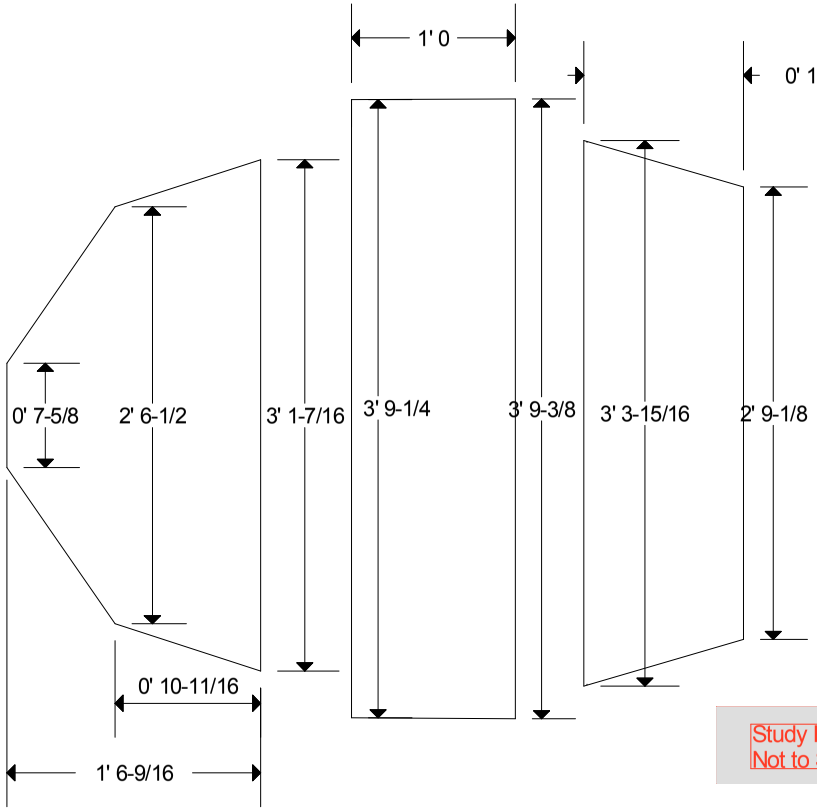
- Emergency buoyancy built-in under the three seating positions. This volume can be used for stowage of light articles such as dry clothing.

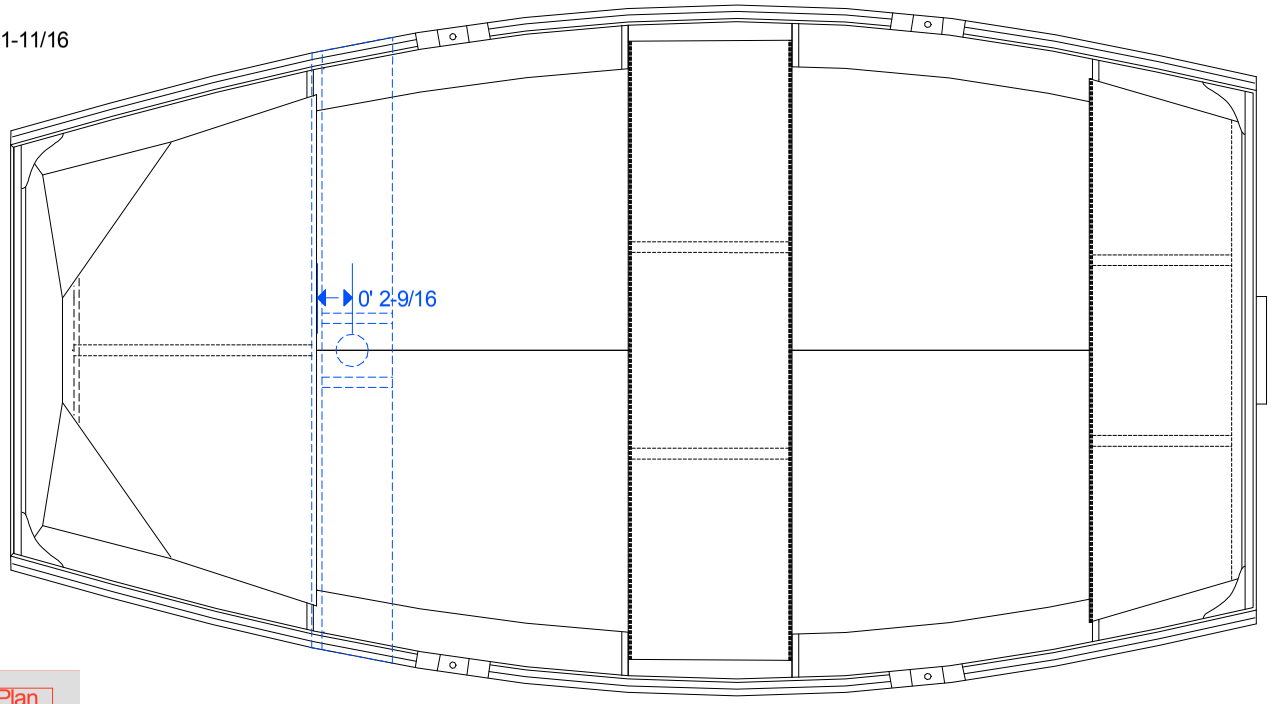
Plans Package contains: -

- **14 Sheets of A3-sized CAD Drawings**
- **6-page Illustrated Instruction Manual**

Plans available from Ross Lillistone PO Box 152 ESK QLD 4312 AUSTRALIA
bsam9350@bigpond.net.au For $50.00 Australian plus postage, or from Duckworks Magazine
www.duckworksbbs.com for $50.00 U.S. including postage



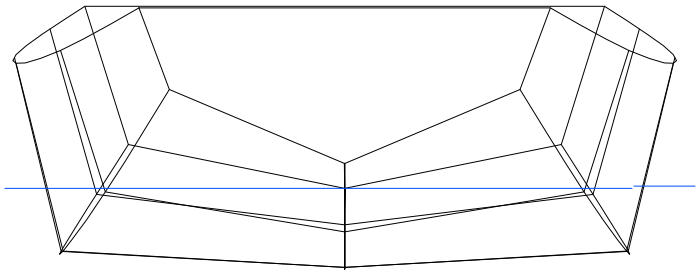


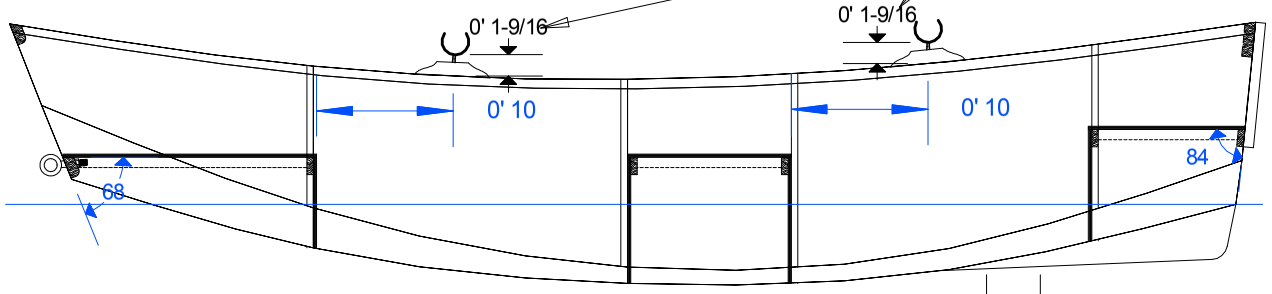


Study Plan
Not to Scale

Blue dotted lines show position of optional mast partner. Centre of mast hole 65mm aft of face of bulkhead.

Throat of oarlocks to be a minimum of 1-9/16" above gunwale to ensure oars clear knees on return stroke



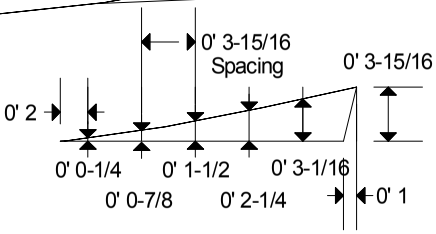


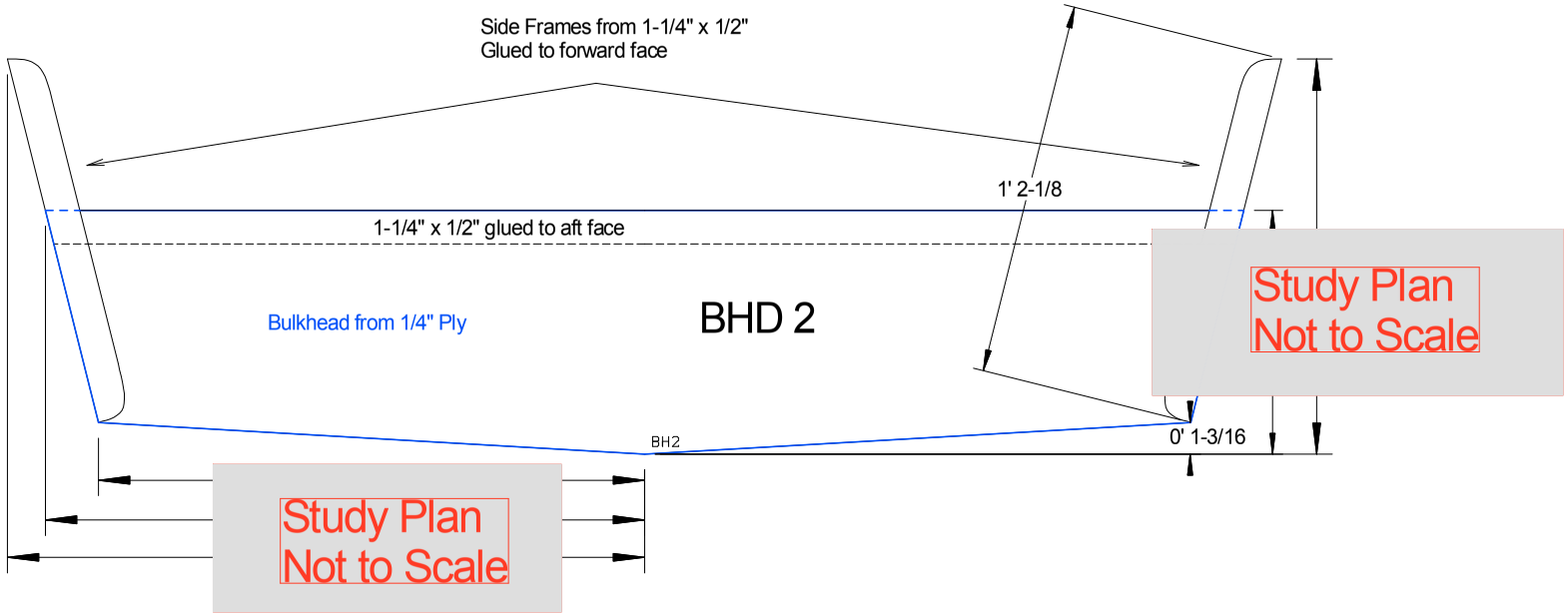
Alby - Plan and Profile

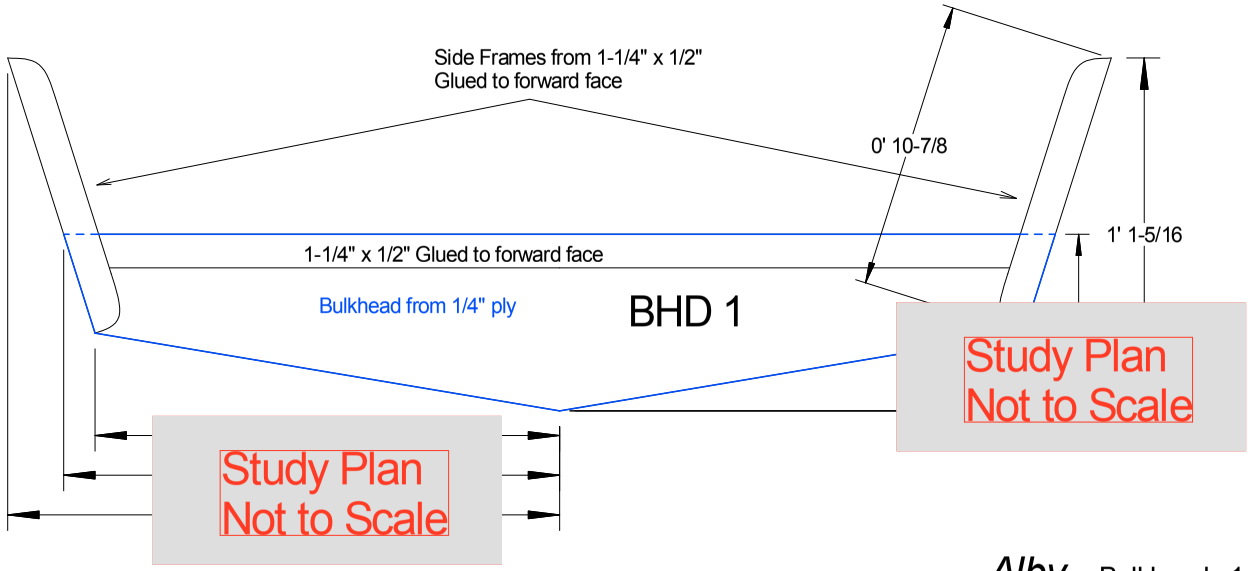
7' 7-1/4" x 4' 2-1/2" x 6"

Scale 1:10

Skeg from 3/4" timber or plywood laminated to required thickness. Cut to profile shown and glue to hull using generous epoxy fillets. Joint may be reinforced with glass tape if preferred.

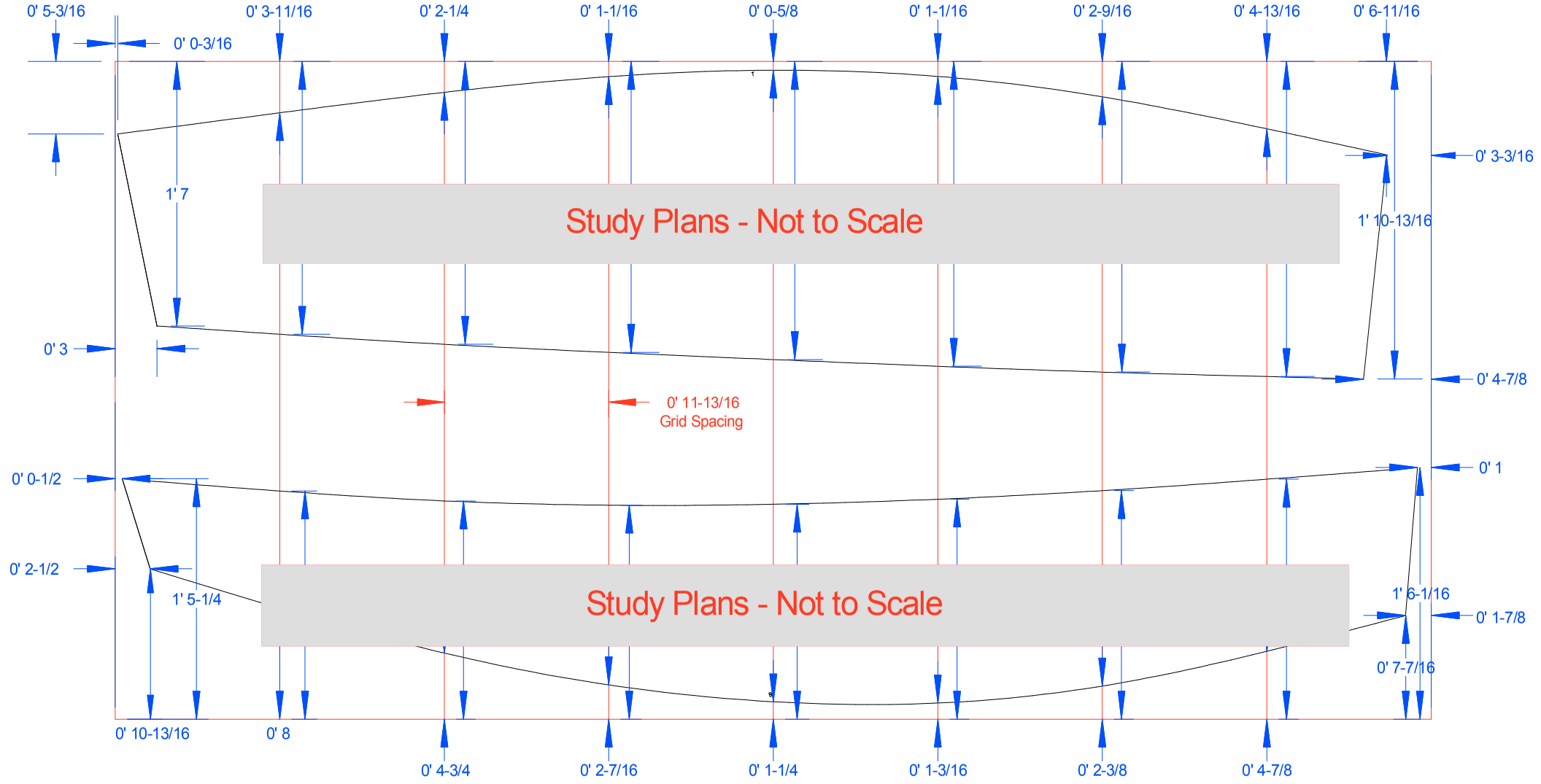






Alby - Bulkheads 1 & 2

Scale 1:5



Alby - Panel Layout

Scale 1:7

Rudder Construction Key

1. Rudder Stock from 12mm/1/2" Marine Plywood.

2. Rudder Blade from 12mm/1/2" Marine Plywood. The Rudder Blade mounts on one side of the rudder stock. The radiused ends of the blade and the stock mean that the blade is held in line with the stock, regardless of which tack the boat is on.

3. 25mm x 12mm/1" x 1/2" Cleat glued to Rudder Stock to carry gudgeons. Also acts as stop to prevent tiller from drooping, and prevents excessive forward movement of rudder blade when lowered.

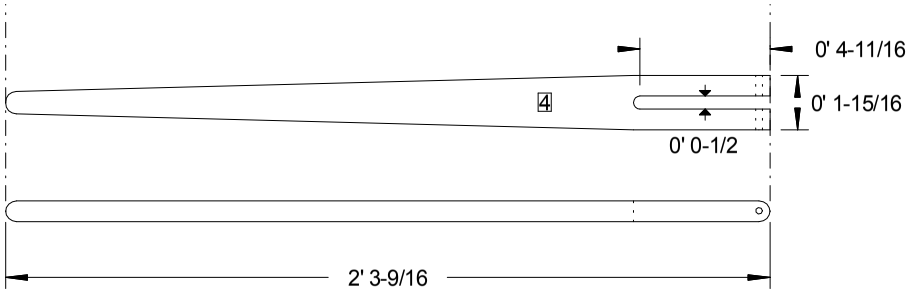
4. Tiller from 50mm x 19mm/ 2" x 3/4" Hardwood or dense, hard softwood such as Hoop Pine. Tiller pivots over backwards to lie along trailing edge of rudder stock and blade for storage.

5. Pivot Bolt 12mm/1/2"

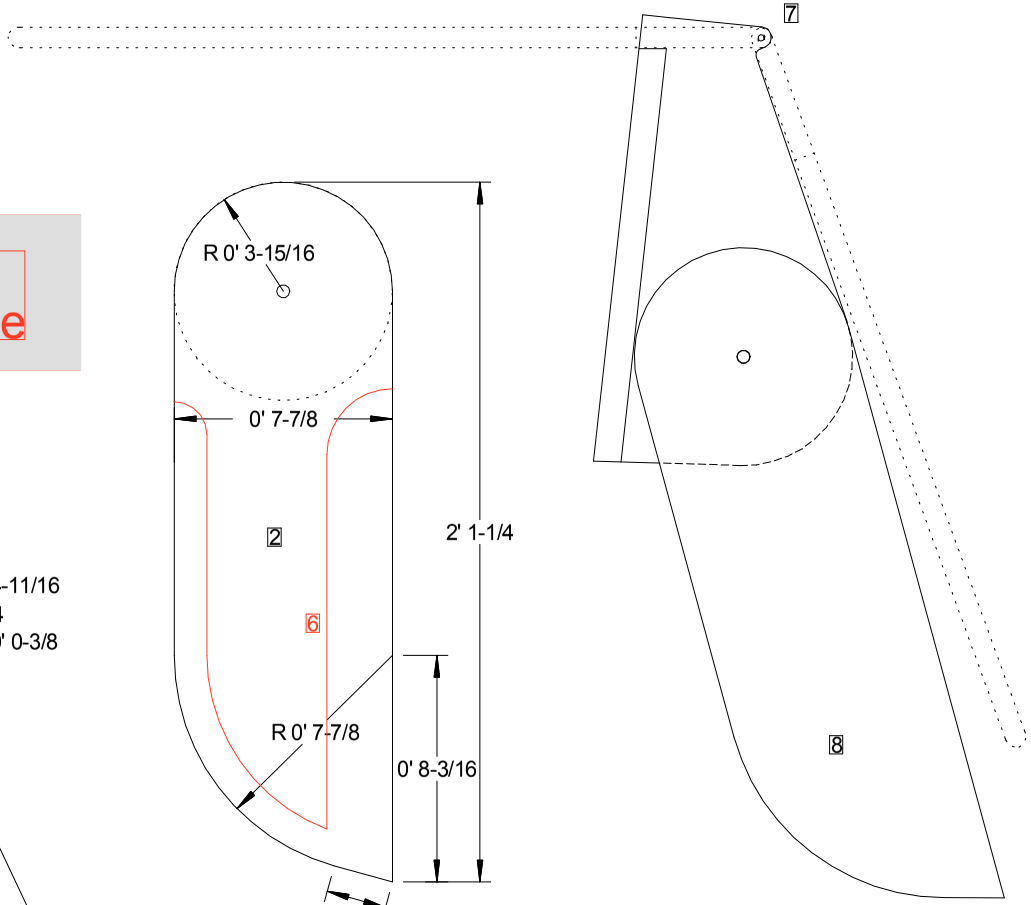
6. Fair leading and trailing edges of rudder to foil shape - red lines show approximate limits of fairing.

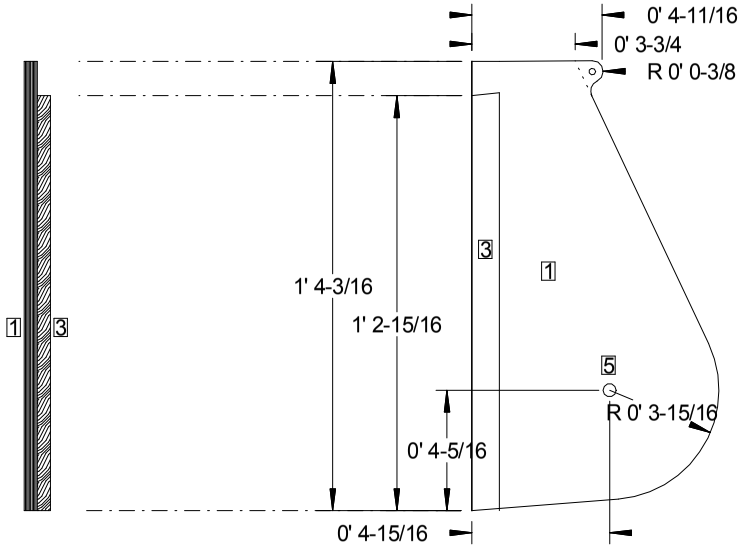
7. Pivot bolt 6mm/1/4"

8. If desired, lead can be cast into the lower end of rudder blade to overcome its buoyancy and allow it to remain lowered. Otherwise, use a wingnut on the pivot bolt and rely on friction to keep blade down.



Study Plan
Not to Scale





Alby - Rudder
Scale 1:5

Sample Page from Instructions

opened up book-fashion. A good way to achieve this is to have a pencil underneath the tie as it is done up. When the pencil is removed, there is enough slack in the tie to allow the panels to unfold easily. It will help to have planed a very small bevel on the inner edges of the panels so that when they are folded open, the adjoining edges meet on a tiny 'flat' rather than a sharp point.

When folded open, the two bottom panels should automatically take up a 'V' shape with a pronounced 'rocker' fore-and-aft. (this picture from another of my designs)

Tie in the bow and stern transoms along their bottom edges. It is not necessary to bevel the cross pieces if it concerns you – the slight 'V' opening between the cross pieces and the topside panels can be filled with thickened epoxy after assembly.

Push the bulkheads down onto the bottom panels, and secure with cable ties through holes in the bottom panels and in the bulkheads.

Based on bevel measurements taken from the assembly, plane bevels onto the side frames of bulkheads 1,2,3, and 4. (Already done in the case of the kit) Do not bevel the plywood section of the bulkhead. The forward edge of the ply part of bulkheads 1 and 2, and the aft edge of the plywood part of bulkheads 3 and 4, sit on the marked bulkhead locations. The slight open 'V' will be filled with the epoxy fillets.

With the help of a friend, tie the side panels to the bow transom, and then progressively tie the side panels to the bottom panels, working from bow to stern. The whole assembly can be quite loose, as it will be easy to tighten it up later. Finally, tie the side panels to the stern transom.

Once the assembly of panels is complete, work around the joins gradually tightening and manipulating until the whole structure is even and fair, with all of the inner edges meeting correctly.

Level the hull crosswise, sighting across the flat tops of the bow and stern transoms and using a spirit level until you are satisfied that there is no built-in twist. Run a string-line between the centre of the upper edges of the two transoms. Sight across the string-line to ensure that the four bulkheads are also aligned with the centerline of the boat. A plumb-bob can also be used if the hull is level athwartships.

Apply short epoxy fillets 'tack welding'-style' to the sewn edges in between the ties, and