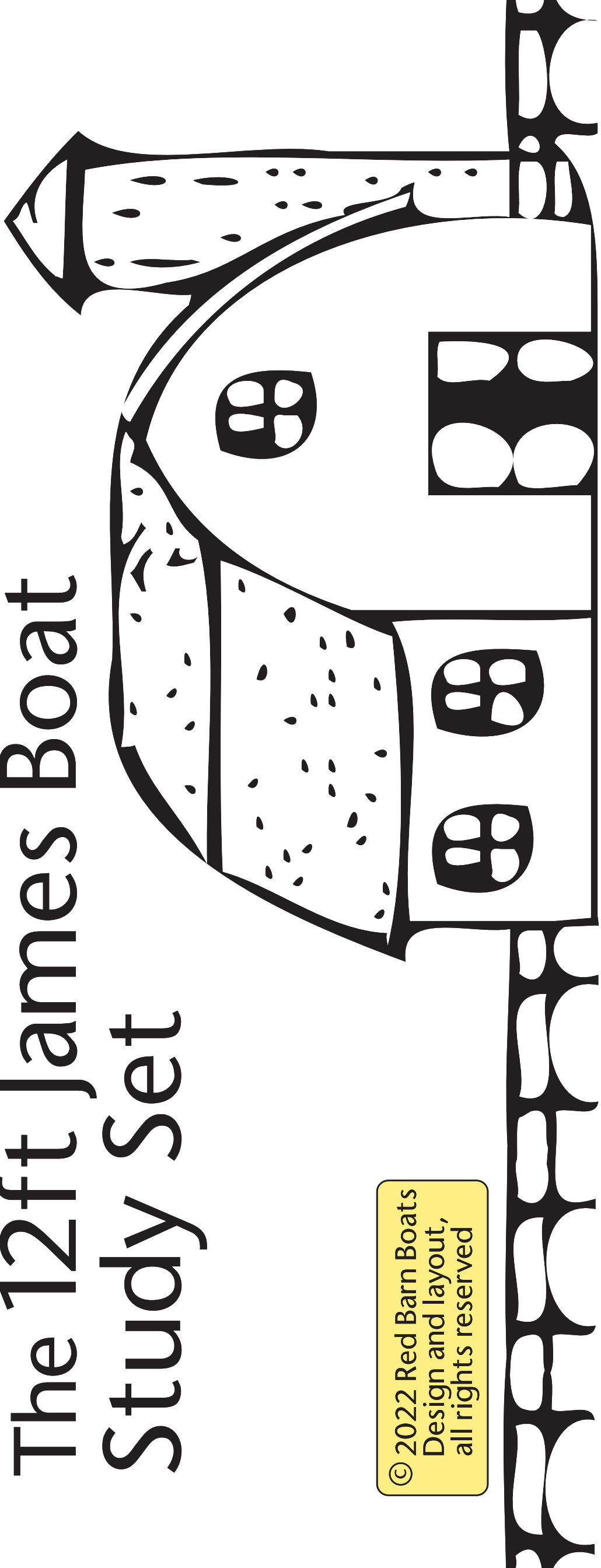


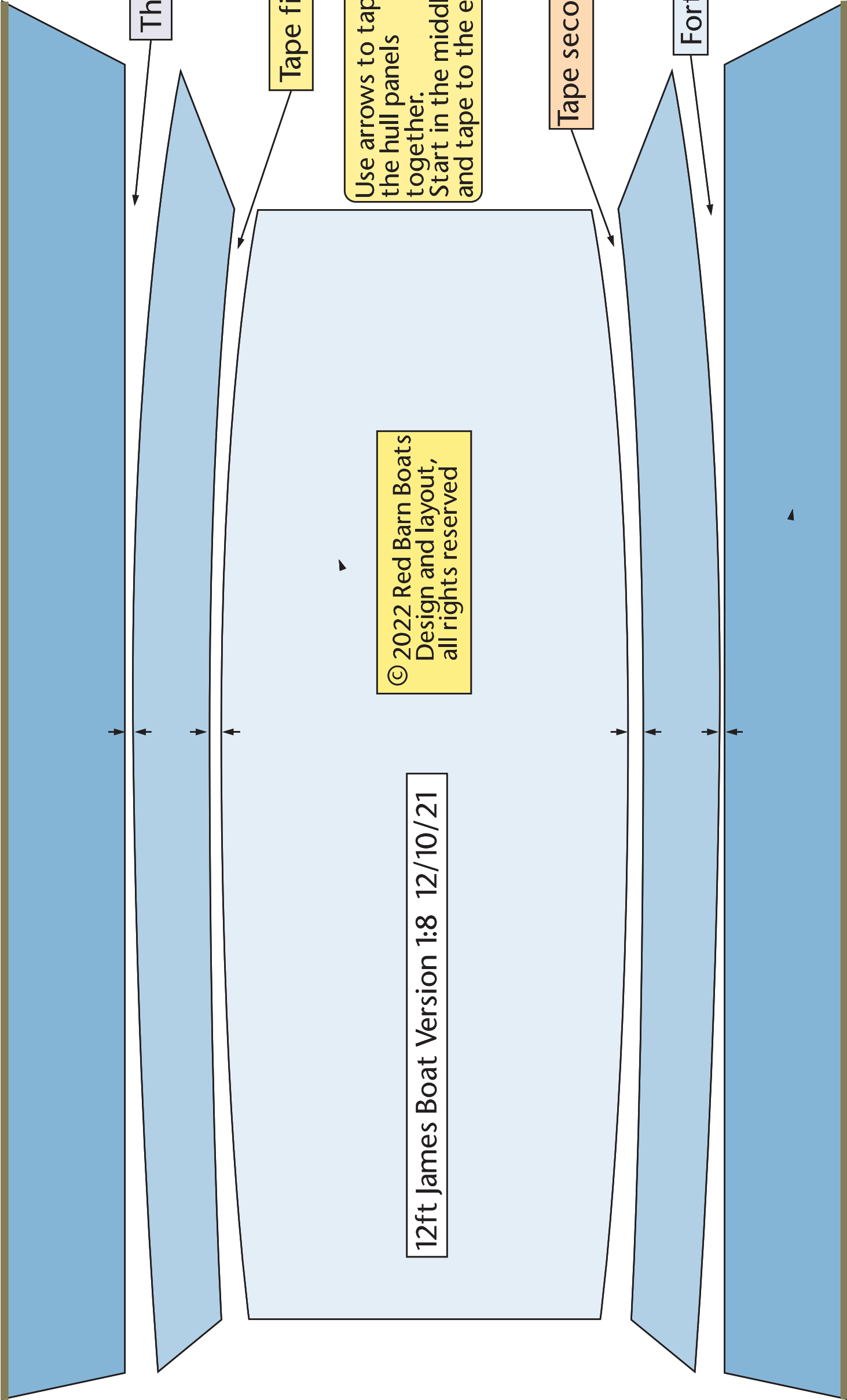
RED BARN BOATS

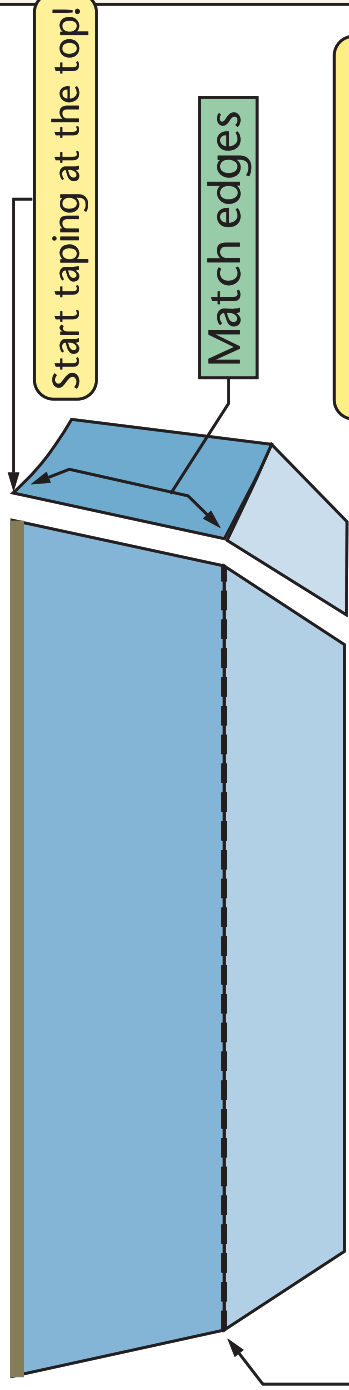
The 12ft James Boat Study Set

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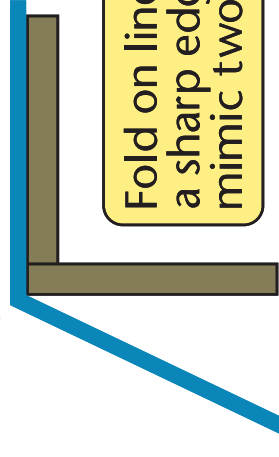
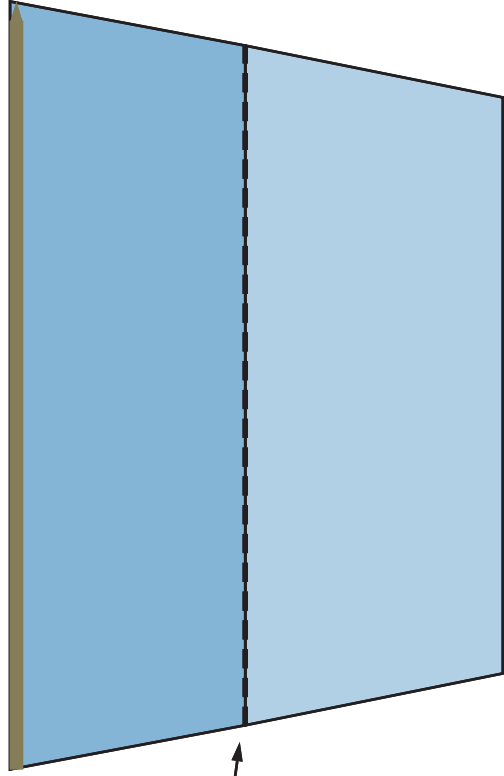


www.youtube.com/redbarnboats

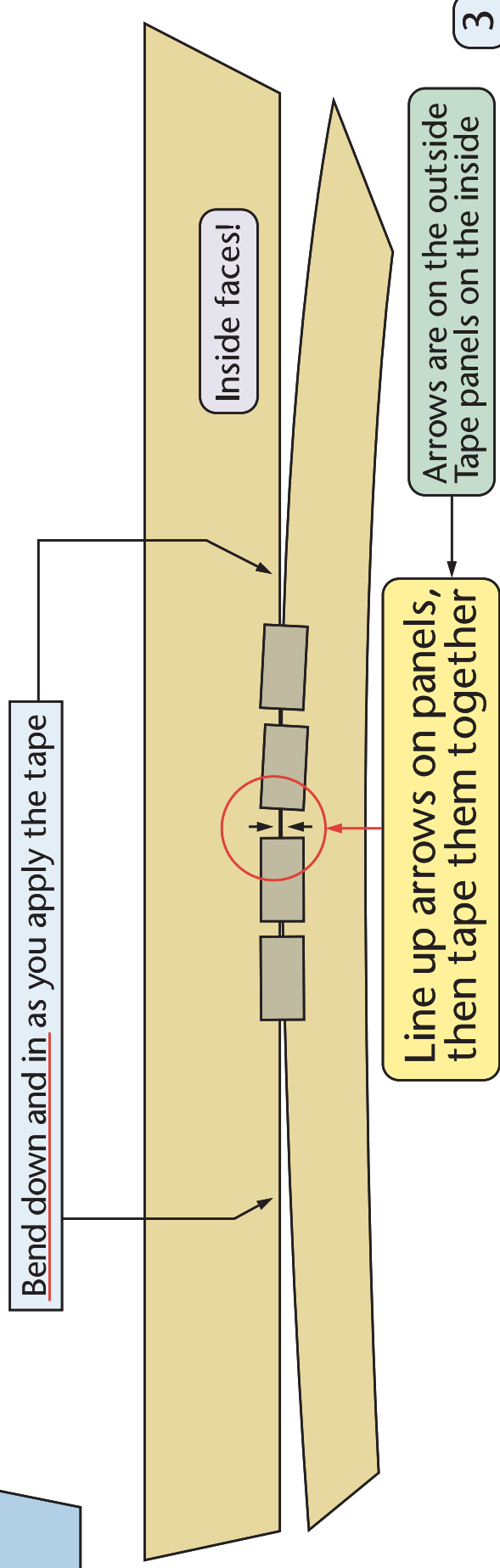




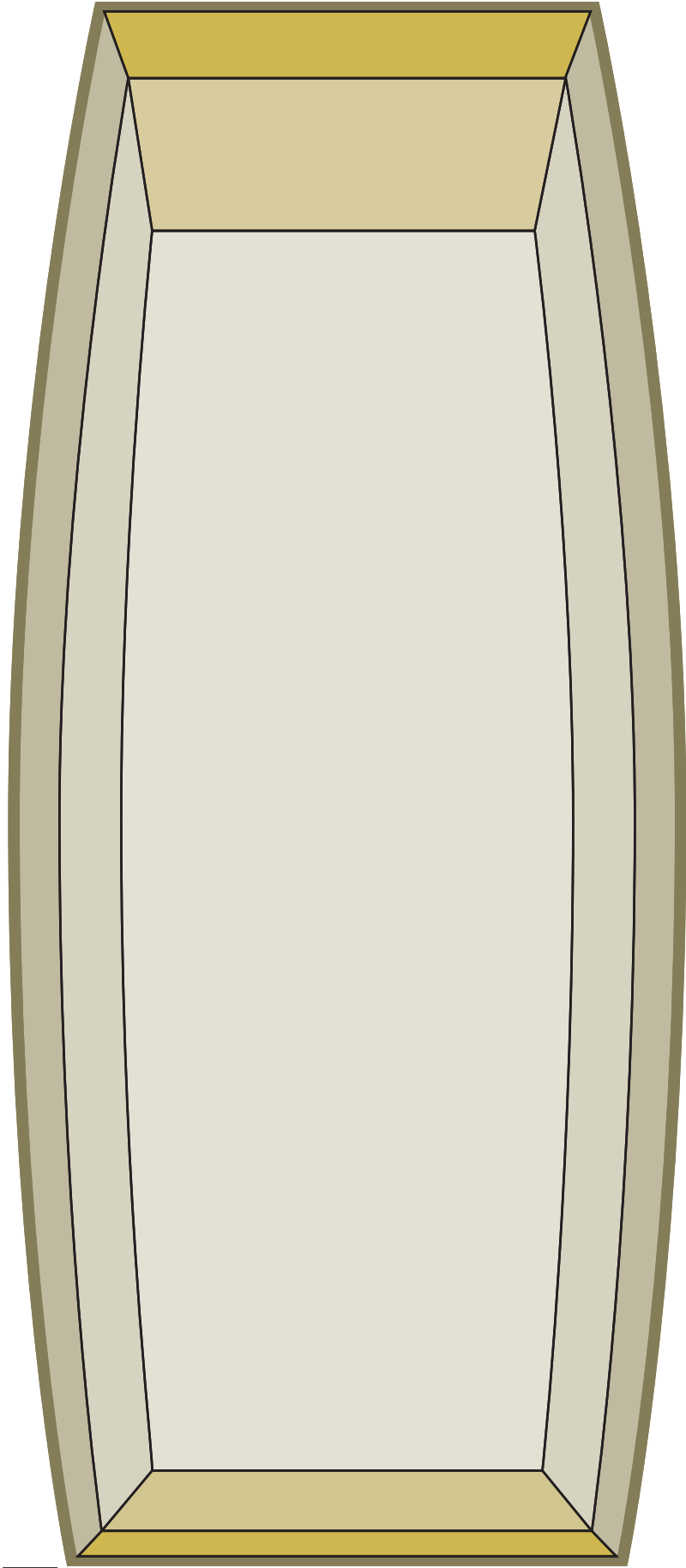
Fold on line over a sharp edge to mimic two pieces



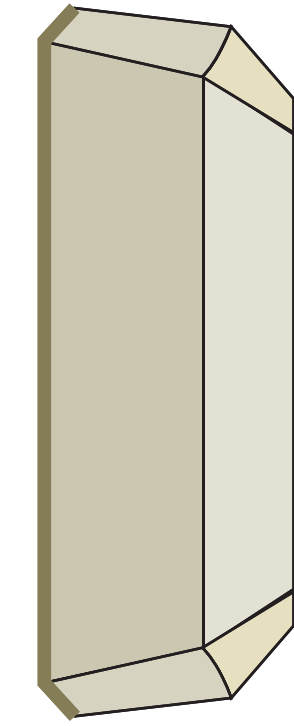
To assemble the model.
 Glue print outs to light cardboard
 Cutout the hull panels- stay outside the lines!
 Use masking tape on the inside to join the panels.
 Line up the "arrows" of each panel with the matching arrow of the other panel.
 Start by taping the bottom and lower side panel together at the arrows, and go in either direction as you pull the edges together to where they are touching. Then apply the masking tape.
 Tape to the ends of the matching panels, and then do the same with the other panels.
 Add the bow and transome panels last, and tape them to the side panels sartin^g at the top and working down. Use "clear tape" on the outside to let the hull color show through.



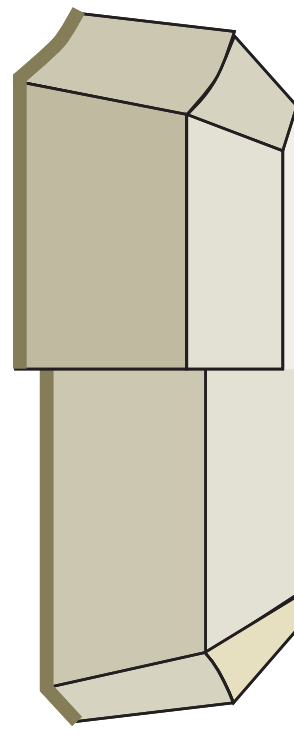
Reduced Scale!



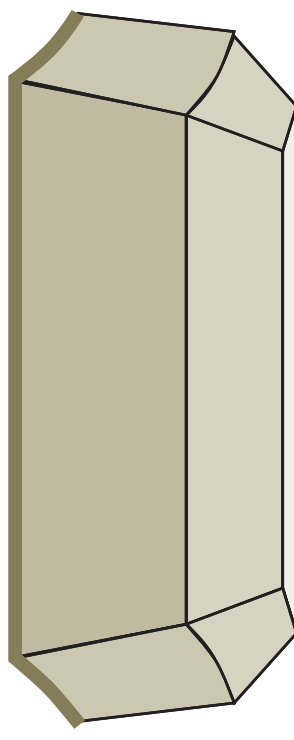
Plan View



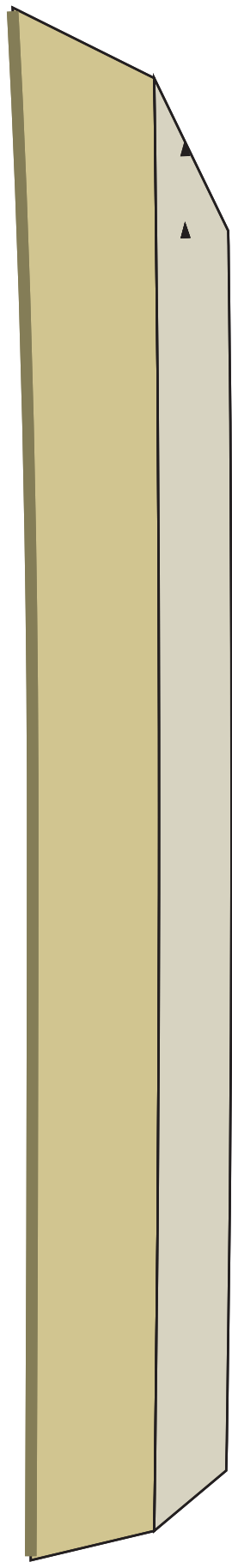
Stern View



Cross Section View w/Beam



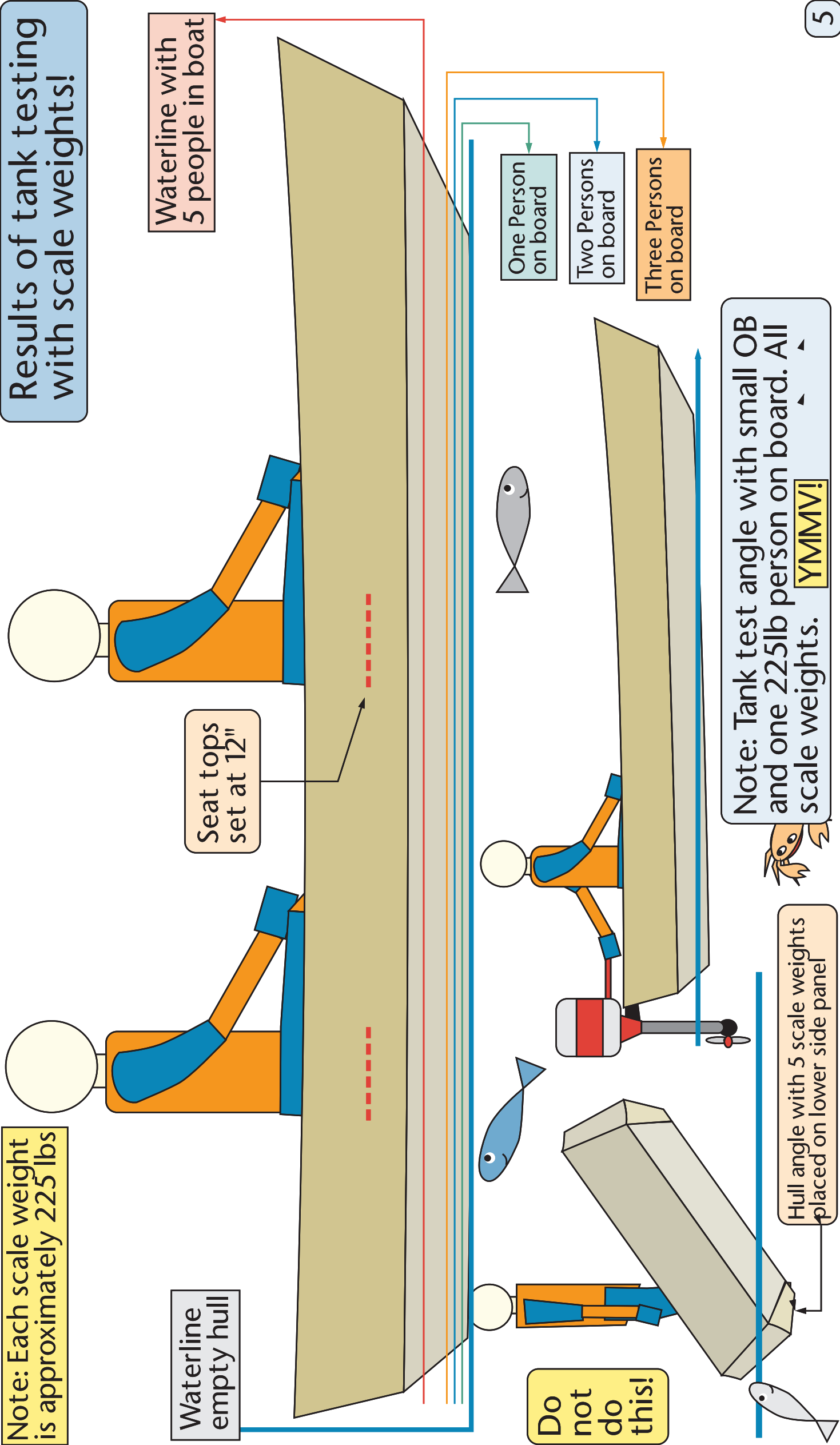
Bow View



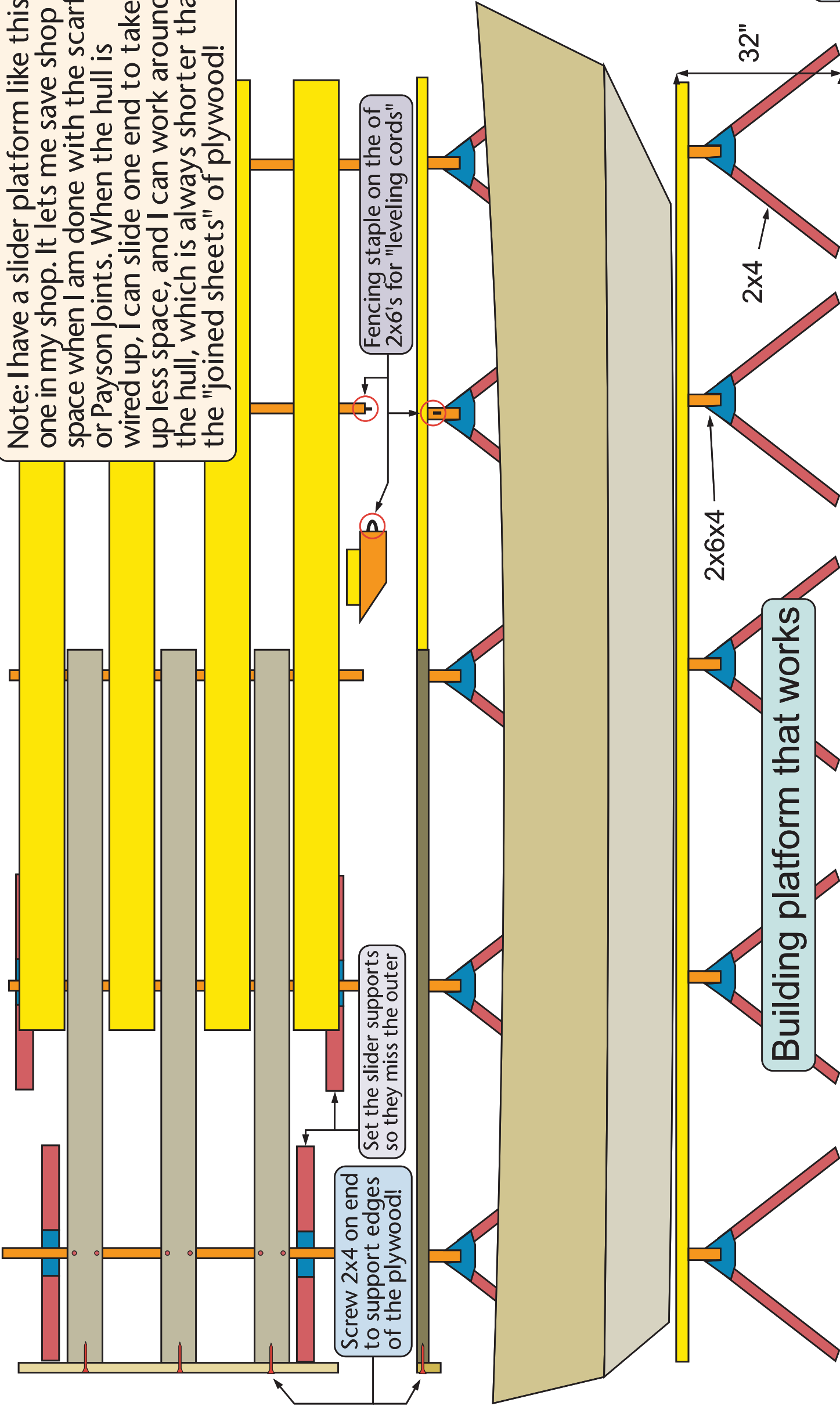
Profile View

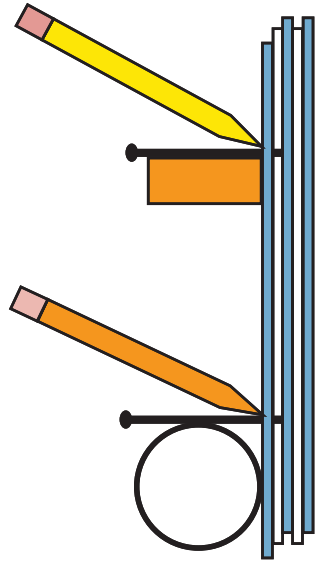
Note: Each scale weight is approximately 225 lbs

Results of tank testing with scale weights!



Note: I have a slider platform like this one in my shop. It lets me save shop space when I am done with the scarfs or Payson joints. When the hull is wired up, I can slide one end to take up less space, and I can work around the hull, which is always shorter than the "joined sheets" of plywood!

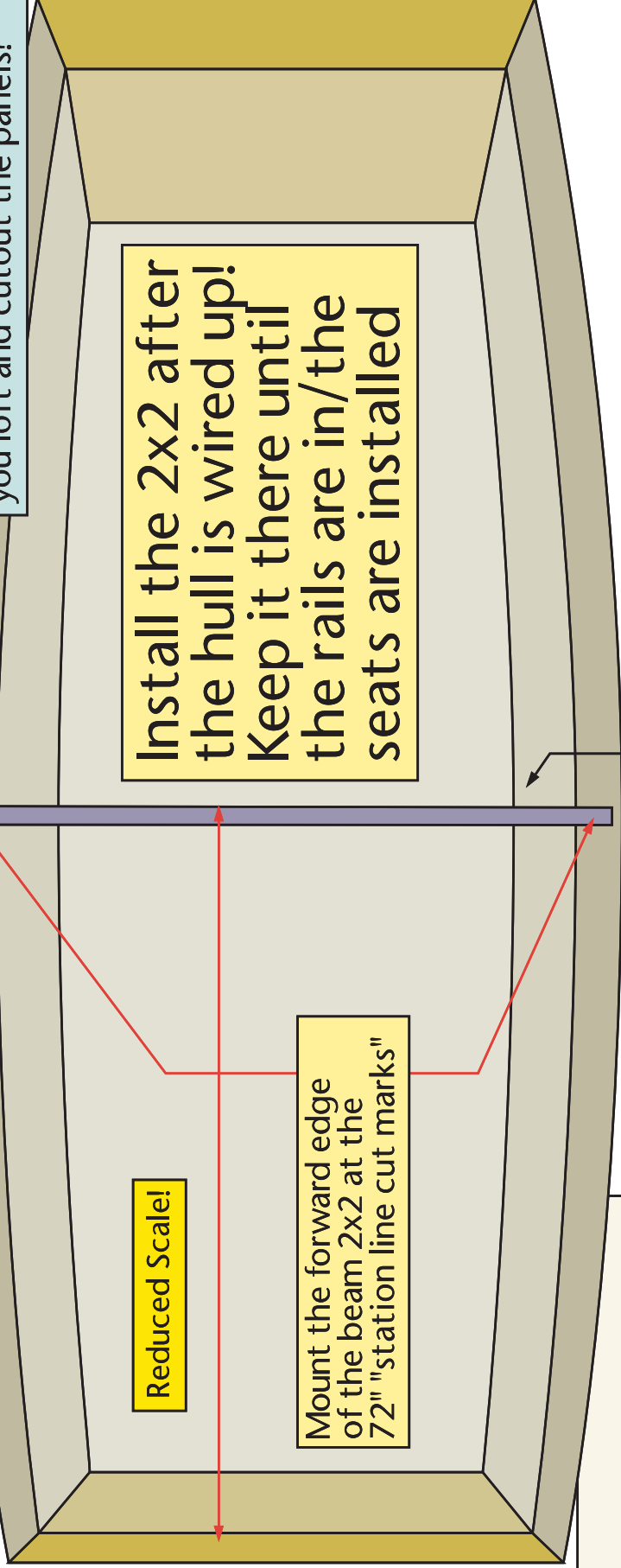




Marking the line between the nails

Clamping the Batten to the Nails

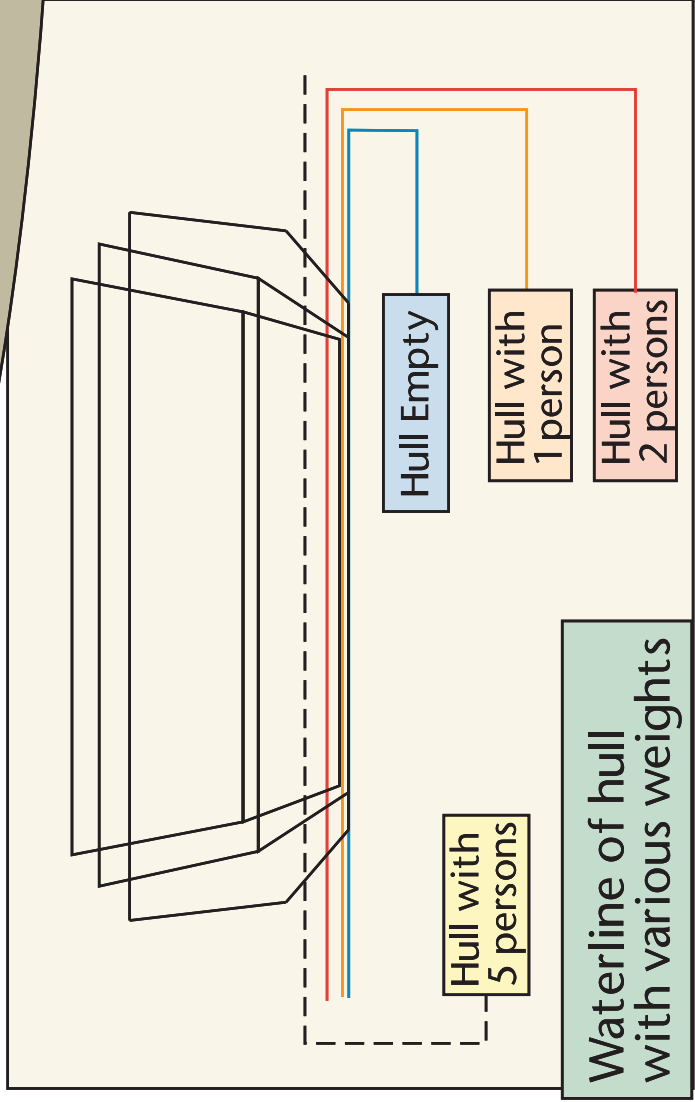
See page #25 for details on adding the "station line cut marks" when you loft and cutout the panels!



Install the 2x2 after the hull is wired up! Keep it there until the rails are installed

Reduced Scale!

Mount the forward edge of the beam 2x2 at the 72" "station line cut marks"



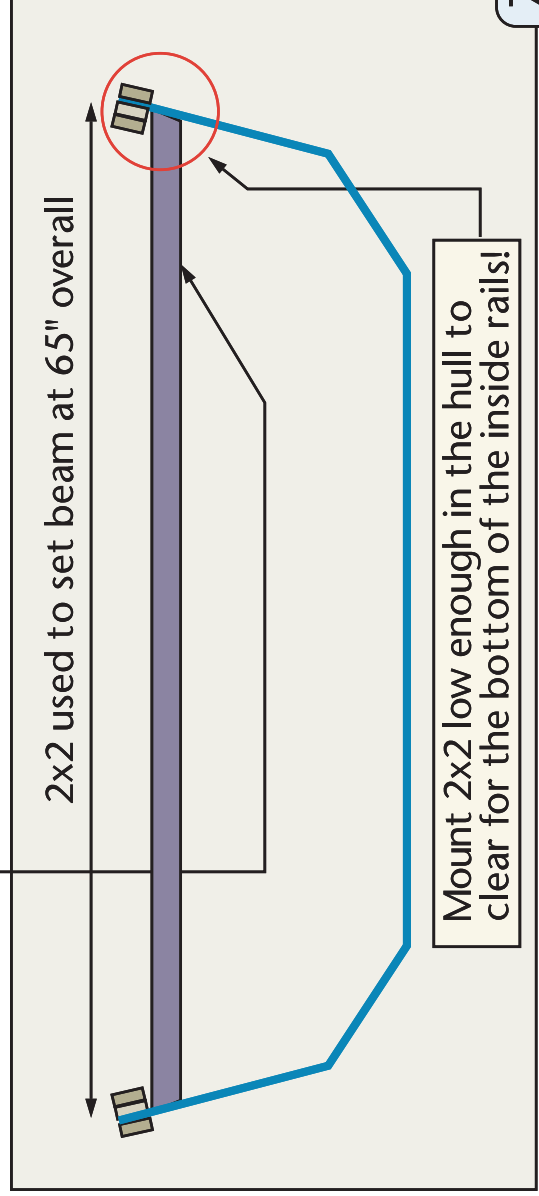
Waterline of hull with various weights

Hull Empty

Hull with 1 person

Hull with 2 persons

Hull with 5 persons



Mount 2x2 low enough in the hull to clear for the bottom of the inside rails!

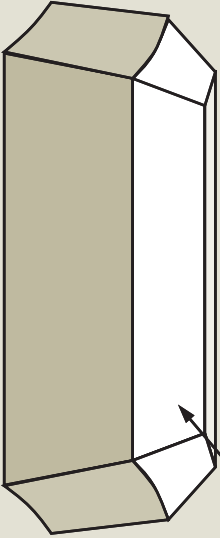
2x2 used to set beam at 65" overall

Location of Payson Joints in the hull when wired up.

Inside, double layer of glass cloth

Location of areas where the Payson joints will appear on the hull. The inside faces will have two layers of glass cloth and the outside will only have one layer. The bottom panel will have one layer on the outside of the seam and will also have a layer of glass cloth over the entire bottom of the hull!

Layer of glass cloth over the complete bottom and up the sides to the "upper/lower" panel seam.



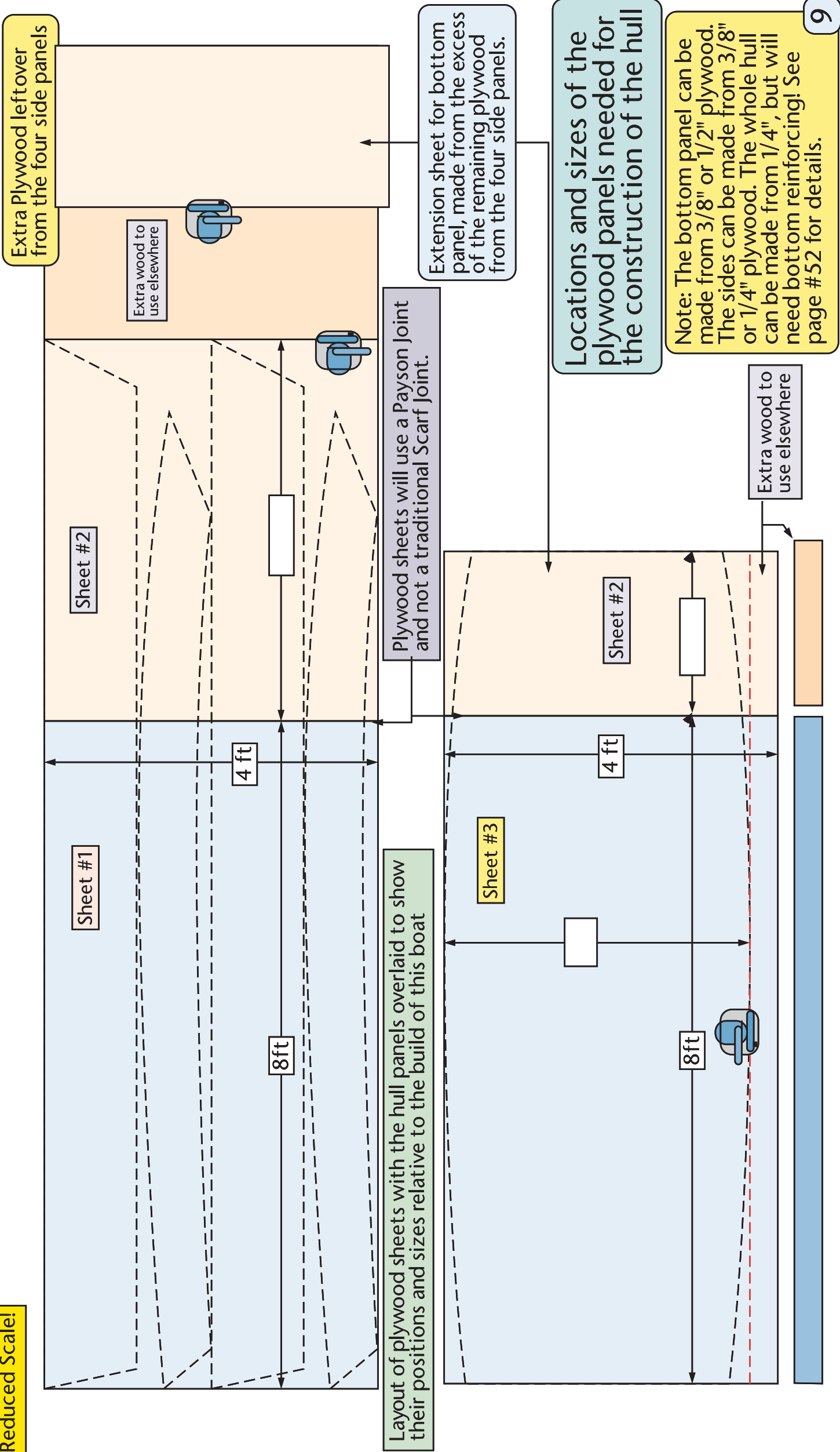
Note: Each Payson joint seam is protected by solid plywood below and above. The rails strengthen the top panel.

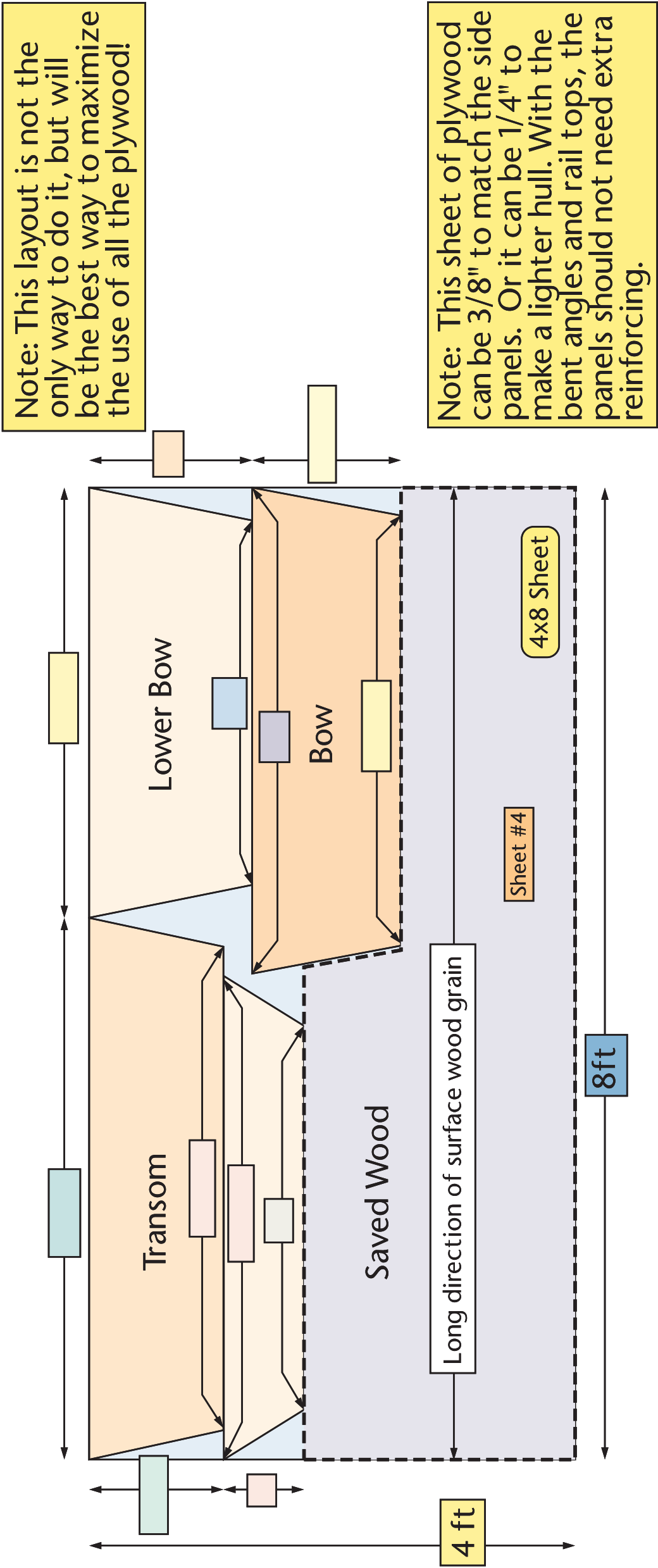
Location of the Payson joint glass cloth on the outside seams.

View of bottom side of hull!

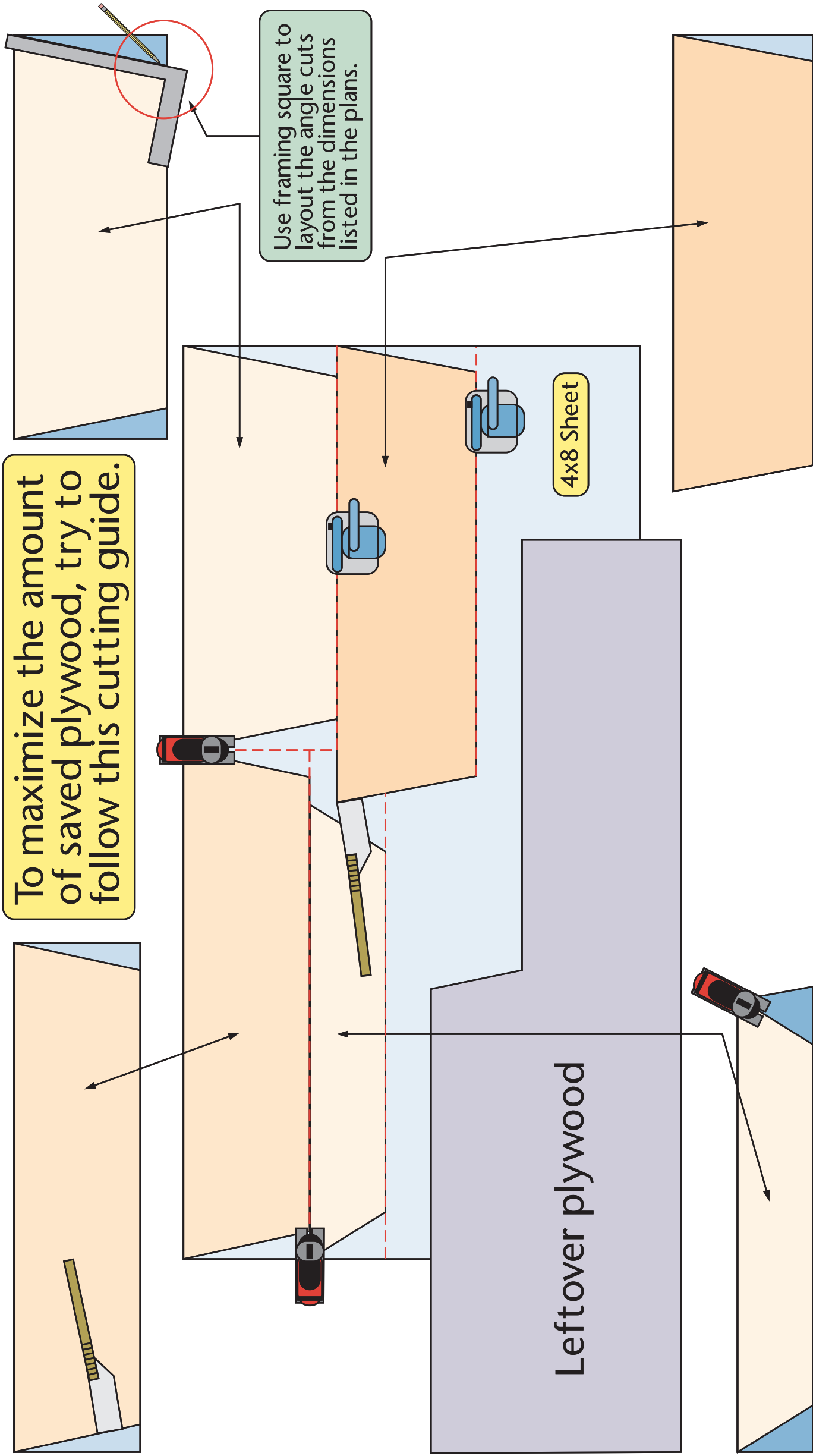
Outside, single layer of glass cloth

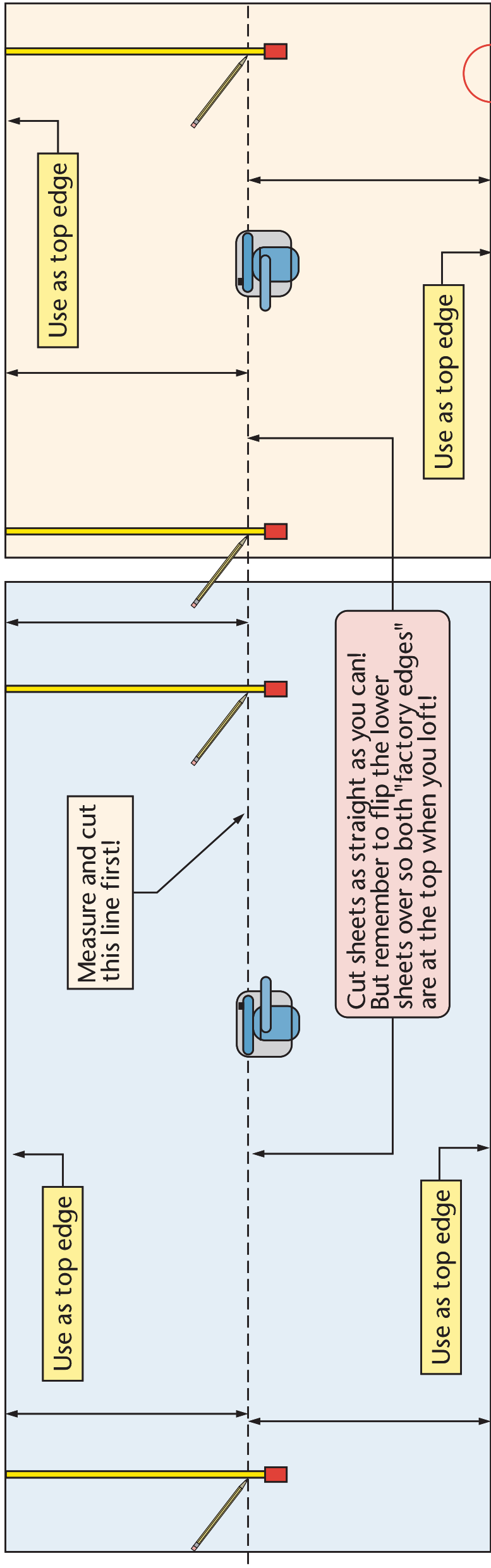
Reduced Scale!





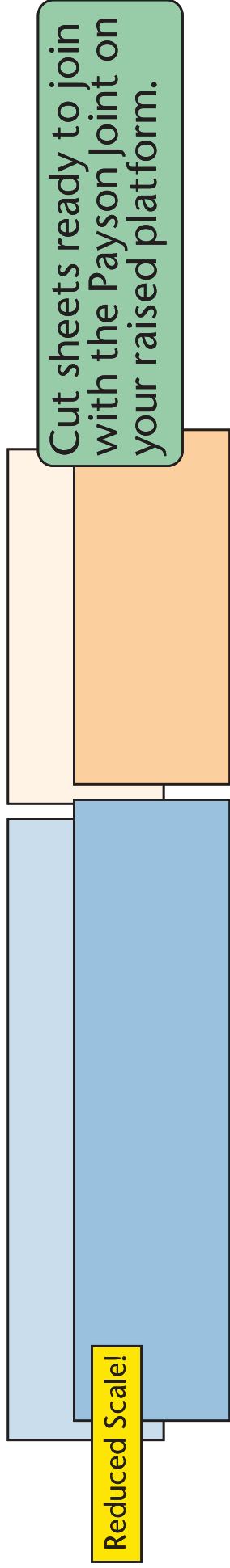
The bow and stern panels are laid out so the "long grain" of the plywood surface is going side to side on the panels and will give them more resistance to bending. This may not be a factor, since there will be fillets and glass tape seams along at least two of the long edges and the tops of the bow and stern panel will be reinforced by the doubled up rails.





You have the option of cutting each sheet in half now or to wait until you have joined the two sheets together with the Payson Joint. Probably best to do it now while the plywood sheets are easier to move around.

Note: Use factory cut edges for measuring during the lofting stage. Flip the panels over to use as the top, "rail edges".



Note: Several of the following pages are taken from the 12ft Naselle River Drifter and the 14ft John Duck. The hulls have basically the same design parameters, so there was no need to redraw every page to show the details. All my hulls are pretty much constructed in the same manor as all the rest in my fleet. The "differing" pages are marked with this Info in a balloon placed on the drawings.

Page from Naselle River Drifter
all my boats are made the same

Making the Payson Joint

Use the "factory" straight edges for the top edges!

Wet out each layer of glass cloth with epoxy. Let set for a couple hours to "turn green" and then use the utility knife to trim the tape off the edges!

Layer of 6" glass cloth with masking tape to cover the edges and to give a line to cut to when the epoxy has cured!

Install a dual layer of glass cloth on the inside seams. First a layer of 6" wide cloth and then a layer of 12" wide cloth.

Layer of 12" glass cloth with masking tape to cover the edges and to give a line to cut to when the epoxy has cured!

Note: Remember to cover work platform with plastic to keep the panels from bonding to it!

Inside of panel faces!

Note: Instead of using 6" and 12" for the joint you can increase them to 8" and 14" for more strength

Page from Naselle River Drifter
all my boats are made the same

12"

Outside face of panels

Single layer

Note: James Boat measurements!

Use the "factory" straight edges for the top edges!

Stack panel on the one below and clamp

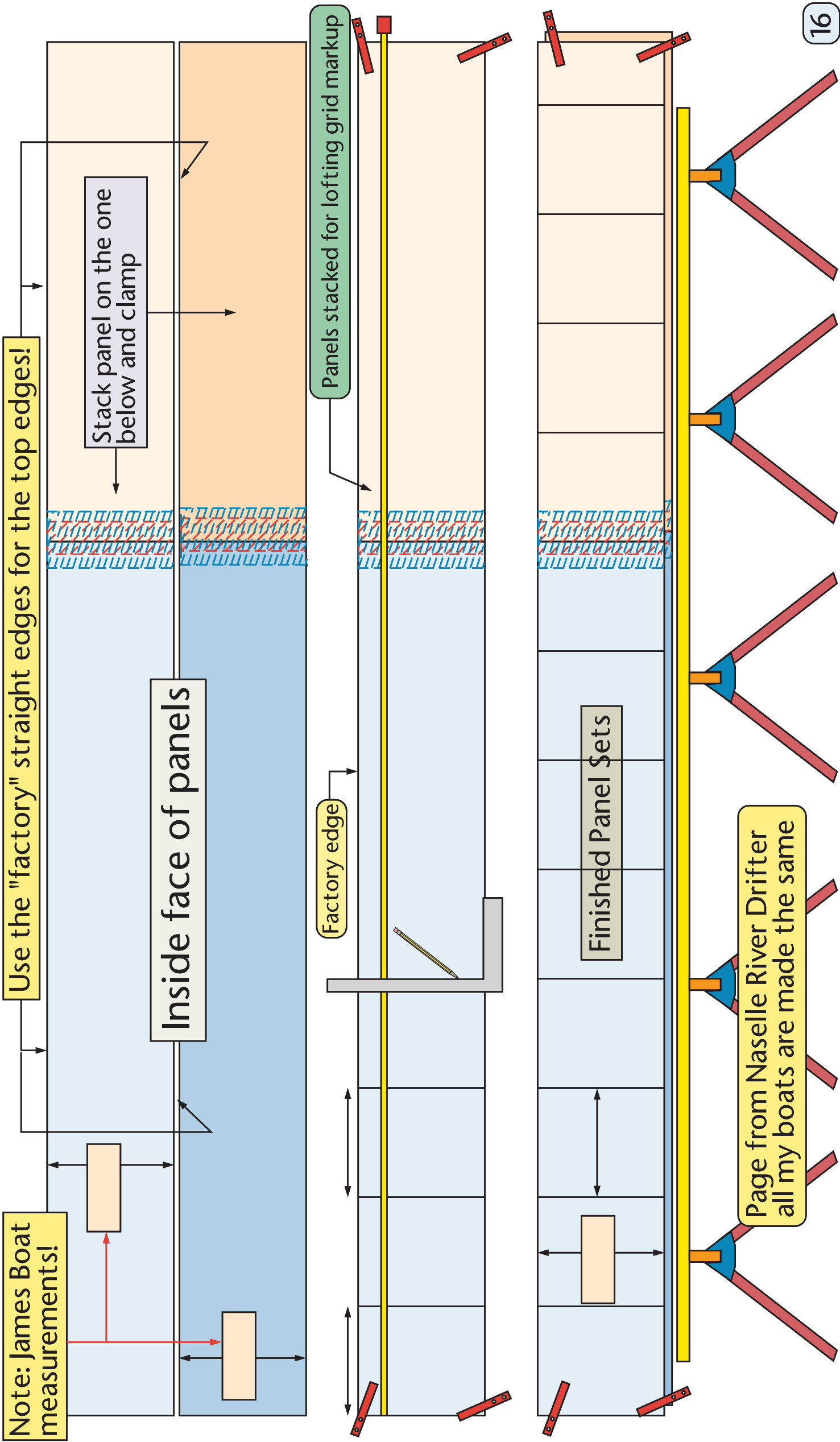
Inside face of panels

Factory edge

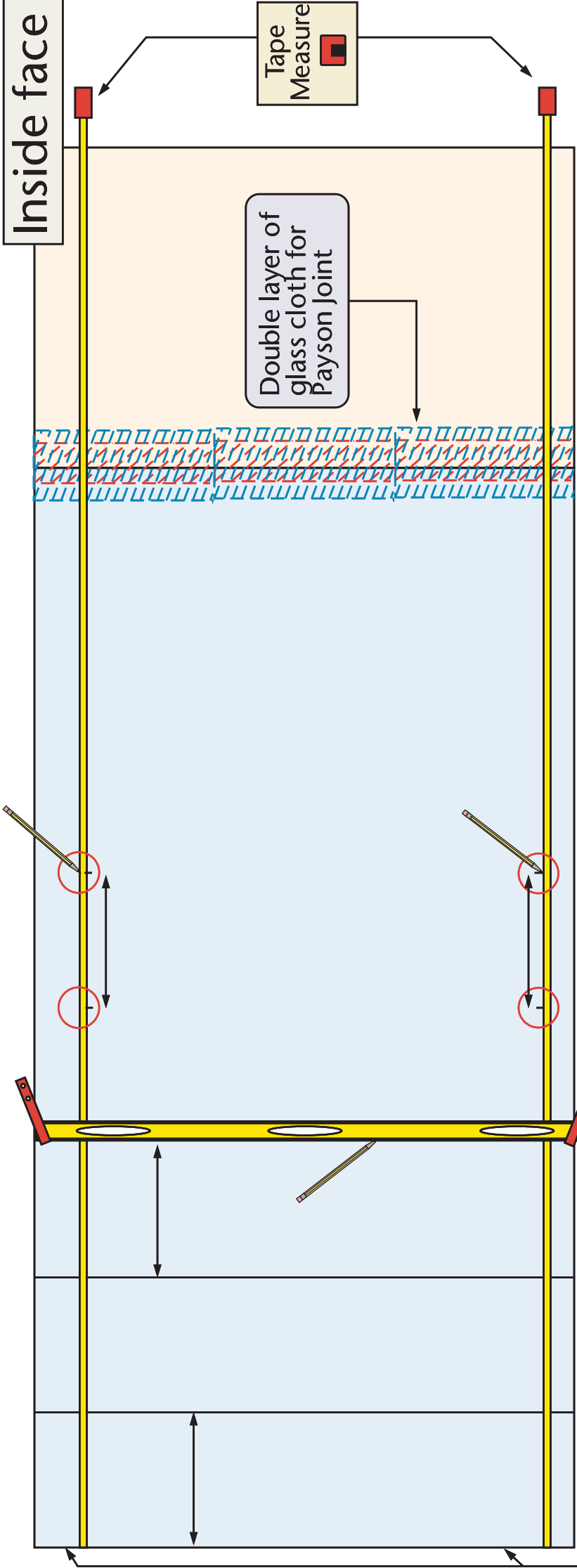
Panels stacked for lofting grid markup

Finished Panel Sets

Page from Naselle River Drifter all my boats are made the same



Inside face of panels



Double layer of glass cloth for Payson joint

Tape Measure

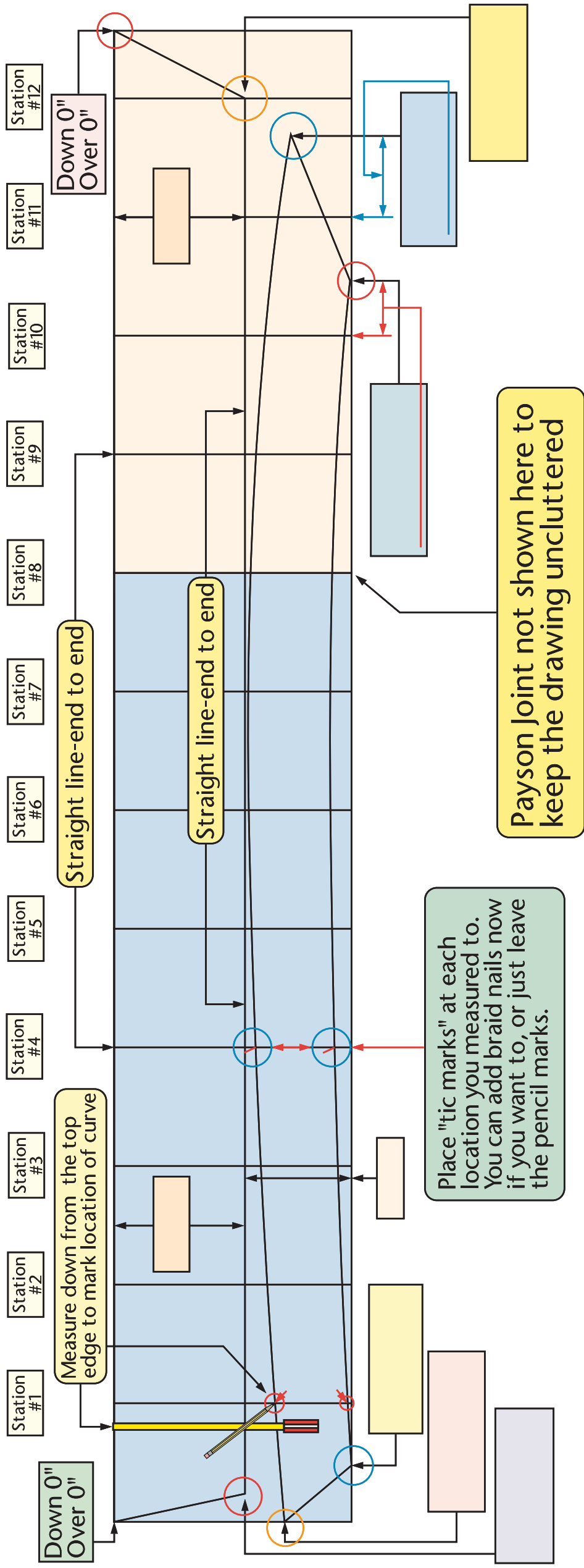
Start at the left edge!

Use clamps if you need them

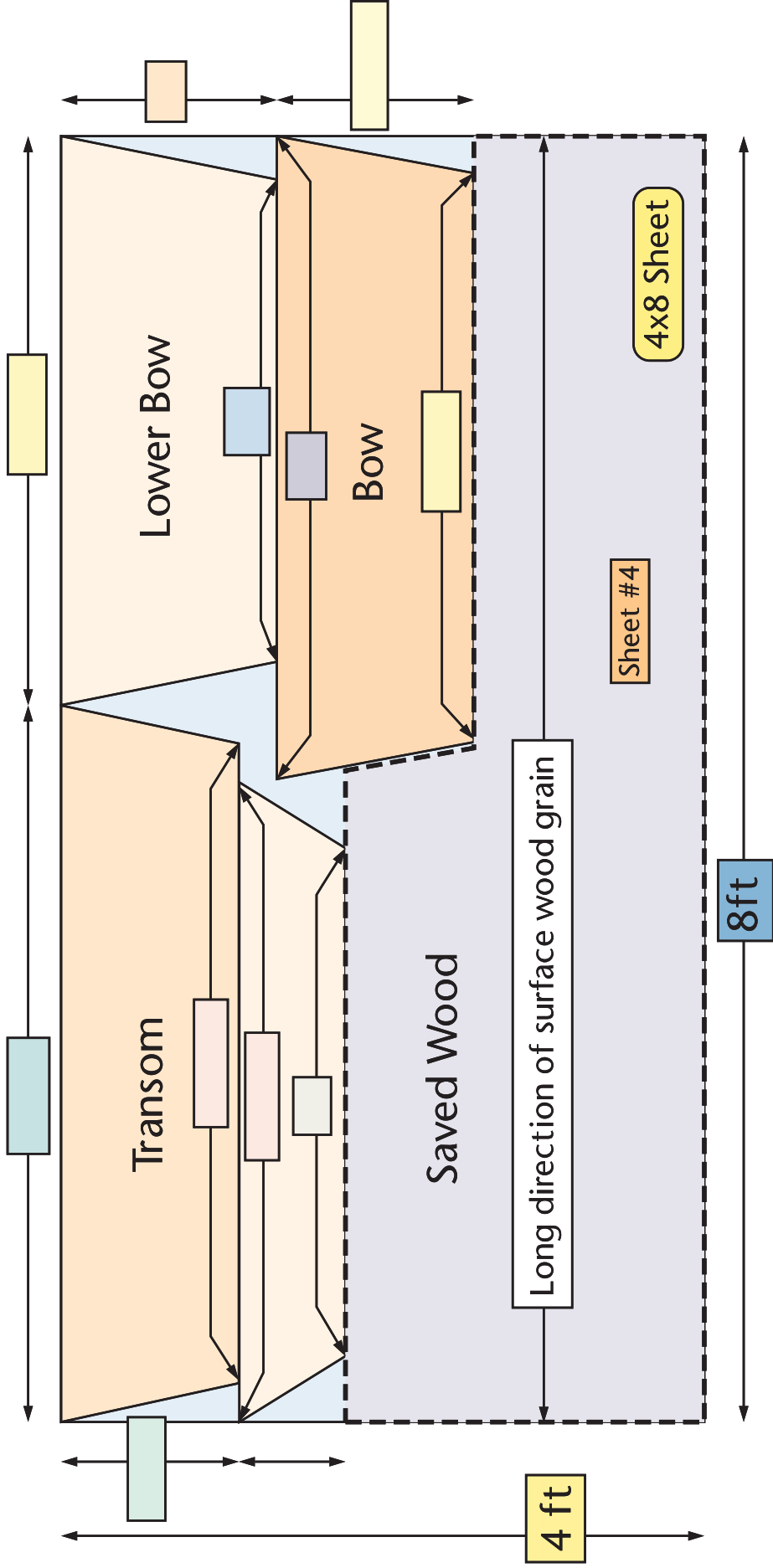
Use one or two tapes to layout the XX" guidelines. Use a 4 to 5 foot straight edge to join the tick marks from both sides of the panel. These will be the baseline you use for the lofting that comes later.



Reduced drawing to show the finished panel with all the station lines marked on the plywood



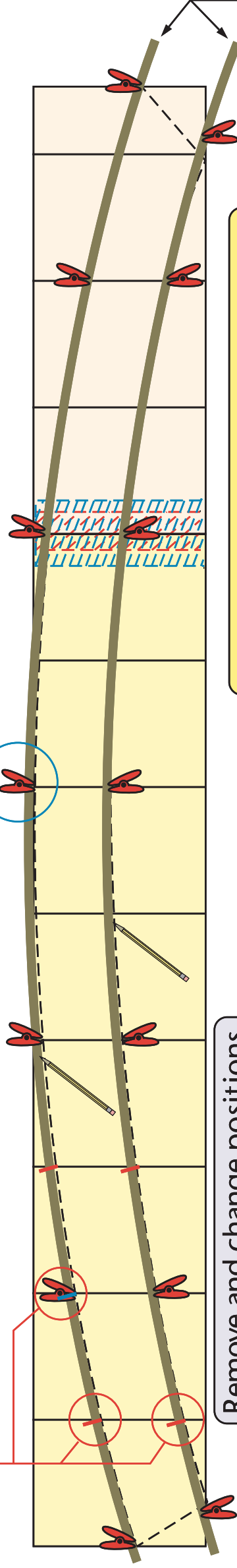
Note: Downs are measured from the top edge
Overs are measured from the left hand edge or
the station line to the left.



Layout for the bow and transom panels

Note: There is a brad nail at each of the spots where the "panel arcs" cross the "station lines". I did not draw them all in, but imagine that they are.

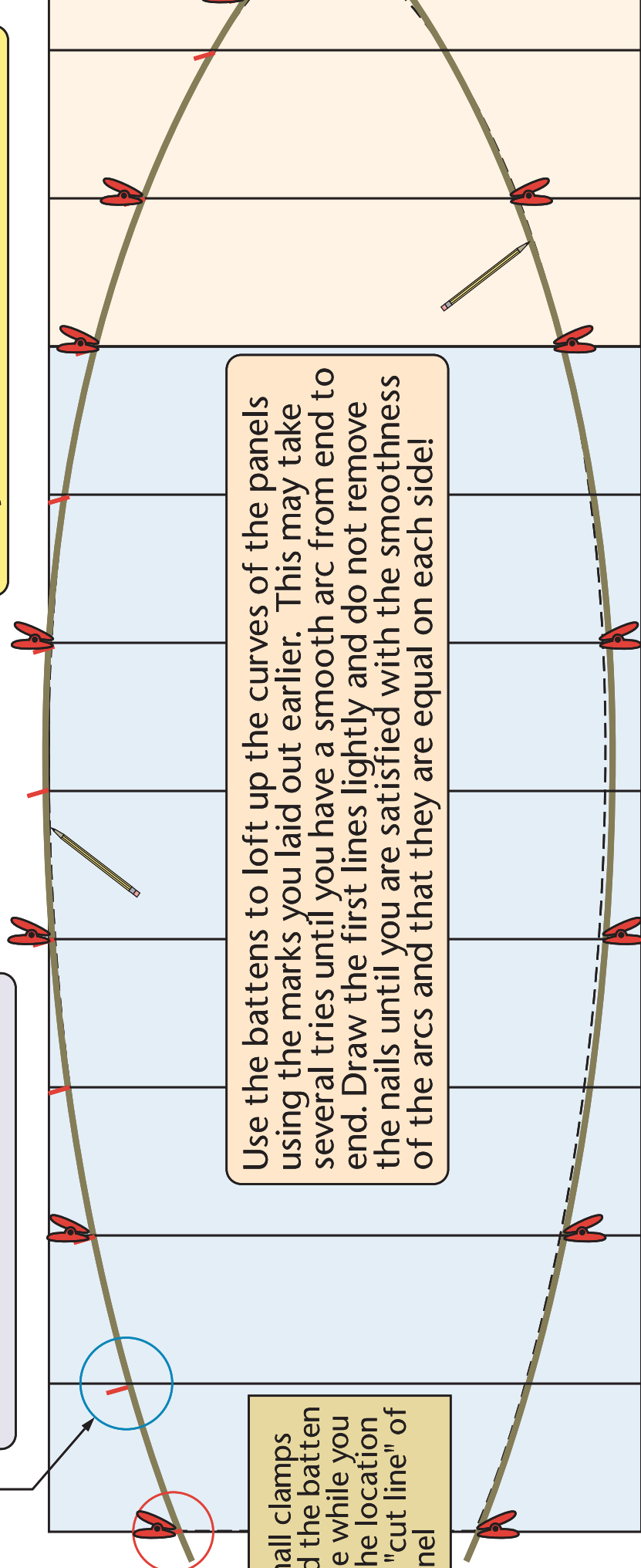
Small clamps holding the batten to the brad nails that locate the arc of the curves



Remove and change positions of any nails needed to make a smooth arc from end to end

Page from Naselle River Drifter all my boats are made the same

Flexible batten used to loft up the arcs of the panel curves. Use a good/straight piece of wood to do this.



Use the battens to loft up the curves of the panels using the marks you laid out earlier. This may take several tries until you have a smooth arc from end to end. Draw the first lines lightly and do not remove the nails until you are satisfied with the smoothness of the arcs and that they are equal on each side!

Use small clamps to hold the batten in place while you mark the location of the "cut line" of the panel

Matching The Arc Length Page

Differing "bow angle cuts" from changes to the "arc lengths".

Match these two arcs

Match these two arcs

Before you make any cuts on the panels, you have to check the "arc lengths" of the panels to be sure that the one "above" is "longer" by $\frac{1}{8}" - \frac{3}{16}"$ than the one below it!

Use the bradnails to hold the tape while you measure the "arc lengths" of the panel curves

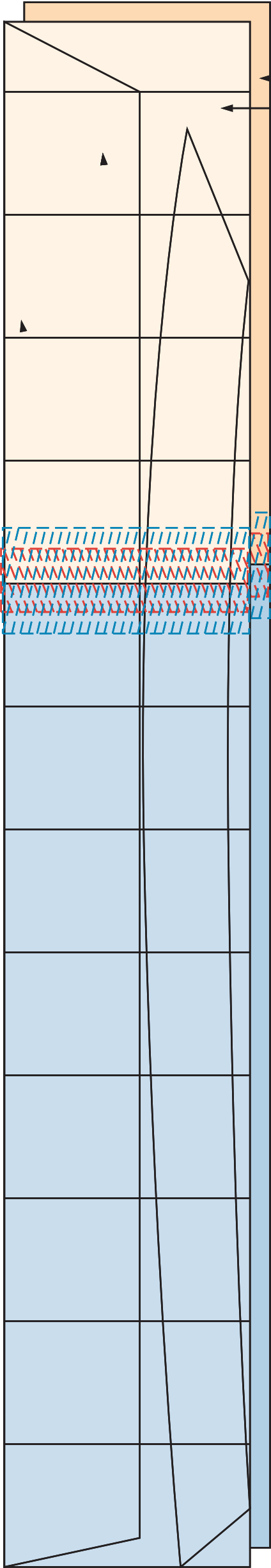
Leave the brad nails in place until you have finished the "arc length" tests!

If the arc length is off, adjust it at the bow of the panel above!

Tape measure

Note: I spend a lot of time making sure that the lengths are correct in the models before I ever get to doing the lofting. So this may not be needed, but check anyway!

Page from Naselle River Drifter
all my boats are made the same

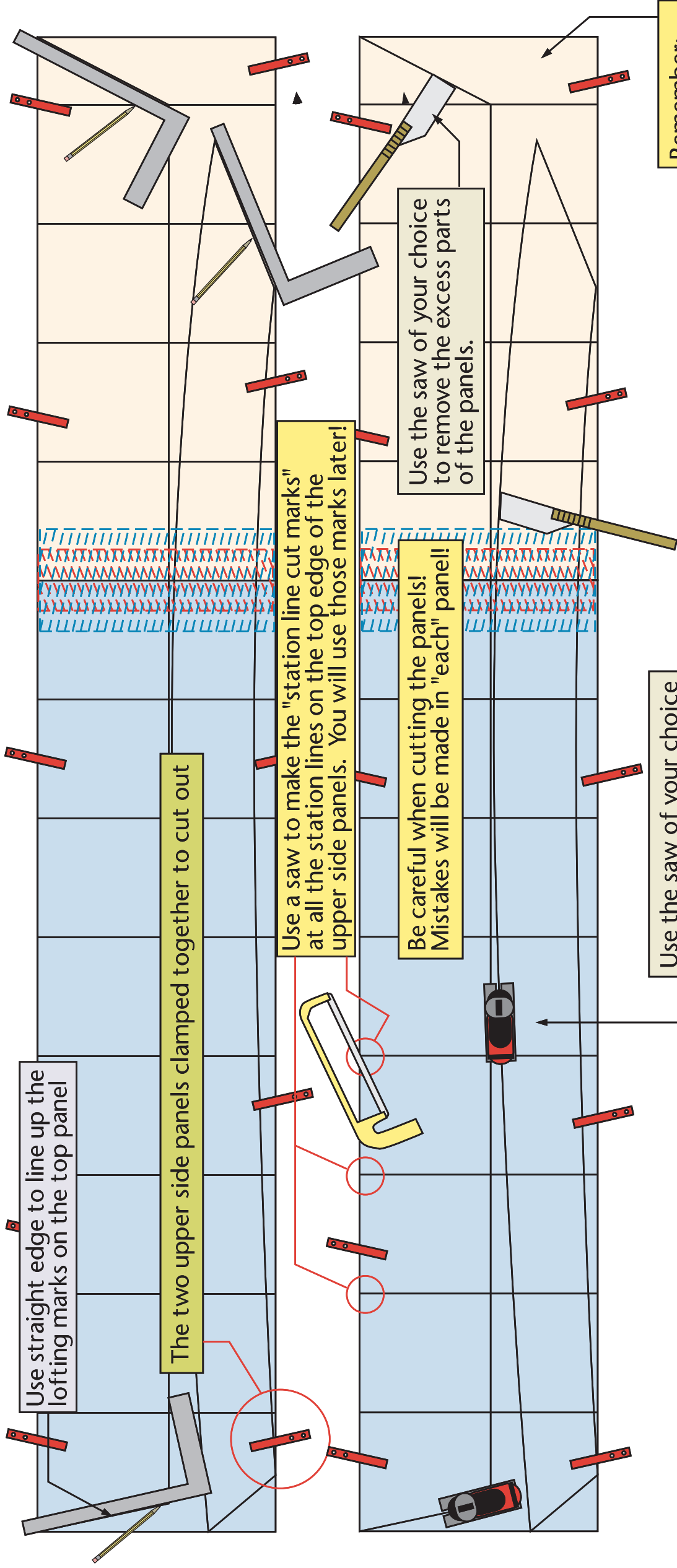


Finished Panel Sets

Note: You now have two sets of panels for the top and lower sides.

Only a single panel for the bottom!





Before you make any cuts here; be sure that you have matched up and adjusted any of the panel "arc lengths" described on the previous page!

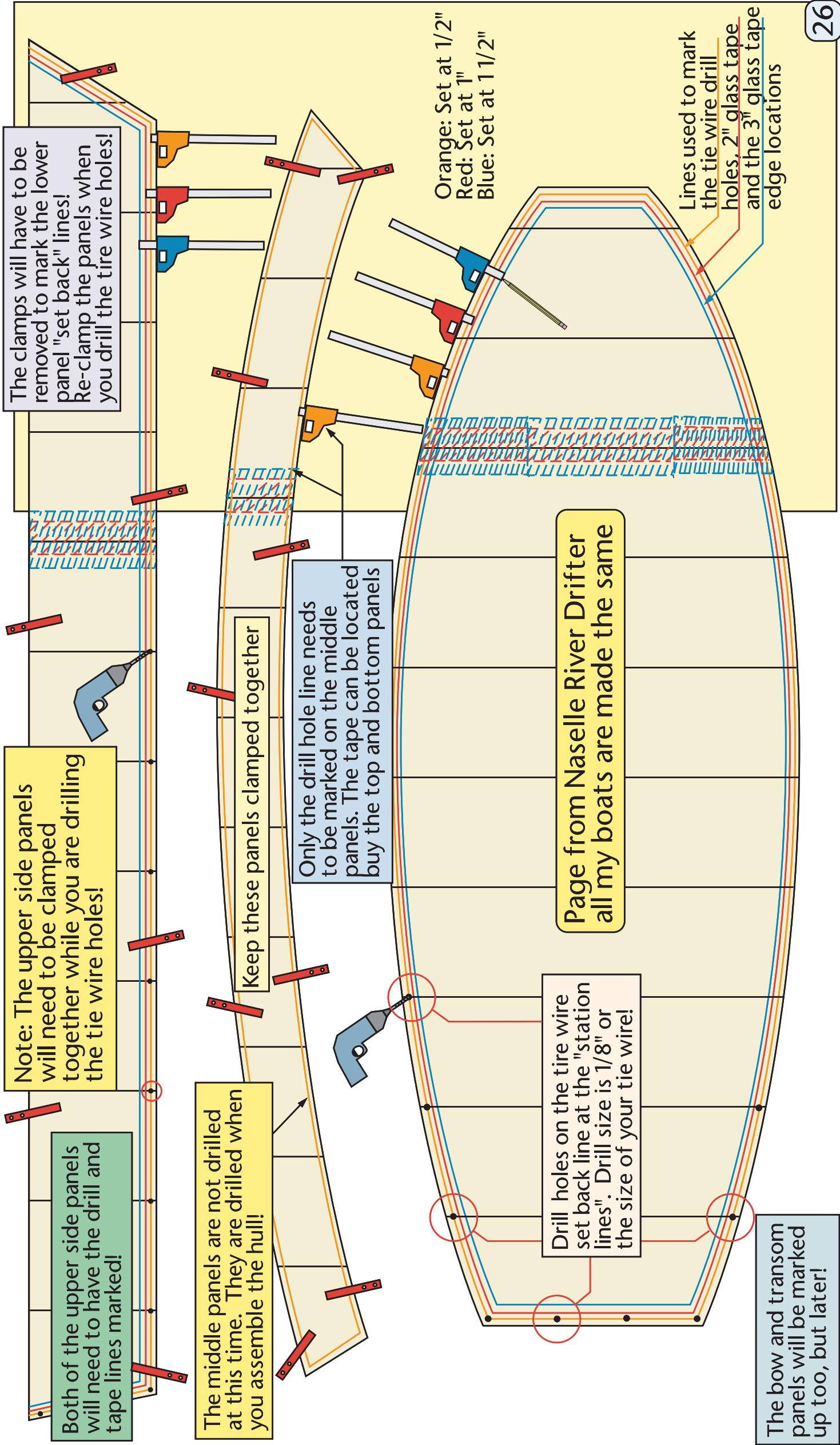
Use a good Japanese pull saw to cut the "curving arcs" of the hull panels. It's my saw of choice.

Hang plywood over the edge of the platform to make the cuts. You can also cut through the gaps on the platform too.

Use the saw of your choice to remove the excess parts of the panels.

If cutting in the middle of the platform, watch out for the 2x4's!

Best to use a saw that can cut on curves. A circular saw may work, but I would not advise using one. With the small amount of wood to remove, I would use a hand saw for this panel.



The clamps will have to be removed to mark the lower panel "set back" lines! Re-clamp the panels when you drill the tie wire holes!

Note: The upper side panels will need to be clamped together while you are drilling the tie wire holes!

Both of the upper side panels will need to have the drill and tape lines marked!

The middle panels are not drilled at this time. They are drilled when you assemble the hull!

Keep these panels clamped together

Only the drill hole line needs to be marked on the middle panels. The tape can be located by the top and bottom panels

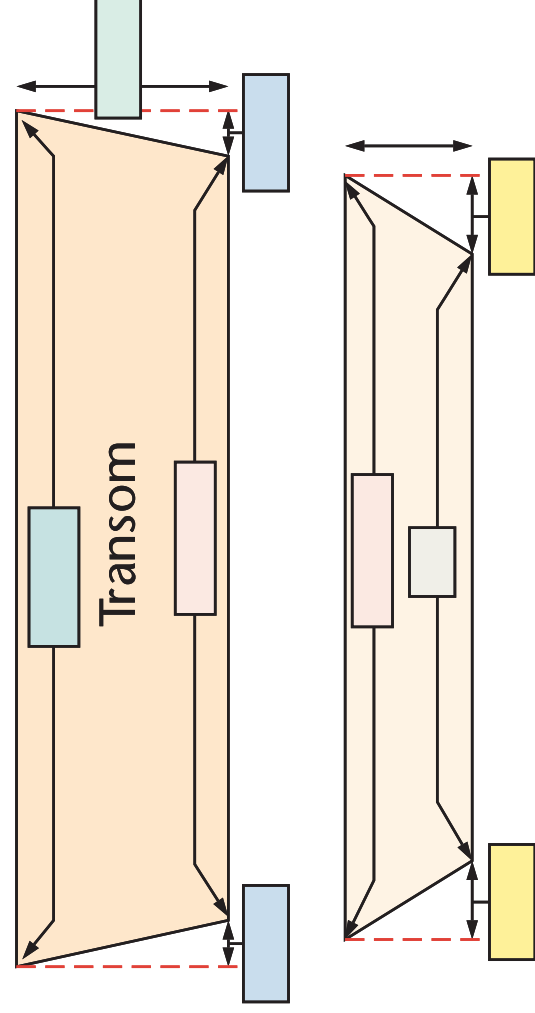
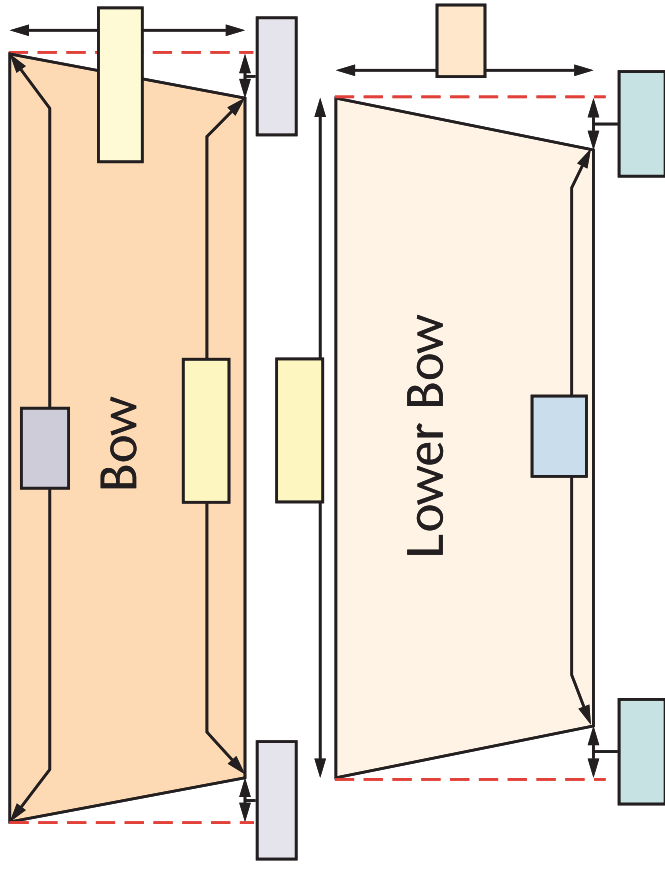
Orange: Set at 1 1/2"
Red: Set at 1"
Blue: Set at 1 1/2"

Page from Naselle River Drifter
all my boats are made the same

Drill holes on the tie wire set back line at the "station lines". Drill size is 1/8" or the size of your tie wire!

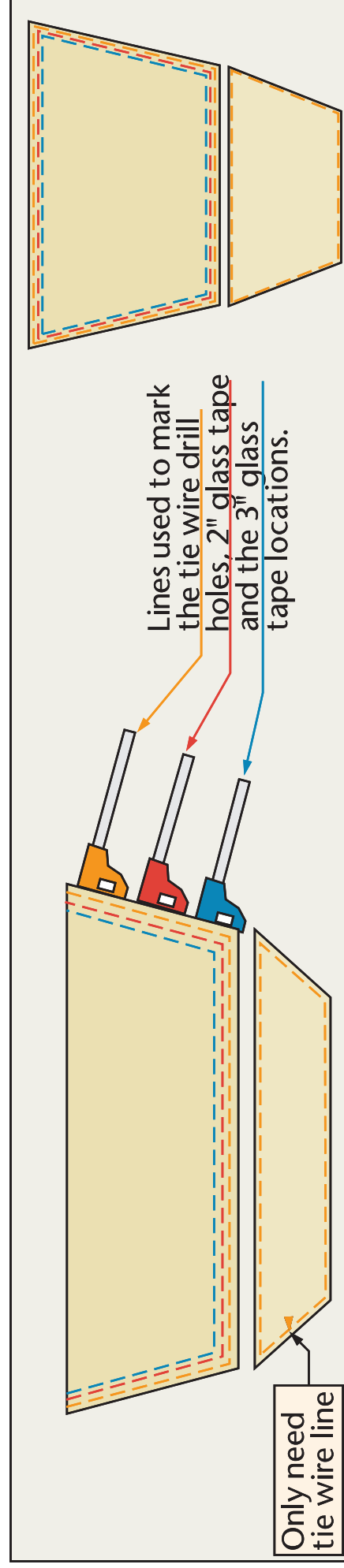
Lines used to mark the tie wire drill holes, 2" glass tape and the 3" glass tape edge locations

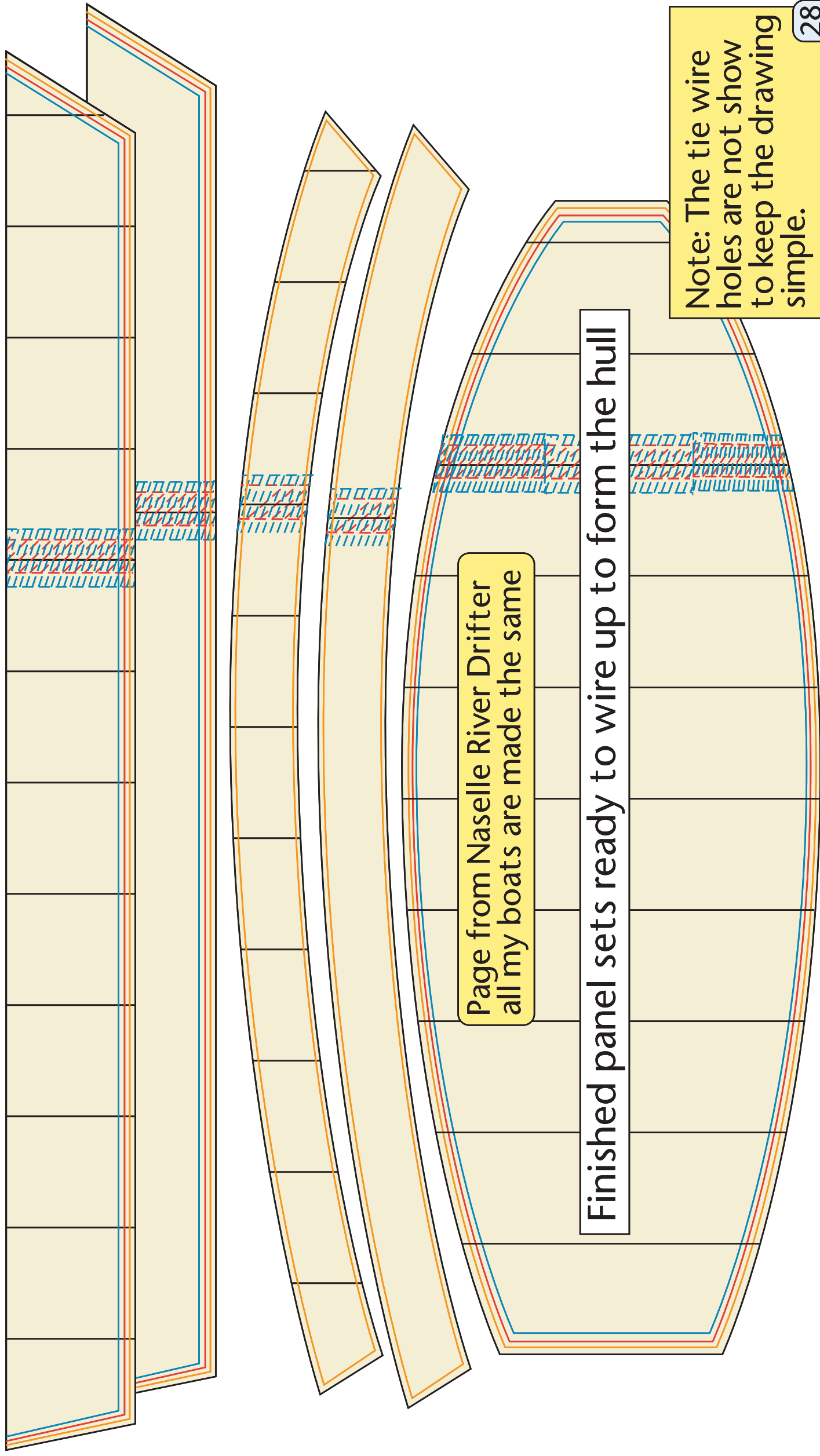
The bow and transom panels will be marked up too, but later!



Note: Wire up the side panels to the bottom panel first then add the two lower bow and stern panels. Check all of the measurements of the areas where the bow/stern panels will mate to be sure that the above measurements are correct. Make any adjustment needed before you make any cuts!

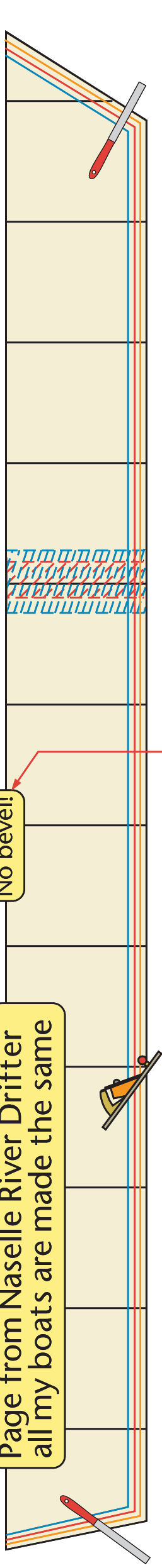
Note: Make "adjustments to the dimensions of the panels Now. Make cardboard mockups to be sure that the measurements you are using are the correct ones!





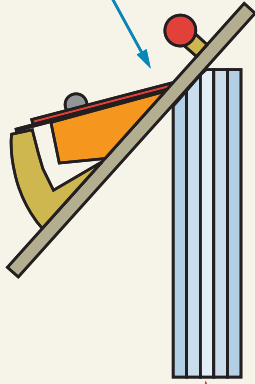
Page from Naselle River Drifter
all my boats are made the same

No bevel!



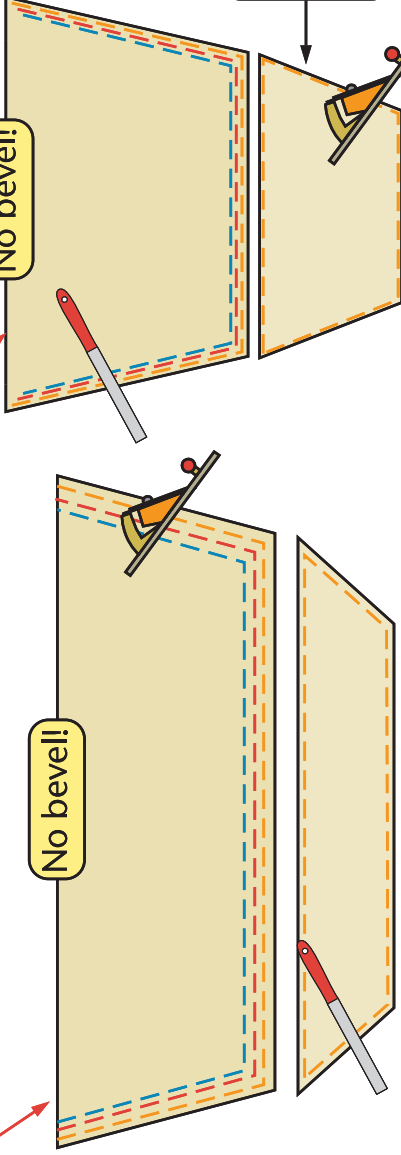
When all the panels have
been cut out and marked,
take a small hand plane or
a hand rasp and "bevel" the
edges of "all the panels".
But not the top edges of
the bow, transom, or upper
side panels.

Five ply 6 or 9 or 12mm
plywood beveled
to center of edge



No bevel!

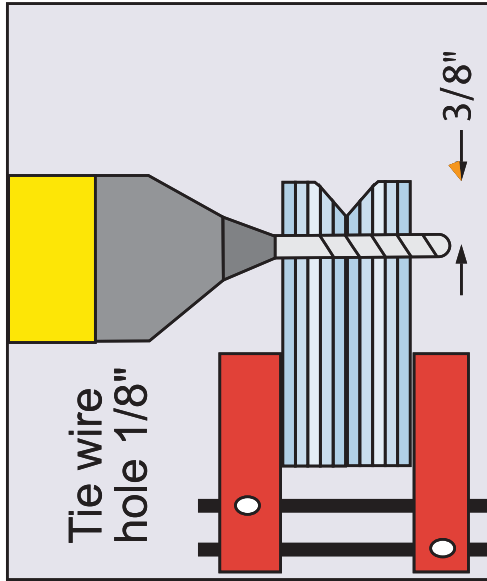
No bevel!



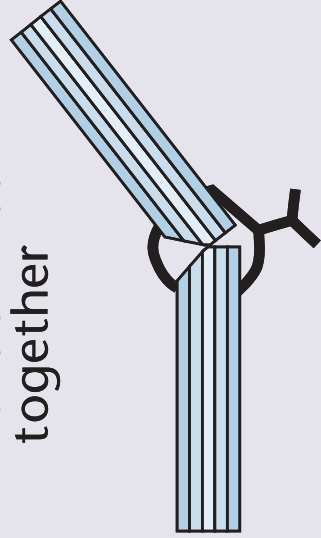
Drill hole
lines only
need to be
made here

Bevel inside
faces only!

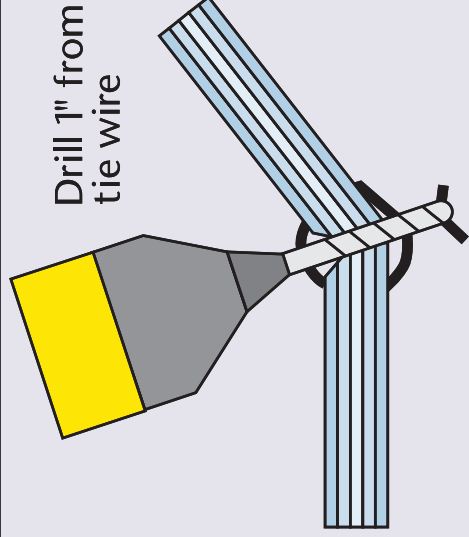
Tie wire
hole 1/8"



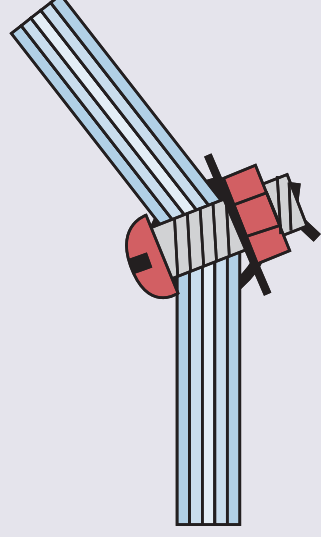
Panels wired
together



Drill 1" from
tie wire



1/4" washer & nut
drilled 1" from tie wire



Use the station lines on the bottom panel as the "guide" to drilling the lower side panel

Tie wires inserted into the holes and twisted up on the outside edges

Drill holes in the lower side panel to match the ones "already drilled" in the bottom panel

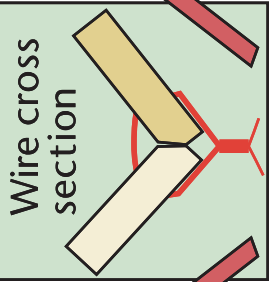
Bend wire around finger before inserting into the holes

Sand bag

Sand bag

Sand bags to weigh down the bottom panel to make it easier to drill and wire up the panels.

Page from Naselle River Drifter
all my boats are made the same



Soft supports to hold up ends while you drill and wire tie the lower side panels to the bottom panel

Line up the ends to start wiring up the lower side panels.

Use the station lines on the upper panel as the "guide" to drilling the lower side panel

Page from Naselle River Drifter all my boats are made the same

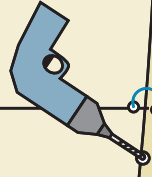
Measure the two bow and transom panels when you have all the sides wired up.

The lower side panel drill holes and the tie wires are not all shown to keep the drawing simple.

One inch behind the tire wire hole, drill a 1/4" hole for a 1/4" large head screw. The screw and backing washer and nut will hold the panels in alignment until epoxied

See the next page for details on tie wires, and screws, washers, and nuts.

Cords at the bow and stern to hold the ends while you wire up the upper side panels.



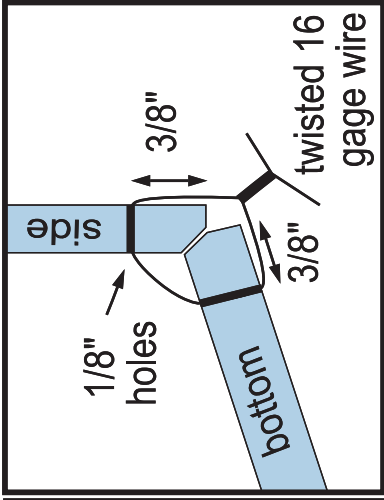
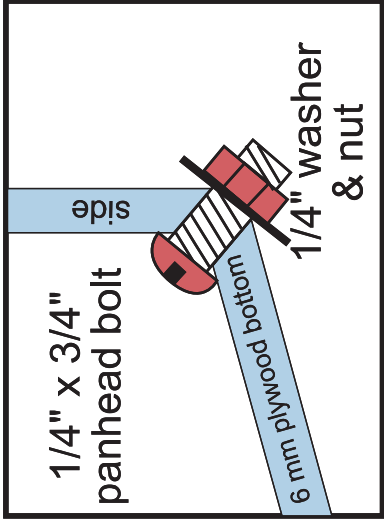
Line up the ends to start wiring up the upper side panels.

Lift, drill, add tie wire and go on to the next side

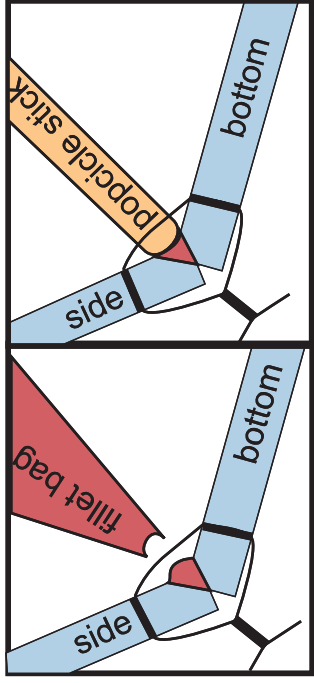
Note: Wire up the full length of the panels before you drill any holes for the screws and nuts!

Be sure the ends match up now! Adjust the ends before you add the bow/transom panels!

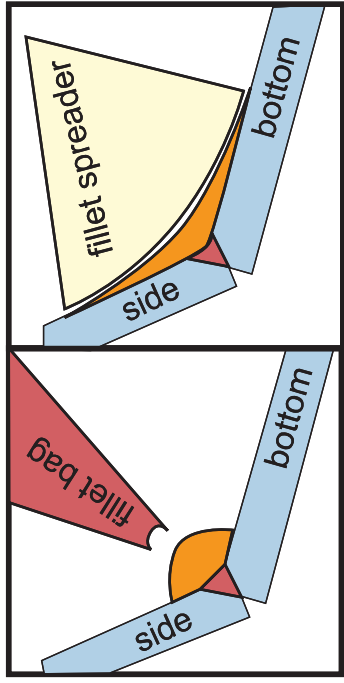
Board to hold up end of side panel



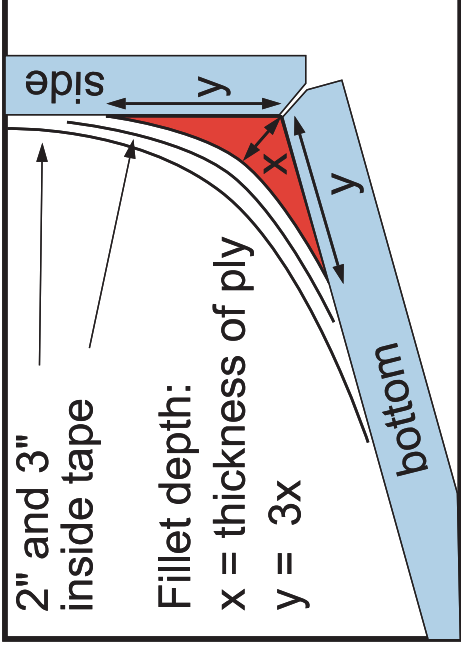
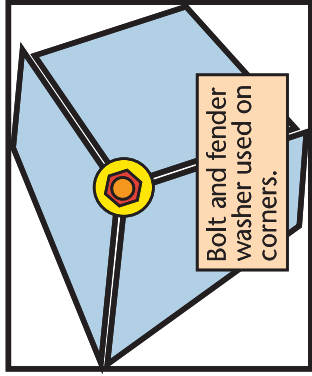
Wiring and bolting the panel sections together



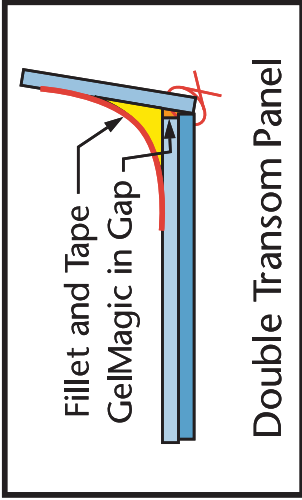
Jump Stitch



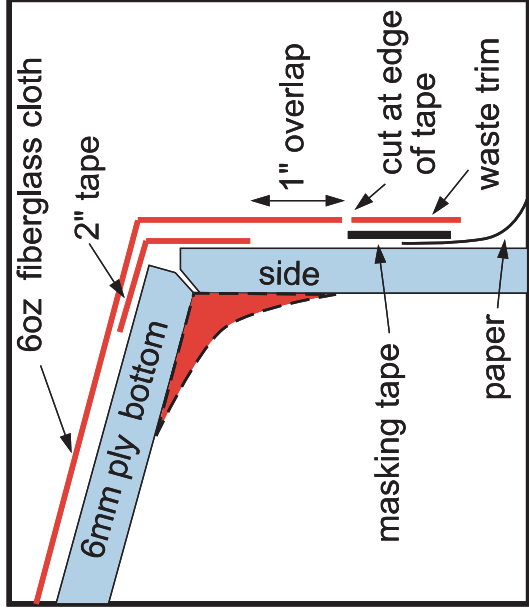
Applying and Spreading the Fillet



Cross section of taped seam

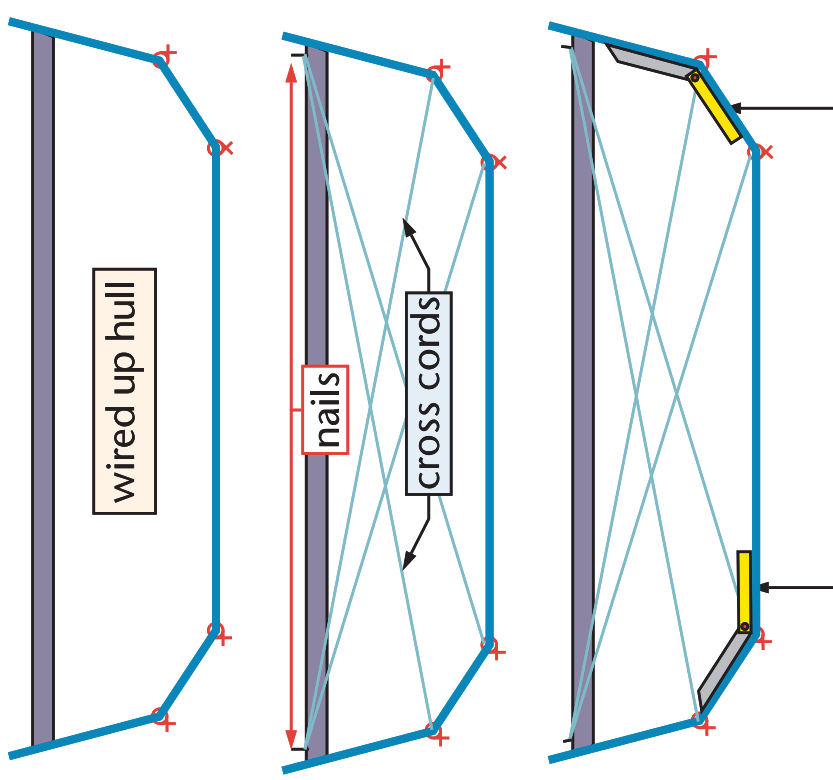


Bottom outside edge details



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

Squaring up the side to bottom panels at the beam of the hull

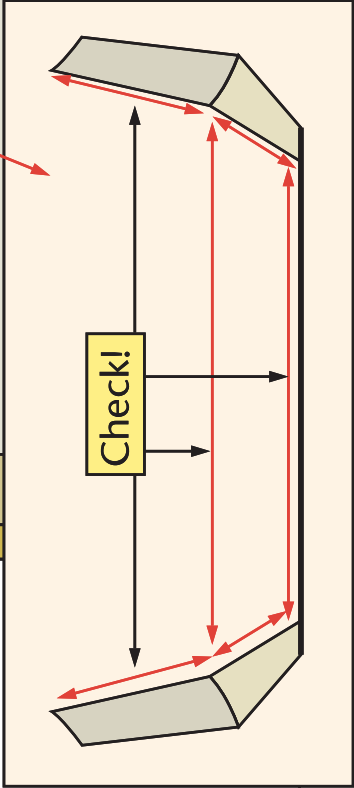


Compare the angles on both sides and tighten or loosen one or both "green" cords until the angles are the same. Recheck the level and the square of the rest of the hull after you do this. Recheck again if those need adjusting too; until you are happy and the hull is level and square!

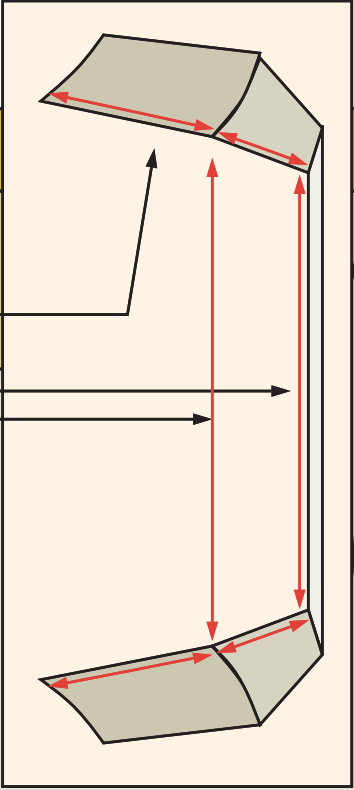
Wired up hull waiting for the bow and transom panels, which you will measure up and cut out now.

Note: Measure the "actual edge lengths" on the hull before you cut out the bow and transom panels. Especially check the lengths of the ends of the side panels!

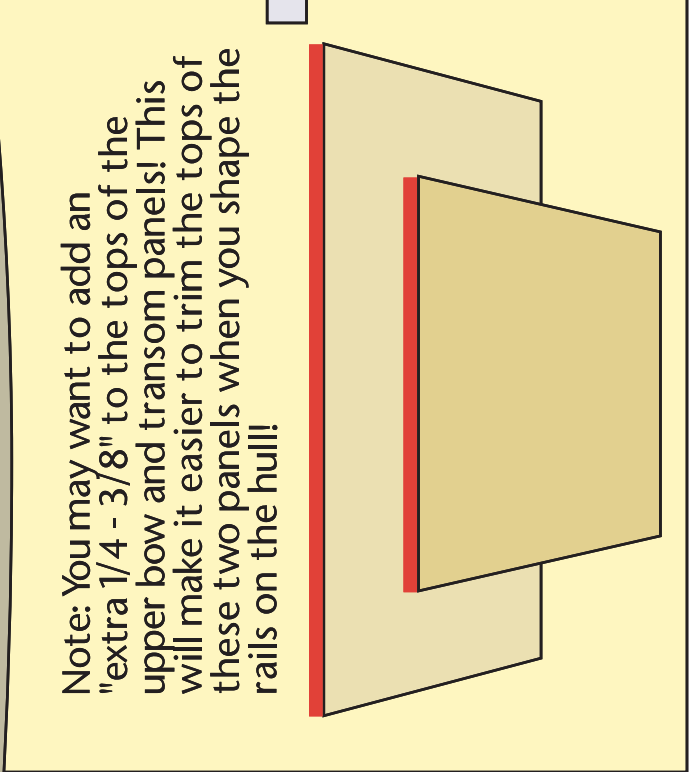
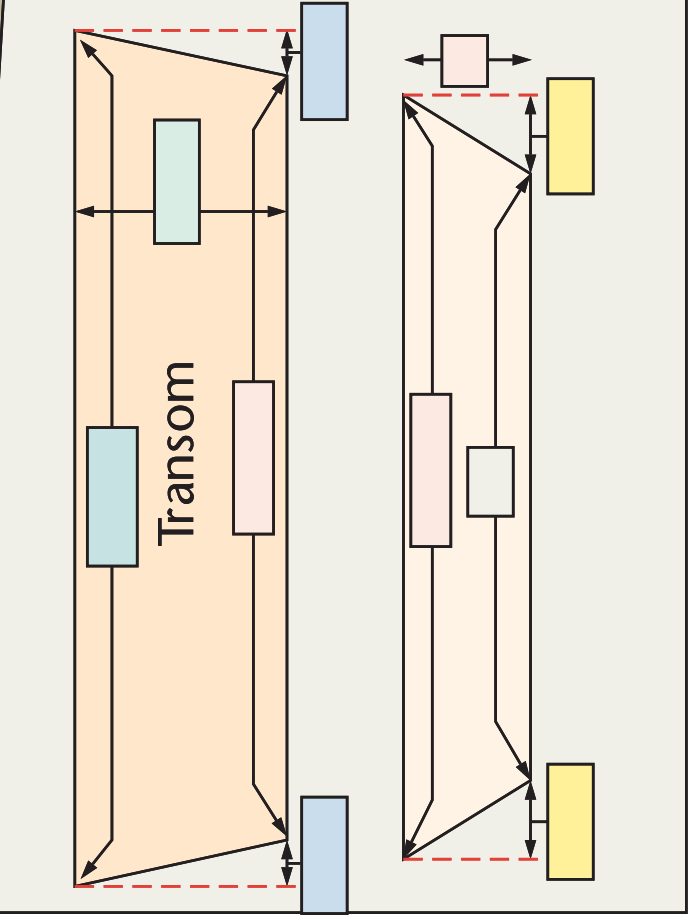
Not to Scale



Stern Panels



Bow Panels



Note: With the hull "leveled" all round you now need to make sure the hull is "square" by tightening or loosening the "blue lines". You want to have the same "length" on both measurements.

Level and square up the hull page

Note: The tie wire holes and screw heads are not all shown to keep the drawing simple.

Blue cords used to "square up" the bow and transom faces to have a hull that is in alignment!

Red cords to level hull
Blue cords to square up

Use as many levels as you have to be sure the hull is level. Make sure to "not" over tighten the cords and compress the hull!

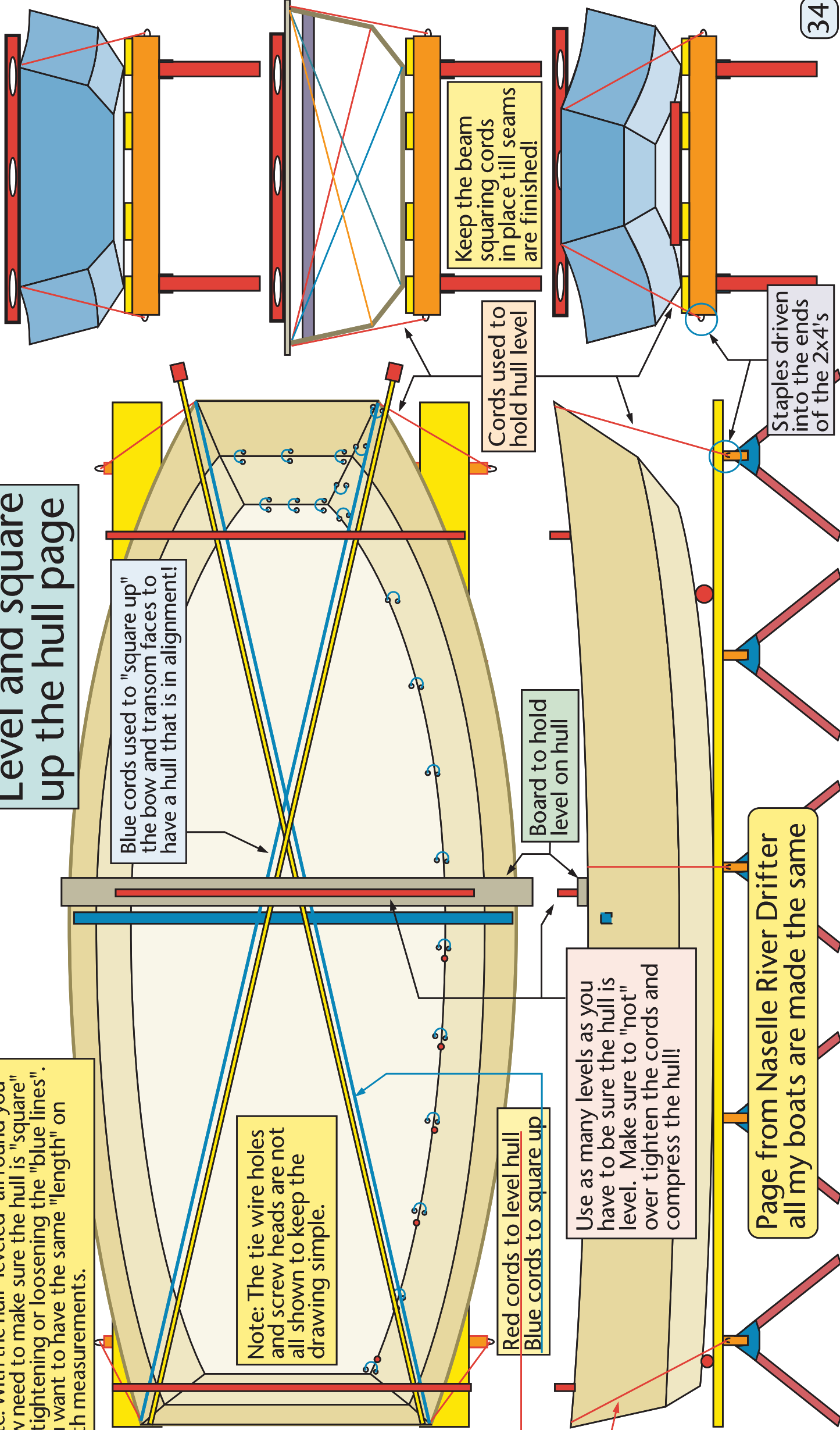
Board to hold level on hull

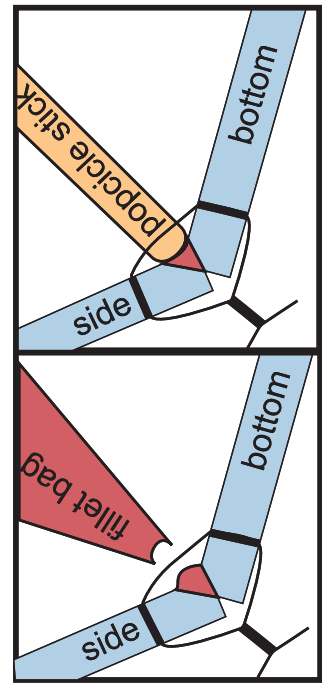
Keep the beam squaring cords in place till seams are finished!

Page from Naselle River Drifter all my boats are made the same

Staples driven into the ends of the 2x4's

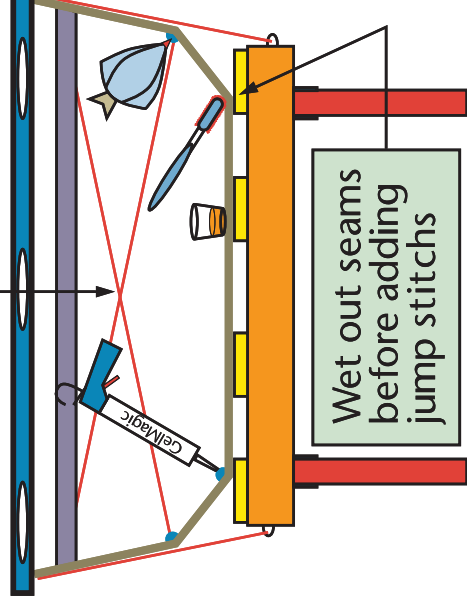
Cords used to hold hull level





Jump Stitch

Still need to have the "cross tie" cords in place when you do this!




You can use System Threes GelMagic or your own bagged fillet material to make the "jump stitches" to first hold all the hull panels together.

Note: Be sure to force the "jump stitch" material into the gap. Use a tool to help if needed. It helps to push the material ahead of the tip if using a bag or tube!

Direction of travel

Note: Before you do the jump stitches, wet out the seams with epoxy to seal off the exposed end grain! Tooth brush works great!

Note: Not all of the tie wires or screw heads are shown! But imagine that they are.

You only need to apply the GelMagic or fillet material between the screw heads and the tie wires. Try not to get the epoxy on the heads or wires as it makes it very hard to remove them!

Hull is still leveled and tied down!

Page from Naselle River Drifter all my boats are made the same

After the fillets have cured and been smoothed up with sand paper, it's time to lay down the 2" glass tape on all the interior seams.

When the 2" glass tape has "mostly cured" you can add the 3" glass tape. Follow the lines you made to locate the edges of all the tape so it will look even with all the curves of the hull.

Fillets and Tape application page

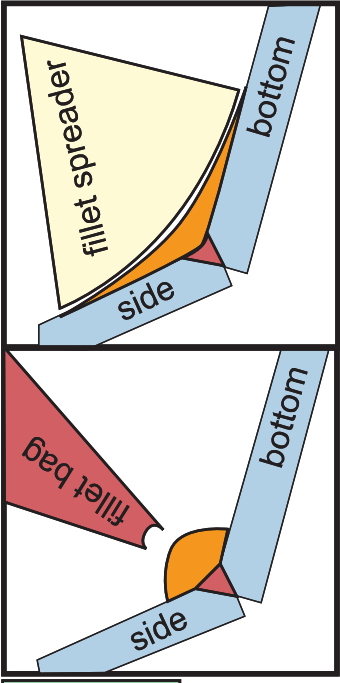
With the "jump stitches" cured you can remove the bolts/nuts and the tie wires. Leave the hull squared up and tied down!

The exterior seams will be worked on later in the construction of the hull

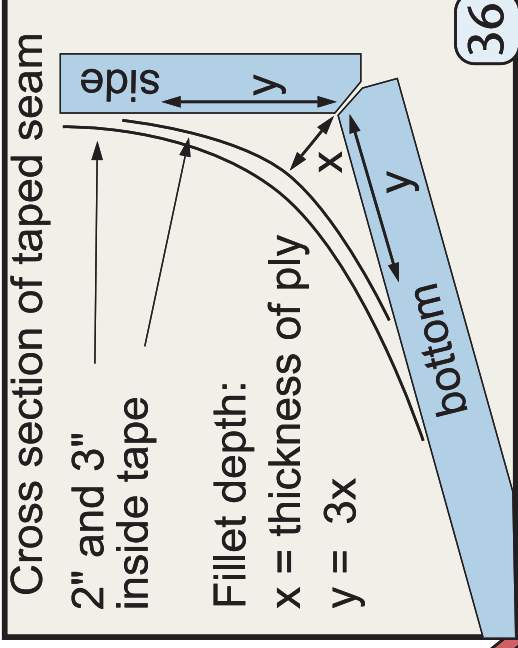
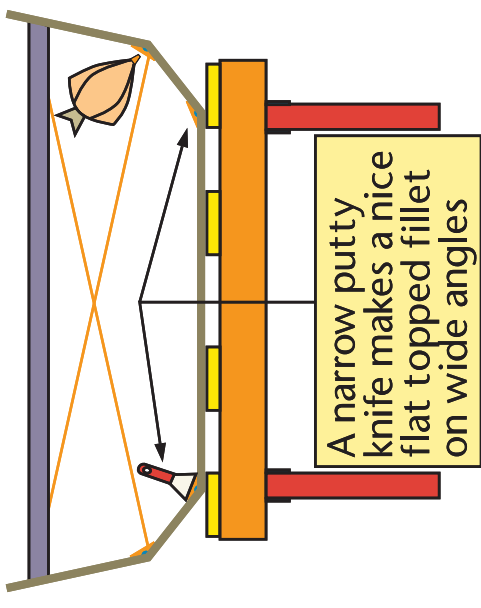
Page from Naselle River Drifter all my boats are made the same

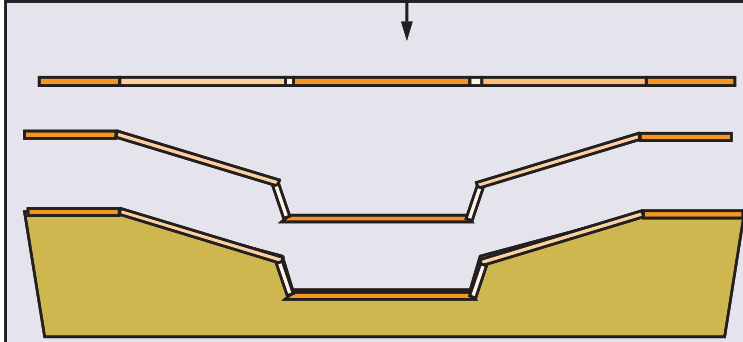
Add the fillet material and shape the "surface" with a concave curve as shown in the drawings.

I show how to do the fillets and taping the seams in several of my Red Barn YouTube videos. So it helps to watch them to answer any questions you may have that are not apparent in the drawings.



Applying and Spreading the Fillet





All the spacer blocks are solid pieces of wood at the transom

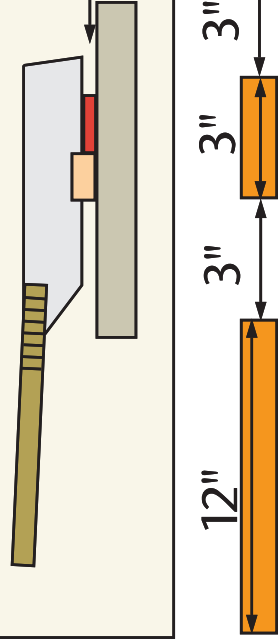
Alternate layout if you cut down the transom to use a short shaft Outboard

Note: The following pages on installing the rails were taken from the John Duk boat plans, so there was no need to redraw the pages for this hull!

Page from the John Duk

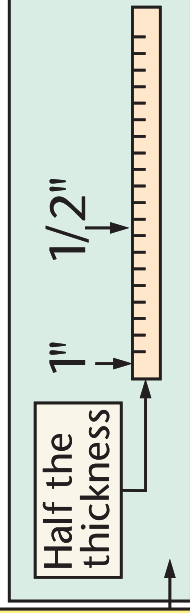
Adding the Spacer Blocks

Reduced Scale!



Use a piece of scrap wood the thickness of the sipe cuts to use as a gage for making the cuts.

Note: If you go with a longer spacer block in the 10" to 12" range you will need to cut some "reliefs" in the spacer blocks to get them to bend to the curve of the hull!



Try for 12" but it can be more!

A spacer block size and gap at 3" for each part works well. That spacing lets the blocks conform to the hull without distorting the side panels. When you get to the bow, try for at least 12" for the length of the last block. It can be longer if needs be; just make sure that you "sipe" the inside face as shown in the side drawing so the block will "bend to the hull" and not force the hull panels to bend to it!

Adding the Inside and Outside Rails

Once the inside and outside rails are installed the beam 2x2 can be removed

Note: If using oarlocks, the 12" spacer sets the first block. The first spacer and block start on either side of it, and continue to the ends!

Or you can leave it in until you have the two middle seat support 2x2's in place!

Note: If you add oarlocks to this hull you will want to "add the 12 block" first and make all the adjustments to the spacer blocks and spaces from it!

No gaps in
bow or
transom
spacer rails

SS screws installed from the inside of the side panels into the outside rail. Mark on top where they are so you do not drill into them when you install the longer screws for the inside rails!

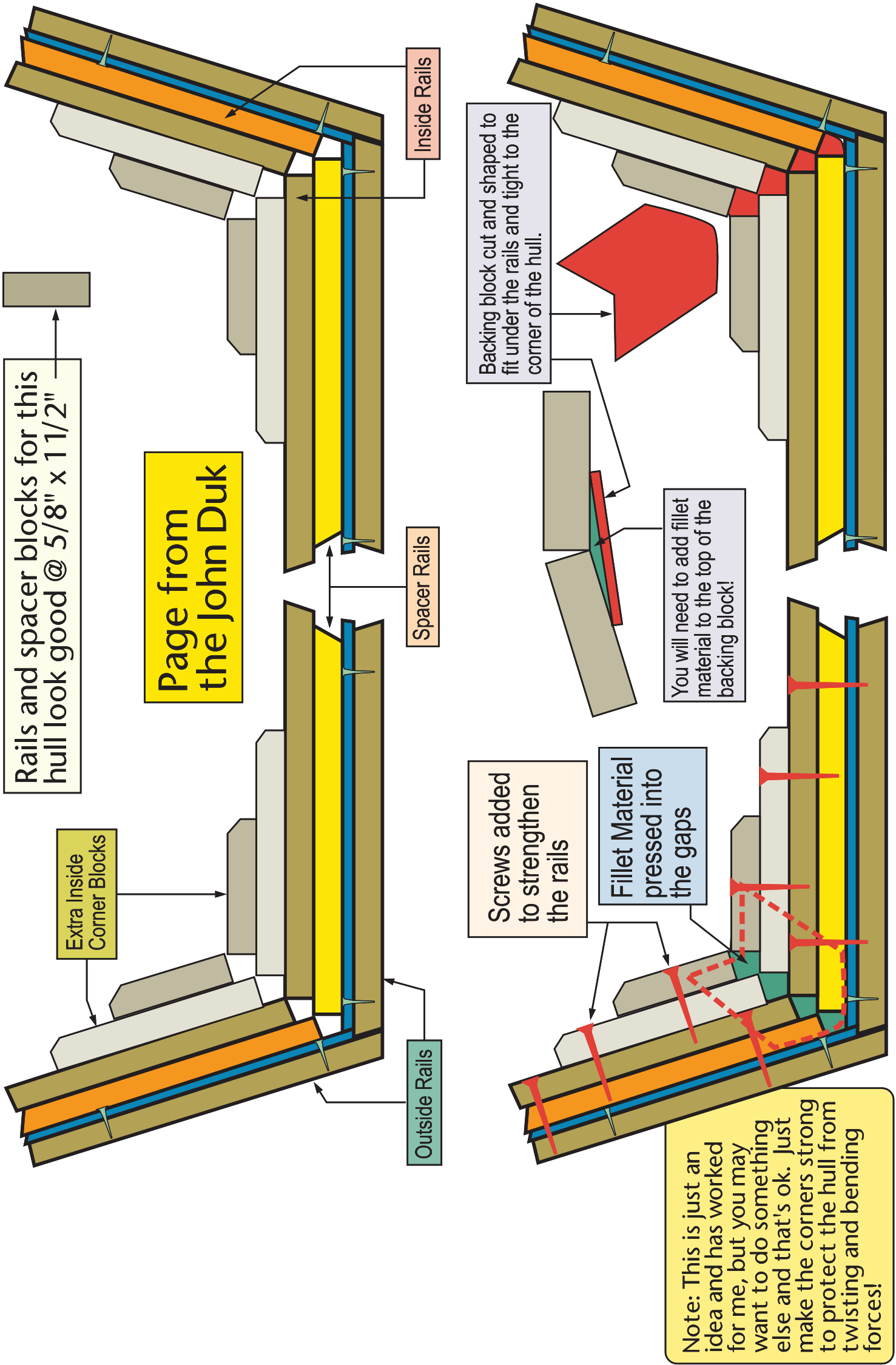
"Station line cut marks"

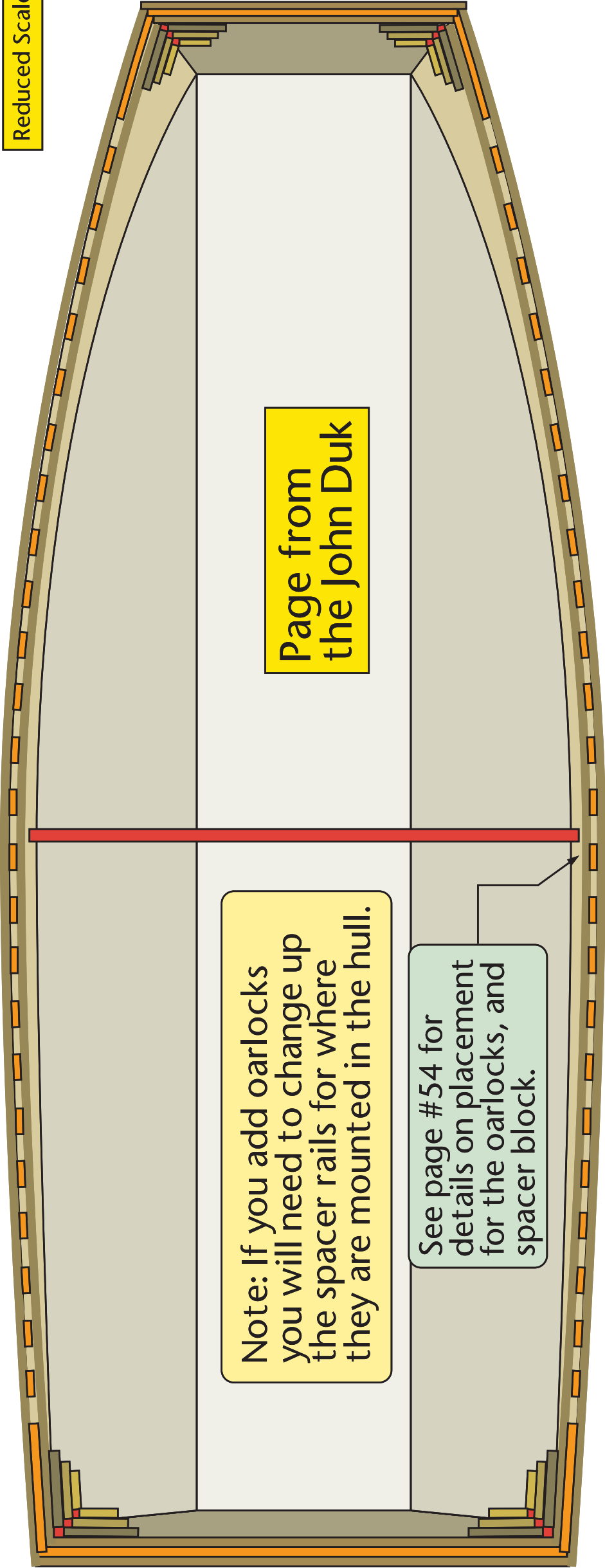
Only epoxy spacer blocks to hull!

Plywood

Outside rail

Spacer blocks with the inside and outside rails added to show how they look with the plywood.





Page from
the John Duk

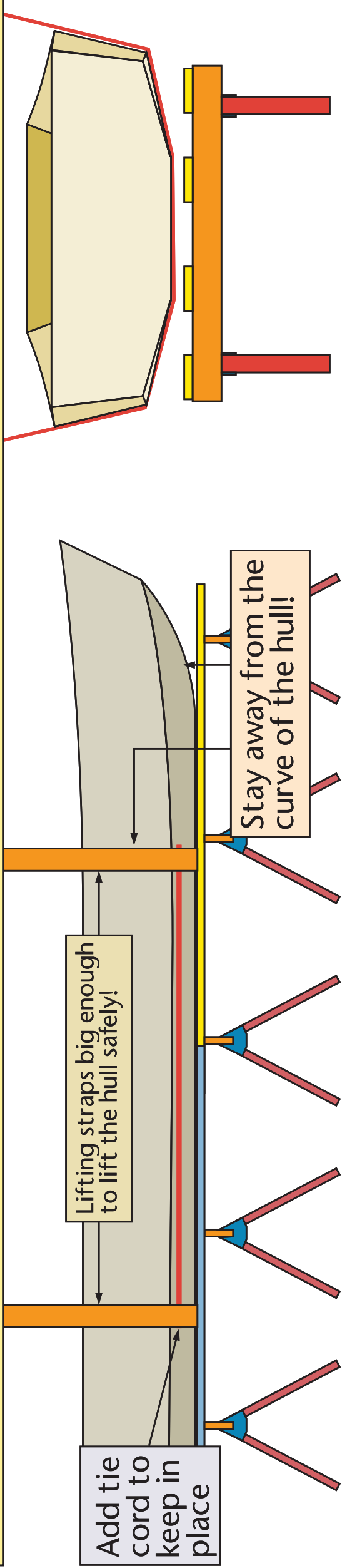
Note: If you add oarlocks
you will need to change up
the spacer rails for where
they are mounted in the hull.

See page #54 for
details on placement
for the oarlocks, and
spacer block.

The completed hull can now be fitted with the interior that you want to install. Just be sure to not put too much weight in any one end or side. Remember that the weight of the Outboard Motor will be hanging on the transom when you start outfitting your hull. The following pages will show some ideas that can be used in the hull. But, it's still a 14 foot hull and there are limits to what you can add!

At this time you may want to flip the hull over with the bottom up, so you can finish the seams and glass work.. It will be easier to do this before the weight of all the interior parts are installed. Once the bottom seams have been filled, faired, glassed, and the bottom glass cloth have been added and the hull has it's bottom paint, you can flip the hull once more onto the work platform or a boat trailer to finish the interior.

Note: Before you finish off the interior of the hull you might need to flip the hull and finish all the bottom work!



Lifting straps big enough
to lift the hull safely!

Add tie
cord to
keep in
place

Stay away from the
curve of the hull!

Make sure your supports are
strong enough for the job!

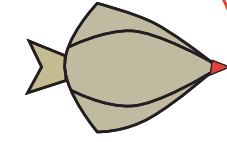
Page from
the John Duk

Remember that the beam is
64" plus the rails, so you may
have to remove the work
platform to do this!

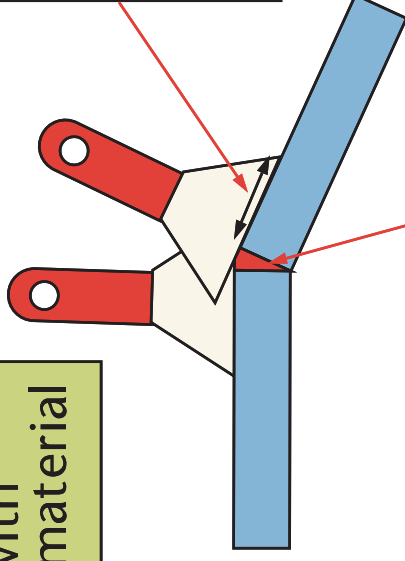
Be careful and don't
hurt yourself!

Start with this first! Then the fillet material!

Thoroughly wet out the plywood edges at the seams with epoxy!



Fill all gaps with epoxy fillet material



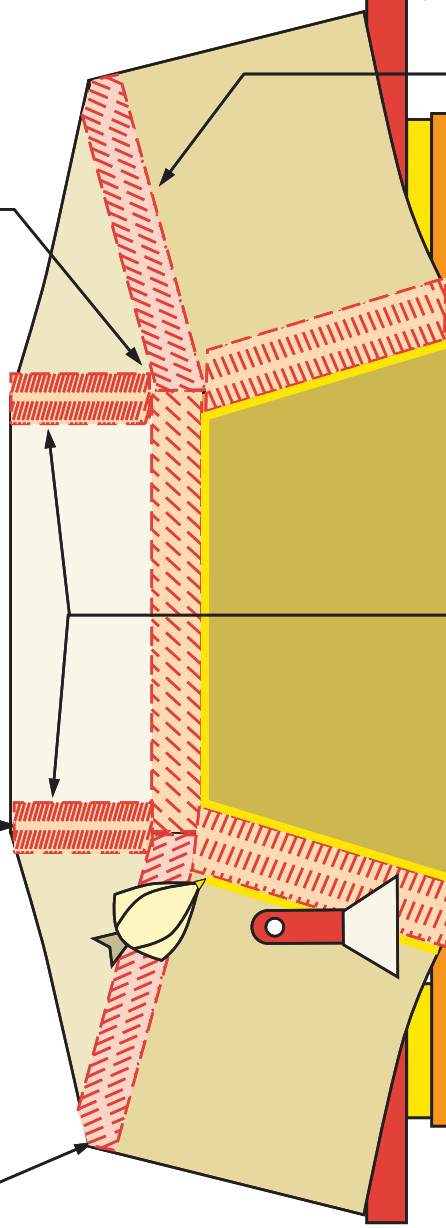
Use a wide putty knife to smooth the fillet material into the groves. Make sure to keep most of the blade on the plywood to "fill the center" of the gap!

After this, then this

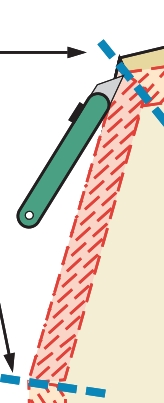
3" glass tape centered on all outside seams

Chine seam tape end cut to match

Yellow pigmented to fairing compound to fill and smooth the edges of the tape.



Trim tape ends to match the corner angles!



Page from the John Duk

Single tape from transom to bow

Or 2" tape if you used that on the inside of the hull

Outside seam details

Note: You may need to add a 2x4 to support the hull!

Use fairing compound to smooth and hide the edges of the glass tape

View the hull as upside down!

The maximum width of the bottom panel is at the beam, and it's width is about 44", so 60" will just cover the bottom and the lower side panels.

Sharp knife to cut glass cloth

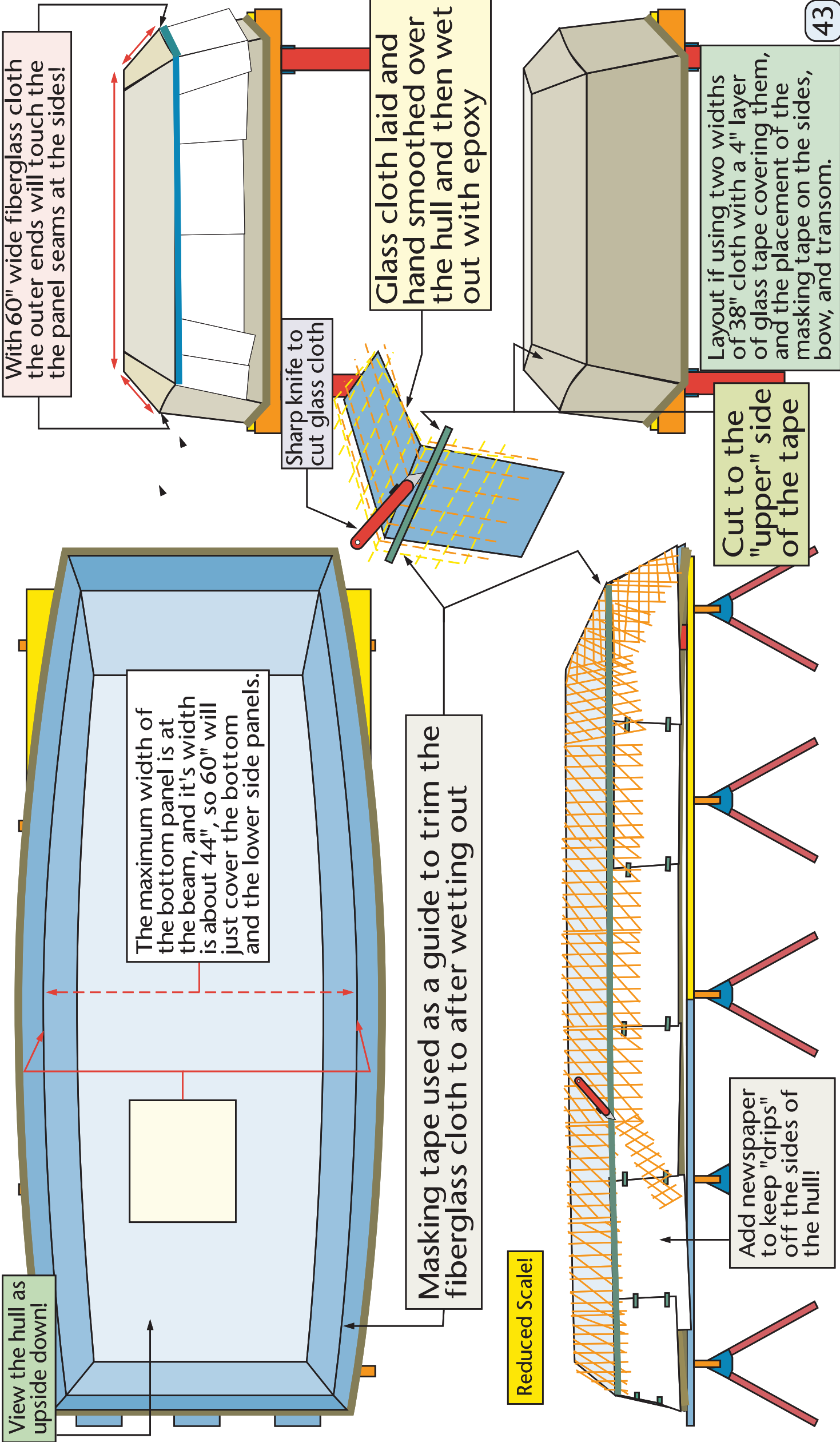
Glass cloth laid and hand smoothed over the hull and then wet out with epoxy

Reduced Scale!

Add newspaper to keep "drips" off the sides of the hull!

Cut to the "upper" side of the tape

Layout if using two widths of 38" cloth with a 4" layer of glass tape covering them, and the placement of the masking tape on the sides, bow, and transom.



Outside seam details for the glass tape and fairing compound layers

Use knife to cut along upper edge of masking tape

Outside Seams

3" fiberglass tape

Use a 2-3" putty knife to fair in the edges. 3/4" wide fairing bevels are good enough for the 3" tape and 4oz cloth

A

3" fiberglass tape to add strength to the joint and to smooth the edge

Edges sanded but not faired

Gelmagic or fairing compound to fill and round the gap for the fiberglass tape

Two layers of backing blocks to hold the wood screws to attach the hatch

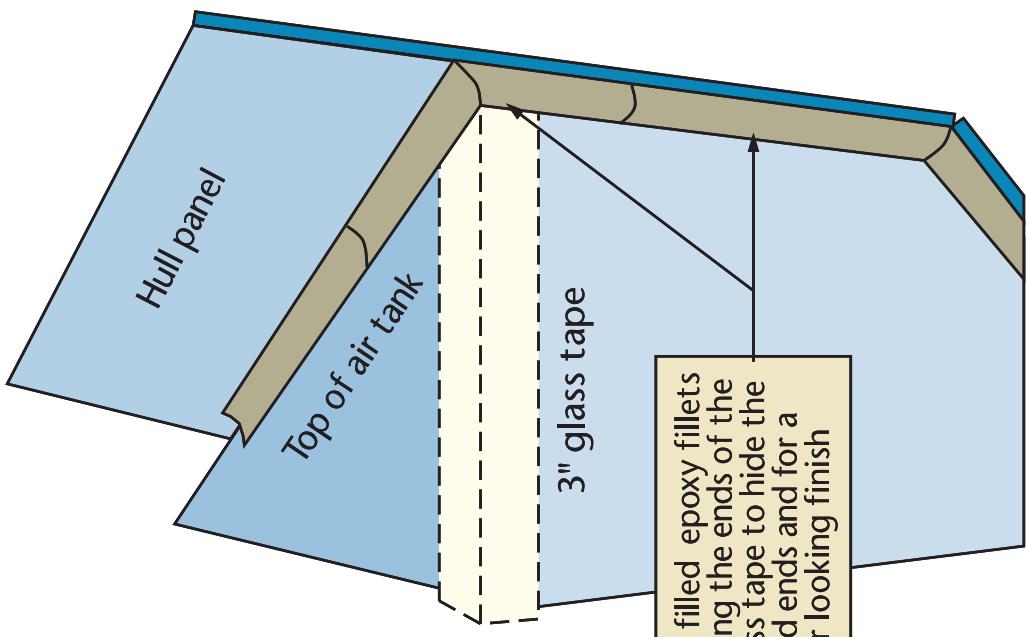
Threaded quarter turn or pop out hatch

Inside Seams

Construction details if you install interior compartments for storage or for extra flotation safety.

B

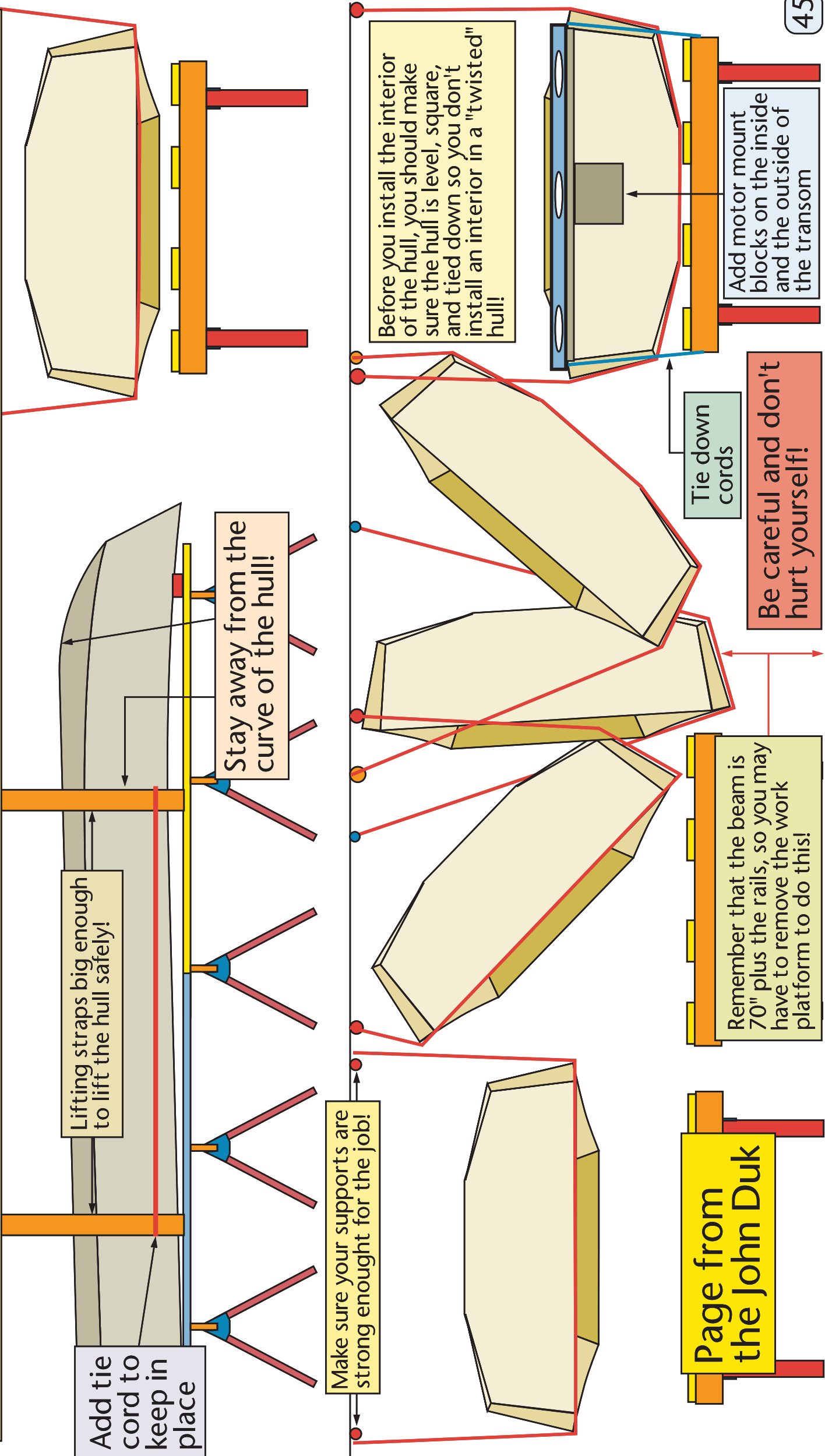
Air tank edging details



Wood filled epoxy fillets covering the ends of the 3" glass tape to hide the ragged ends and for a better looking finish

C

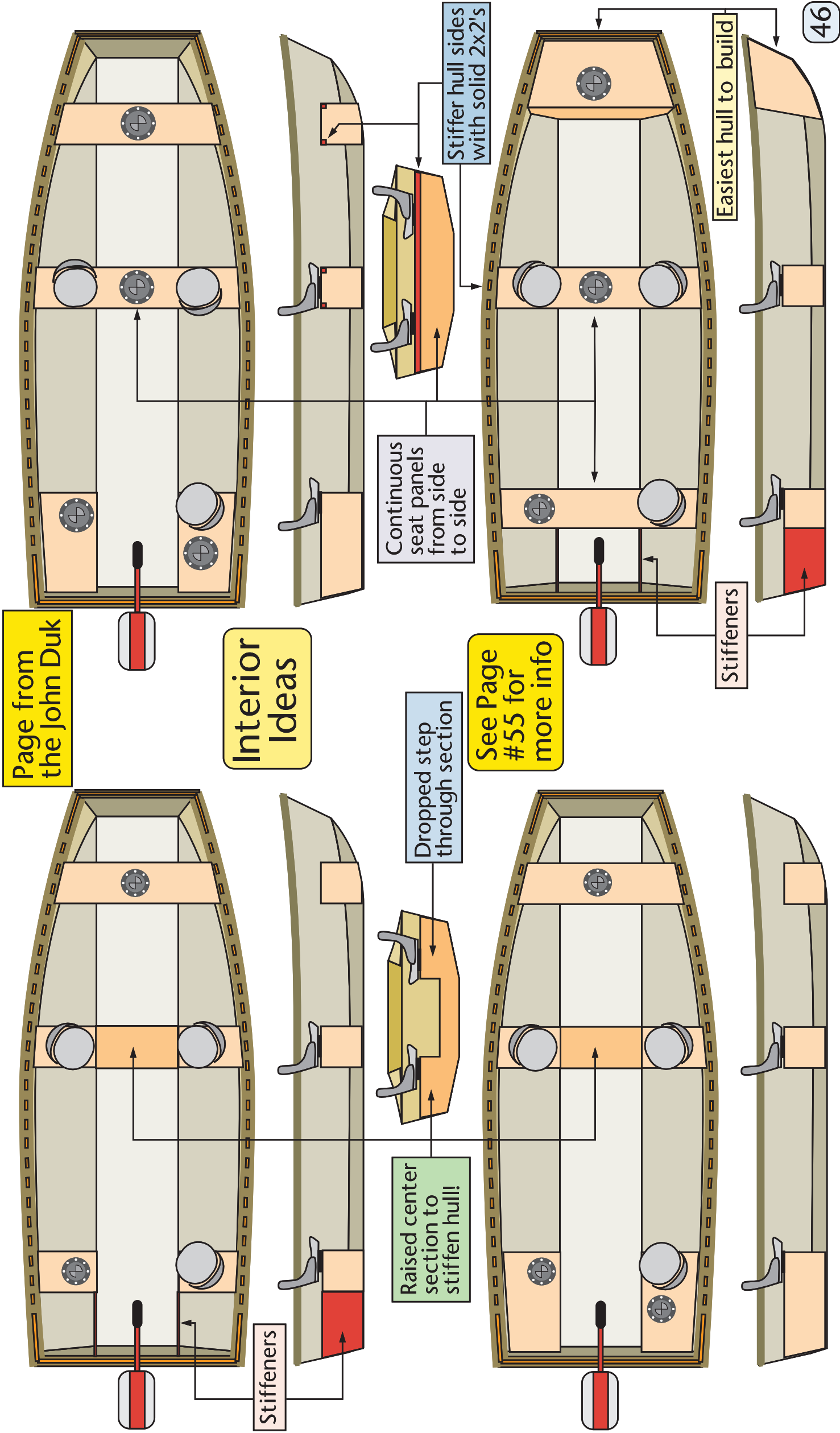
Note: Before you finish off the interior of the hull you will need to flip the hull after all the bottom glass work!



Page from
the John Duk

Interior
Ideas

See Page
#55 for
more info



Size the hatches to one's that will fit and be easy to get into. Remember that there is a 2x2 under the seat top!

Reduced Scale!

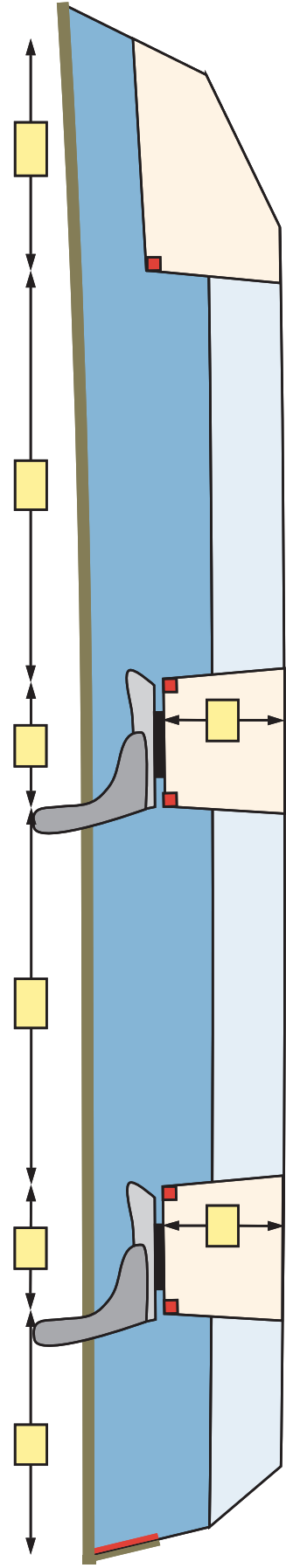
Backing plate to give the hatch screws something to grip.

Bulkhead to make two air chambers with hatches

Motor mount protecting plate sized to fit the OB that you will use. Size a plate for the inside too.

Note: See page #54 for the measurements of the rowing version of the hull!

Hatch and seat can be reversed depending on how you steer the boat



Good layout for a hull with an OB motor. You may vary the interior to what you want for your hull; just make sure that the weight of the hull is balanced with the OB and any other gear you add, plus people.

Step handles to help get back into the boat if you should fall out. I have them on my pram boats and have used them!

Reduced Scale!

I will use this layout as the example for fitting the interior panels in the hull!

the top edge
of the plywood
at the transom

The other styles and "your" interior will use the same fabrication methods

Note: See page #54 for the layout and measurements if you want to row this hull and need to add oarlock brackets. 



The 2x2's will be used to locate the seat tops and will be used as stops for the seat side and top panels that will be installed next. Some of the 2x2 material will be removed later depending on which hull interior you select!

Maybe have the deck all the way to the top?

The height of the bow deck will be your choice! It can be high or low

You may need to add a screw to keep the 2x2 in place while the epoxy cures.

Install step handles for personal safety!

2x2's leveled in the hull at the locations given
fit/cut the ends to conform to the angles of
the side panels at their locations, and epoxy
in place!

Piece of scrap to keep the head from denting the plywood

Backing blocks

Make sure the hull is still level!

Placing and leveling the 2x2's in the hull

Use the distances from the transom for the 2x2's on the previous page!

The "red" seat support 2x2's are clamped to the "yellow" 2x2's, which are clamped to the vertical "orange" 2x2's, which are clamped to the "green" cross hull supports.

Use the station line cut marks to line up the "cross hull supports" to the measurements listed on the previous page!

Reduced Scale!

Vertical supports to hold seat 2x2's to the correct height

Epoxy to sides when 2x2's are level in hull

You get to set the height of the bow compartment 2x2

Wood clamped to the side rails

Boat tie down U-bolt with backing block and washers both sides

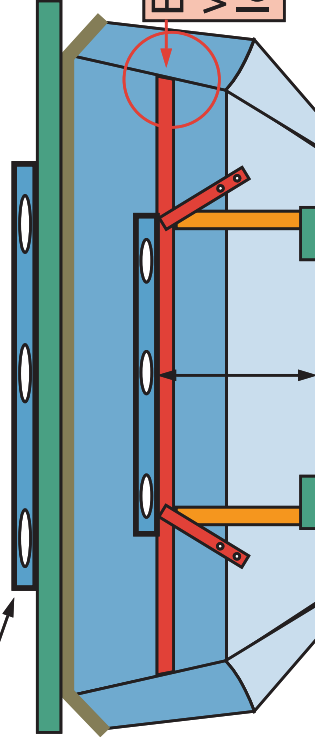
Make sure the hull is still level!

Placing and leveling the 2x2's in the hull

Alternate Method

Extra 2x2's used to check for a consistent height between seats

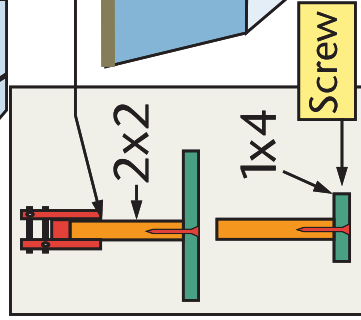
Reduced Scale!



Use the station line cut marks to line up the "cross hull supports" to the measurements listed on the previous page!

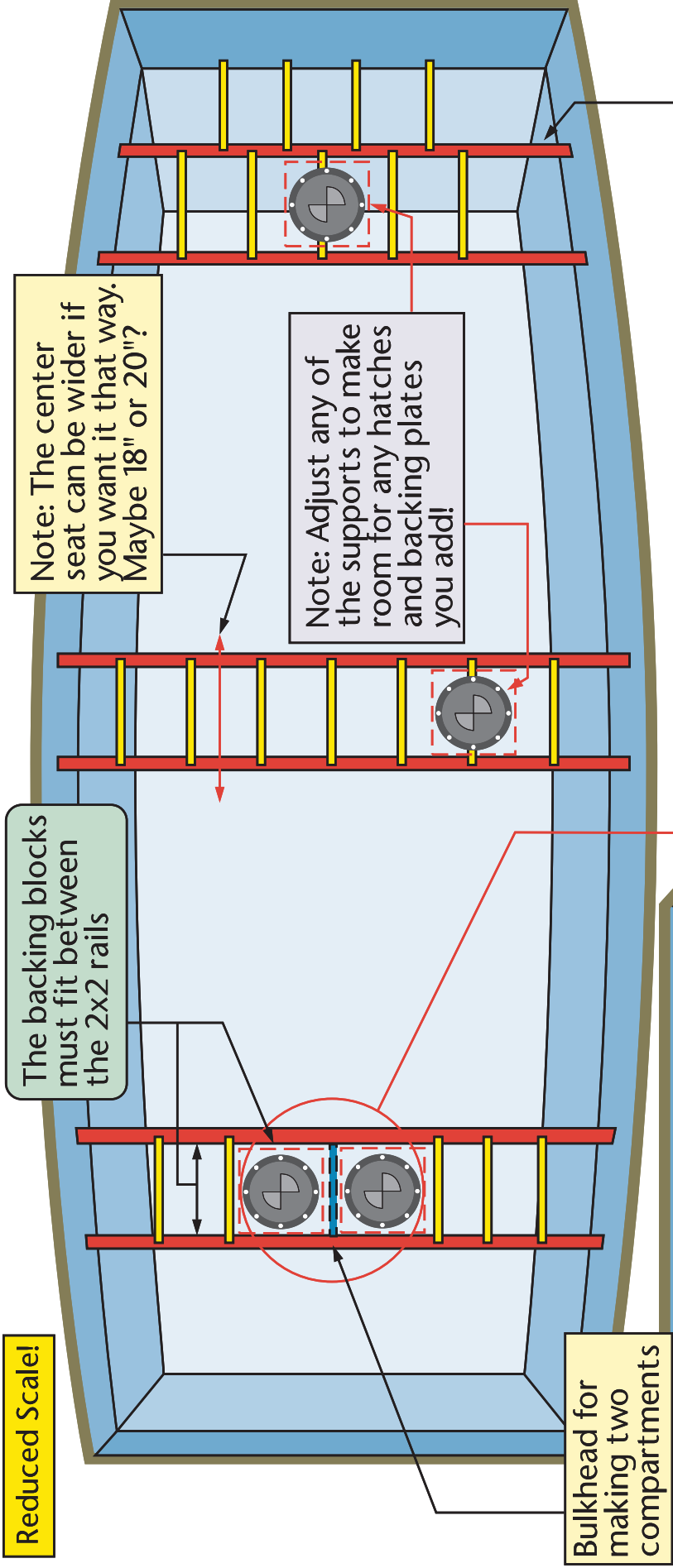
Support blocks to set the height of the seat 2x2's in the hull

You get to set the height of the bow compartment 2x2



Note: You may want to add another 2x2 here to help support the deck.

Reduced Scale!



The backing blocks must fit between the 2x2 rails

Note: The center seat can be wider if you want it that way. Maybe 18" or 20"?

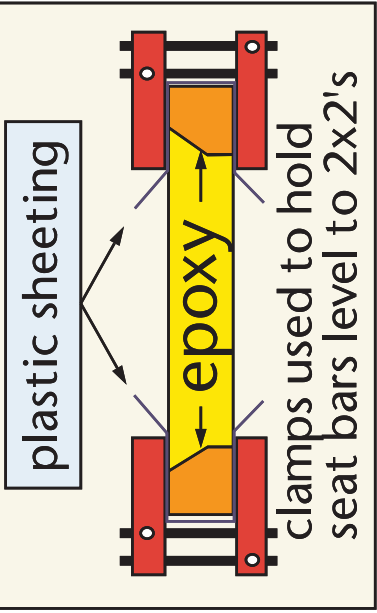
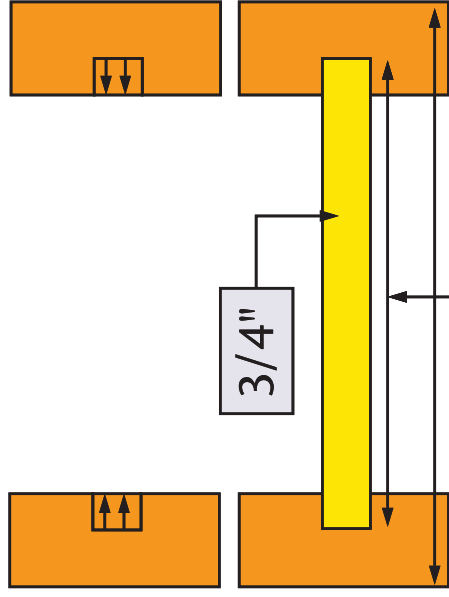
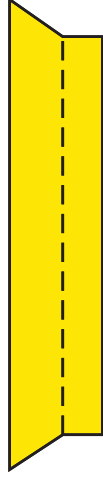
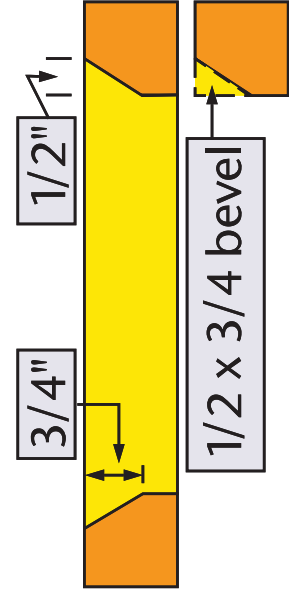
Note: Adjust any of the supports to make room for any hatches and backing plates you add!

Note: If you make the front "seat" wider, add another 2x2 for support!

If you install a "cooler" in your hull, you may want to change the spacing between the seat support braces to fit the hatch between them

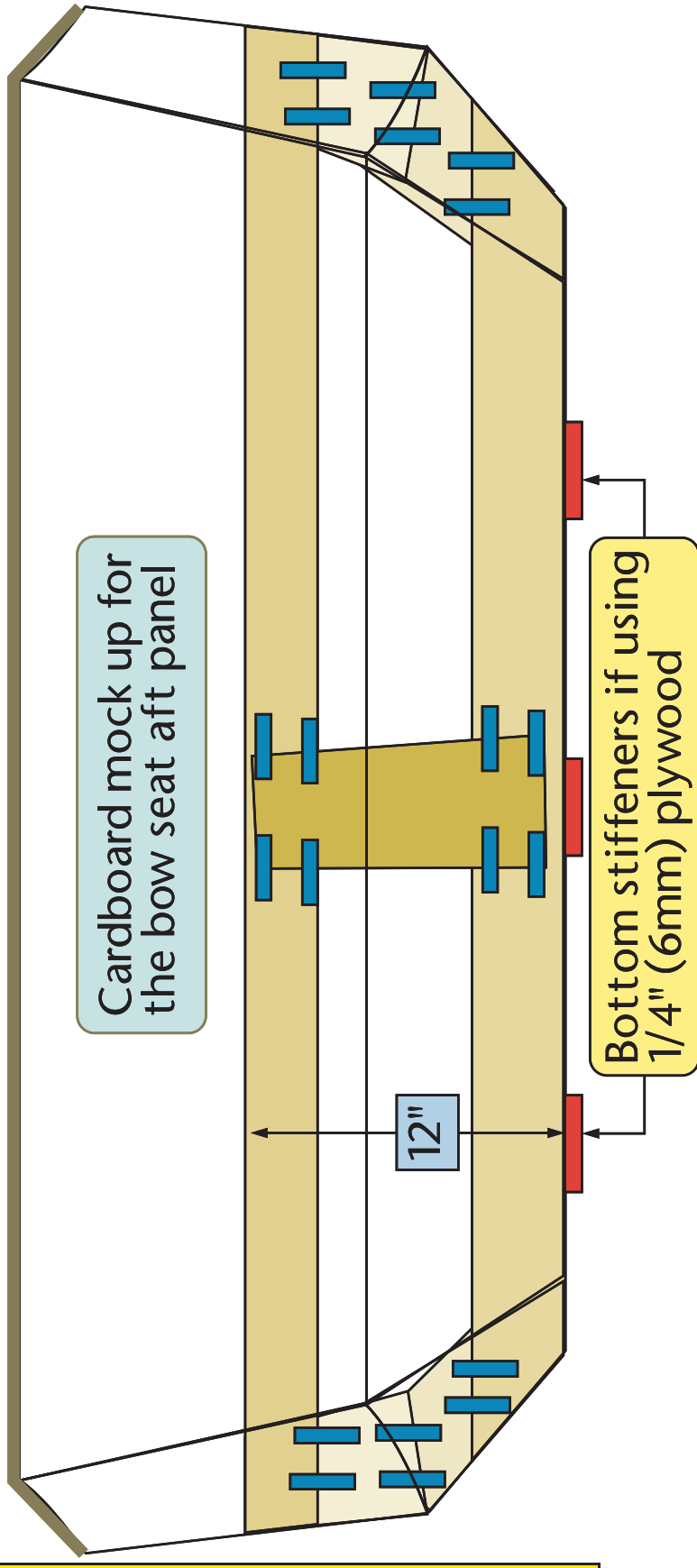
Make seat support bars from scrap 2x2 cut in half

Bulkhead for making two compartments

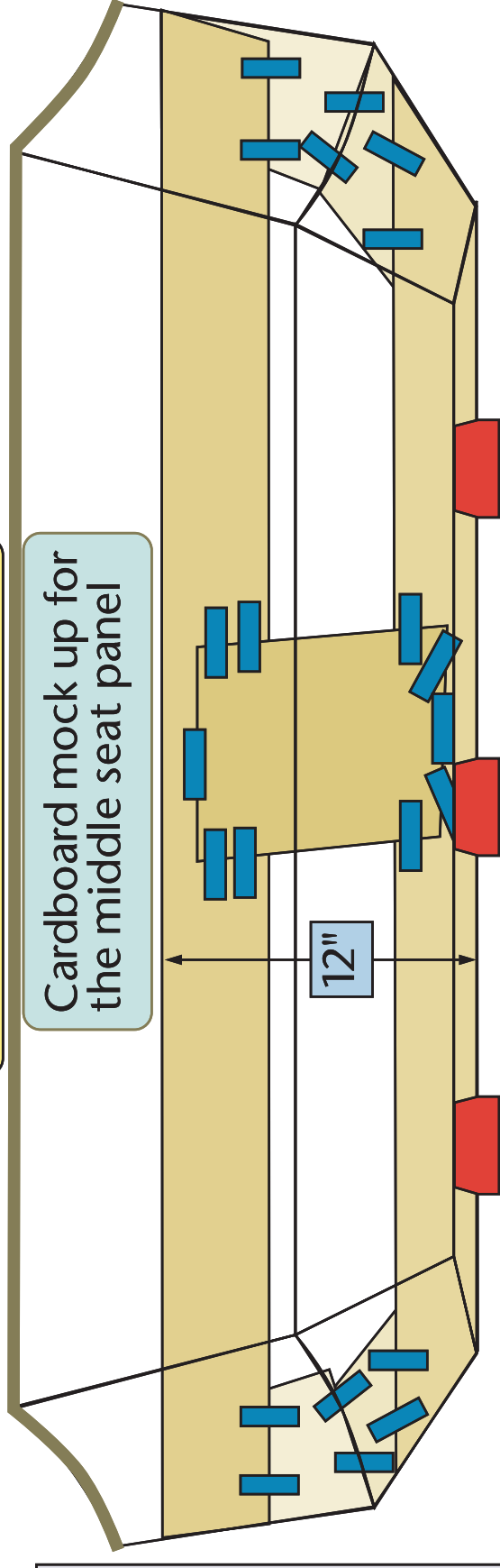


Adjust length to fit your hull! Don't worry if your seats are wider or narrower than mine.

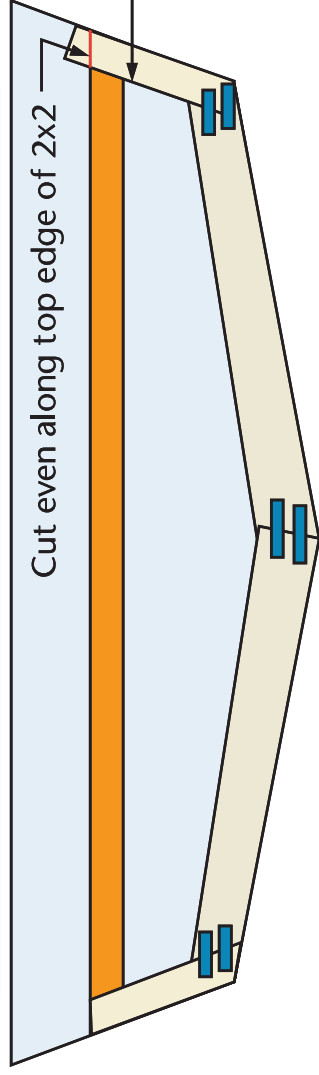
Using cardboard strips to make an outline of the hull where the seat support panels will go. This gives you an accurate shape to transfer to larger sheets of cardboard to cut out the full sized mockup. Then the "fitted" mockup can then be transferred to plywood to make the panel to epoxy into the hull.



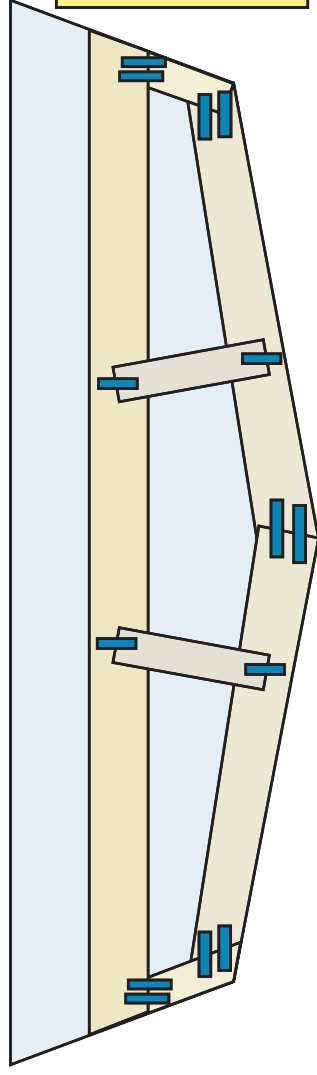
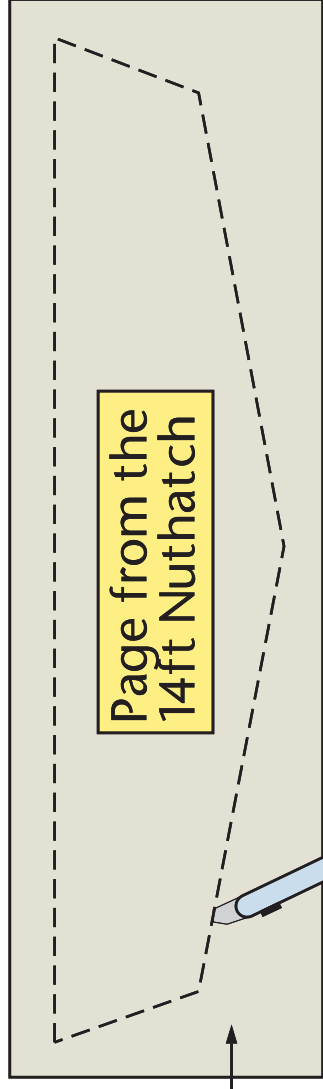
The next page shows a better idea of how this works. The drawing was taken from the 14ft NuHatch Pram, but the process is the same for all my boat designs. This works for all hull panels whether it is a vertical seat support panel or on of the seat tops itself. Give it a try before you cut out any of the plywood parts for this hull!



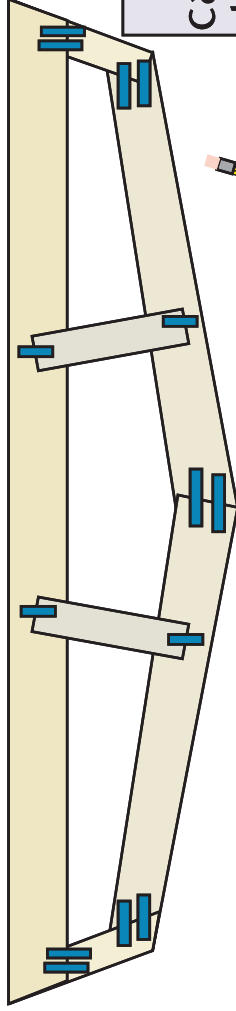
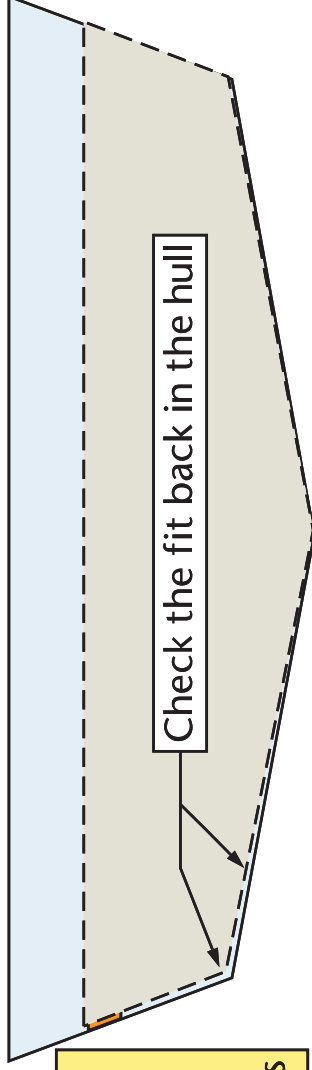
An easier way to fit the interior panels!



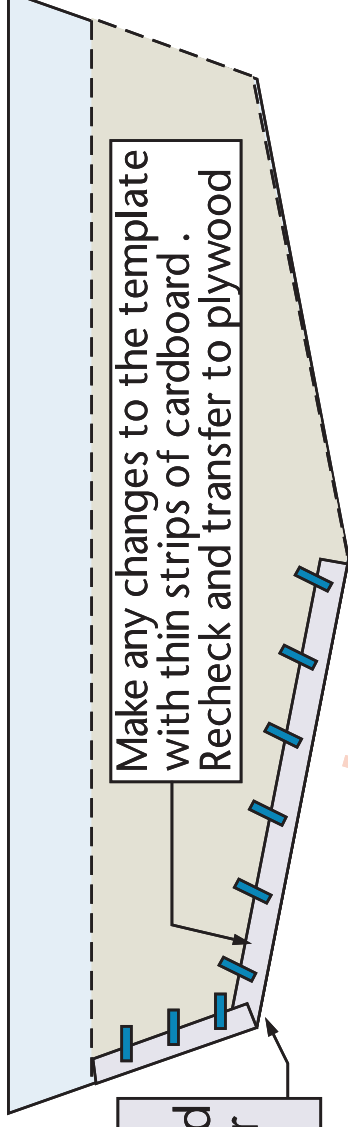
Cardboard strips sheet



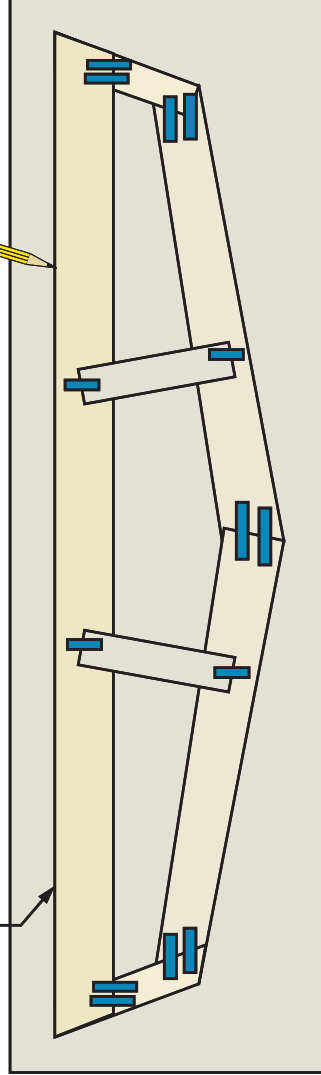
This is an alternative to using a spiling stick to find the dimensions to the interior panels



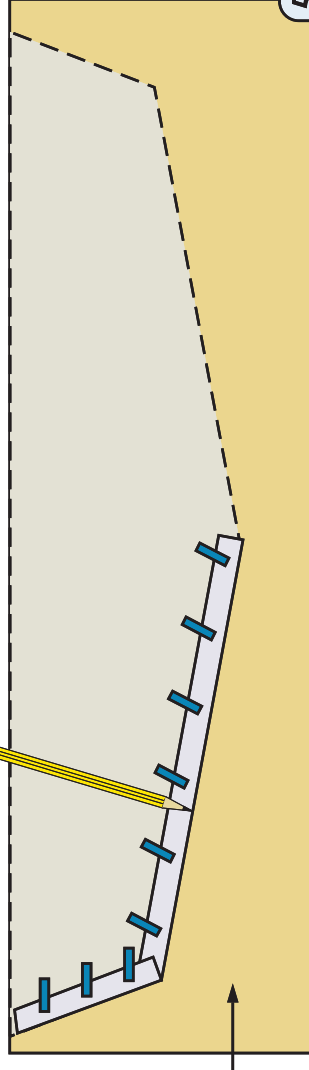
Light weight cardboard taped to template for a better fit



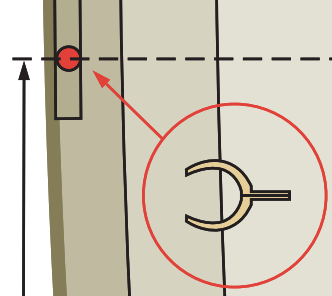
Use a pencil to outline the template you have taped together from the interior dimensions of your hull. Remember, all hulls will be different!



Plywood sheets



Placement of oarlock sockets if you install them.



XX" to aft edge

Want to row instead? Then use these alternate measurements for placing the seats, and rail spacer blocks.

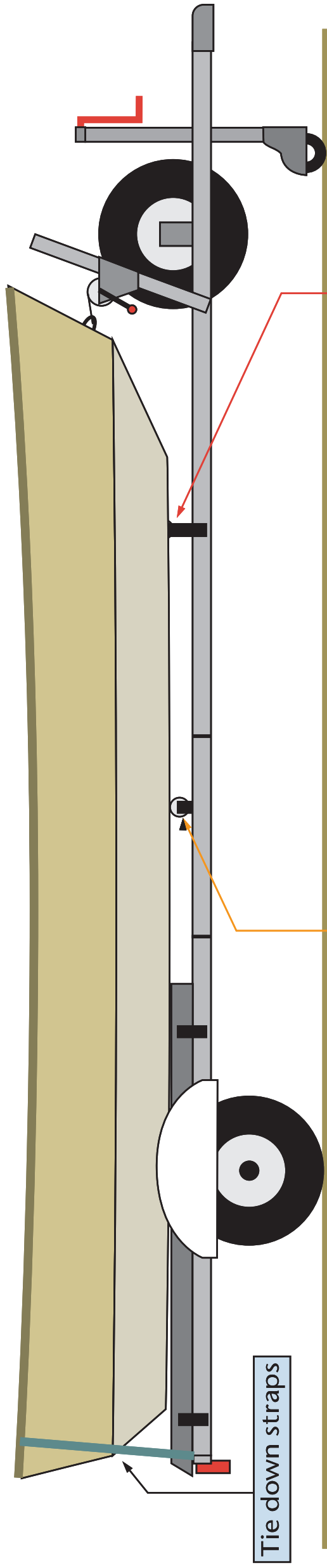
Note: The hatches can be anywhere you want them, but be sure to locate them in advance so the 1x2 seat supports are placed correctly and there is room for the backing plates and the 2x2 seat supports

The bow seat can be a lot smaller if you want. But it does give the dog someplace to sit.

Note: Location of the major parts of this hull, but your hull may be different and that's ok. Just be sure that the hull is balanced with an equal weight distribution.

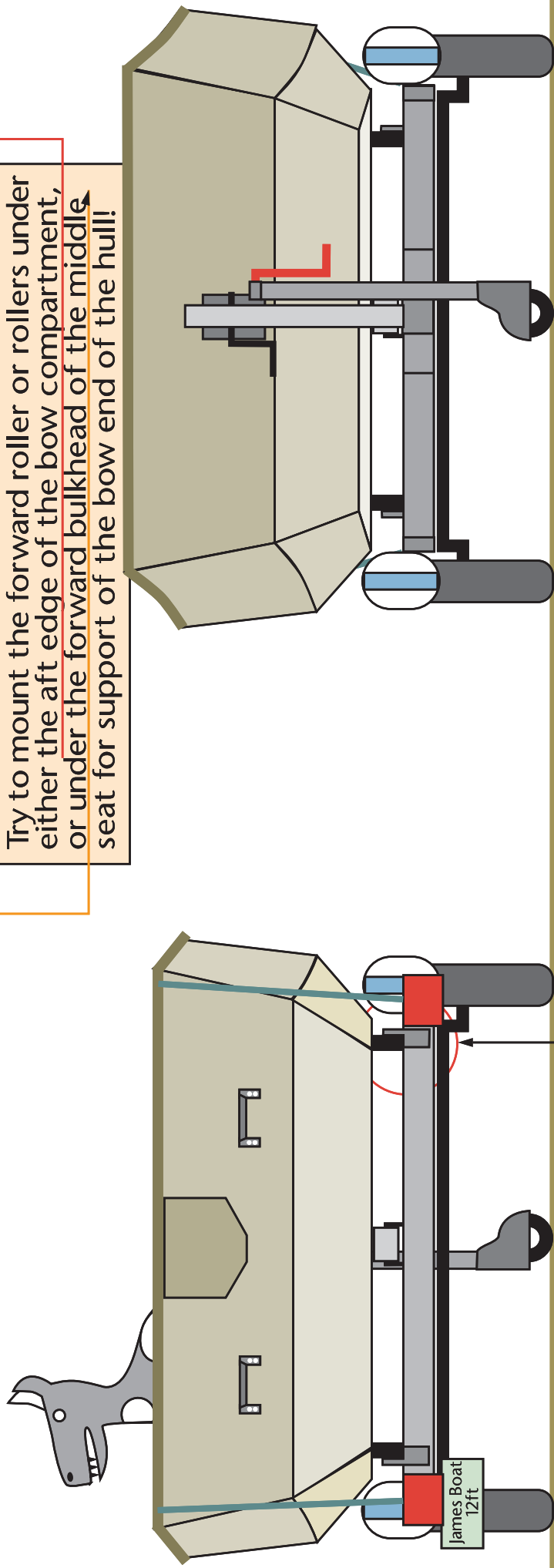
Backing plates for the hatches. Can be 1/4" to give two layers for the hatch screws to grip.





Tie down straps

Try to mount the forward roller or rollers under either the aft edge of the bow compartment, or under the forward bulkhead of the middle seat for support of the bow end of the hull!



Try to set the support bunks under the seams at the edges of the bottom panel

Be sure the hatch backing plates
clear the 2x2's

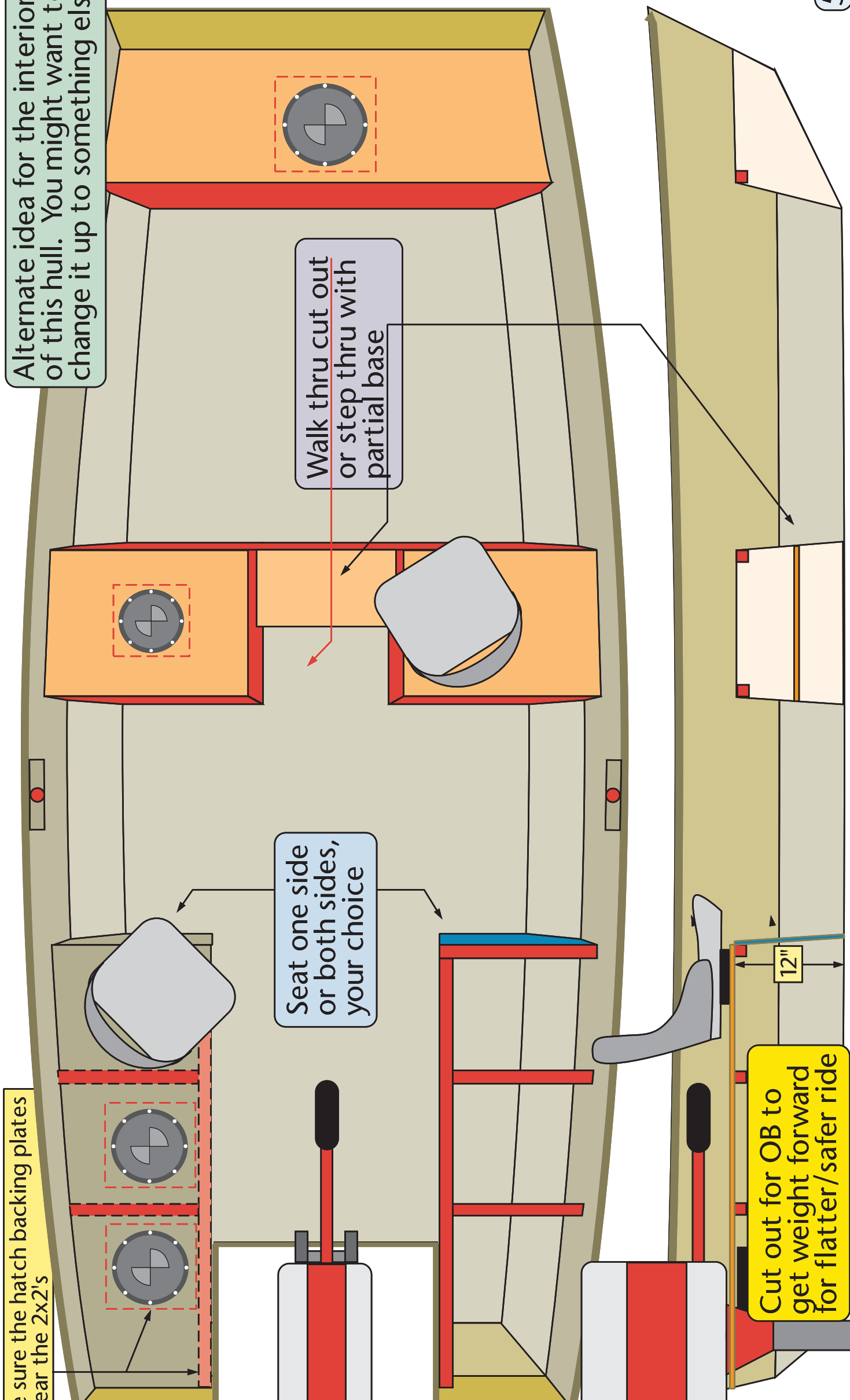
Alternate idea for the interior
of this hull. You might want to
change it up to something else

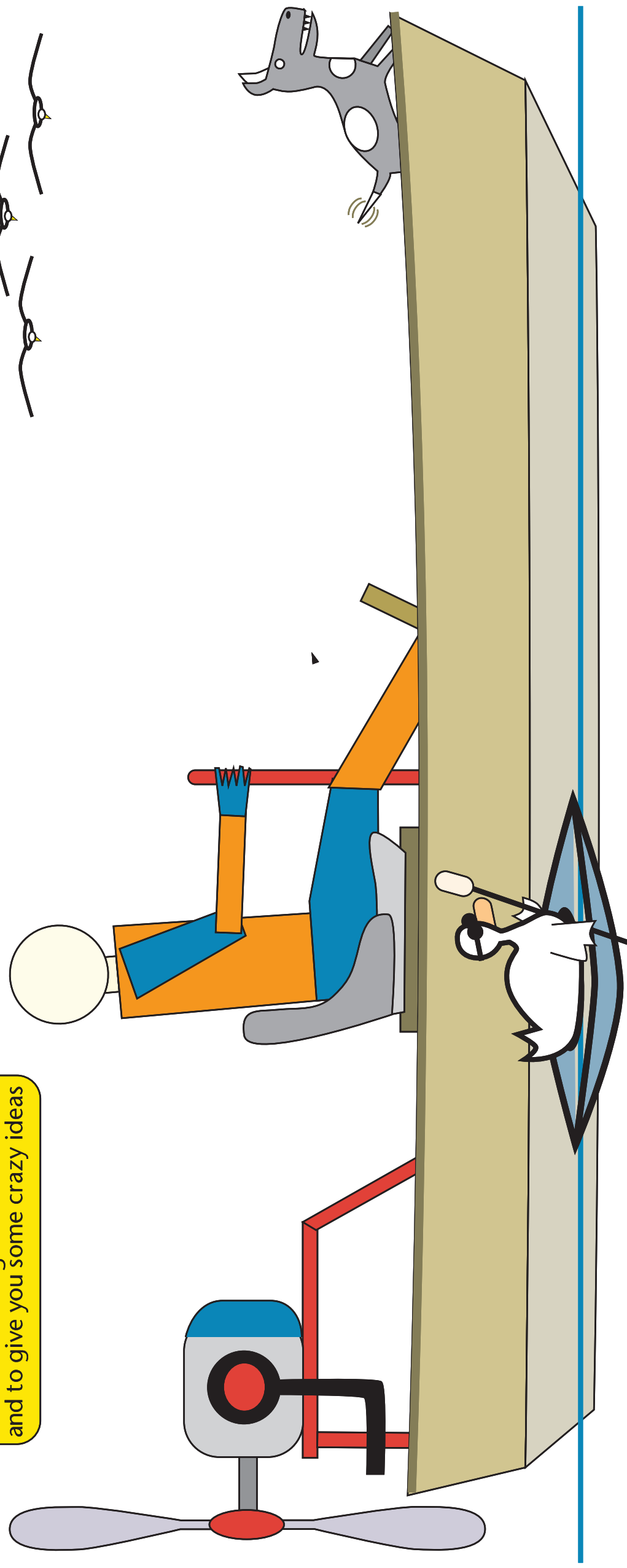
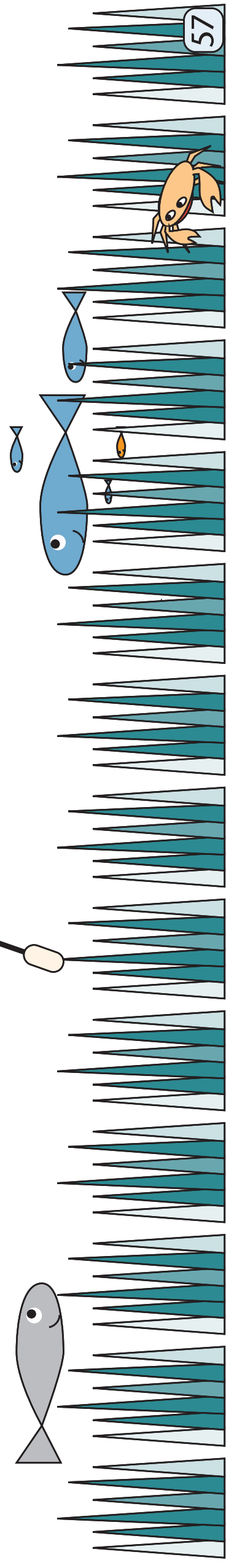
Seat one side,
or both sides,
your choice

Walk thru cut out
or step thru with
partial base

Cut out for OB to
get weight forward
for flatter/safer ride

12"





Another drawing for some S&G's
and to give you some crazy ideas



Note: I've drawn so many hulls now that I forget which parts are needed to build one of my hulls. I just start out with the lofting page and go from there, but builders need a bit of information to keep them on the straight and narrow road to completion of the hull. For this hull I would download a copy of the John Duk study plans (which are a free download) from Duckworks BBS and look at all the drawings that I have put together to build it. Or you can download any of my other hull study plans to see other ways that I have drawn some part of the hull that you are in question about. Everyone has their own idea of what their perfect hull should be, and I welcome that innovation. Somewhere in one of my free study plans is the answer to your question. Seek and Ye shall find.

Warren Messer
Red Barn Boats