

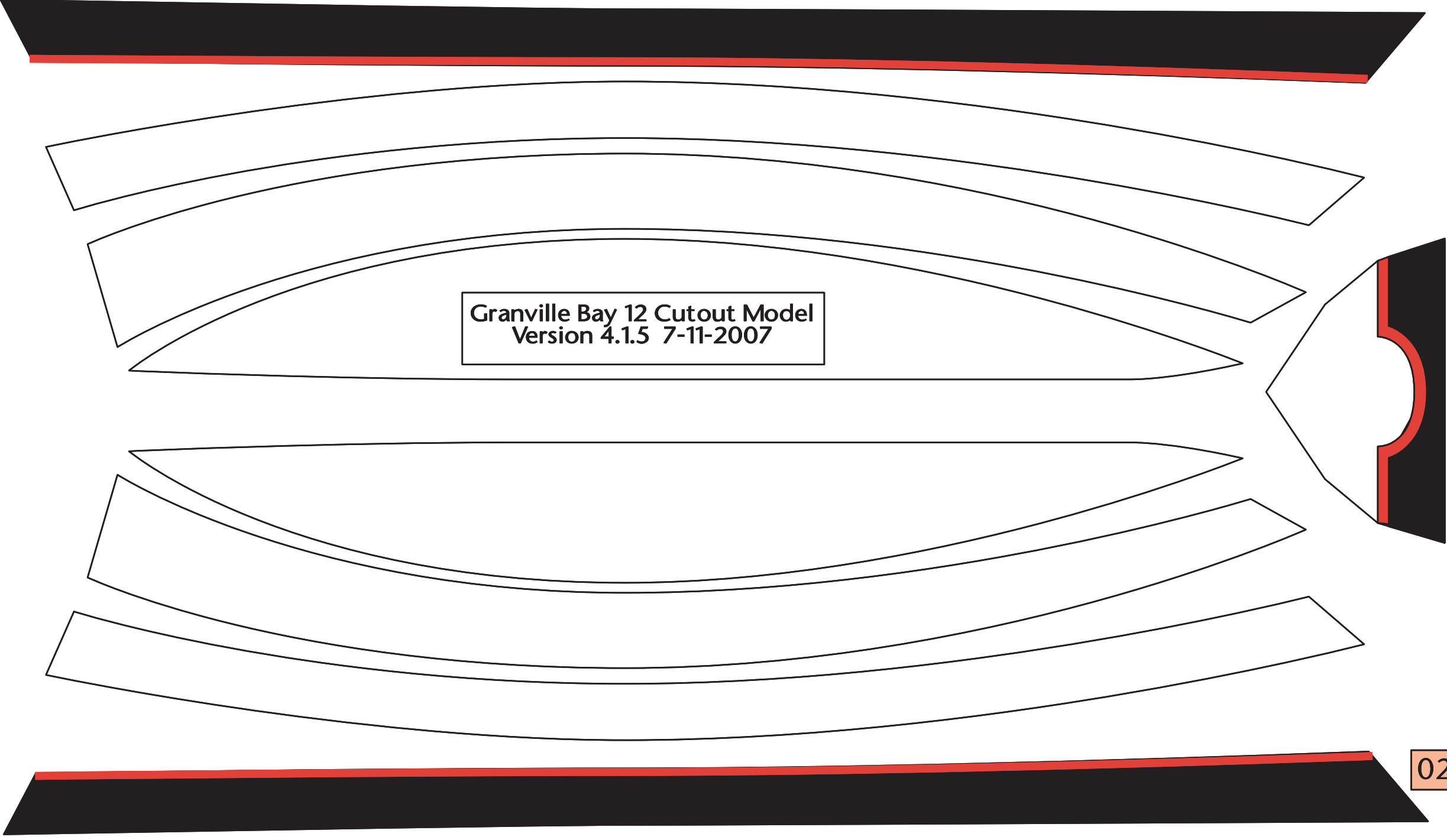
# RED BARN BOATS

The 12ft Grandville Bay

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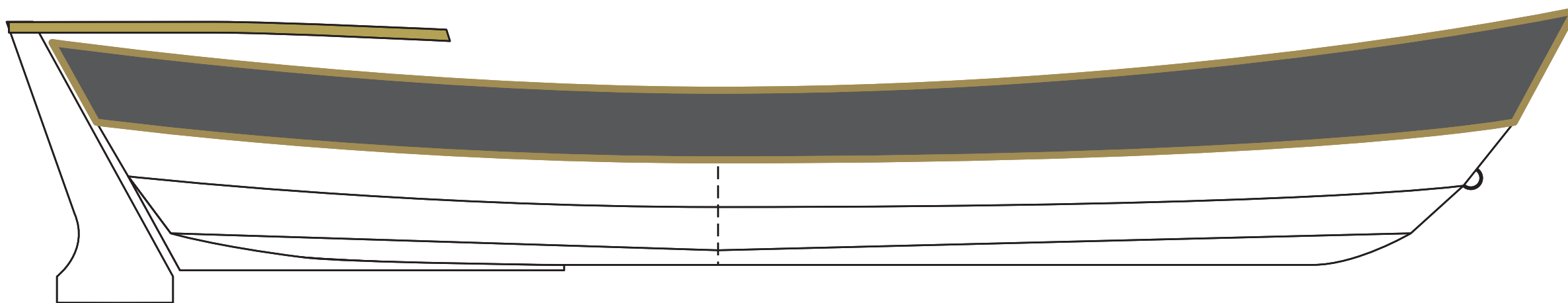
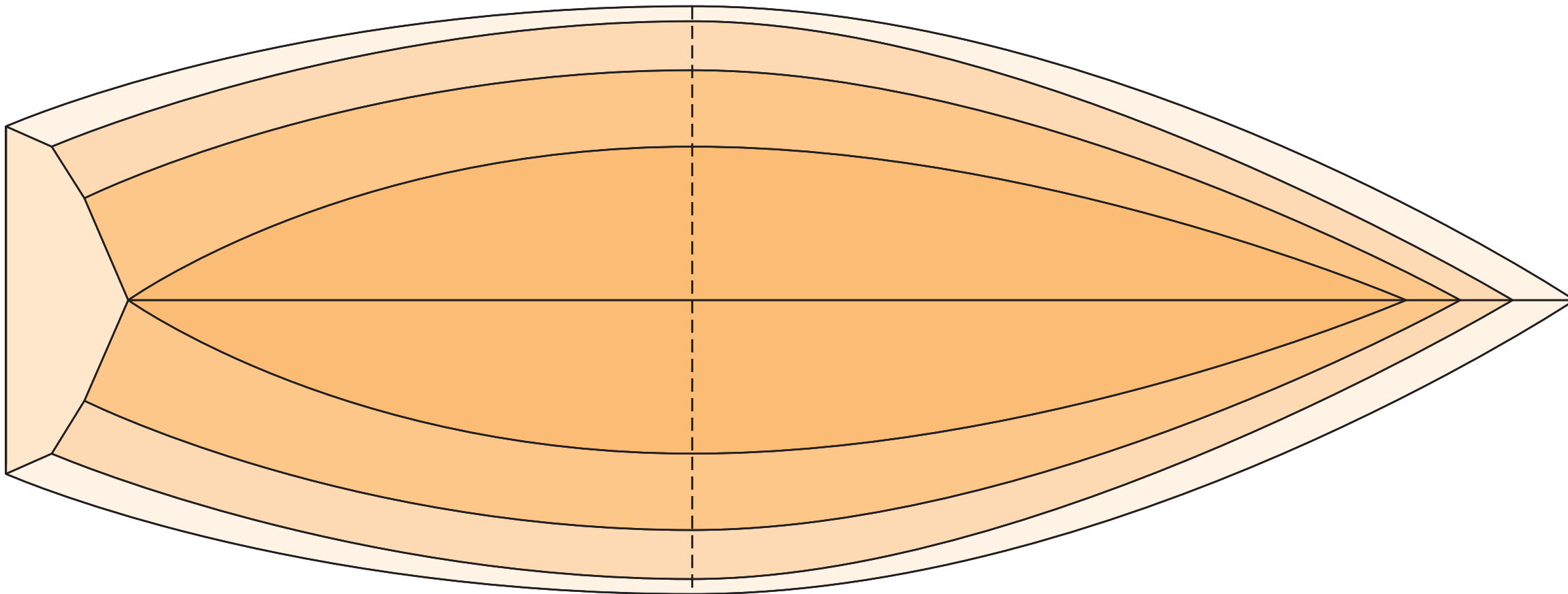


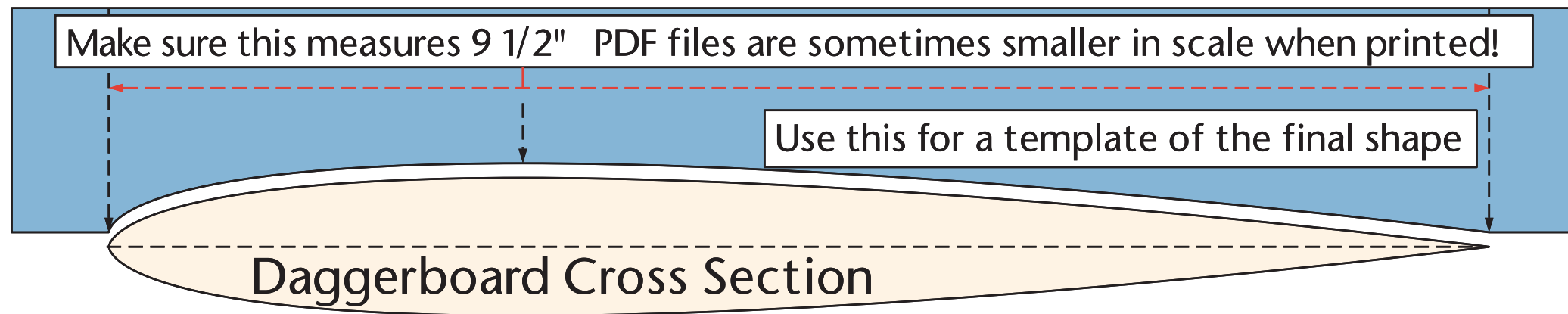
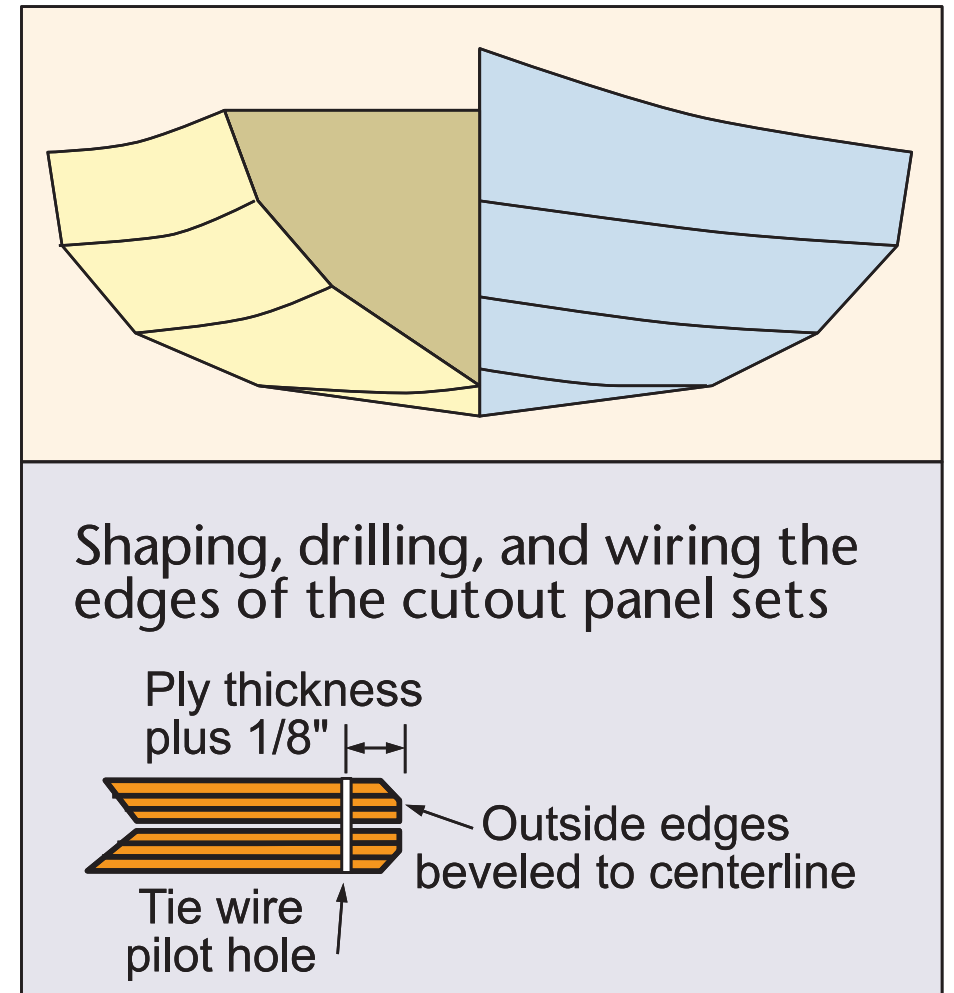
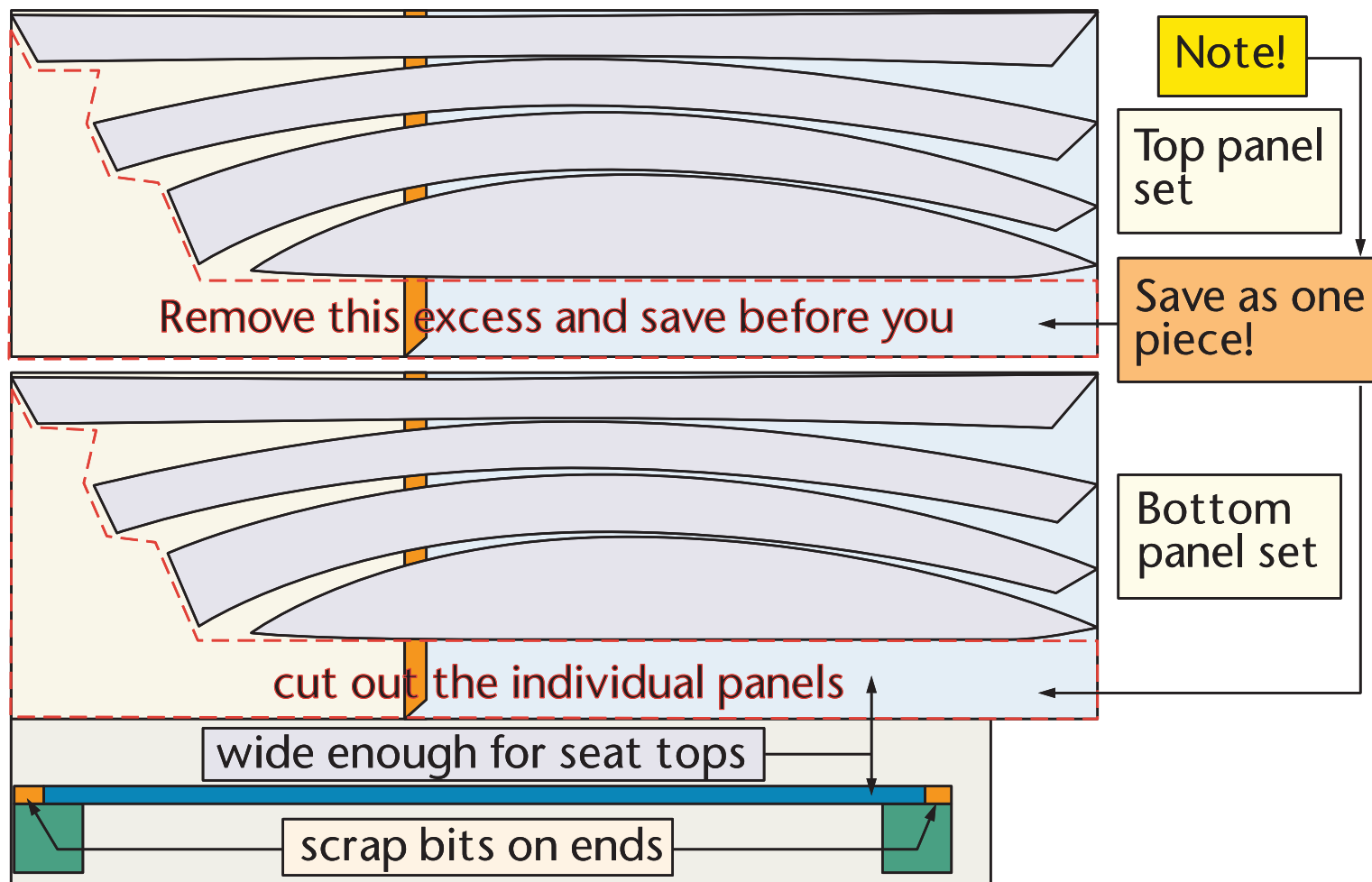
[www.youtube.com/redbarnboats](http://www.youtube.com/redbarnboats)



The diagram illustrates a cross-section of a bay with a central cutout. It features a central rectangular area with a black border containing text. This central area is flanked by two large, light gray, curved shapes that represent the bay's walls or a cutout. These shapes are further defined by several concentric, curved lines. The entire diagram is framed by a thick black border at the top and bottom, with a red line running along the inner edge of each black border. On the right side, there is a small, detailed view of the cutout's profile, showing a red curved line on a black background.

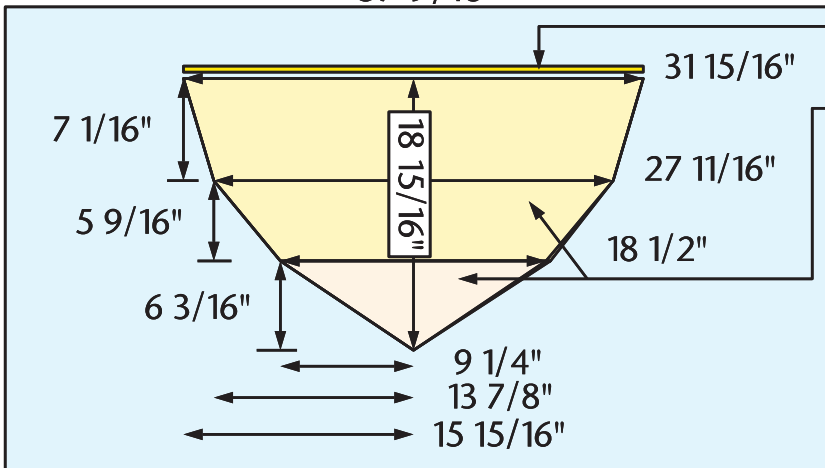
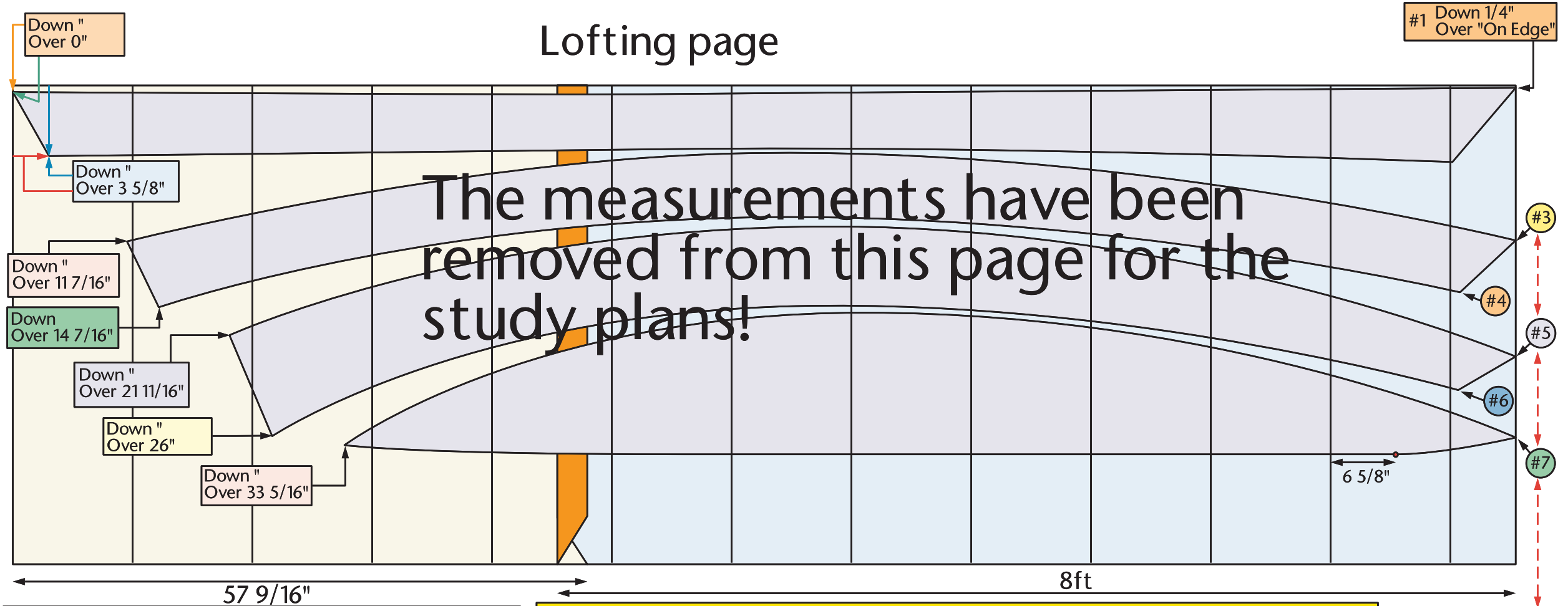
Granville Bay 12 Cutout Model  
Version 4.1.5 7-11-2007





# Lofting page

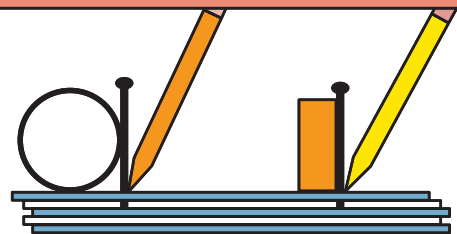
The measurements have been removed from this page for the study plans!



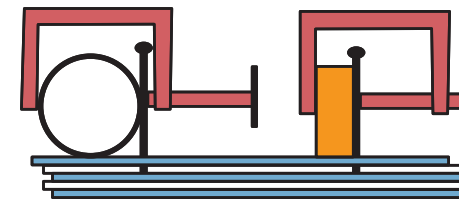
Note: Add at least 1/4" extra height to the top for trimming

Note: The stern panel may be two pieces if you like the prototype hull. The measurements are the same either way.

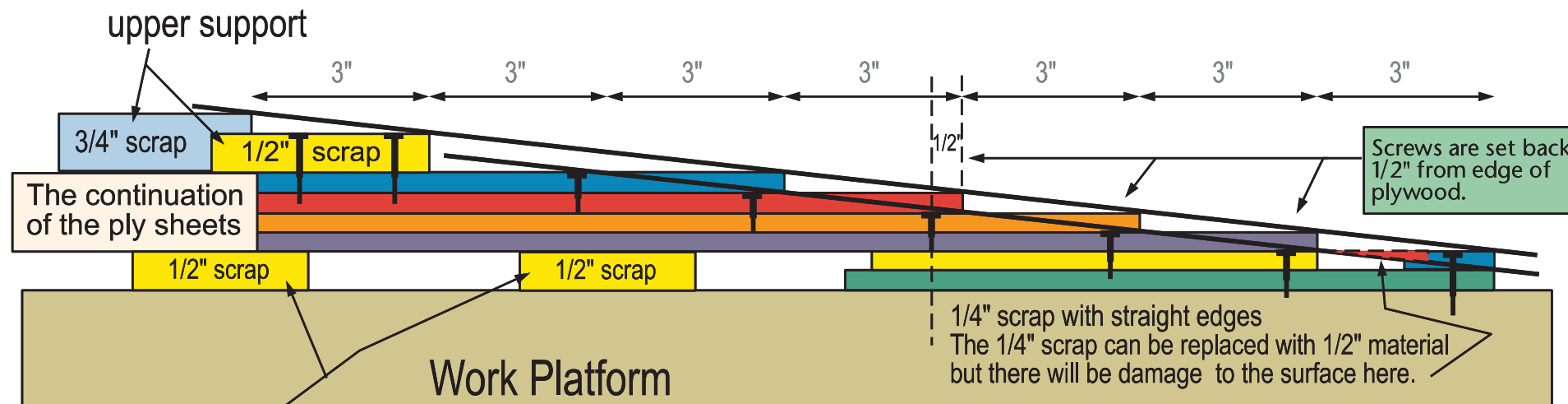
- #3 Down 15 5/8" Over On Edge
- #4 Down 20 3/4" Over 1 1/4"
- #5 Down 27 3/16" Over On Edge
- #6 Down 30 9/16" Over 13/16"
- #7 Down 35 1/4" Over On Edge



Marking the line between the nails

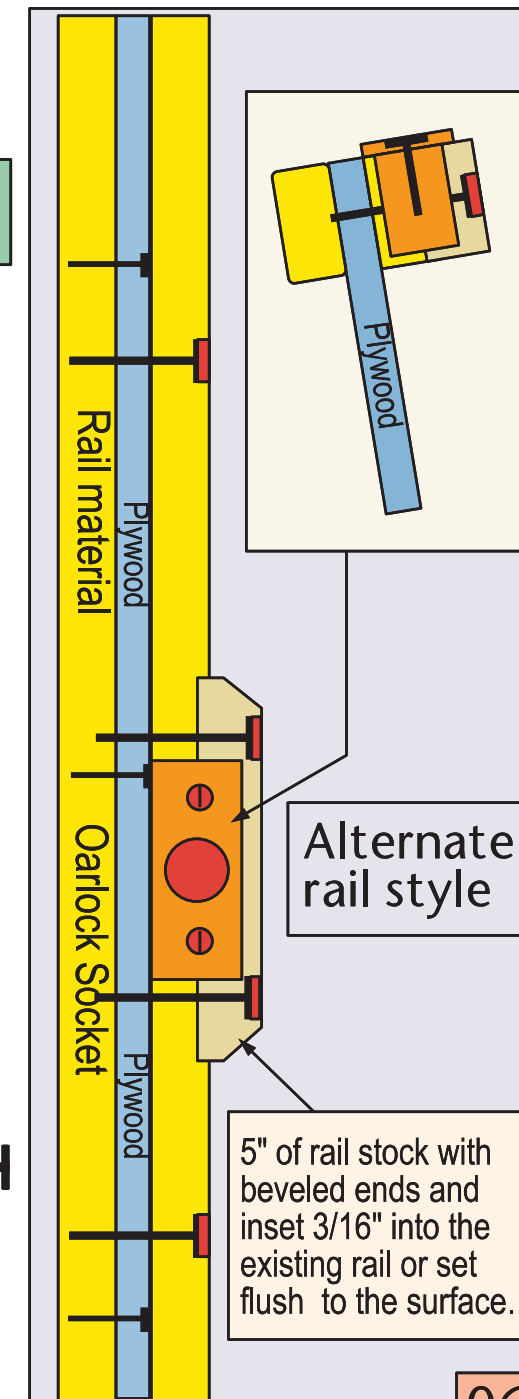
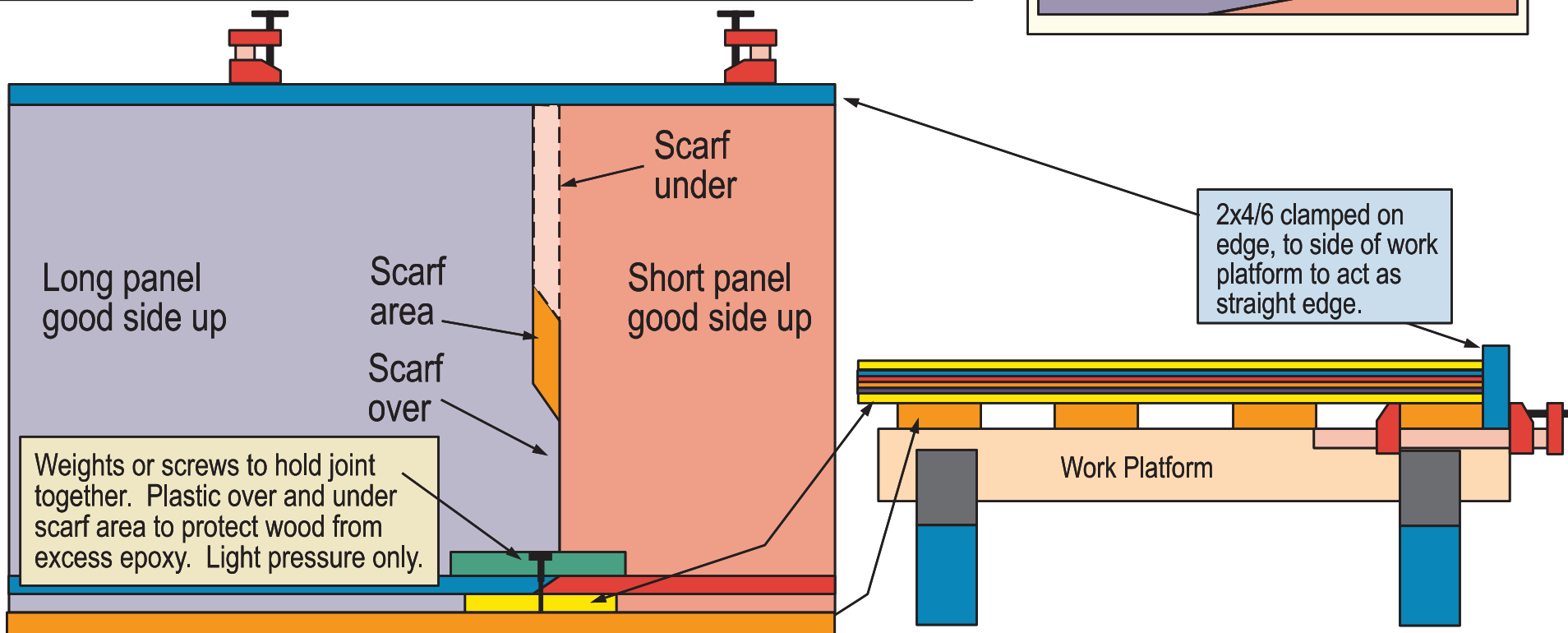


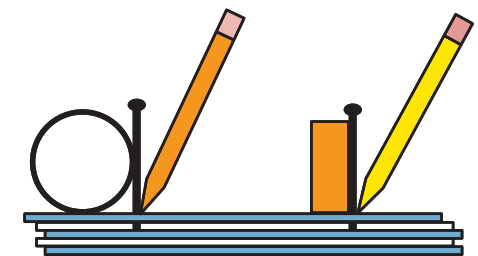
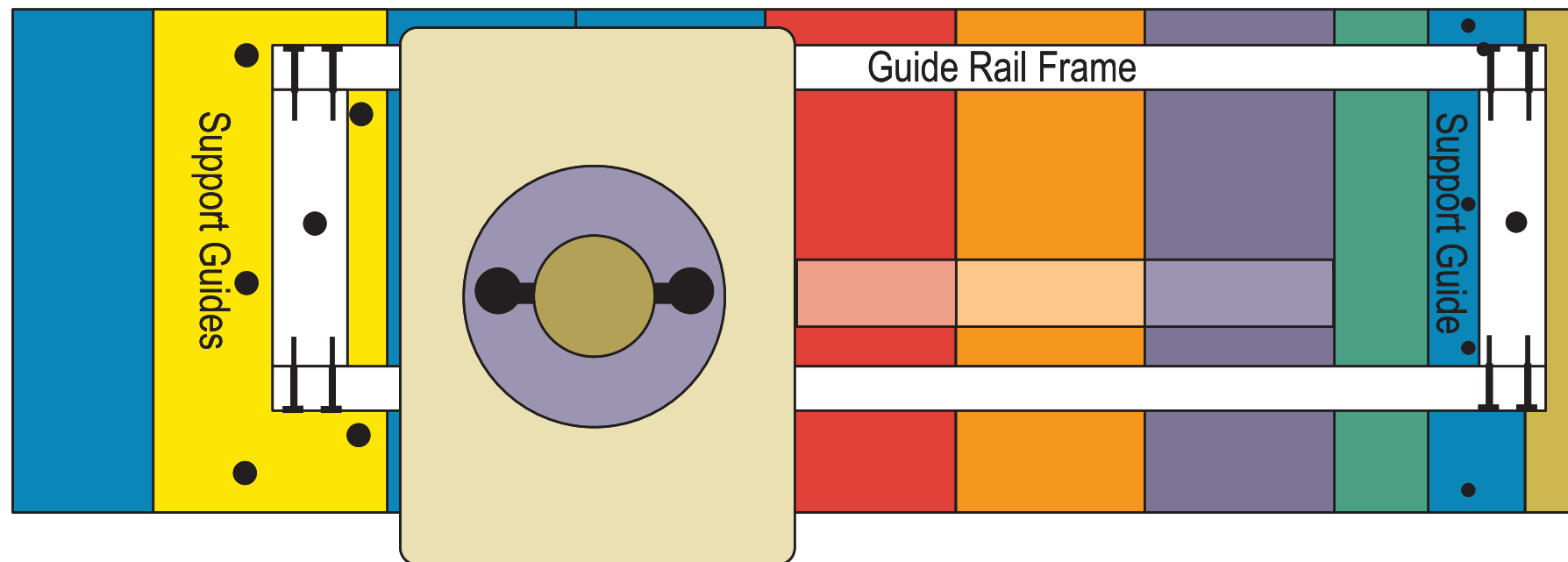
Clamping the Batten to the Nails



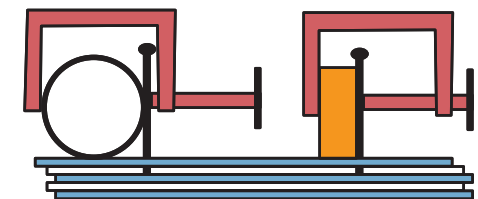
The "bottom lift" can be 3/4" material, but the "upper support" has to remain 1/2" material. Or it can be increased to 3/4" material if it is set back 3" more.

End view of scarf joint



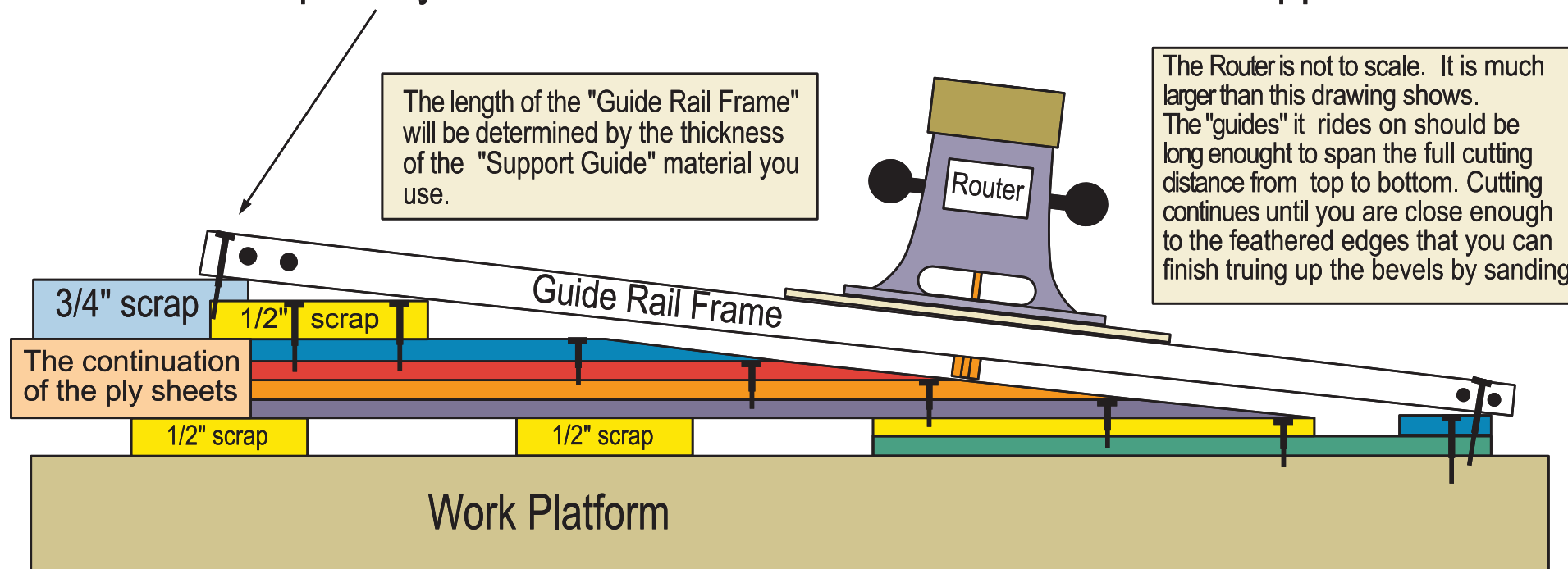


Marking the line between the nails



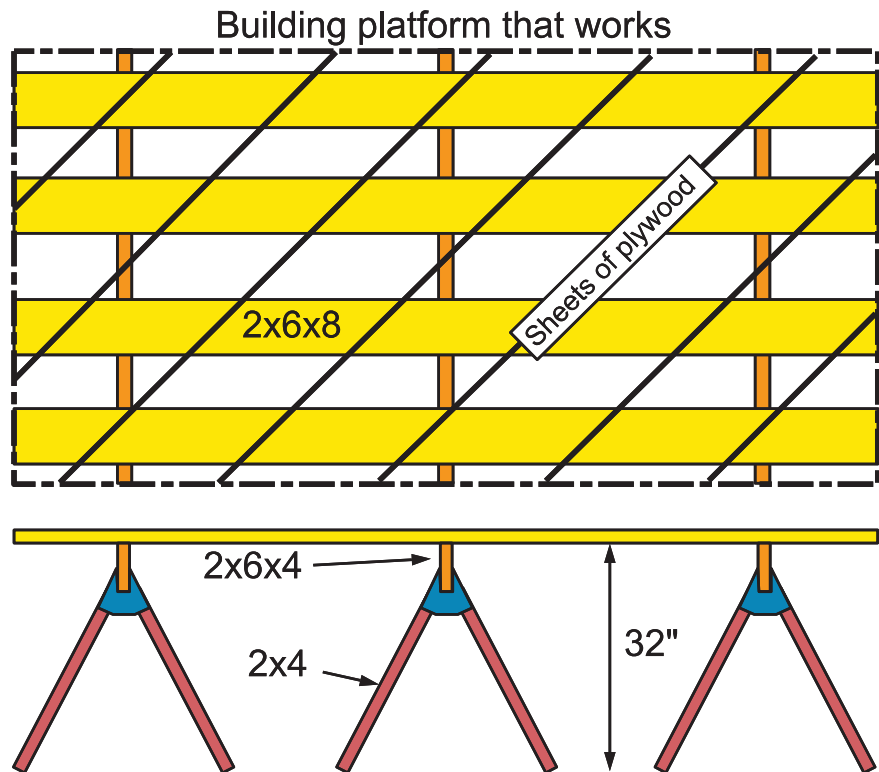
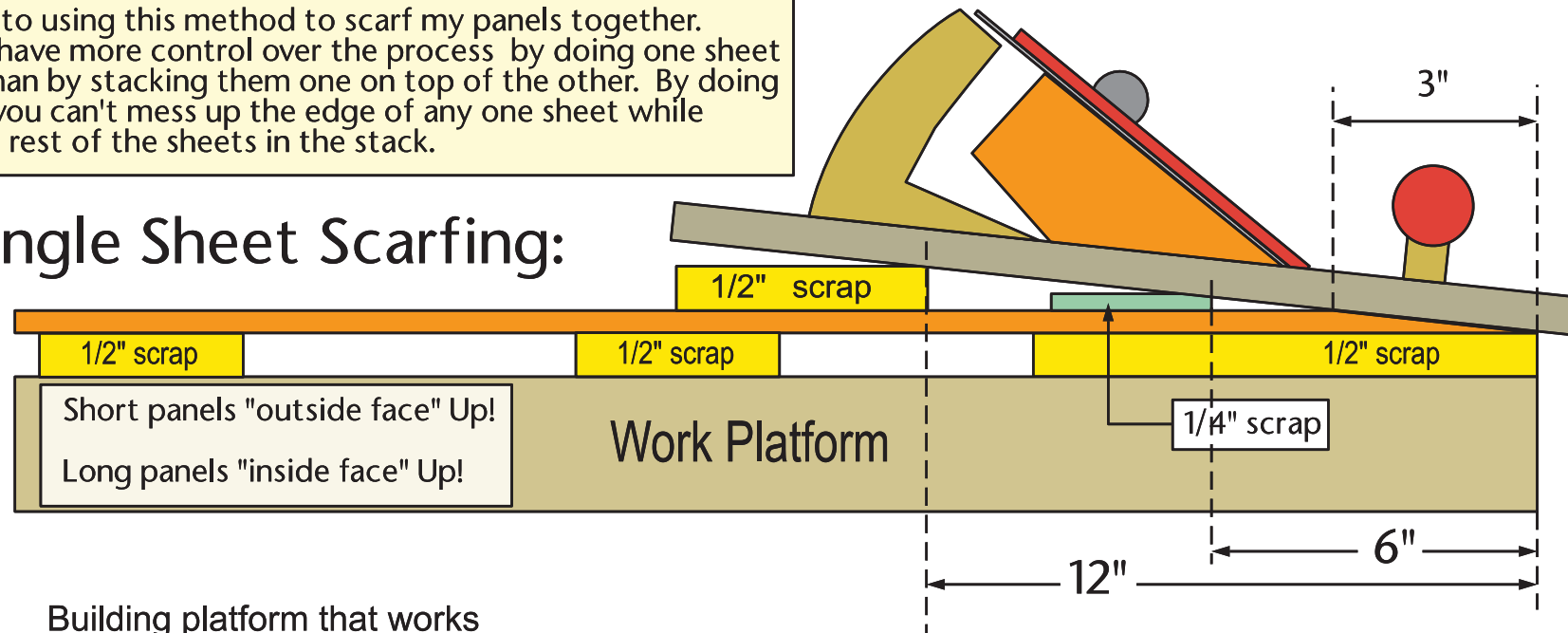
Clamping the Batten to the Nails

Temporarily screw router "Guide Rail Frame" to the "Support Guides".

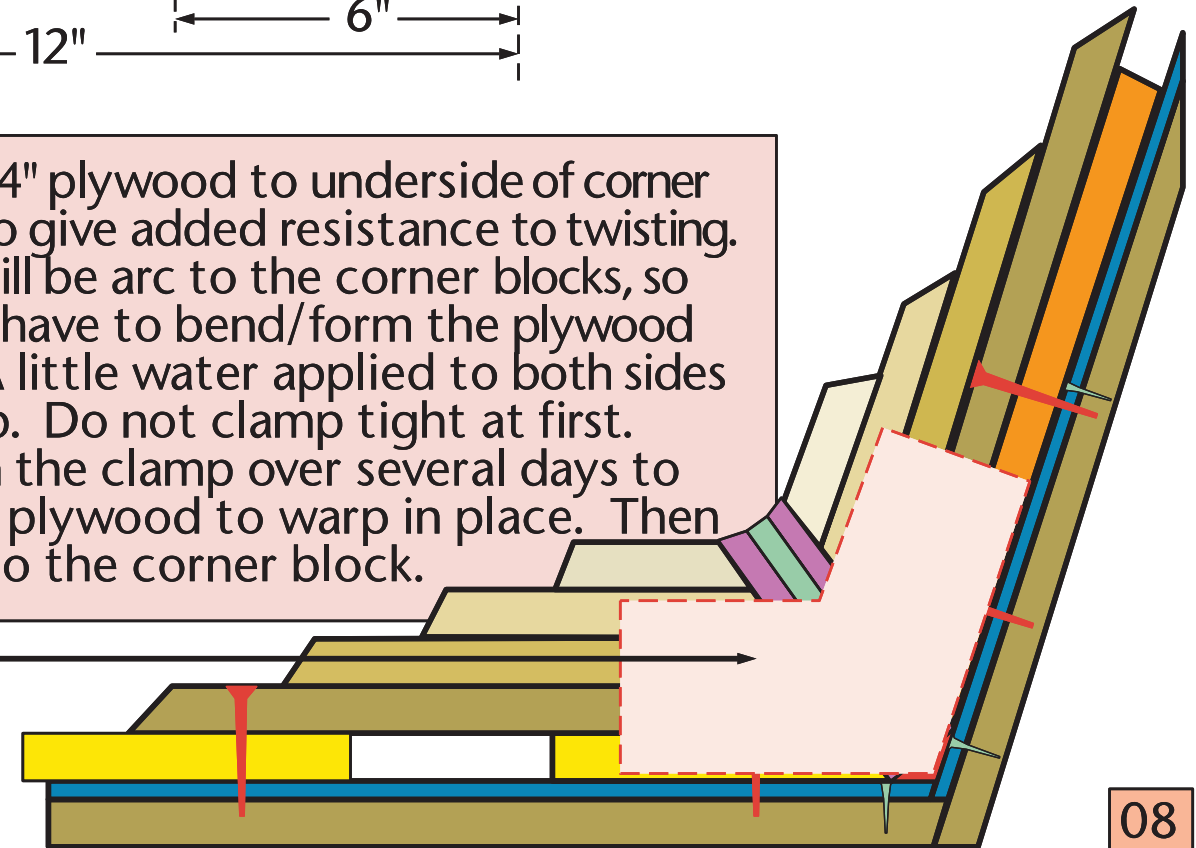


I have gone to using this method to scarf my panels together. I find that I have more control over the process by doing one sheet at a time, than by stacking them one on top of the other. By doing it this way, you can't mess up the edge of any one sheet while scarfing the rest of the sheets in the stack.

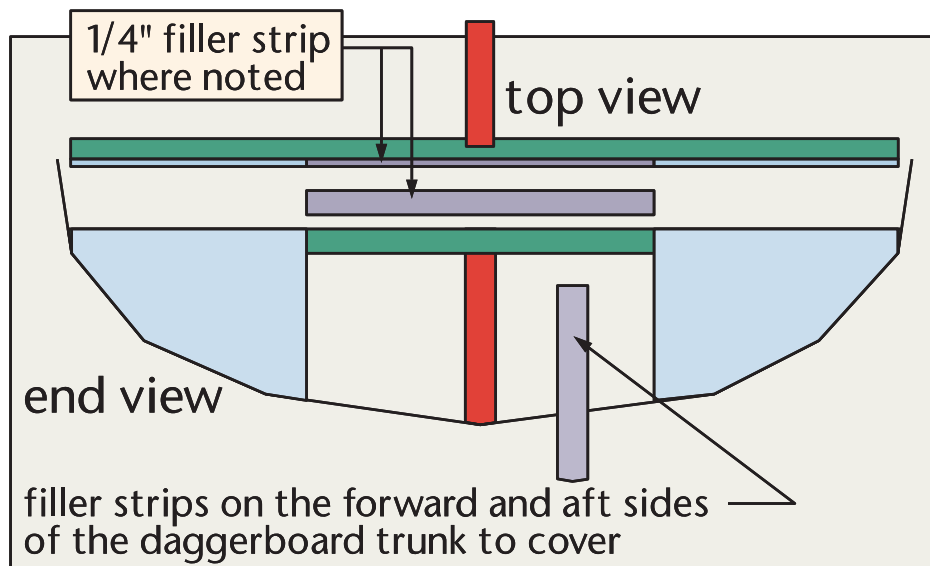
## Single Sheet Scarfing:



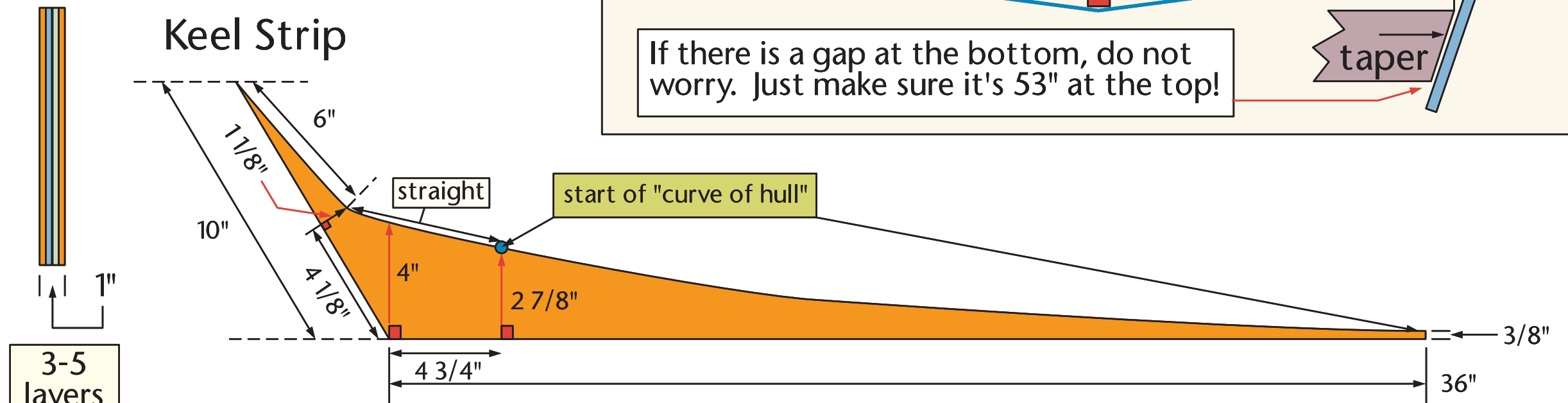
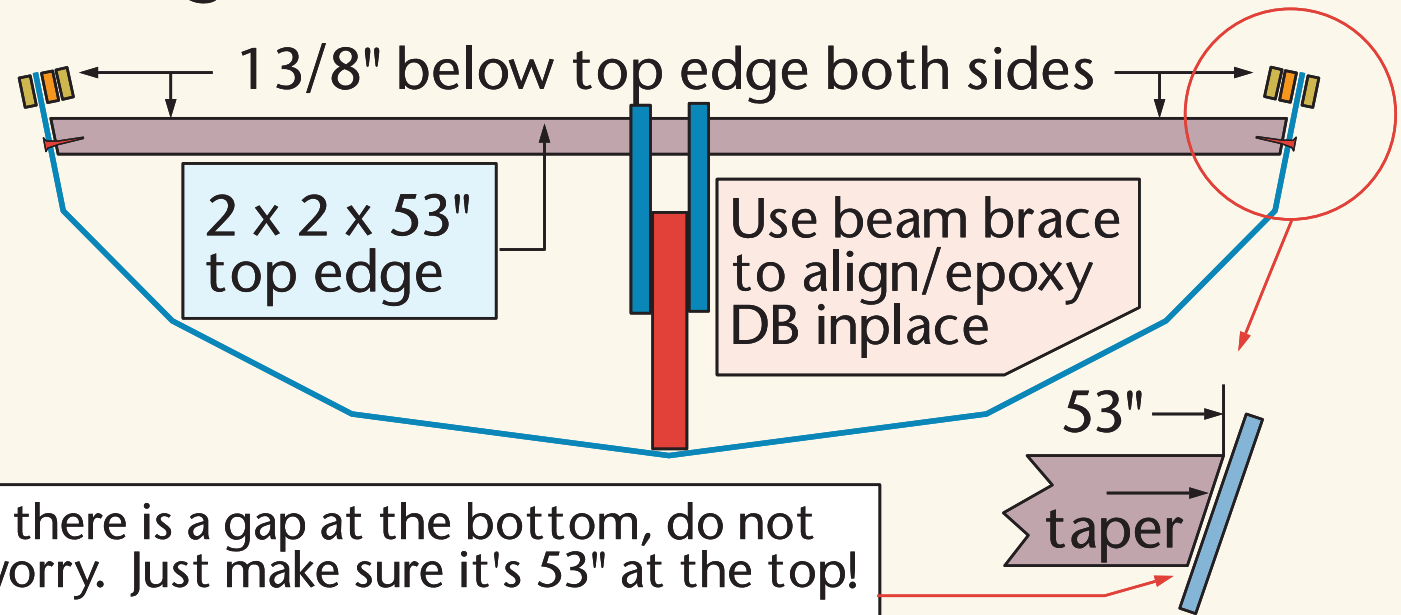
Epoxy 1/4" plywood to underside of corner blocks to give added resistance to twisting. There will be arc to the corner blocks, so you will have to bend/form the plywood to fit. A little water applied to both sides will help. Do not clamp tight at first. Tighten the clamp over several days to get the plywood to warp in place. Then epoxy to the corner block.



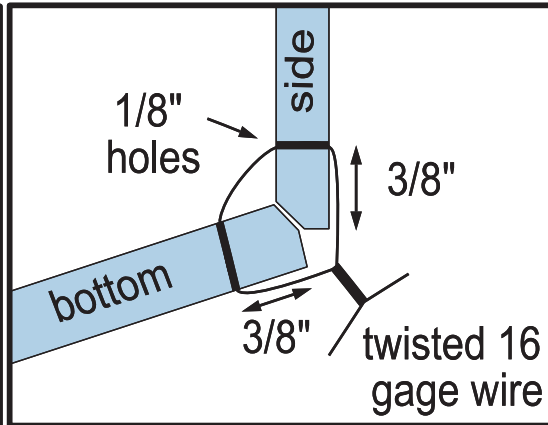
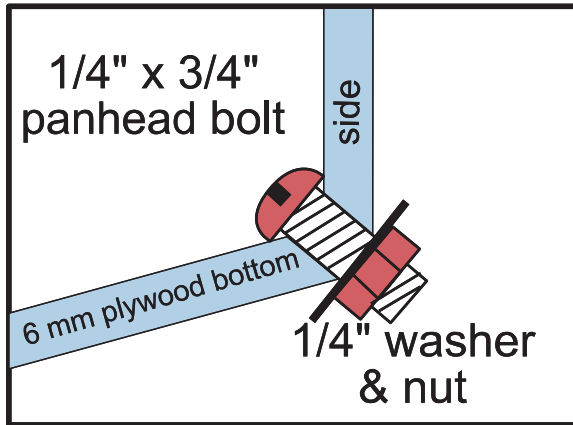




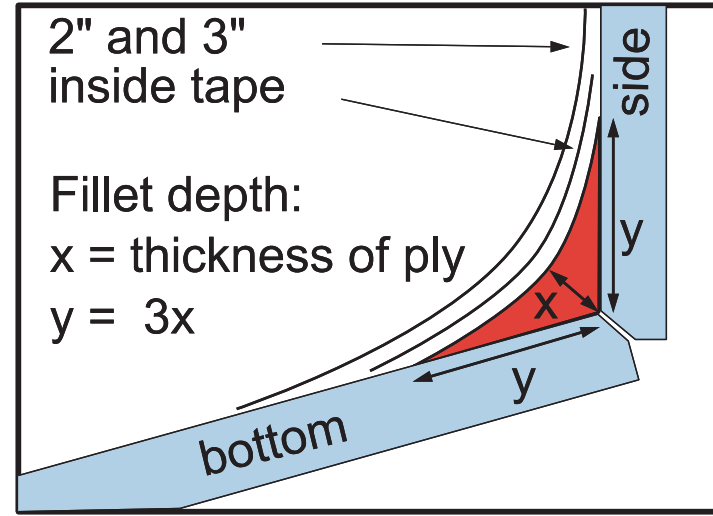
2x2 used to hold the sides apart after wiring up the panels and kept in place until the rails are set, glued, and screwed to the hull.



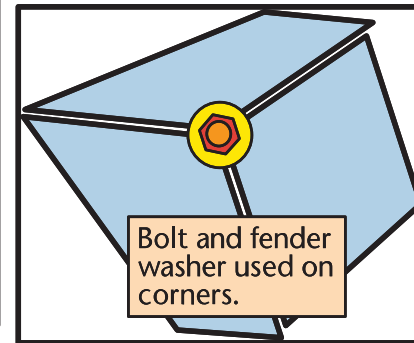
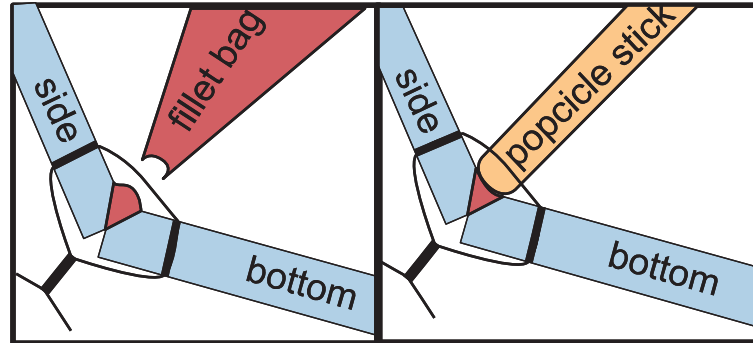
Note: Use these measurements on a cardboard test pattern first, then make any adjustments to "your hull" from this pattern. Then transfer your "fitted/adjusted" pattern to the plywood strips.



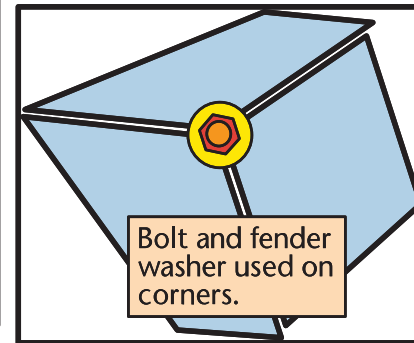
Wiring and bolting the panel sections together



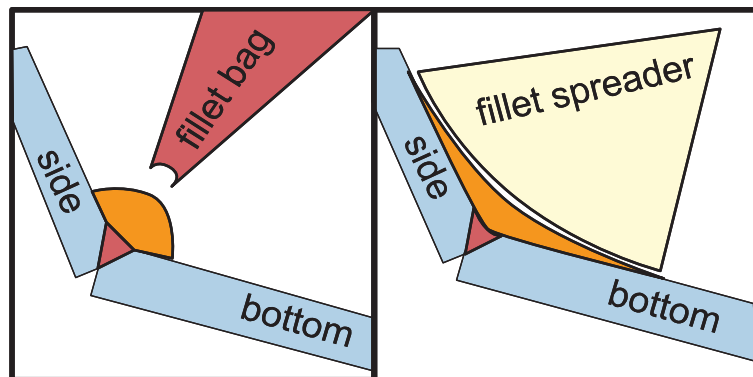
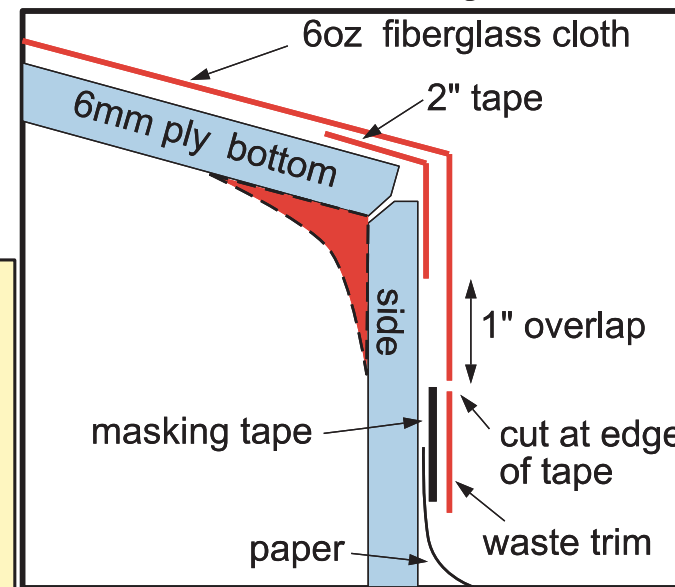
Cross section of taped seam



Jump Stitch



Bottom outside edge details



Applying and Spreading the Fillet

Read the instructions as you study these drawings. Each picture tells a story. Use the cardboard model you made to visualize the directions.

This space reserved  
for your advertising

See page 08/12/14  
for details on  
corner blocks

See page 14 for details on Oarlocks

See page 14 for details  
on construction of the  
Breasthook

Note: Remember to mark  
the location of all rail screws  
with a pencil, so you don't drill  
into one as you add later fittings.

2X2 Cross Brace used to  
hold beam width during  
construction. Removed  
after all rails are in place!

Shape as you  
please, just follow  
the details for  
how to "layer" the  
individual pieces

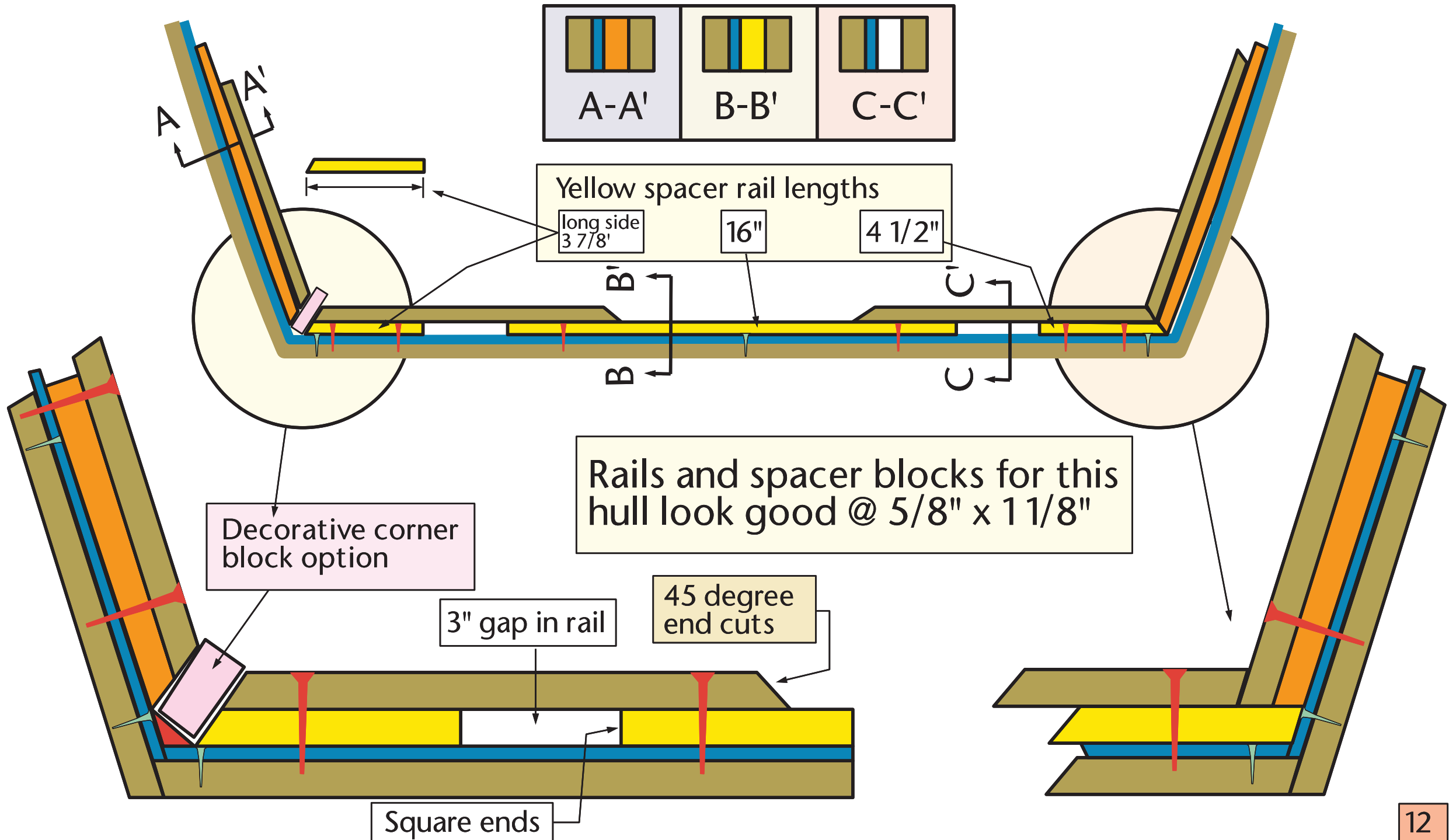
2x2 Centered at "5ft Cut Mark"  
and set 1 1/2" below top of  
plywood.

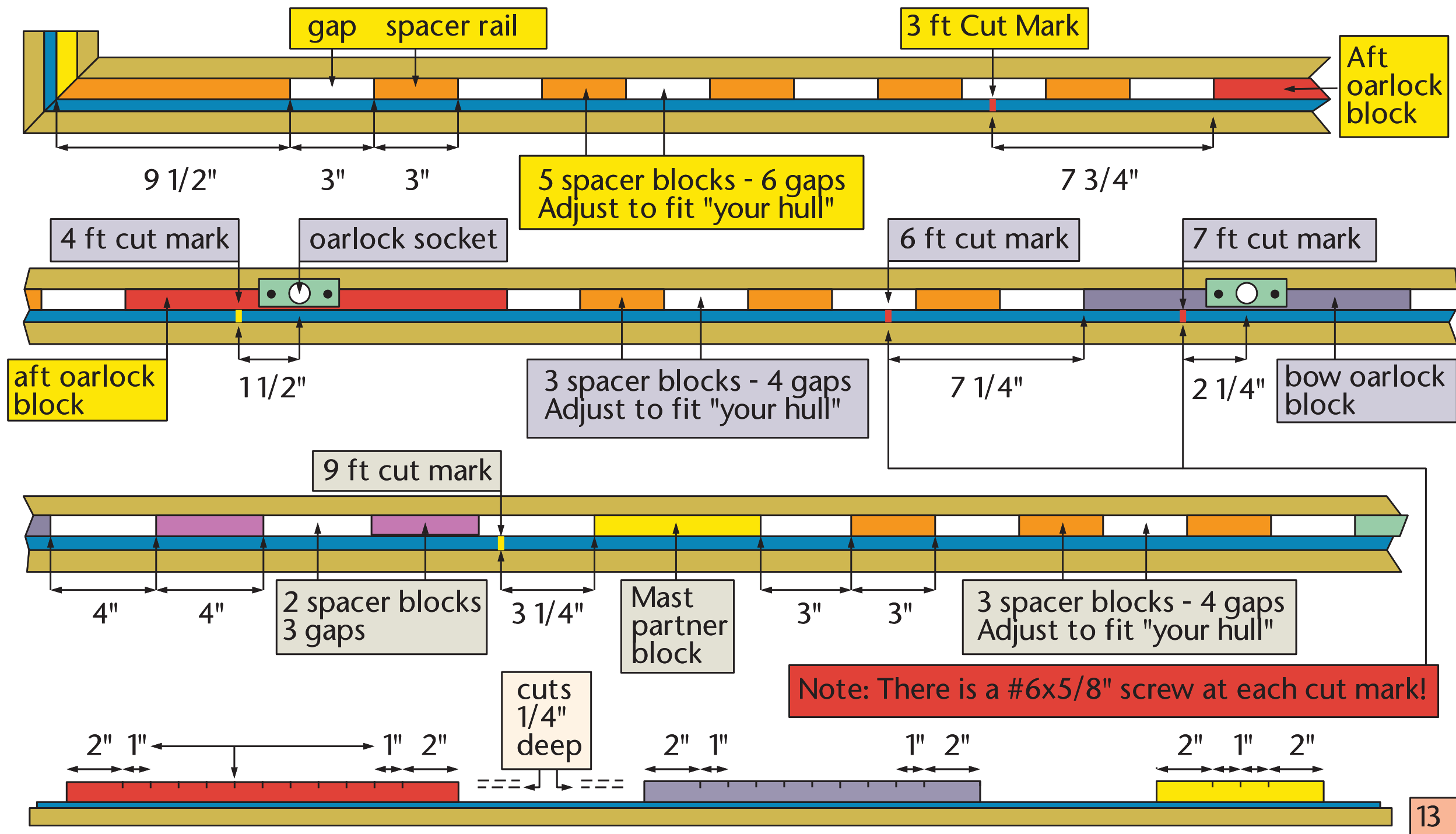
Note: Measurements have  
not been listed for the  
details on the corner  
blocks, because of the  
variability of the sizes,  
and or the material you  
may use.

See page 13 & 14 for details on Spacer Blocks  
They are laid out in a straight line to  
make it easier to see the details, even  
though they are part of an Arc.

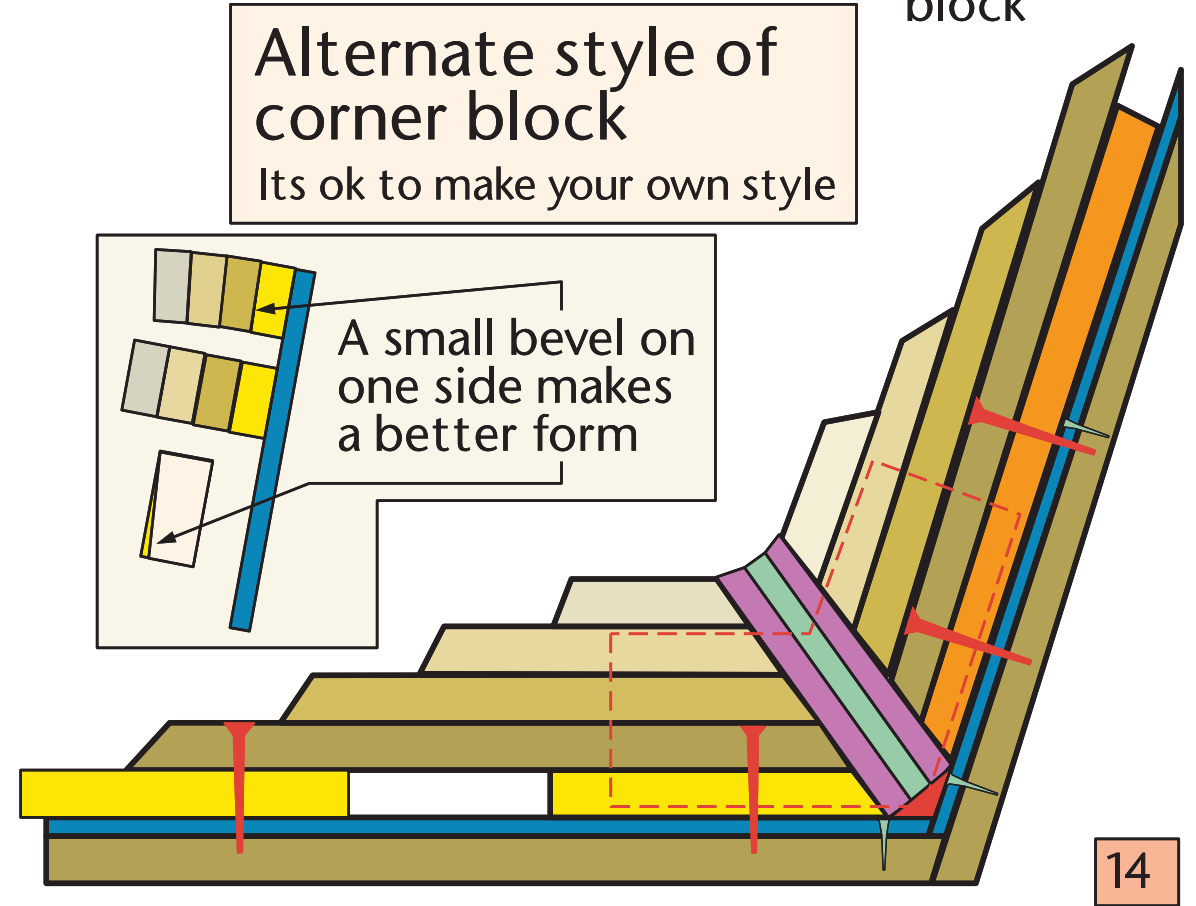
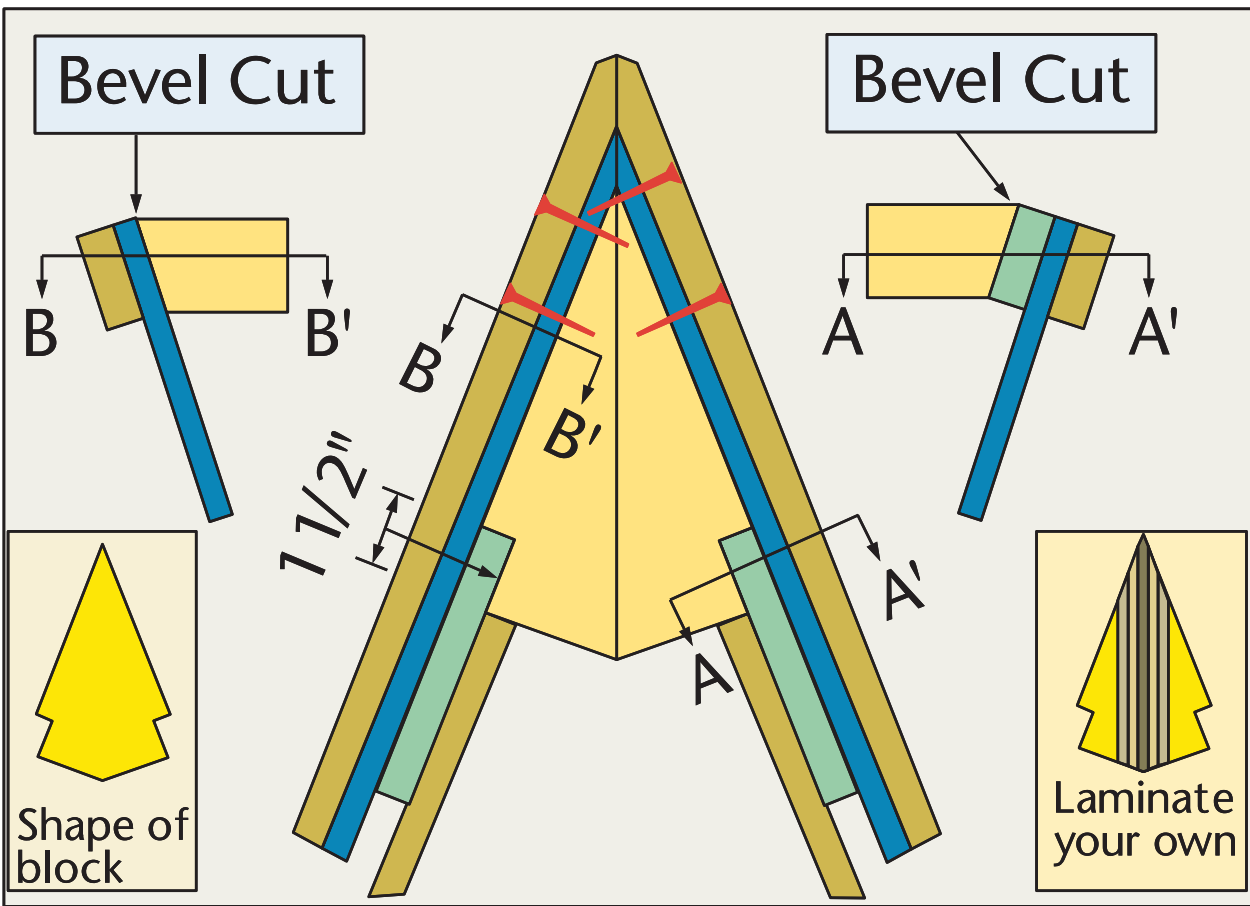
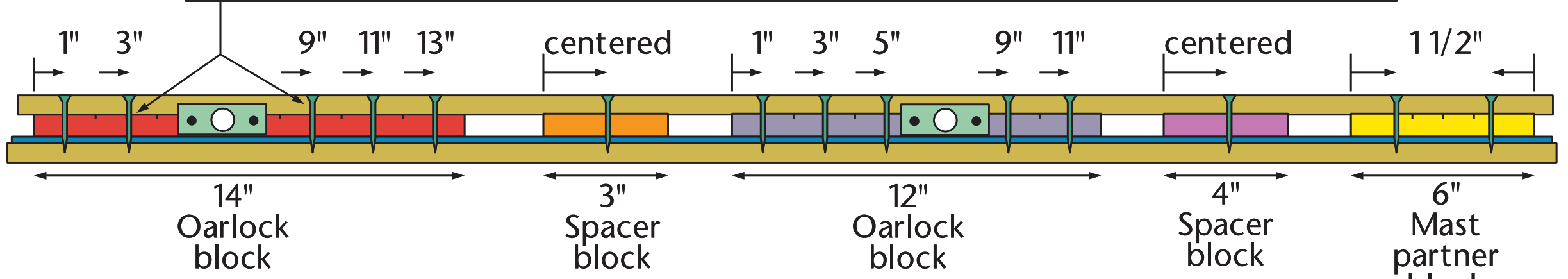
Note: There is a #6 x 5/8"  
SS screw at each "cut mark"  
to hold the outer rail to  
the hull

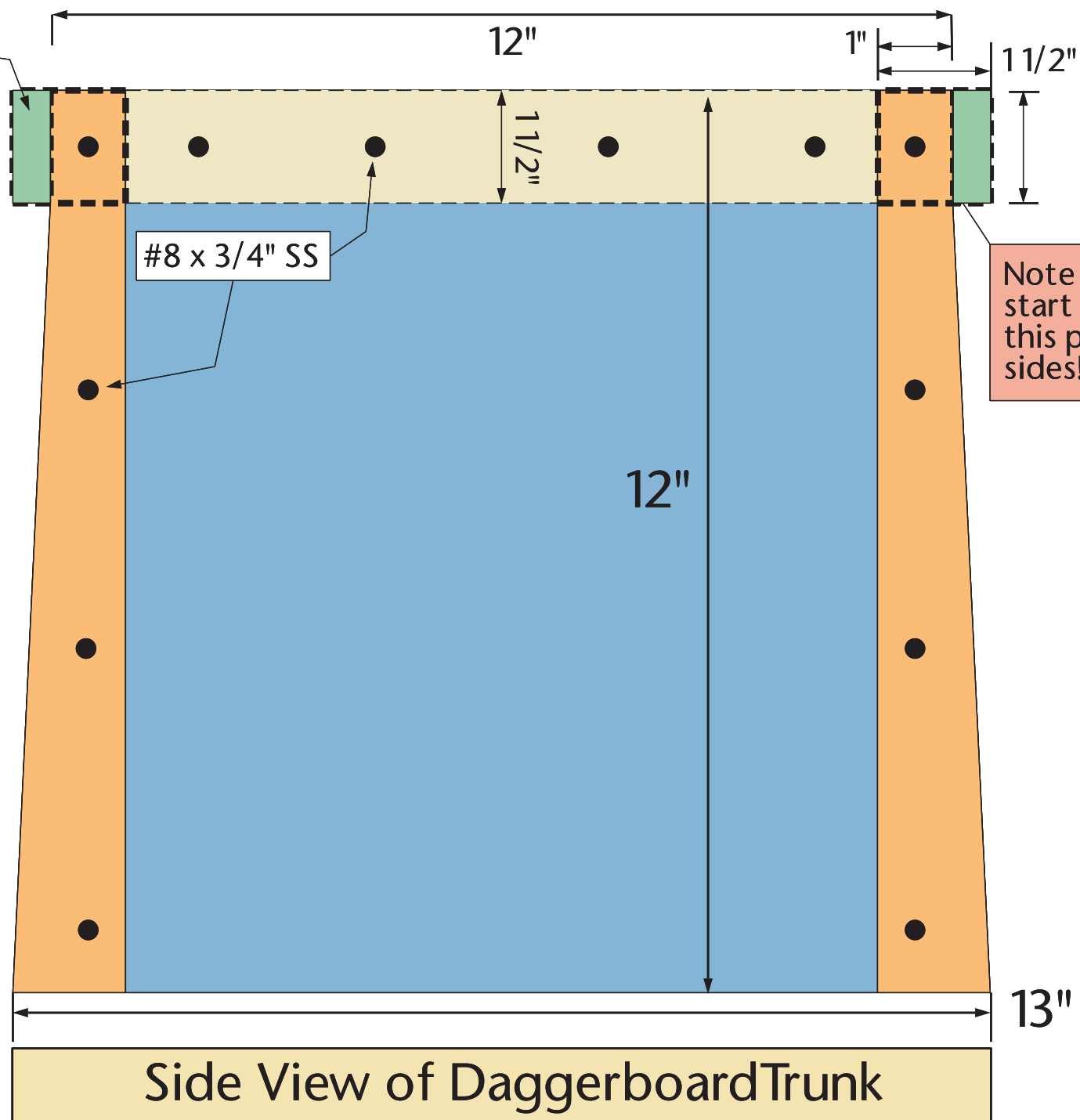
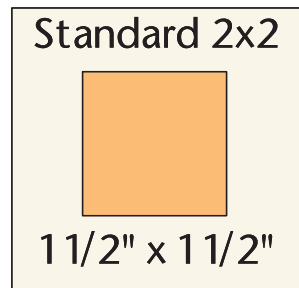




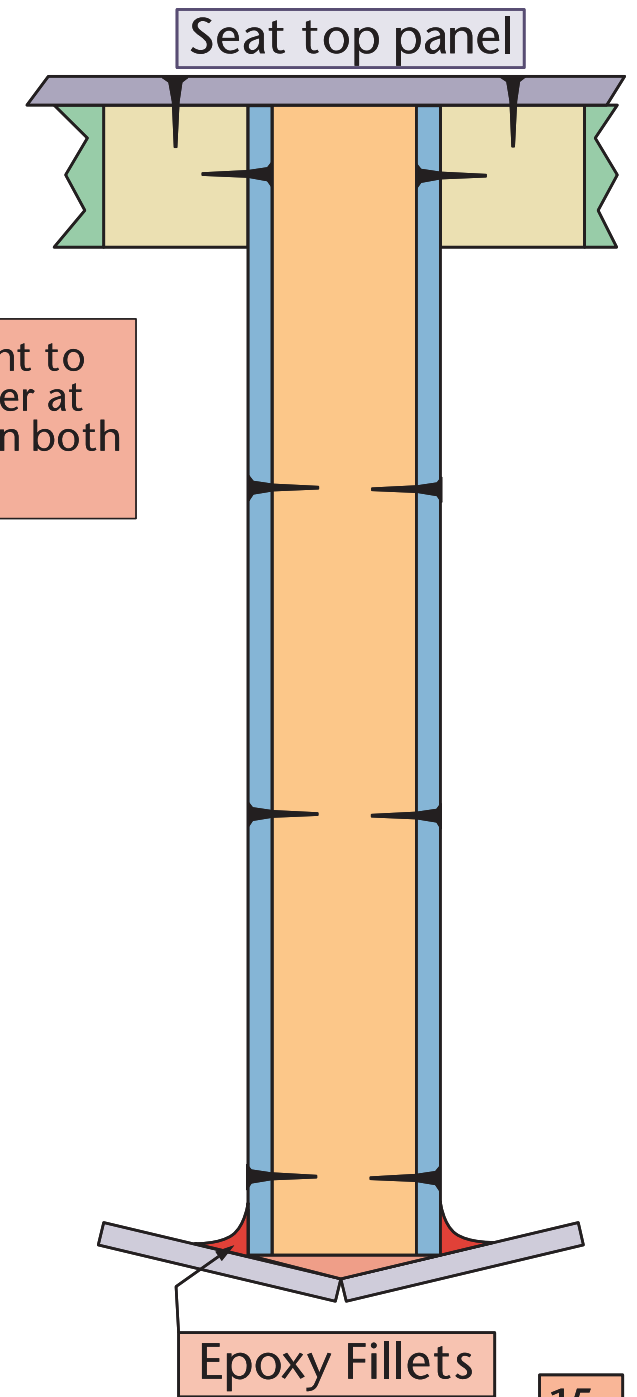


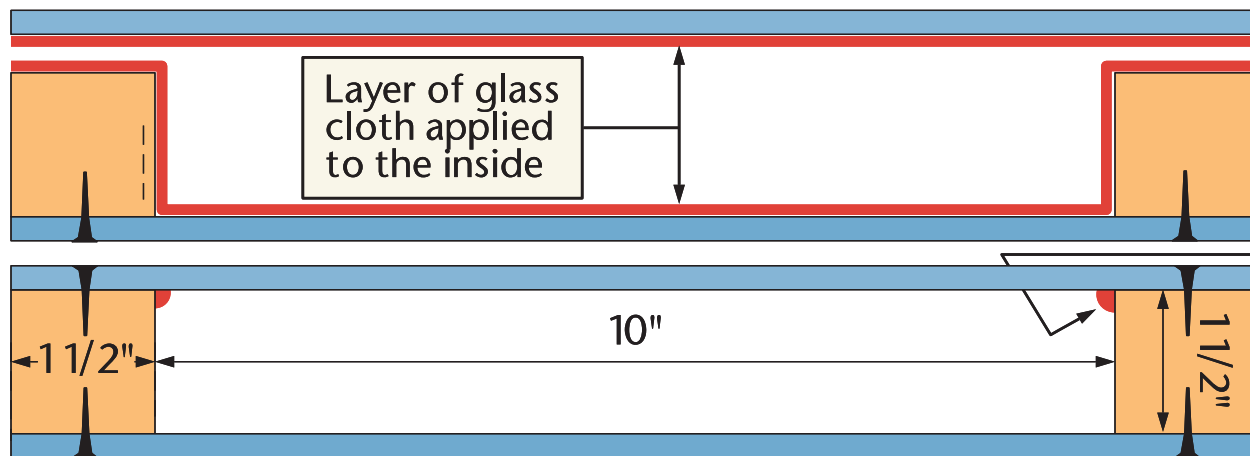
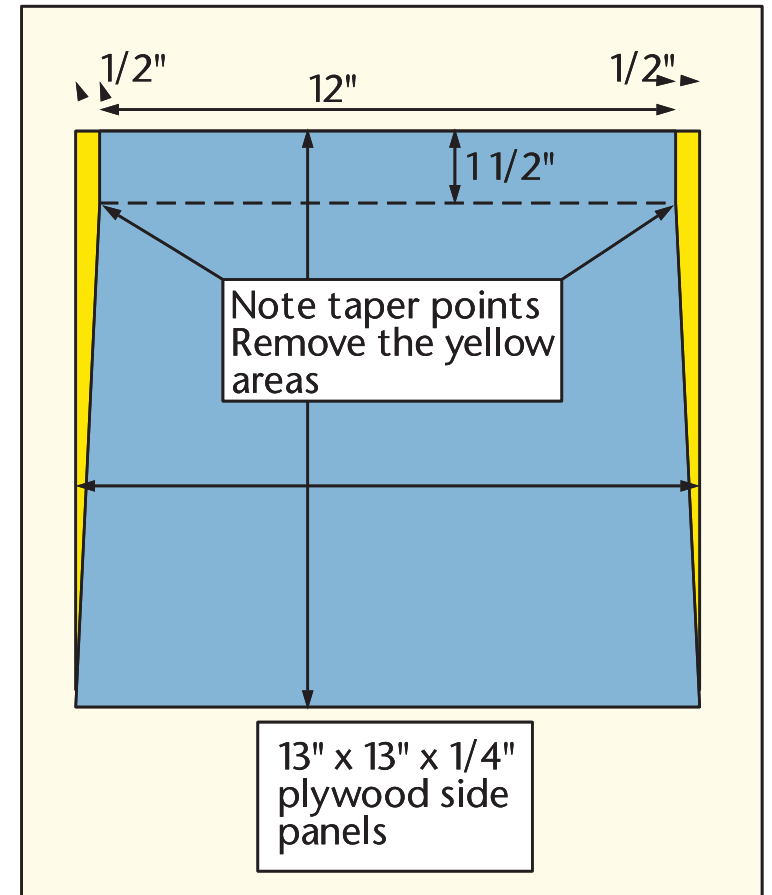
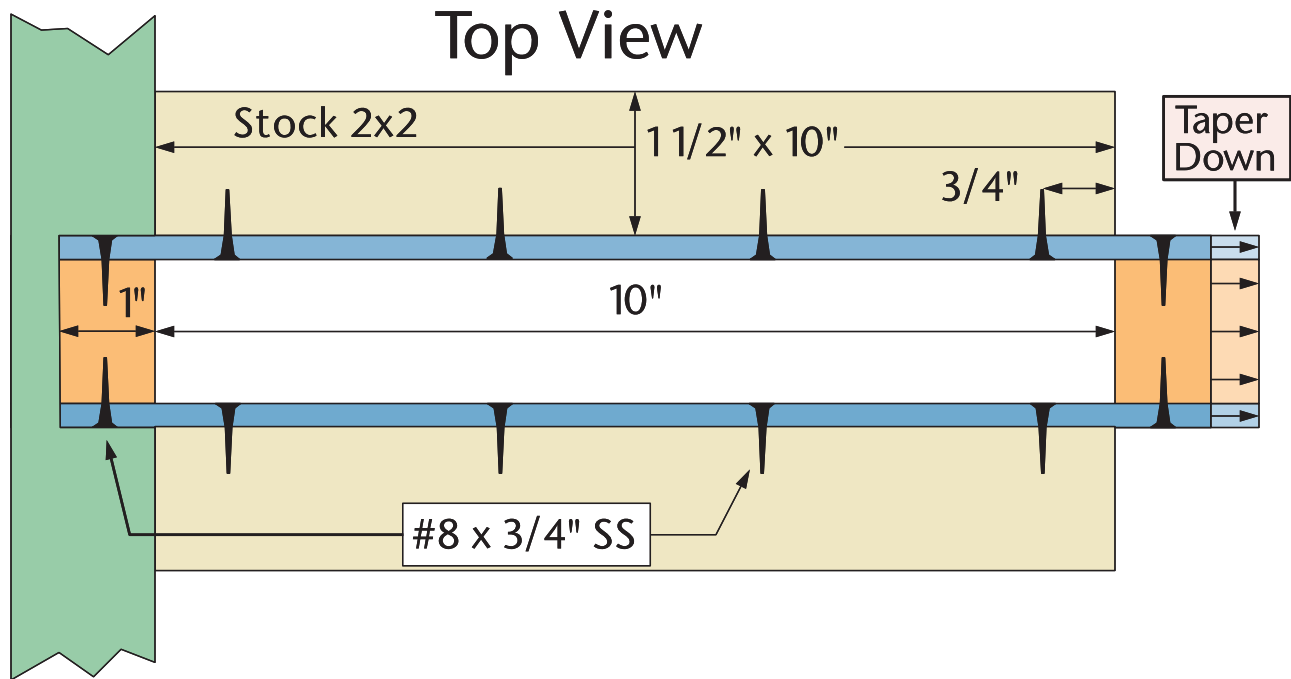
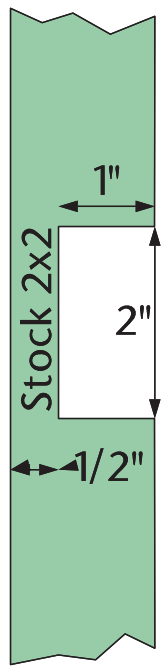
Use SS screws long enough to penetrate the outer rails, but not go through them!





Note straight to start of taper at this point on both sides!

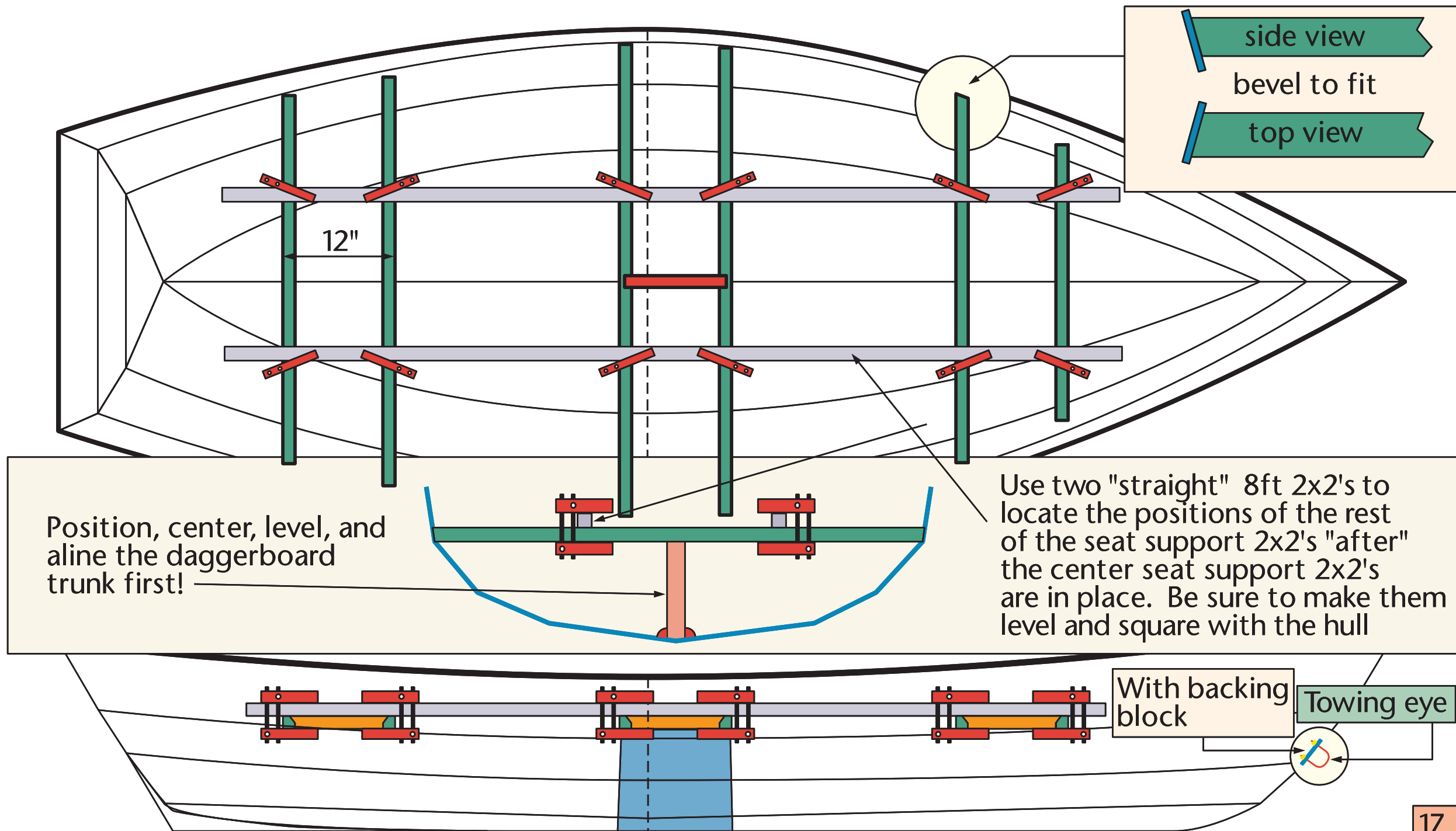




Epoxy together, and make  
sure that a small bead forms  
on the inside.

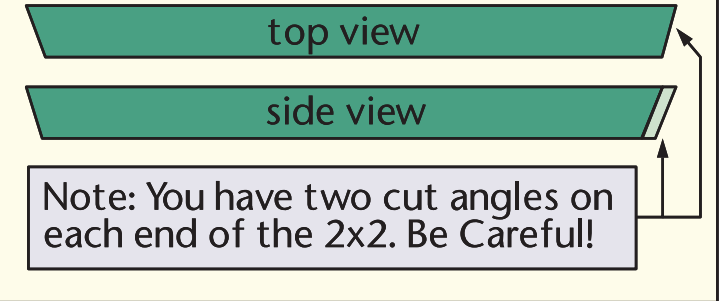
Bottom View





Daggerboard trunk has to be set first, before any 2x2 seat support rails are installed in the hull. See previous page.

Beam spreader 2x2 can be used to align/epoxy DB trunk



Long side is Aft on both center seat 2x2's

Note: The long side of the 2x2 is on the forward side of the stern seat support rails!

The center seat supports are mounted first

Note: The long side of the 2x2 is on the aft side of the bow seat support rails!

Note: read this!

42 5/8"

47 3/4"

51 7/8"

50 11/16"

40 7/8"

33 1/8"

Note: these are the measurements off the prototype hull. Your hull will be different!

Epoxy and screw square of 1/4" ply to end of 2x2 on excessive gaps. It looks bad, but it works, and will be covered on all sides by plywood for strength.

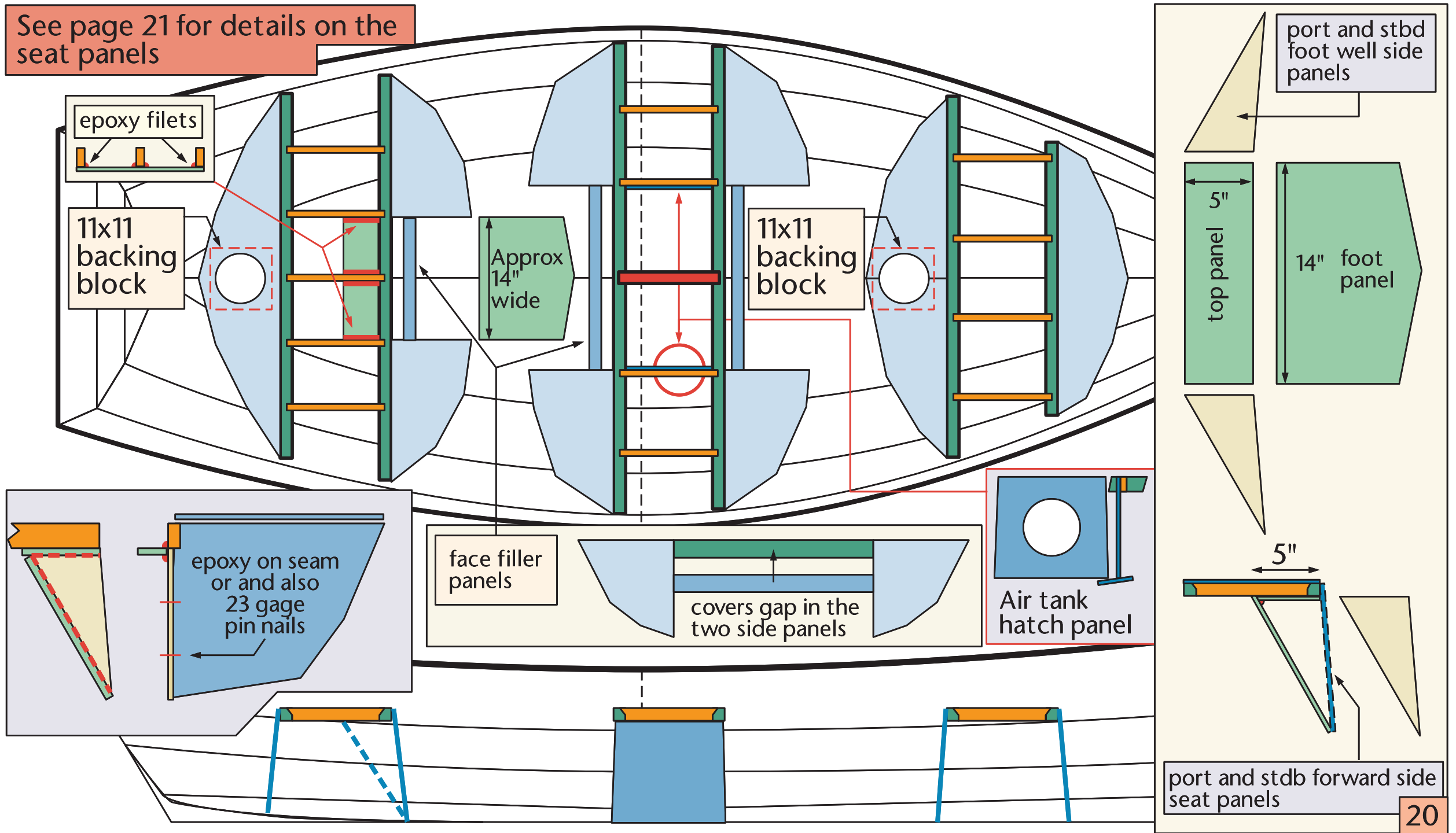


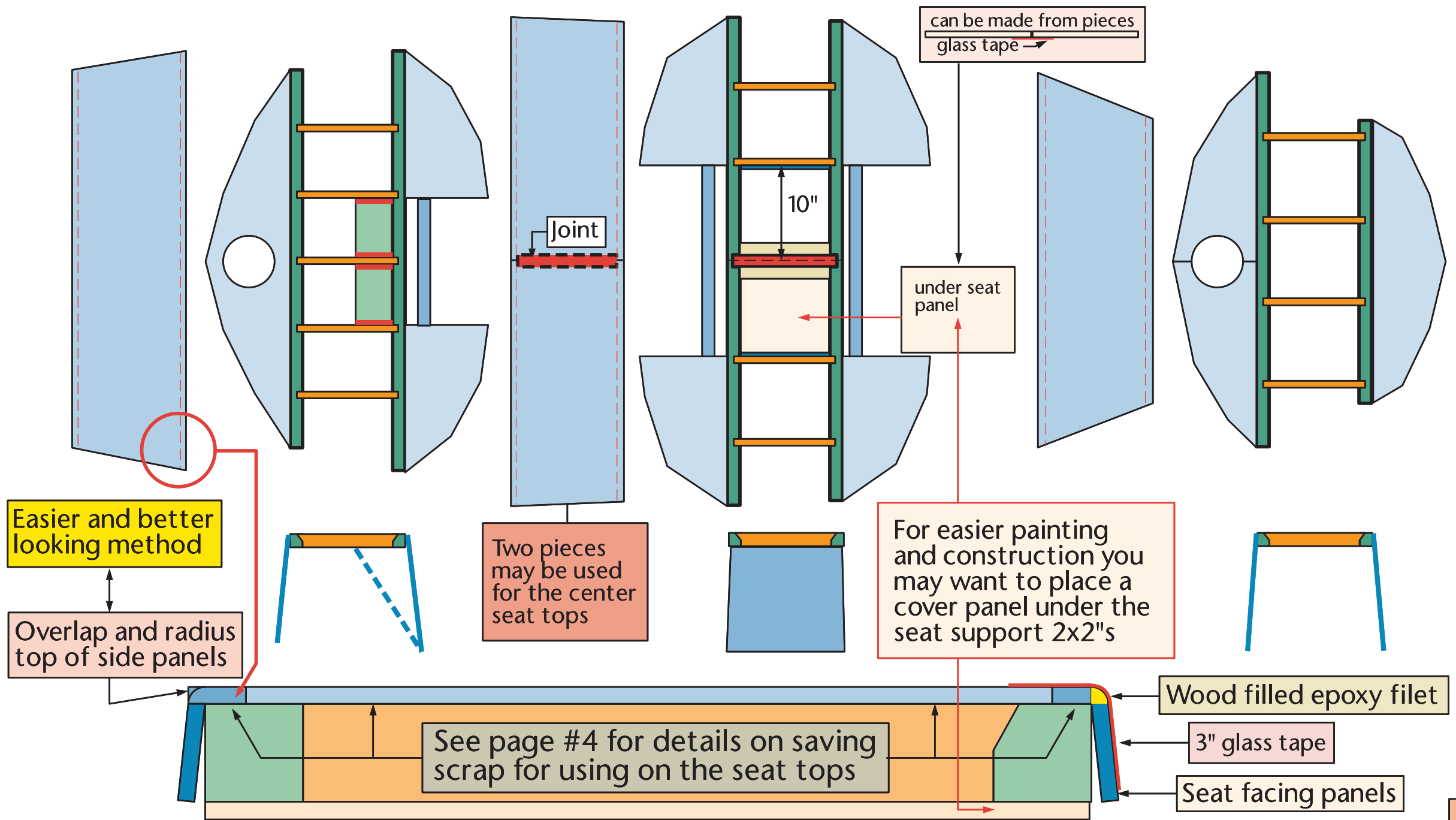
Use GelMagic to fill the gap between the 2x2 and the hull. Use a screw to hold alignment until cured.

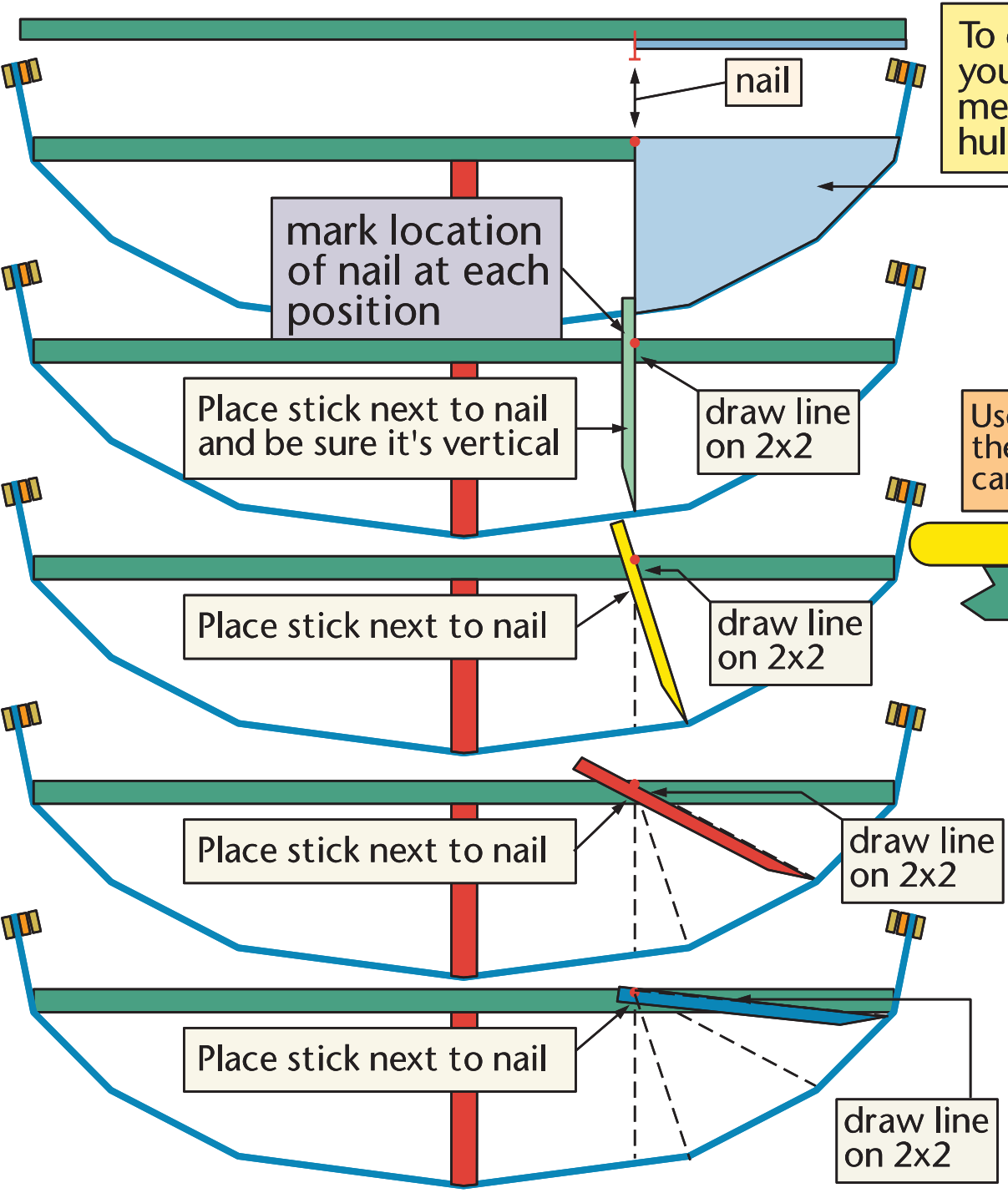
Note: Cutting the notch and trimming the ends of the 2x2's for the center seat, can be problematic. Take your time, and try not to make bad cuts. Measure 3 times cut 1



See page 21 for details on the seat panels

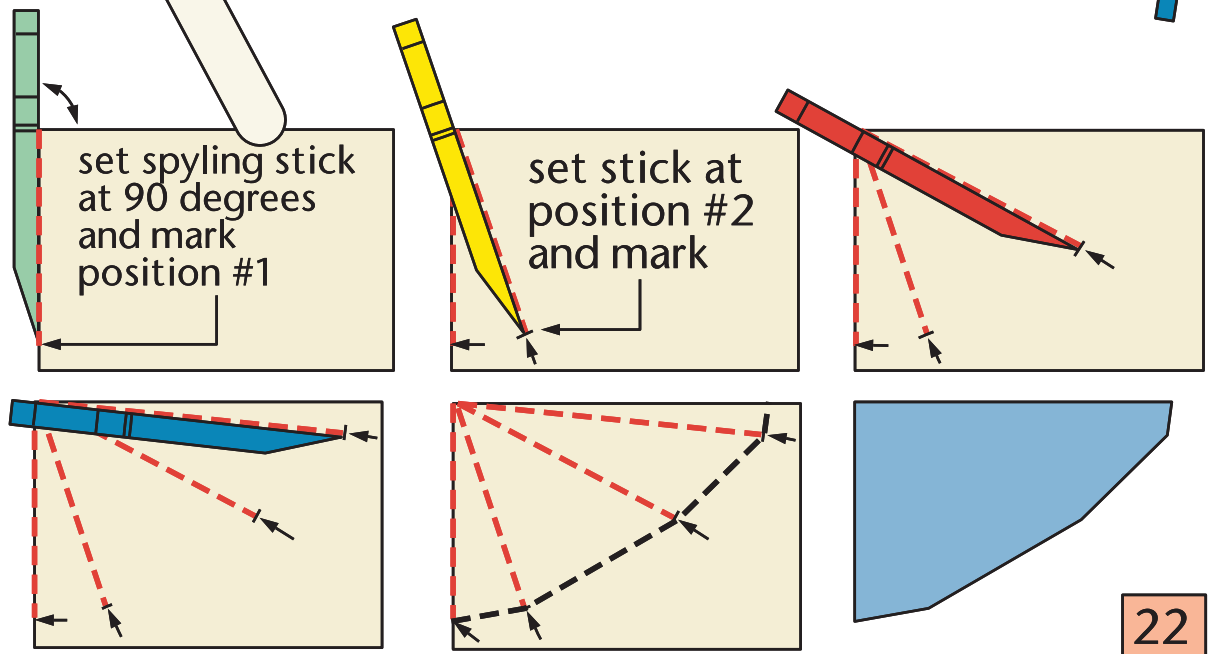
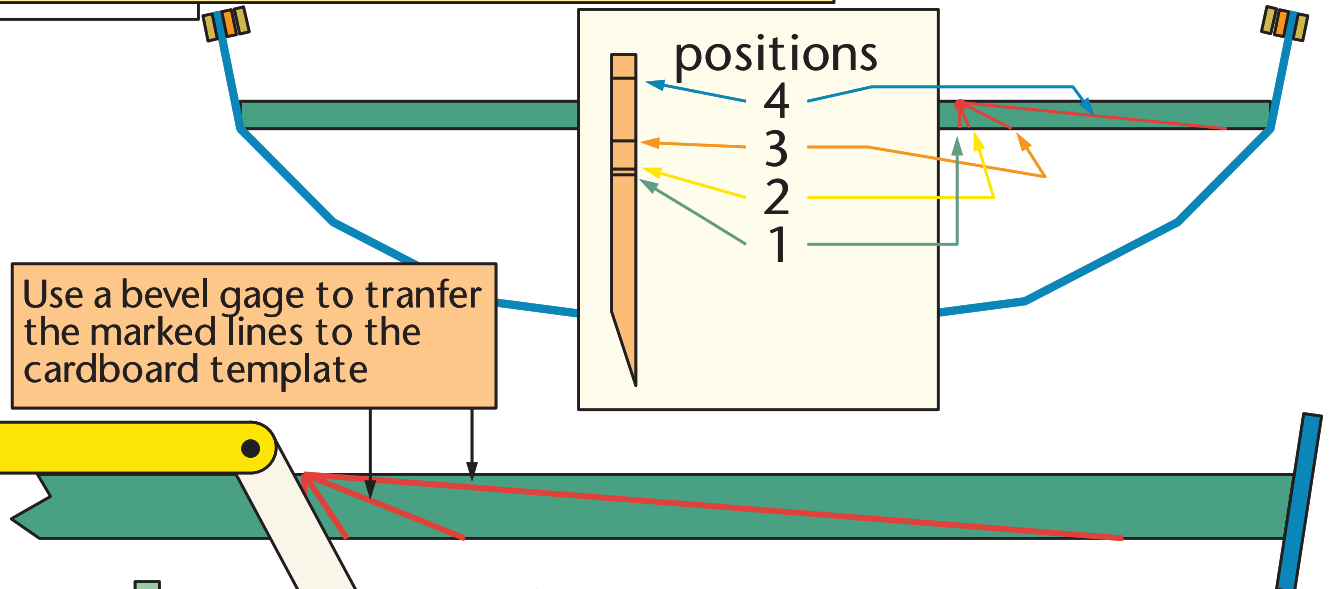


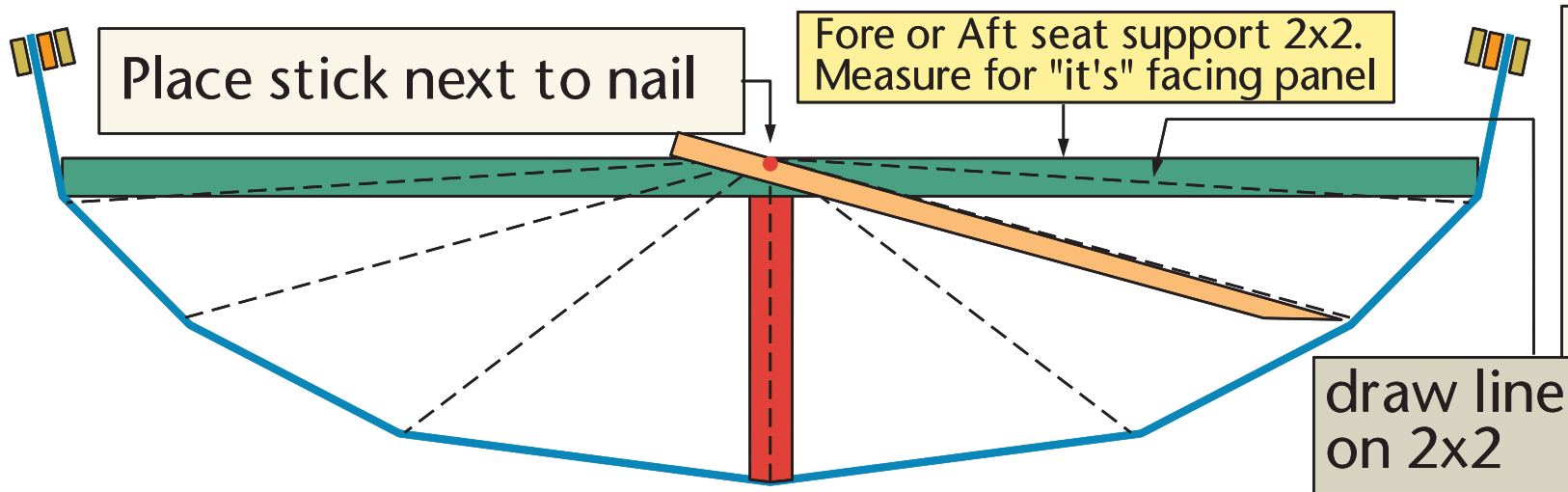




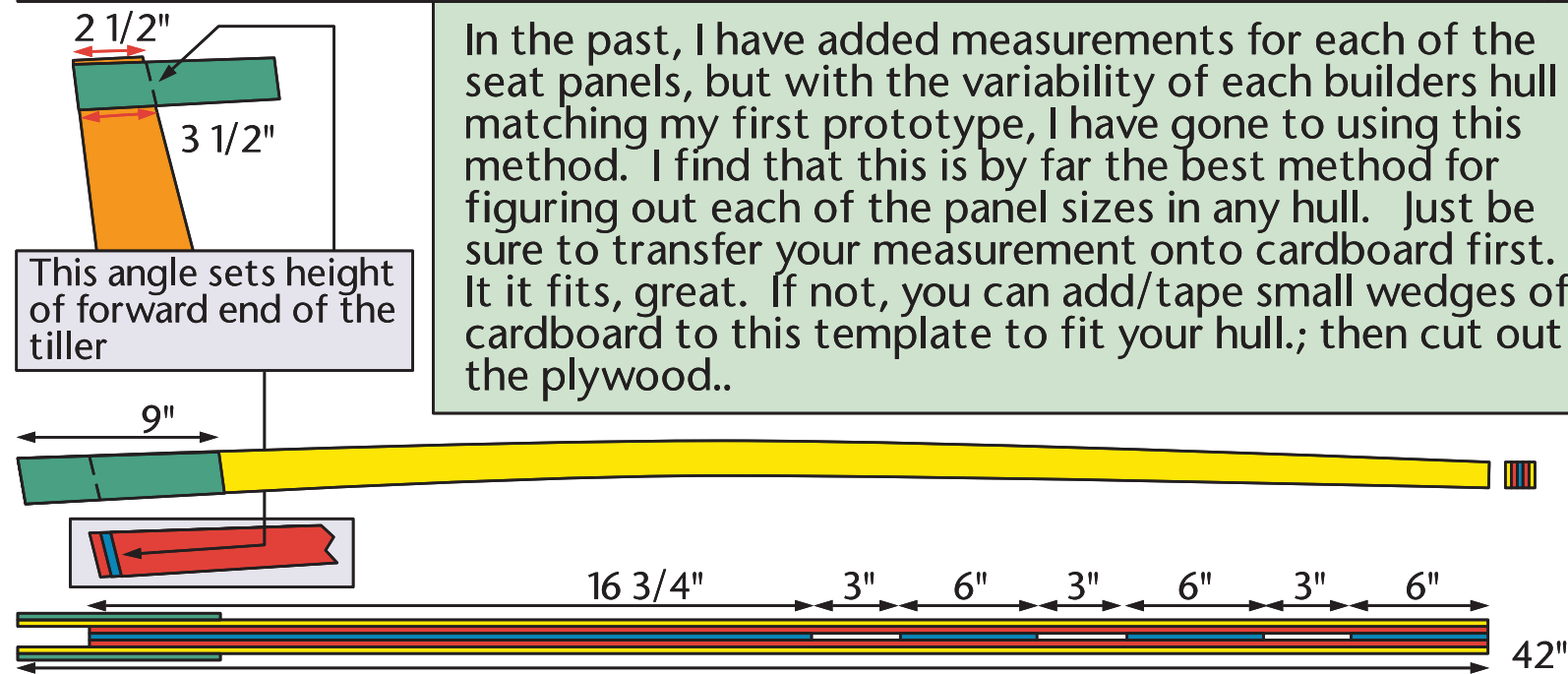
To determine the shape of this panel, you will use a spiling stick to find and measure each distance and angle on the hull.

Always make cardboard templates first, and adjust them to the hull before you transfer to plywood!

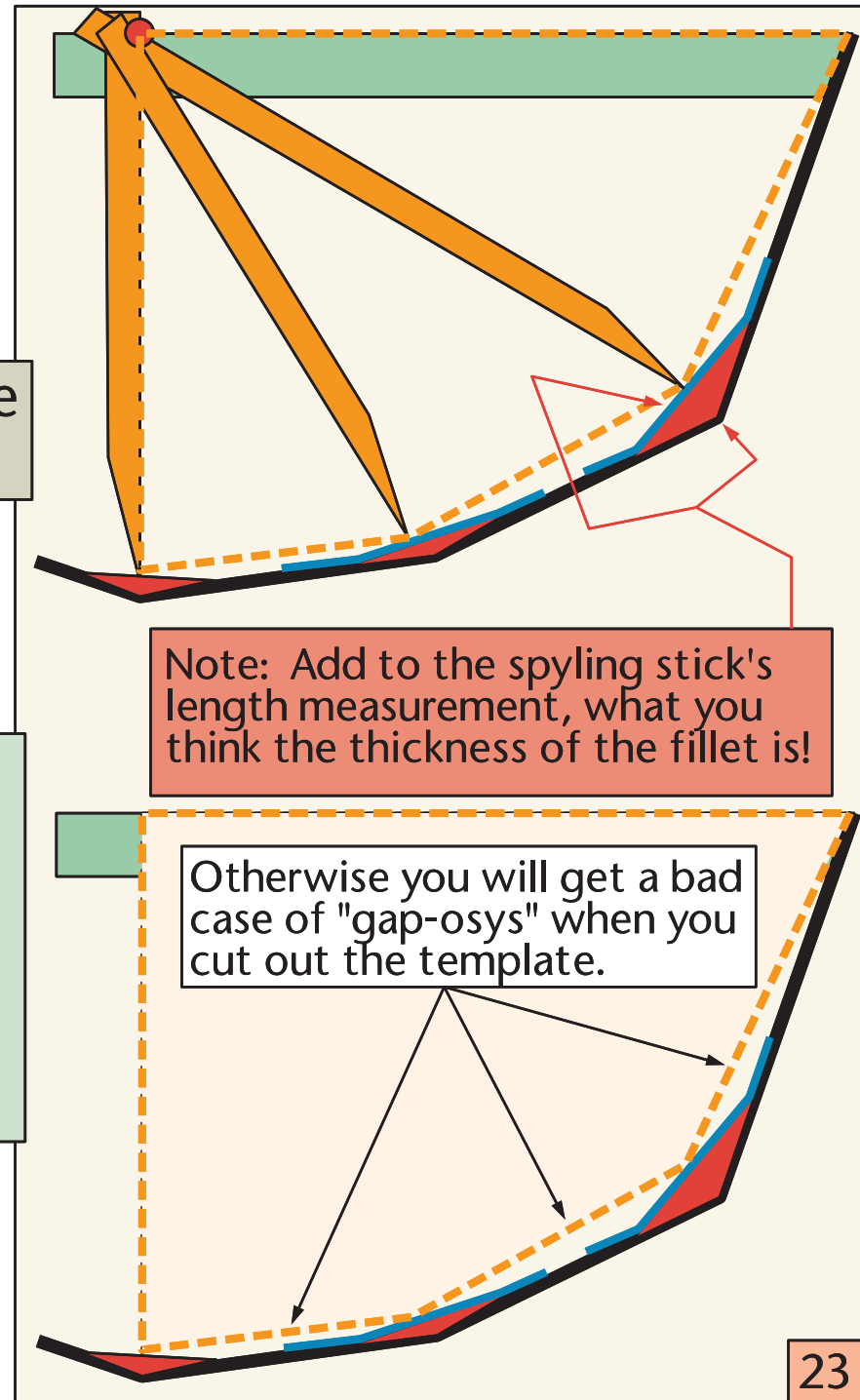


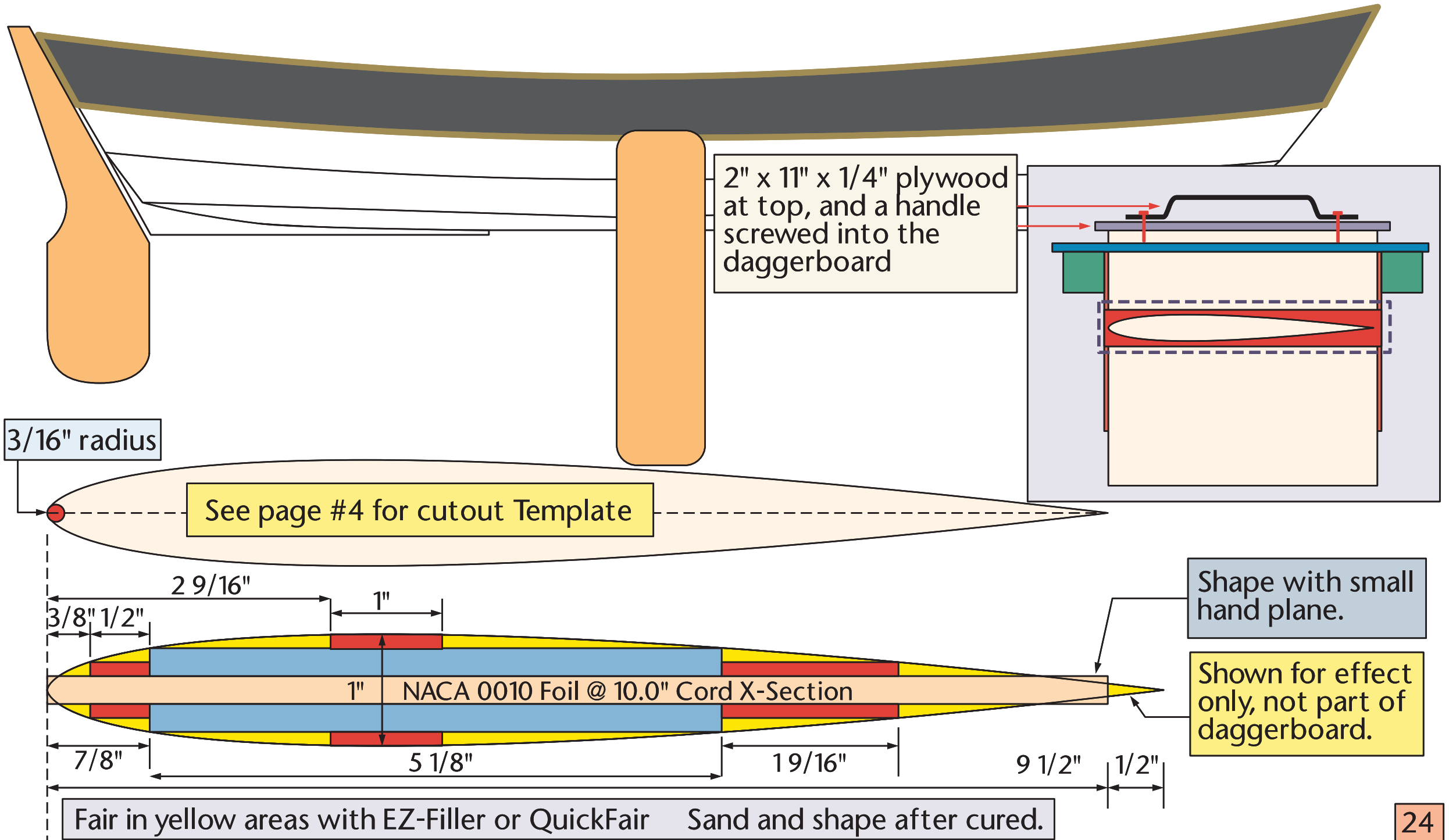


The full width seat bulkheads are fitted to the hull the same way as on the proceeding page. You will have to make measurements and marks on both sides to be sure the hull is symmetrical from side to side. Don't worry if it's off a bit. As there is usually a small change in measurements, but nothing that will effect the looks or flow of the hull.

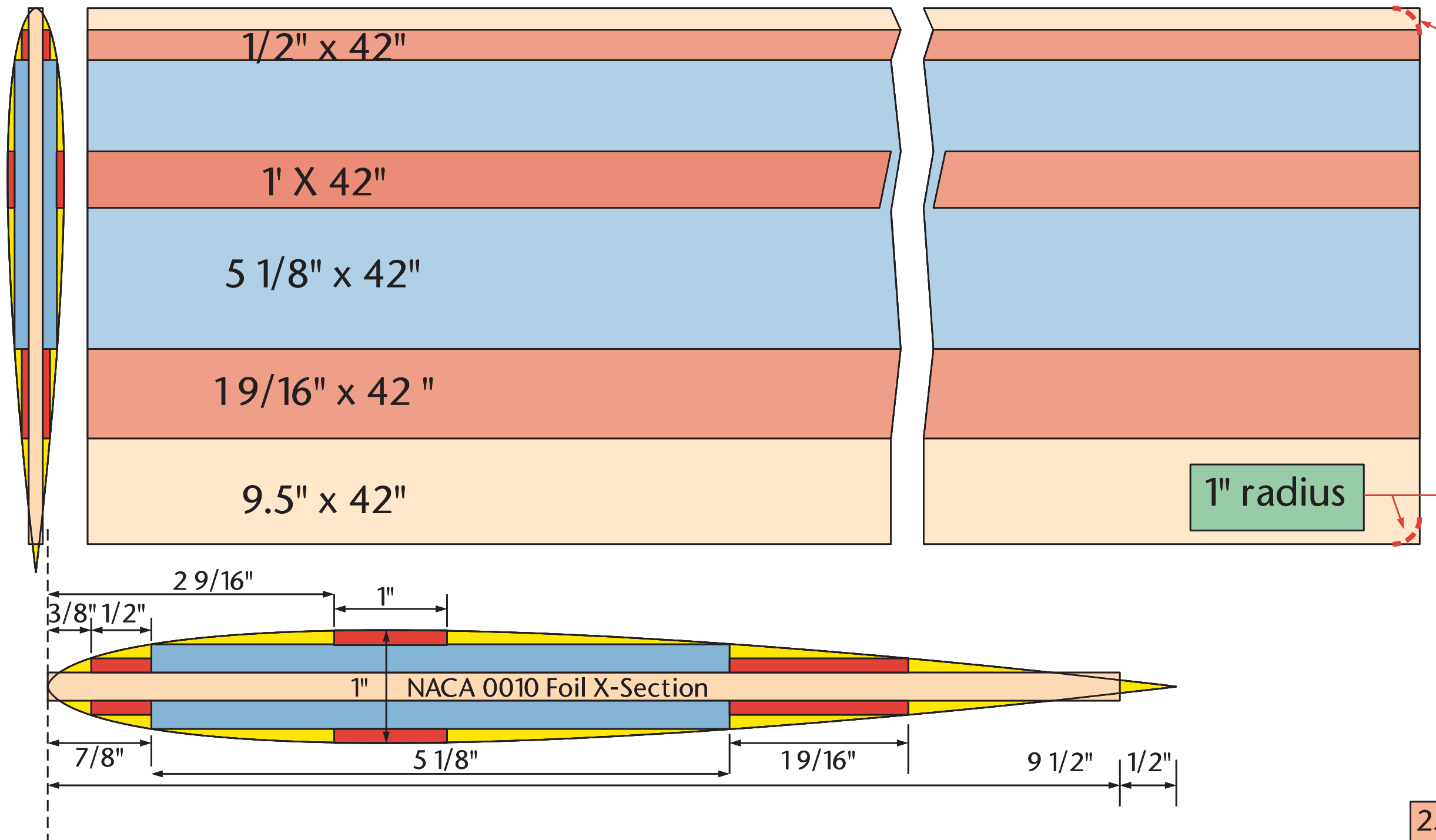


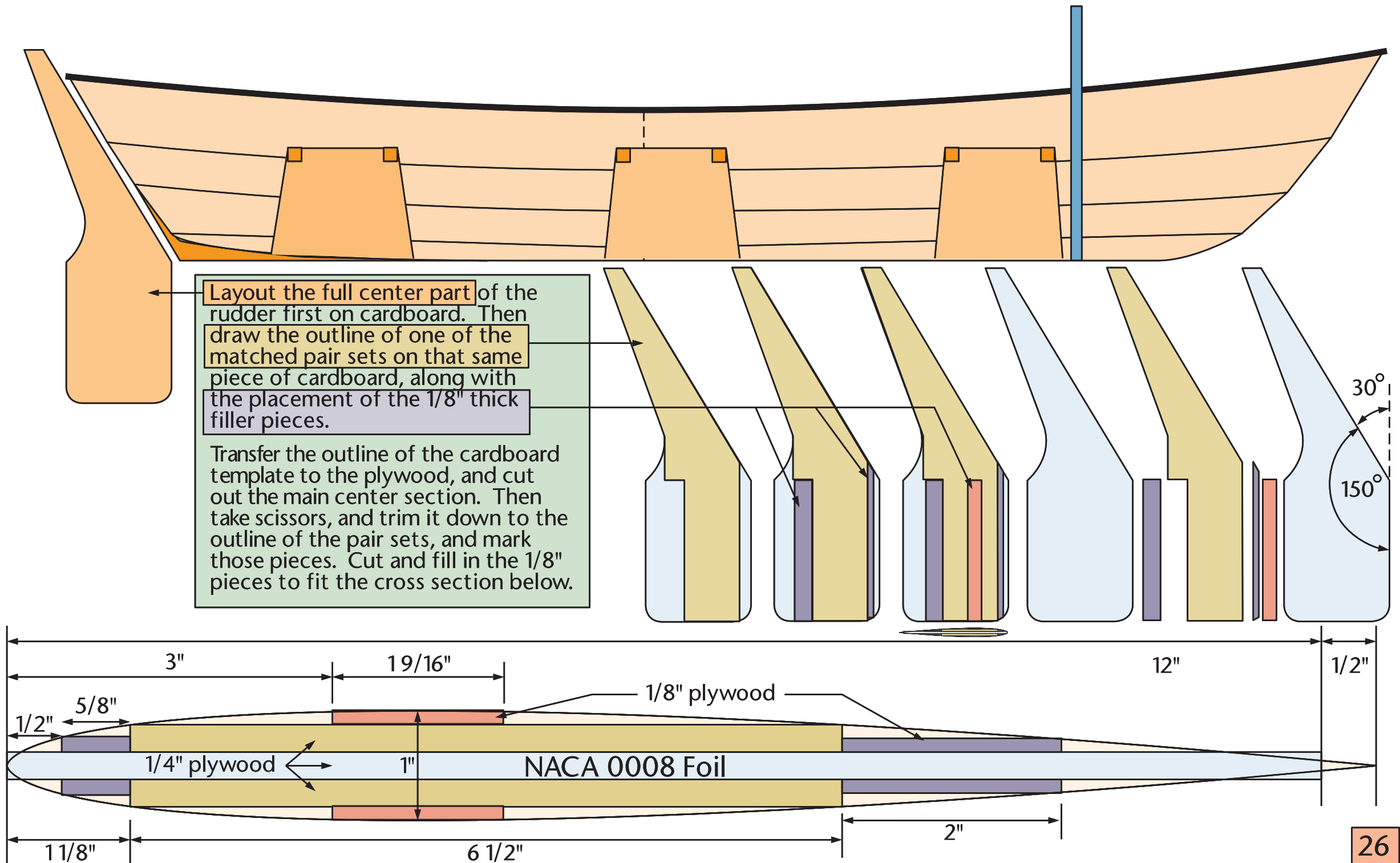
In the past, I have added measurements for each of the seat panels, but with the variability of each builders hull matching my first prototype, I have gone to using this method. I find that this is by far the best method for figuring out each of the panel sizes in any hull. Just be sure to transfer your measurement onto cardboard first. If it fits, great. If not, you can add/tape small wedges of cardboard to this template to fit your hull.; then cut out the plywood..

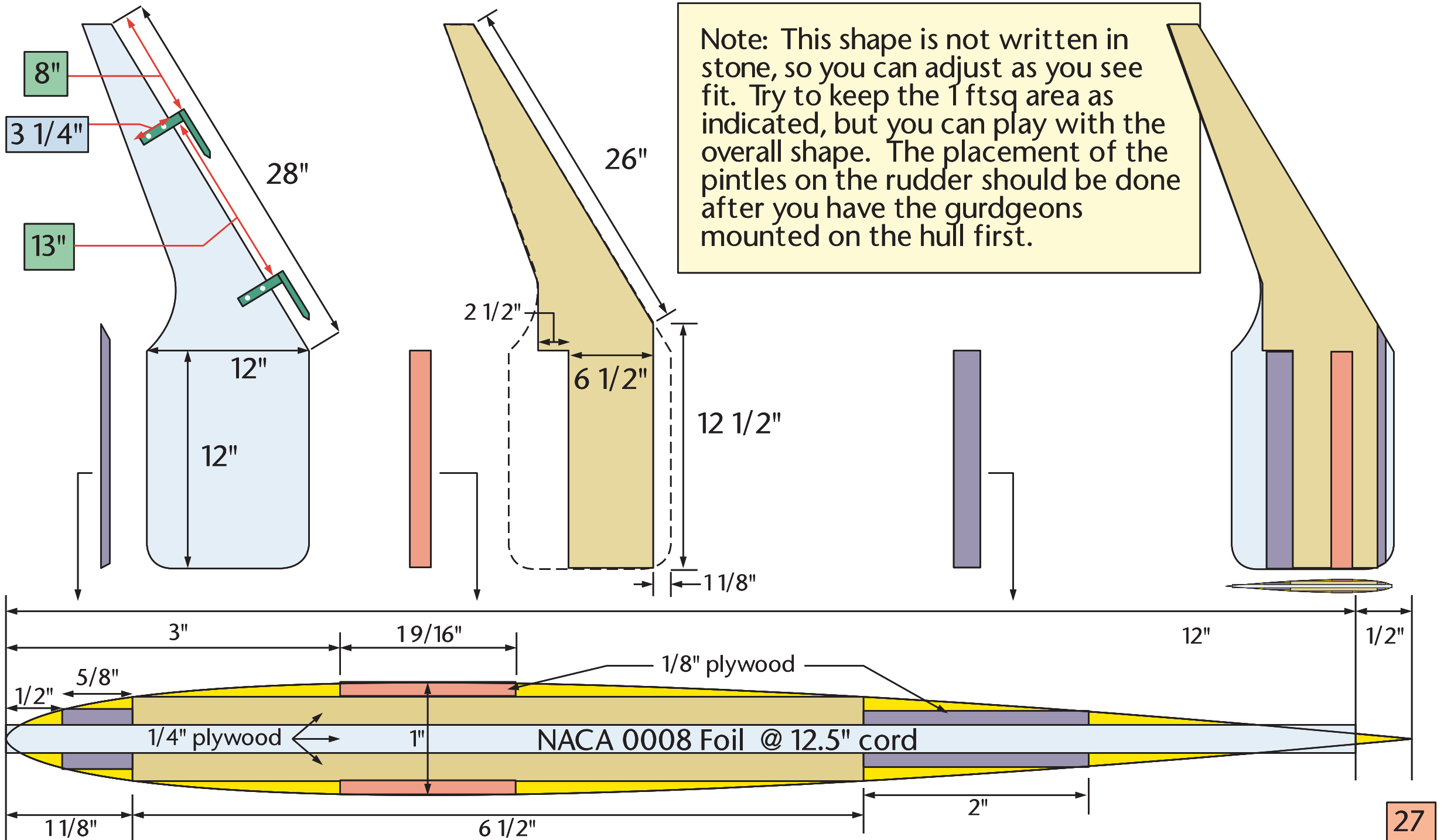


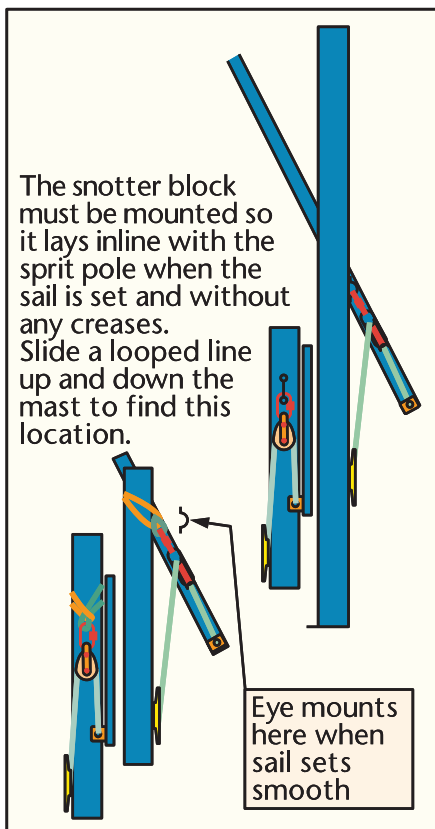






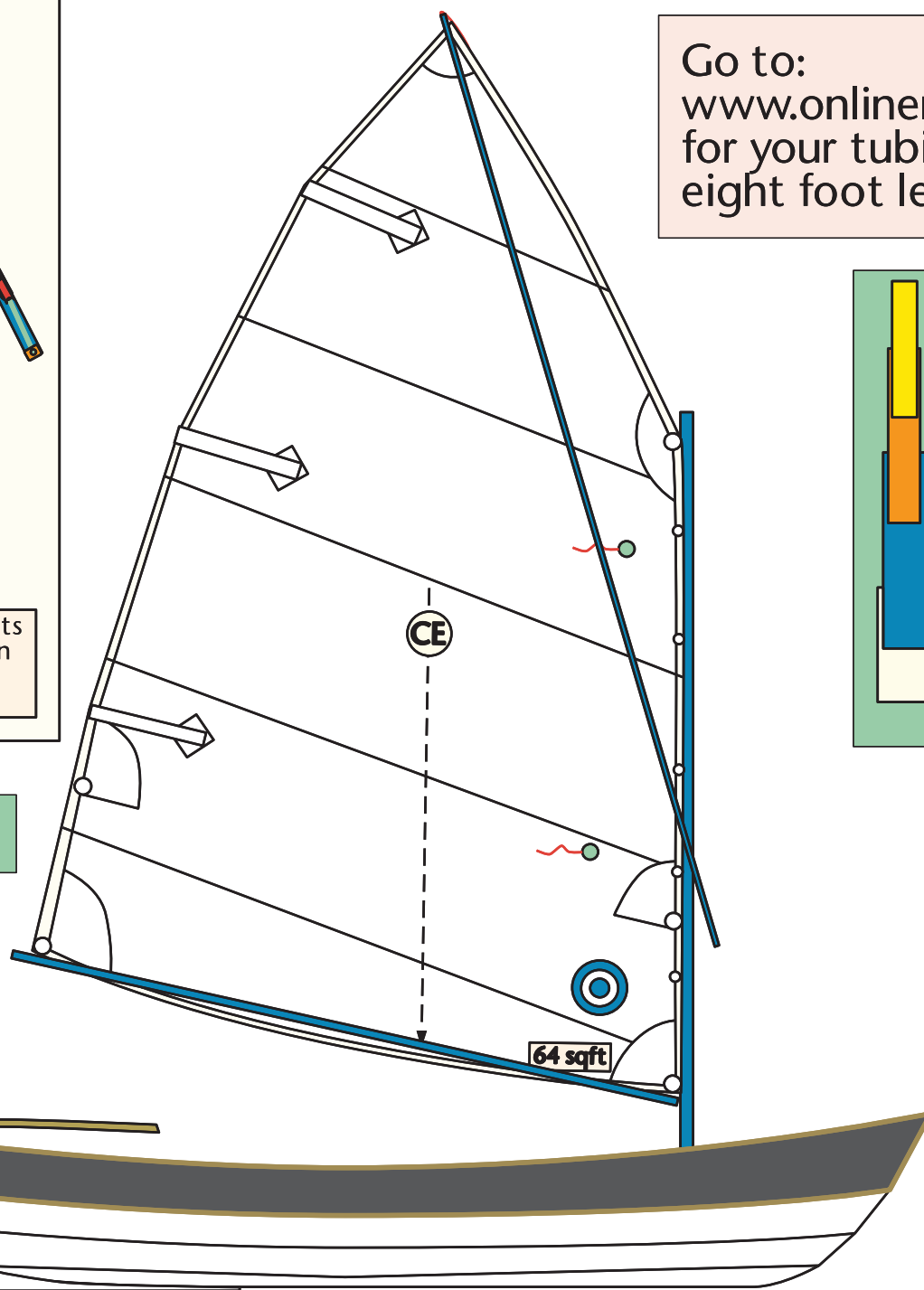






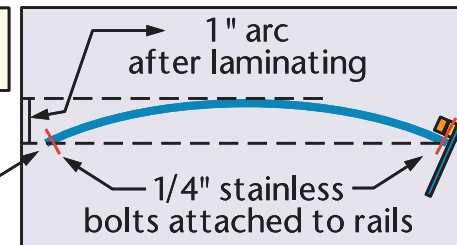
## Sprit Rig Setup

Neil Pryde  
Pram 64



Go to:  
[www.onlinemetals.com](http://www.onlinemetals.com)  
for your tubing. Ships in  
eight foot lengths UPS.

1/2" or 3/4"  
laminations



Note: You can use 0.058" wall  
instead. 0.058 wall fits  
inside/outside it's next  
up/down size in diameter!

## Lengths

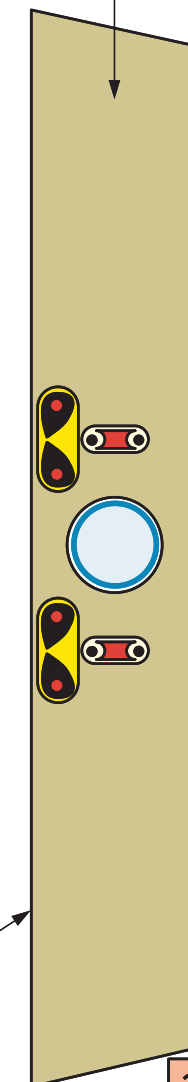
Mast: 10ft  
Boom: 7ft 6"  
Sprit pole: 11ft 2"

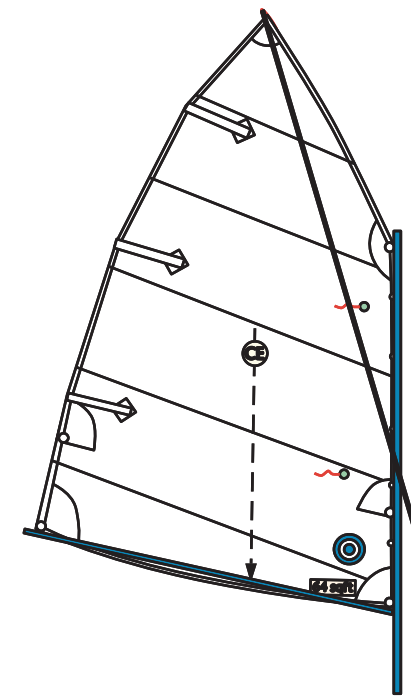
## Diameters/Wall

Mast: 2" / 0.065"  
Boom: 1 1/2" / 0.065"  
Sprit pole: 1" / 0.065"

## Mast Partner

Use turning blocks and  
camcleats instead of  
straight cleats. Also  
holds mast in boat.





SD-082016 screwed into wooden plug inside boom tube.

RL-302A Single becket block

SD-081102 Reshape and attach sideways

All cleats: 4" SD-043040

Rotated to use shackles and simple blocks.

RL-312-0 Small shackle

Mount block 4" aft of daggerboard trunk

RL-307A Traveler Block

RL-301A single block

5/16 to 1/2" dowel fitted to drilled hole in wood plug held in place with #6x3/4" stainless screw.

RL-327 gooseneck w/3/8" pin fitted to 12" of 5/8" SS track. Pin rotates in hole drilled in wooden plug held in boom tube with SS #6 x 3/4" screws.

5/8" SS track

10ft mast tube

SD-082010 fairlead screwed into wooden plug.

SD-082016

55"

42"

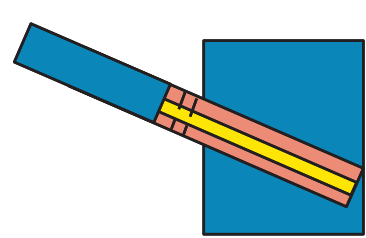
29"

SD-081102 eye  
3/16" SS shackle  
RL-301A block  
SD-082010 fairlead  
4" Cleat

2" pipe plug set on 1/4" ply disk bedded in EZ-Fillet

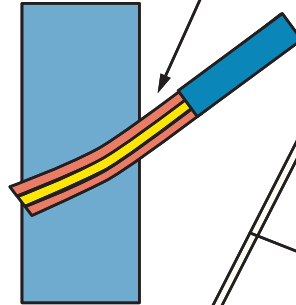
Extra reefing eye

## Gaff Rig Setup



Gaff jaws sized to fit your mast.  
3/4" of plywood scraps works fine

Laminate with arc with a full fit



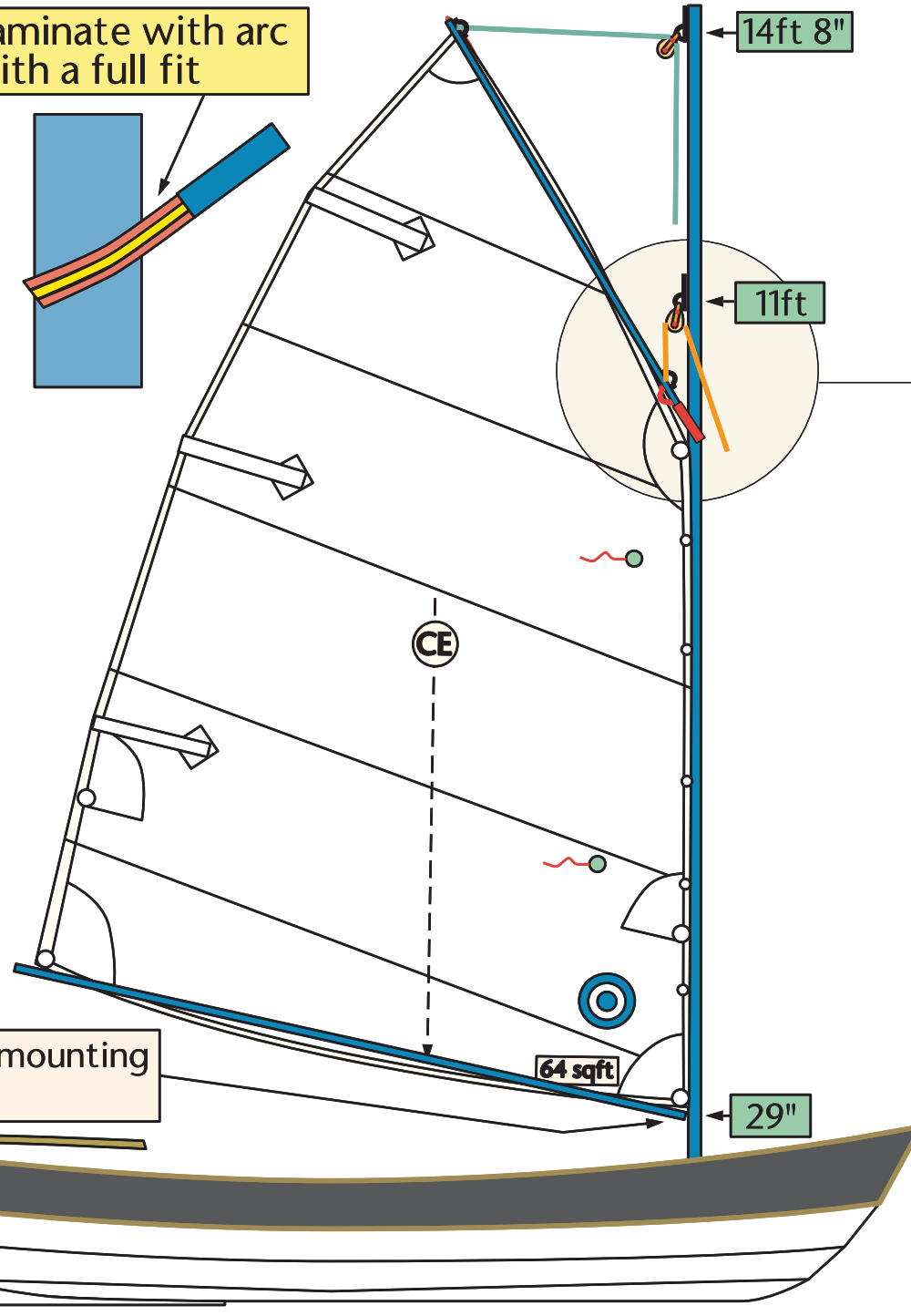
2"

## Lengths

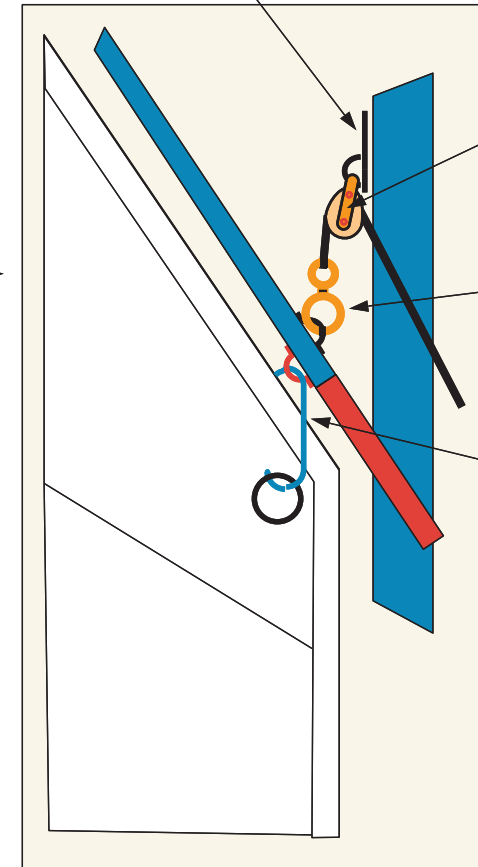
Mast: 15ft  
Boom: 7ft 6"  
Gaff pole: 6ft 2"  
Old sailboard masts work great!

Same boom hardware and mounting heights as previous page

Neil Pryde  
Pram 64



## RL-318 SS Spin Strap



RL-205  
Blocks

SS Trigger  
Snap Shackle  
SD-146048

SS Swivel Eye  
Boat Snap  
SD-146131

RL#'s are RaceLite (made in USA)  
SD #'s are SeaDog (all available)  
at [www.duckworksbbbs.com](http://www.duckworksbbbs.com)

## Diameters/Wall

Mast: 2" / 0.065"  
Boom: 1 1/2" / 0.065"  
Gaff pole: 1" / 0.065"