## DRAFTING BLOCKS FOR REVERSE PAPER PIECING

You can easily draft your own blocks for reverse paper piecing. Many of my first sample blocks were made using drawings made on graph paper using a pencil and ruler. You can also add extended lines to existing paper piecing patterns or patterns printed from EQ or other quilting software. These can be traced on my graph paper if it is printed on vellum paper or you can use a lightbox.


For this example we are going to use my 4 per inch paper that also has diagonal lines. We will be drafting a $41 / 2^{\prime \prime}$ finished Economy Patch block that is in my Sweet Sampler pattern.

STEP 1: Make a copy of the 4 per inch graph paper which is a PDF file under Graph Paper: Free Graph Paper: FGP Page 1. You will need a mechanical pencil with an eraser (I use a 0.7 Pentel) and a drafting ruler (I use my 6" Bias Edge ${ }^{\text {TM }}$ Template).

STEP 2: Draw a $41 / 2^{\prime \prime}$ square in the center of the paper with dashed lines. (I'm using my 6" graph paper that has dashed diagonal lines going through the center.) Draw dashed diagonal lines to make a square-in-a-square going from center point to center point on the block sides ( $2^{1 / 14 " ~ i n ~ o n ~ e a c h ~ s i d e) . ~}$ Draw a $2^{1 / 4}$ " square in the center of the block. This will not be on a line but will cross the center of the diagonal lines on the graph paper.


STEP 3: Shade the center square and corner triangles with the edge of a pencil. Label the block pieces from 1 thru 9 in the order they will be sewn. Draw a heavy solid line $1 / 4$ " from all sides of the block for outside seam allowance. You will have a 5 " square.


STEP 4: Draw light solid lines ${ }^{1 / 4 "}$ away from all inside dashed seam lines for seam allowances. These don't have to be perfect. They are just used for a guide. Extend all of the dashed seam lines into the seam allowance. Draw a square $1 / 2$ " from the outside solid lines. It will be 6 ".


STEP 5: Draw a $1 / 2$ " solid line at the top of the dashed line between \#1 and \#2. Draw a solid line at the bottom of the dashed line between \#1 and \#2 going to the edge of the 6" square. These lines need to be accurate as they will be guiding the needle. Mark the lines at the top and bottom as \#2. That is the line for sewing the \#2 fabric to the \#1 fabric. Repeat around for each seam line. Your block is now ready to use.


NOTE: I drew this on a computer so it would be easier for you to read. I like to delete the graph paper lines from the block area but you can't do that with a handdrawn block unless it is drawn on plain paper. If you staple or tape a sheet of plain paper over the graph paper for drawing and use a lightbox or vellum paper the lines won't be on your drawing. The drawing to the right is at $1 / 2$ scale and would work for a miniature quilt except for the fact the seam allowance markings are only $1 / 8$ " and there's not enough border around the outside of the block. If you want to increase or decrease the full size block keep in mind that the seam allowance markings also increase or decrease so you will need to adjust the positioning of your fabric pieces and possibly cut the paper templates with a little extra border and extend the lines to reach the edge of the paper before making copies.


STEP 6: Measure the Locations to figure cutting sizes. For Location 1 you will need a $2^{3 / 4} 4^{\prime \prime}$ square - the finished size of $2^{1 / 1 "}$ plus $1 / 2^{\prime \prime}$ seam allowances. For Locations 2 thru 5 you will need quartersquare triangles. These can be cut from 1 square of fabric by cutting diagonally in both directions. For an exact size add $11 / 4^{\prime \prime}$ to the $21 / 4^{\prime \prime}$ long side of the triangle which gives you a $3^{1 / 2 "}$ square. You will need to line these triangles up perfectly for sewing if you cut them this size. That isn't hard to do since the lines on the paper will help you center them. But if you want to cut them oversized start with a $33 / 4 "$ or $4 "$ square. Anything larger than that will hide the extended lines. For Locations 6 thru 9 you will need half-square triangles. These can be cut from 2 squares of fabric by cutting diagonally in one direction. For an exact size add $7 / 8^{\prime \prime}$ to the $2^{1 / 4} 4^{\prime \prime}$ short side. But these units are on the outside edge and need to be oversized. I usually draw a * on the outside edges to remind me to add extra width to my cutting size. For this block I would add at least $11 / 8^{\prime \prime}$ to give a measurement of $33 / 8$ ". You may want to round that up to $3^{1 / 2} 2^{\prime \prime}$. Anything larger than that will hide the extended lines.

STEP 7: Now you are ready to make copies of the foundation and cut your fabrics. Always make copies for the same project on the same copy machine using the original block pattern. Do not make a copy from a copy. Measure the block to make sure it copied correctly before making multiple copies. Copies from some copy machines may measure slightly different in length than width. This is usually not a problem as the difference can easily be eased in when sewing the blocks together. If you have a scanner you can scan the blocks into the computer and print on an inkjet printer. Make a sample block first before cutting all of the pieces for multiple blocks.

STEP 8: Refer to the Reverse Paper Piecing tutorial for sewing the blocks. The only difference is you will now be working with triangles and have points that need to match. I have made 100's of blocks using this technique and have had very few seams that were off more than a thread width. It is important that you press accurately so there is no fold in the fabric. And hold the foundation steady as it goes through the machine. If a hump in a seam allowance causes it to shift the seam may not be accurate. You can always turn the block over and resew any seam that isn't to your satisfaction by sewing on the line as long as the difference is in the seam allowance. For extra long seams that are too long for the Seam Guide or have matching points, I sometimes turn the block over and sew on the line. If I can't see the line with the light on my sewing machine I mark it lightly first.

Remember, you can do almost any block using this technique that can be foundation paper pieced. The only blocks that won't work are large blocks with lines that are too long for the Seam Guide, some blocks with lots of odd shaped pieces, and some miniature blocks that require too many lines on the paper. Many miniature blocks will work though. Once you start piecing it, it's just a matter of following the numbers on the paper using the extended lines. You can almost eyeball the short seam allowances on miniatures and many of your fabric pieces don't have to be cut oversized because you will be trimming the seam allowances to $1 / 8^{\prime \prime}$. Many of the larger blocks can be pieced in sections which makes it possible to do those also. And I have a special technique I use for odd shaped pieces that I will share in a later tutorial.


ECONOMY PATCH 41/2" Finished

When tracing patterns from books or printing from computer programs and CD's, remember that you do not need a mirror image. What you see on the drawing is how the finished block will look.


Big Striped Basket - Printed from EQ6.
4" finished, $6 \times 6$ grid. This size would need to be drawn on 12/inch graph paper.


Attic Window - Traced from a pattern book onto 12 /inch graph paper printed on vellum. 5 " finished, $3 \times 3$ grid.

