

Summer Solstice

A complete construction guide with full-size templates



60 x 60 in / 152.4 x 152.4 cm

Advanced piecing | 1/4-inch seams | US Letter + A4 printing

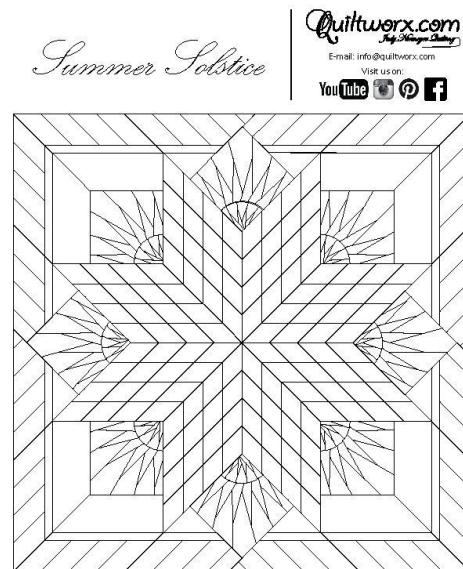
About this edition: a calculated reconstruction from the two supplied images, with a new assembly method. Original design: Summer Solstice by Bradley and Judy Niemeyer / Quiltworx. These are independently drafted templates, not the original pattern or its measurements.

Read this before cutting

This booklet reproduces the main composition: an eight-point diamond star, eight pointed fans, a dark inner frame and a turquoise outer border. The dimensions below belong to **this 60-inch reconstruction**.



Supplied color reference



Supplied coloring sheet

What the images establish. The arrangement, approximate proportions and color relationships are visible. A coloring sheet does not establish the original cutting sizes, seam allowances, paper-piecing order or fabric requirements.

What has been calculated. All templates here share the same coordinate system and 1/4-inch seam allowance. Patch areas and joining edges were checked digitally. This edition has **not been physically sewn or test-quilted**; make one complete sector before cutting the remaining seven.

Quiltworx lists both an older 58-inch edition and a current 60-inch edition and explains that old and new foundations are not interchangeable. Use the original pattern if you need an exact reproduction of that edition.

Source and original pattern: quiltworx.com/patterns/summer-solstice/

The supplied reference images are retained with their existing attribution. Reconstructed diagrams and instructions are prepared for Quilting Wonders.

Fabrics + supplies

Planning estimates for non-directional cotton or batiks with at least **40 inches of usable width**. Allowances are generous for individual foundation piecing; actual use depends on placement and waste.

Fabric	Color / role	Buy approximately
C0	Midnight Star center + inner frame	1 yd
C1	Pale aqua Star diamonds	1/2 yd
C2	Sea glass Star diamonds	1/2 yd
C3	Deep teal Star diamonds + small fan points	1 yd
C4	Copper Star diamonds	1/2 yd
C5	Amber Star diamonds	1/2 yd
C6	Espresso Star tips + long fan points	2 yd
C7	Sand Long fan backgrounds	3 1/2 yd
C8	Ivory Small fan backgrounds	3/4 yd
C9	Woodland print Corner settings + infill triangles	1 1/2 yd
C10	Turquoise Outer border + binding	2 yd



Also: 4 1/4 yd backing; batting at least 68 x 68 in; neutral piecing thread; fine pins; rotary cutter; 45-degree ruler; curved-seam marking pen; light foundation paper; transparent tape; paper scissors. 1 yd = 0.9144 m.

Cutting inventory

Cut one trial sector first. Unless labeled as an oversized blank, cut on the **dashed outline** of a full-size template. The solid outline is the finished seam line.

Component	Total for the quilt	Cutting method
Star diamonds	128: C0 8; C1 16; C2 24; C3 32; C4 24; C5 16; C6 8	Template D, page 16. All seam allowances included.
Long fan wedges	48 total: 16 each R1, R2, R3	Each has 1 C6 point + 2 C7 backgrounds. Pages 20-25.
Small fan wedges	48 identical 15-degree units	Each has 1 C3 point + 2 C8 backgrounds. Pages 18-19.
Background BG + infill G	8 of each in C9	For each shape: 4 normal + 4 reversed. G p17; BG p26-28.
Frame IB	8 in C0	4 normal + 4 reversed. Pages 29-33.
Outer border OB1 + OB2	8 of each in C10	For each shape: 4 normal + 4 reversed. Pages 29-33.
Binding	7 strips, 2 1/2 x 40 in minimum	C10. Join diagonally and fold in half.

Efficient diamond cutting: cut 3-inch-wide strips and use the full-size diamond template to establish the 45-degree cuts. Keep the template orientation consistent; do not substitute a 3-inch edge length. Allow about 8 diamonds per 3 x 40-inch strip.

Foundation blanks: the table on page 8 gives oversized rectangles. These are not finished patches. Before sewing each piece, fold it open to confirm it covers its numbered area and extends beyond every edge by at least 1/4 inch.

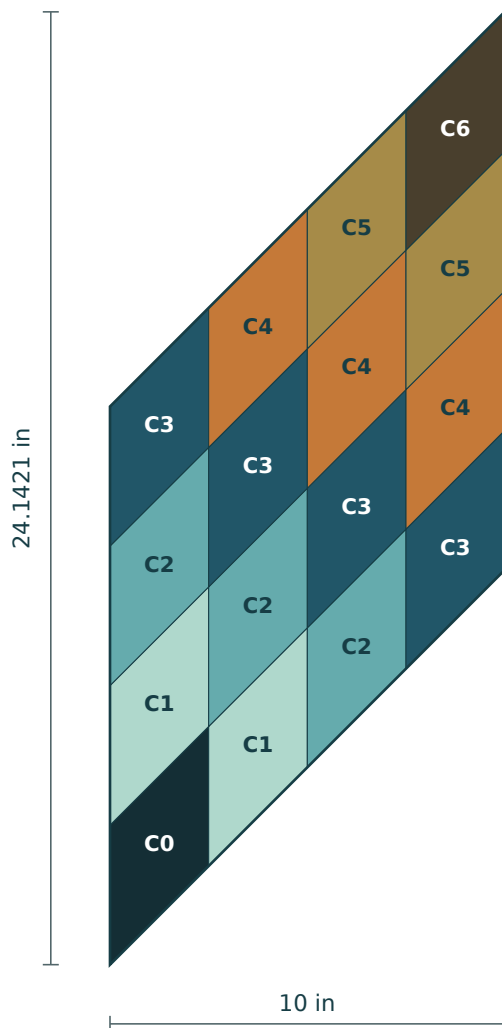
The finished layout



Eight sectors make four quadrants. Each triangular sector has two 30-inch finished legs. Pair one normal sector with one mirrored sector to make a 30-inch finished square quadrant. Assemble four quadrants into the quilt.

Star unit: 16 small diamonds, 14.1421-inch finished sides. Fan: 9 1/4-inch finished square, divided into two halves. Frame: 1 inch finished. Outer border: 4.8579 inches finished, measured perpendicular to the quilt edge.

1 Piece the eight star diamonds



COLOR MAP

C3	C4	C5	C6
C2	C3	C4	C5
C1	C2	C3	C4
C0	C1	C2	C3

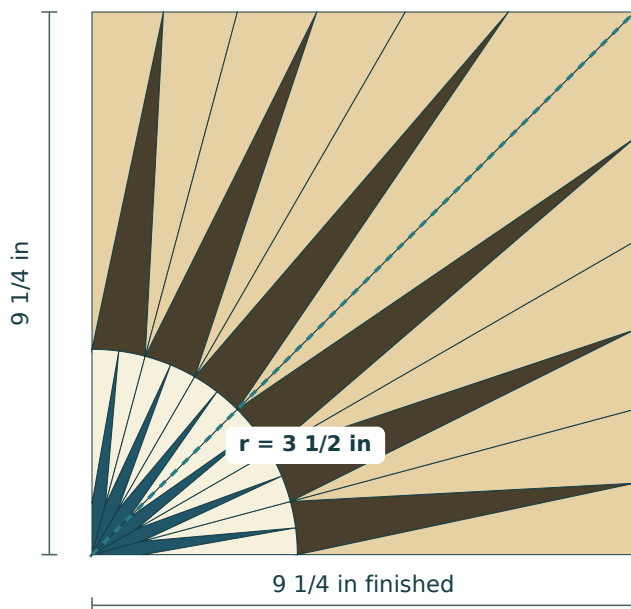
Read from C0 at the center end to C6 at the outer tip. The slanted drawing shows the actual diamond shape; the grid shows only the color order.

1. Mark the four seam-line corners on each small diamond using Template D.
2. Sew four diamonds into each of four rows. Match the marked intersections, not the projecting fabric tips.
3. Press adjacent rows in opposite directions. Join the four rows, pinning every diamond junction.
4. Make eight identical units. Press long joining seams open to reduce bulk.

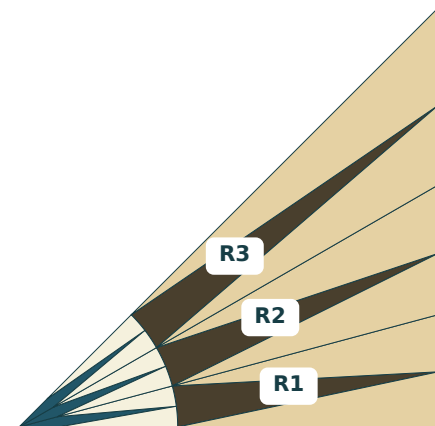
Check before continuing: each finished star unit has four equal sides of 14.1421 in. Its upright bounding box is 10 x 24.1421 in on the seam line. These values involve a 45-degree angle; use the templates and seam intersections rather than rounding them for rotary cutting.

Small diamond seam-line projection = 2 1/2 in; side = 3.5355 in. Template D includes the full 1/4-inch offset, including pointed seam-allowance extensions.

2 Understand the fan blocks



ONE FAN HALF



Each full fan is split along its 45-degree diagonal. This permits the sector assembly used in this booklet.

Make 16 fan halves: eight normal and eight reversed. Each half contains three long wedges (R1, R2, R3) and three small 15-degree wedges (S). The same half-fan geometry is used at the corner and at the side of the quilt; its orientation changes.

The long and short points meet on an arc with a finished radius of 3 1/2 inches. Three 15-degree wedges form a 45-degree half fan; two halves form a 90-degree fan. Never stretch the curved or diagonal edges.

Foundation orientation: template pages show the side you stitch on. Fabric on the reverse of that paper produces the mirror image. Print both normal and mirrored foundations as specified on page 15. After piecing, use the front-view diagrams to place each half.

3 Foundation-piecing blanks

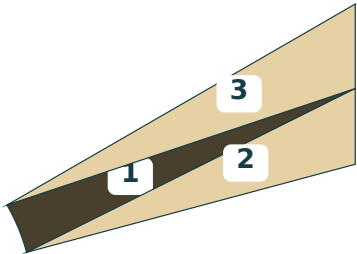
Suggested oversized rectangles in inches. Sizes include a handling margin beyond the finished patch. Batiks are ideal because the two fabric faces are similar. For directional prints, add fabric and verify placement individually.

Foundation	Piece 1: point	Piece 2: lower field	Piece 3: upper field
R1 - 16 units	7 x 2 1/4	6 3/4 x 2 1/4	7 x 2 3/4
R2 - 16 units	7 1/4 x 4	7 x 4	7 1/4 x 4 3/4
R3 - 16 units	8 x 6 1/2	7 1/4 x 6 1/2	8 x 8
S - 48 units	4 1/2 x 1 1/2	3 3/4 x 1 1/2	3 3/4 x 1 3/4

For each R row: cut 16 Piece-1 blanks in C6, 16 Piece-2 blanks in C7 and 16 Piece-3 blanks in C7. For S: cut 48 Piece-1 blanks in C3, 48 Piece-2 blanks in C8 and 48 Piece-3 blanks in C8. Rotate rectangles as needed.

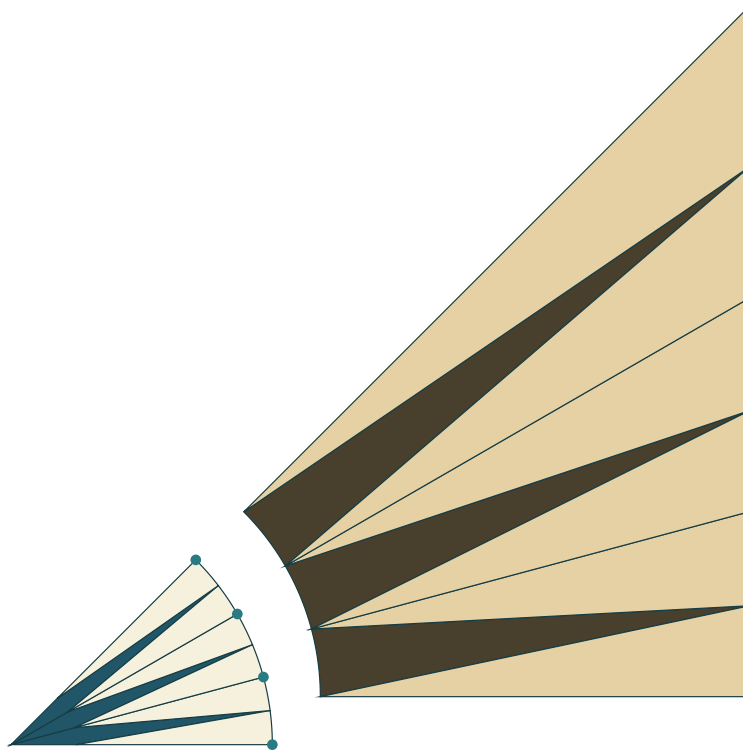
Sew every foundation in order 1, 2, 3.

1. Place fabric 1 wrong side against the unprinted paper, covering region 1.
2. Place fabric 2 right sides together with fabric 1. Pin, fold open and check coverage. Stitch the 1/2 line on the printed side.
3. Fold the paper back, trim the joined fabric allowance to 1/4 inch and press fabric 2 open.
4. Add fabric 3 across the 1/3 line in the same way.
5. Trim only the completed unit on its outer dashed line. Keep the solid boundary as the eventual joining line.



Use a shorter stitch length that still releases cleanly from your chosen paper. Sew a sample before selecting the final setting. Do not remove all foundation paper until the half fan is stable.

4 Join the curved fan units



MATCH THESE MARKS

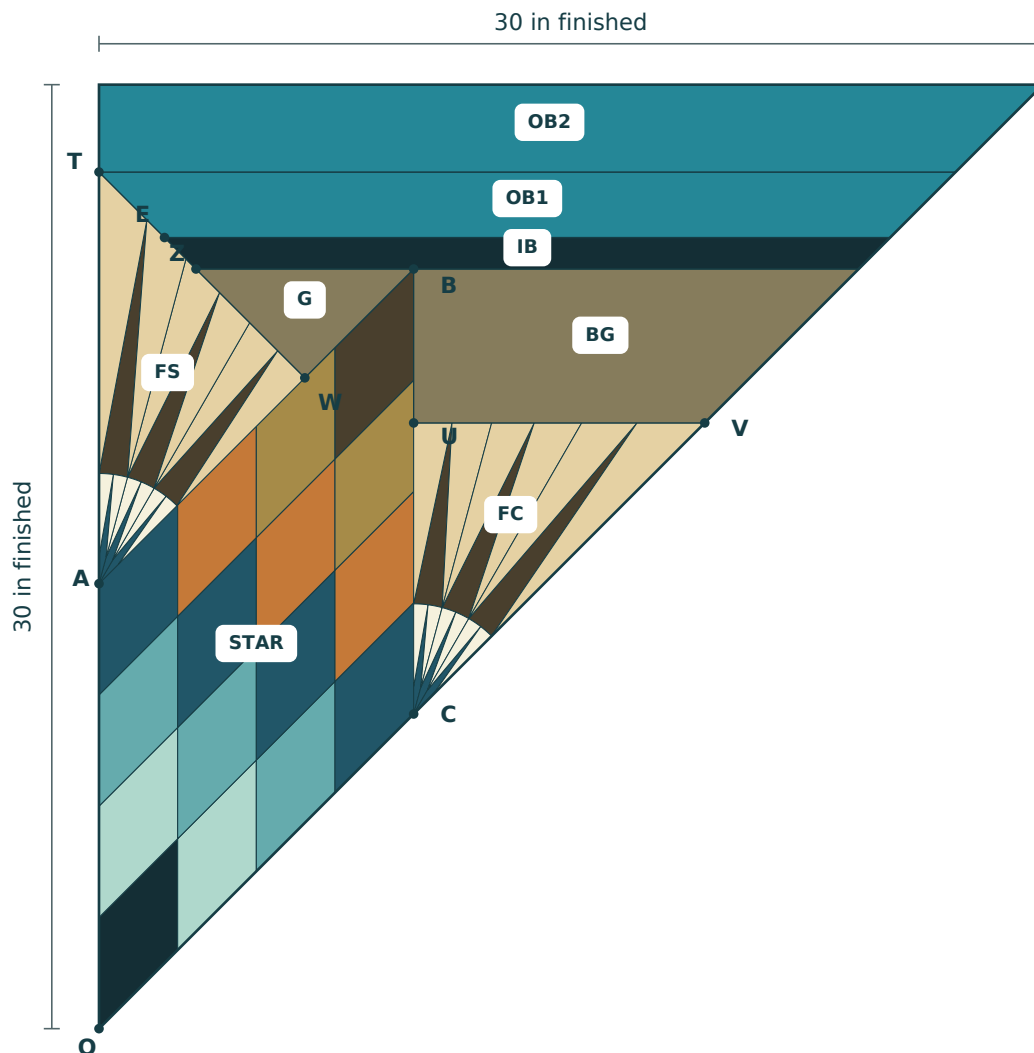
Ends: 0 and 45 degrees
 Wedge seams: 15 and 30 degrees
 Optional midpoint: 22.5 degrees

The drawing separates the arc only to make the joining edges visible.
 The finished curve has no gap.

1. Join R1 to R2, then R2 to R3 along the straight radial edges. Match the solid-line endpoints on the inner curve. Press the wedge seams open.
2. Join three S wedges at their radial edges. Align their common center accurately and press open.
3. Remove paper from the curved seam allowances. Mark the endpoints and the 15-, 30- and 22.5-degree positions on the seam line.
4. Pin the small fan and the long-point fan right sides together, matching those marks. Ease the cut edges gently; the seam lines are the same length.
5. Sew the curve at 1/4 inch with the concave piece on top. Clip the concave allowance sparingly if it resists lying flat; do not cut the stitching.
6. Press, remove the remaining paper carefully and confirm the finished half is a right triangle with two 9 1/4-inch legs.

The three S units may use the same foundation rotated into position. Each finished fan half has an arc length of 2.7489 in at the join; this is $3.5 \times \pi / 4$.

5 Lay out one triangular sector

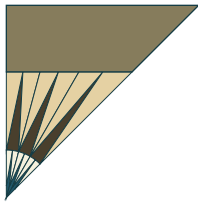


Normal sector, front view. STAR is a complete 16-patch star unit. FC and FS are finished half fans. BG and G are setting pieces; IB is the dark frame; OB1 and OB2 form the outer border.

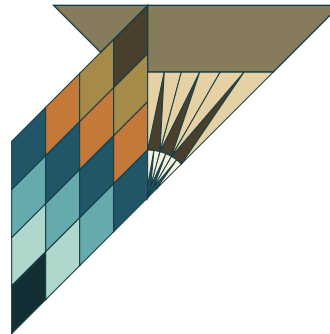
Make **four normal sectors and four mirrored sectors**. Mirror the entire diagram for the second set. The shapes in the printable cutting templates have the seam allowance built in; use the solid-line corner marks to align joins.

The numbers are intentionally not rounded to convenient fractions: the 45-degree star makes several lengths irrational. Full-size templates govern cutting; displayed decimals are checks, not substitute cut sizes.

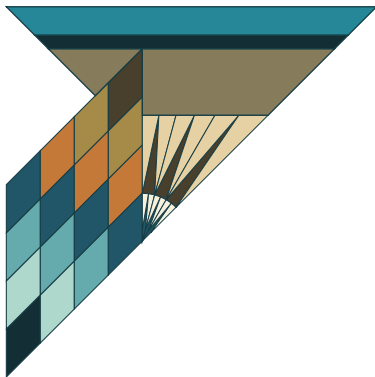
6 Assemble the sector



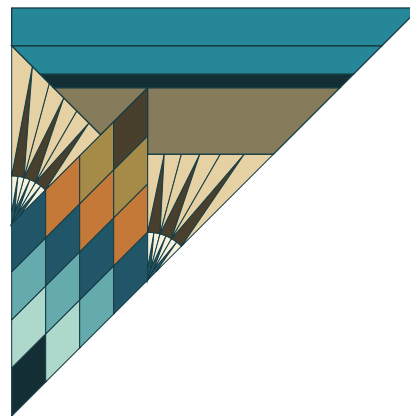
A. Corner setting



B. Star + infill



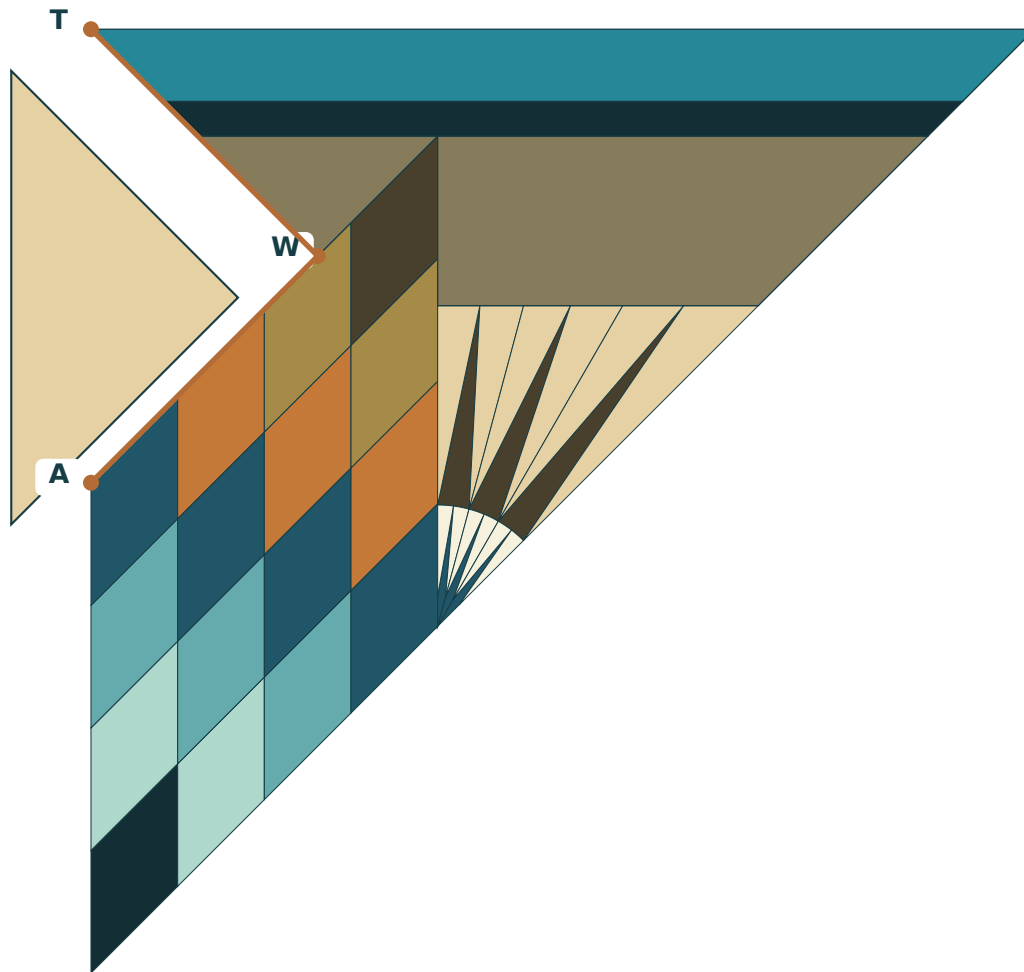
C. Add the frame



D. Insert fan + close

1. Sew FC to BG along U-V. This creates a corner-setting triangle with two 14.1421-inch finished legs.
2. Join that corner triangle to STAR along C-B. Match C and B and the intersection at U.
3. Add G to the upper star edge W-B. Stop exactly at the seam-line dot W and secure the stitches. Keep all seam allowances free at W.
4. Add IB across the continuous top edge Z-K. Then add OB1 across E-J. Match seam intersections rather than trimming the pointed extensions.
5. Insert FS into the opening A-W-T, following page 12. The two sides of this opening are each 9 1/4 inches on the seam line.
6. Add OB2 along T-H. The completed unit is a triangular sector with 30-inch finished legs. Repeat for four normal and four mirrored sectors.

7 Sew the inset corner carefully



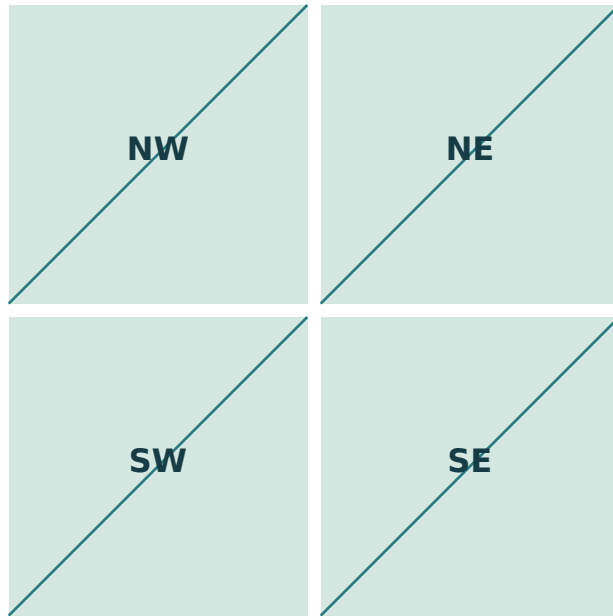
The side half fan FS is shown pulled away from the opening. Sew the two highlighted edges separately; their corner at W is an inset seam.

Mark W on the seam line, not on the fabric tip. Use the full-size G template and the fan corners to transfer the exact intersection.

1. Pin FS edge A-W to the corresponding star edge, right sides together. Begin at A and stop with the needle exactly at W. Secure the seam without stitching into the other allowances.
2. Reposition the unsewn fan edge W-T against the opening W-T. Fold the joined allowances away so they cannot be caught.
3. Sew from W toward T. The first stitch must meet the first seam at W without crossing it.
4. Open the unit gently. Check for a hole, a tuck or a trapped allowance at W before pressing. Release a stitch or two and re sew if necessary.

This reconstruction deliberately uses one inset corner per sector. It does not use the original Quiltworx assembly method. Sewing the first full sector is the practical check for your chosen fabric, seam setting and paper.

8 Join, quilt and bind



Pair one normal sector and one mirrored sector along their long diagonal to make each quadrant. Rotate each completed quadrant to match the full quilt layout on page 5.

Checkpoints

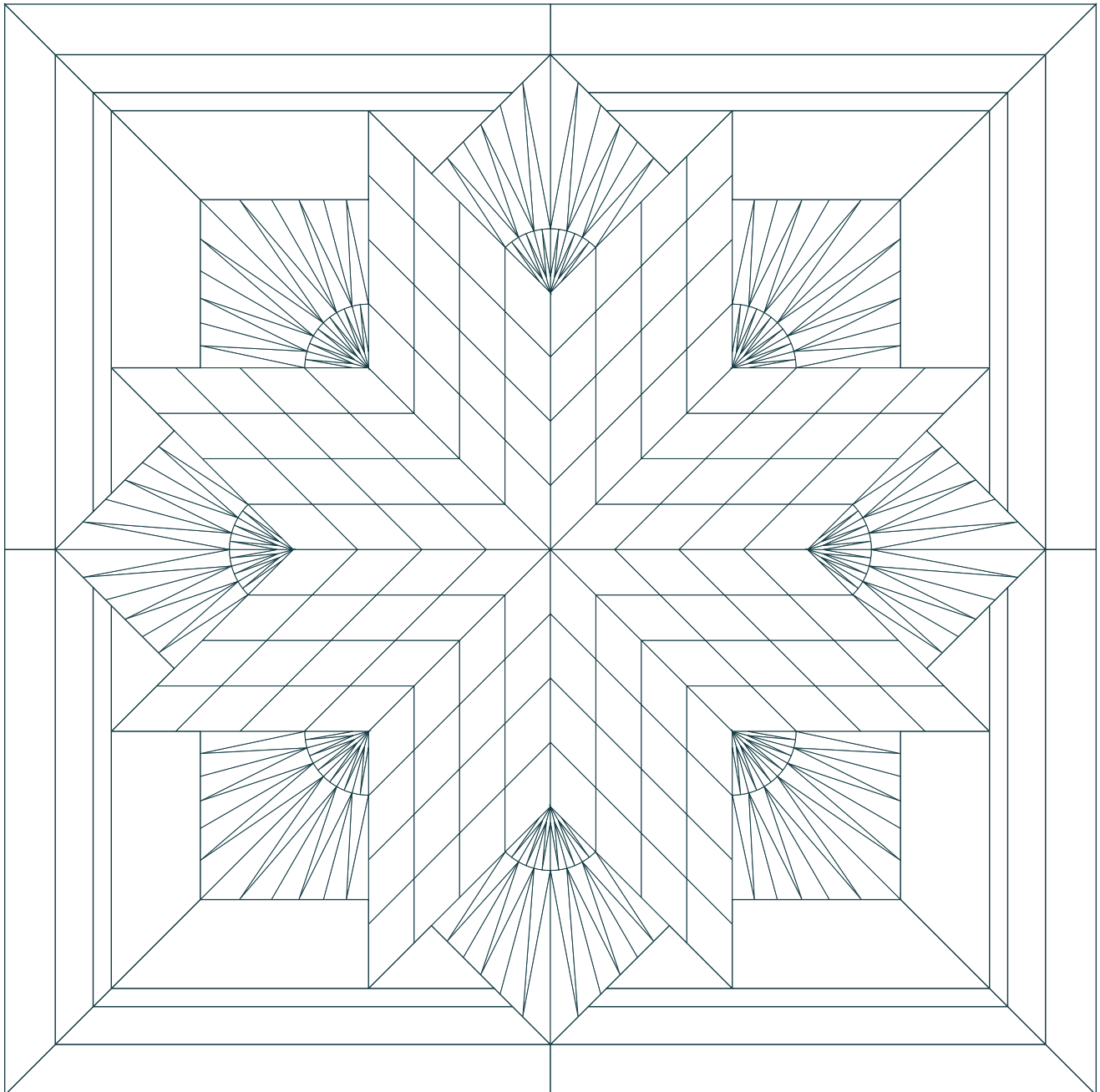
Quadrant, raw: 30 1/2 in square
 Joined top, raw: 60 1/2 in square
 Finished design: 60 in square

1. Remove any remaining foundation paper without pulling the bias edges. Pair sectors at the seam-line corners and all fan, frame and star intersections. Sew the diagonal and press open.
2. Lay the four quadrants out. Sew the two upper quadrants together and the two lower quadrants together. Pin the central star intersection; join the two rows. Distribute the center allowances carefully.
3. Measure through the center in both directions. Check that the outside allowance remains 1/4 inch beyond the finished design. Staystitch inside that allowance if the edge is unstable.

Backing and batting. Cut two 72-inch lengths of backing at full usable width. Join their long edges with a 1/2-inch seam, press open and trim to at least 68 x 68 inches. Layer with batting, baste and quilt from the center outward. Follow the batting manufacturer's recommended maximum quilting distance.

Binding. Join seven 2 1/2 x 40-inch strips diagonally, press the joins open and fold the binding in half lengthwise. This provides about 265 inches after joining, enough for the 240-inch design perimeter plus finishing allowance. Bind the quilt, mitering the corners. Quilting and binding may change the final measured size slightly.

Color-planning diagram



Use this page to audition your own palette. Extra straight seams through the fan backgrounds and outer border reflect the reconstruction method used in this booklet.

Print the templates at 100%

Select **Actual size / 100%**. Turn off Fit, Shrink and Scale to printable area. Use Letter or A4 paper with no automatic scaling. Measure the 1-inch square in both directions before cutting fabric. Print single-sided.

Pages	Template	Copies / use
16	D - star diamond	1 reusable cutting template; cut 128 diamonds.
17	G - setting triangle	1 reusable template; cut 4 normal + 4 reversed.
18-19	S - small fan wedge	24 copies of p18 + 24 copies of p19.
20-21	R1 - long fan wedge	8 copies of p20 + 8 copies of p21.
22-23	R2 - long fan wedge	8 copies of p22 + 8 copies of p23.
24-25	R3 - long fan wedge	8 copies of p24 + 8 copies of p25.
26-28	BG - background, 3 tiles	Print once, join the 3 tiles, cut 4 normal + 4 reversed.
29-33	IB, OB1, OB2 - 5 strip tiles	Print once. Join each lettered row separately. For EACH completed shape: cut 4 normal + 4 reversed.

Tile assembly: cut at the vertical join lines, butt identical continuation marks together and tape from the back. There is no overlap between tiles. BG has 3 tiles; each border row has up to 5. Blank continuation sections are intentional.

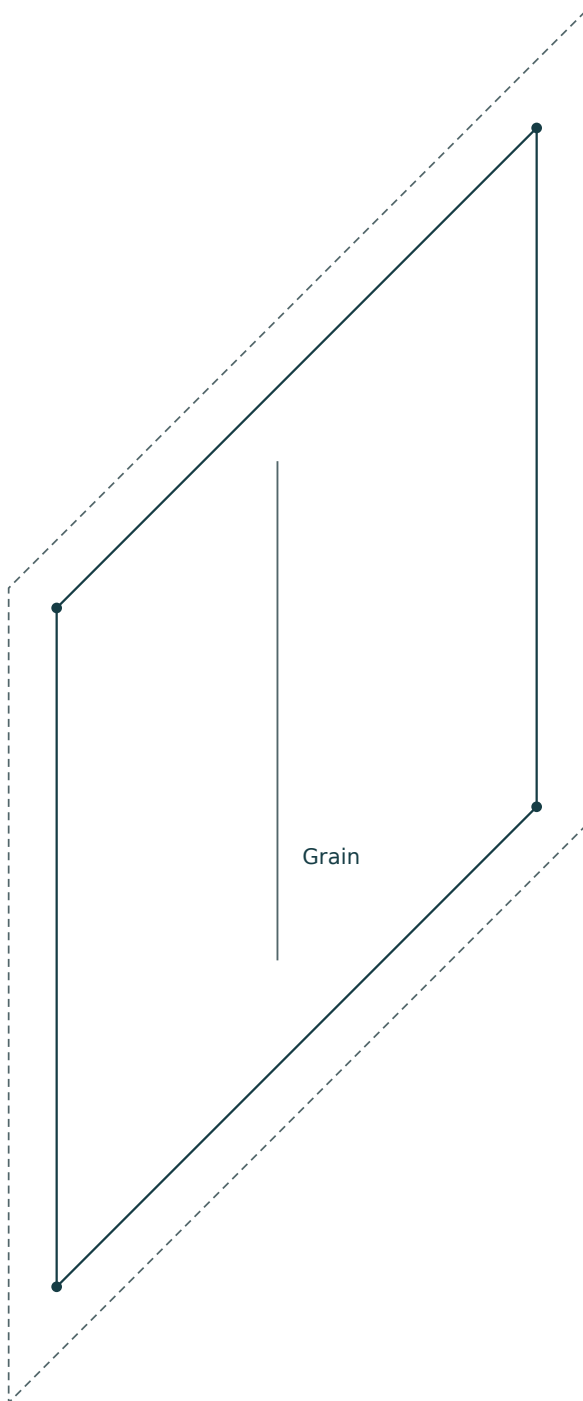
Line key: solid = stitching boundary or foundation seam; dashed = cutting boundary 1/4 inch outside; black dot = seam intersection. Never cut a finished piece on the solid line.



For large reusable shapes, assemble one paper master and flip it over for the reversed fabric pieces. For foundation piecing, use the separately mirrored pages; fabric will appear reversed from the printed paper.

Template D - star diamond

Cut 128 total in the color counts on page 4. The solid outline is the finished patch; the dashed outline includes 1/4-inch seams. Mark all four solid-line corners.



CUT = dashed
SEW = solid

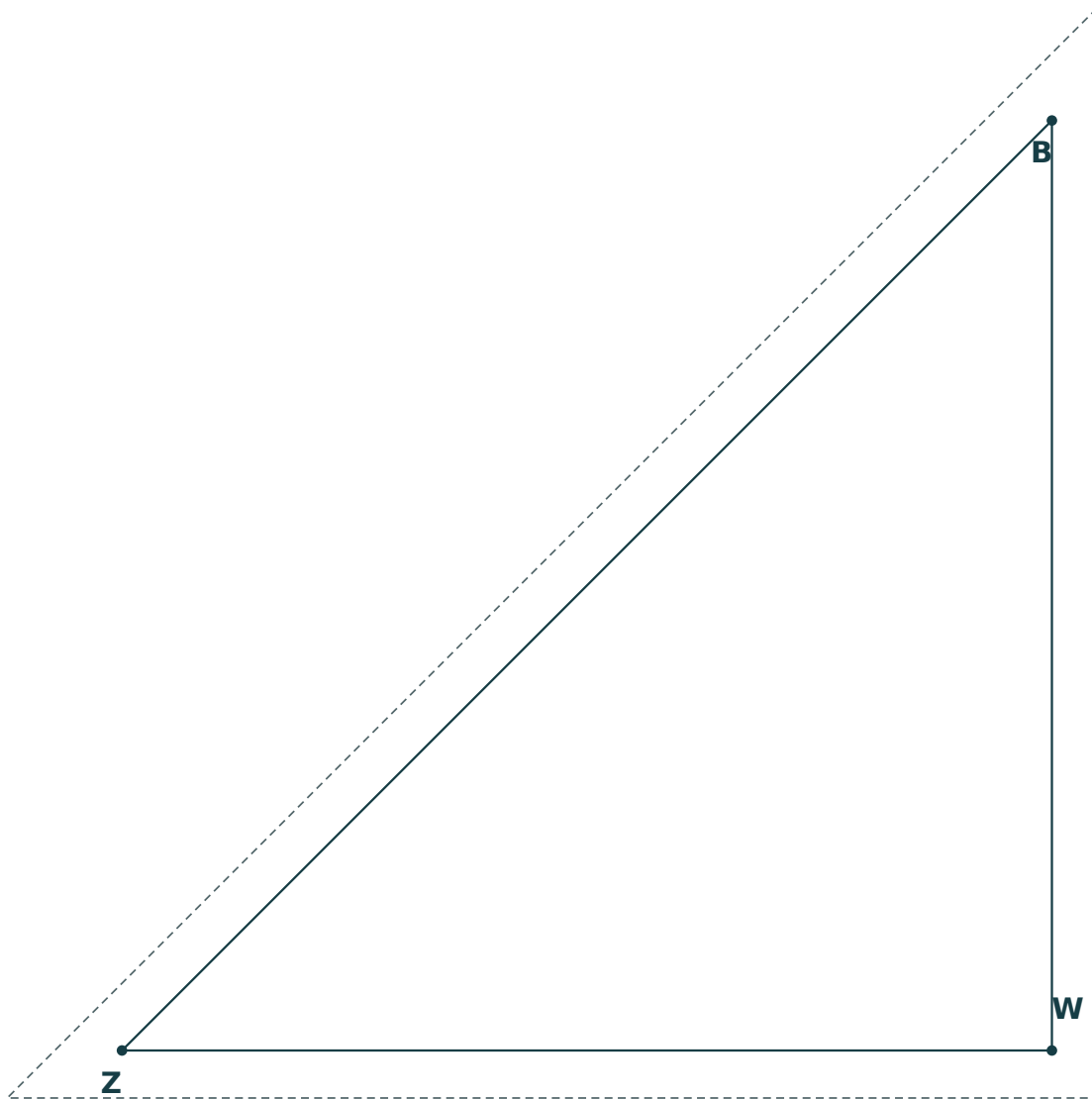
Strip width: 3 in
Finished side: 3.5355 in
Finished horizontal projection: 2 1/2 in

Raw overall height: 7.2426 in
Raw overall width: 3 in



Template G - infill triangle

C9 woodland fabric. Cut 4 normal and 4 reversed. This piece completes the space between the side fan and the star. Mark W carefully; three seams meet there.

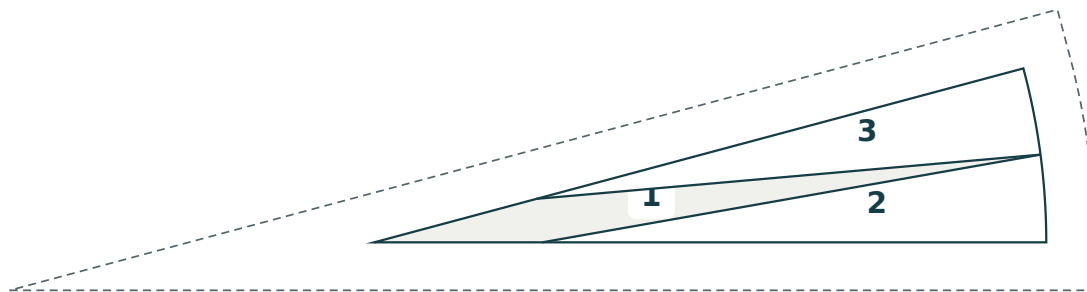


Finished legs W-B and W-Z: 4.8921 in.
 Finished top edge Z-B: 6.9185 in.
 Template is rotated to fit the paper.



Template S - normal

Print 24 copies of this page. One S unit = 15 degrees. Piece 1: C3 deep teal. Pieces 2 and 3: C8 ivory. Sew 1, then 2, then 3. The fabric result is the reverse of this printed view.



Join three S wedges to make the small 45-degree half fan. Join their straight radial edges before sewing the arc. The long paper tip at the center is seam allowance; the actual center is the solid-line intersection.

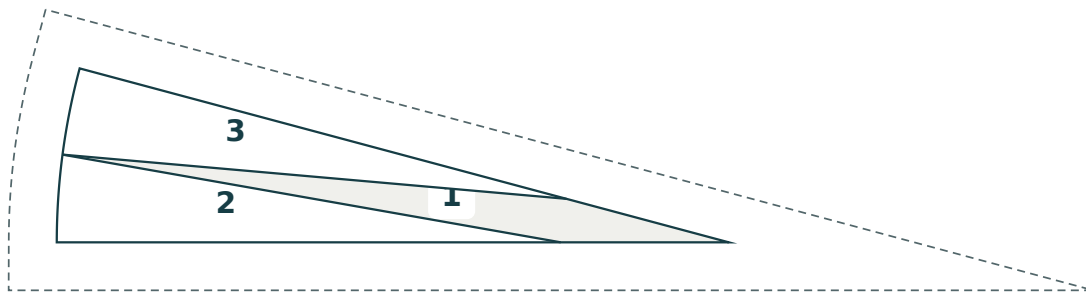
The dashed curved edge is 1/4 inch outside the solid 3 1/2-inch radius. Match the solid curve, not the different raw edge lengths, to the R unit.

1 inch

25.4 mm

Template S - mirrored

Print 24 copies of this page. One S unit = 15 degrees. Piece 1: C3 deep teal. Pieces 2 and 3: C8 ivory. Sew 1, then 2, then 3. The fabric result is the reverse of this printed view.



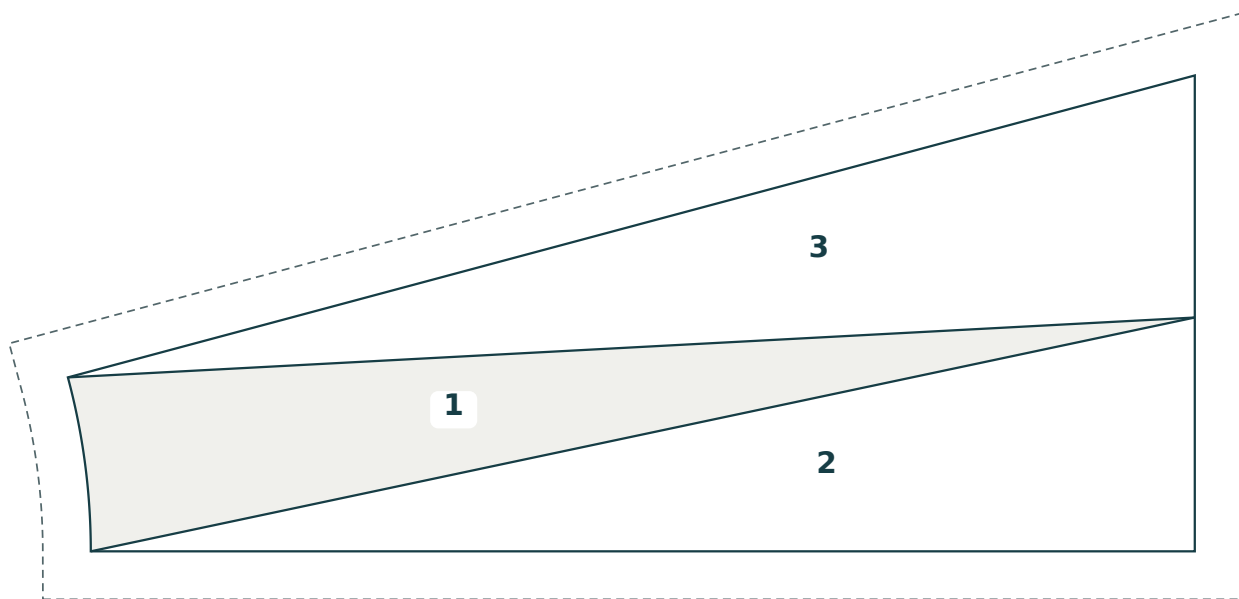
Join three S wedges to make the small 45-degree half fan. Join their straight radial edges before sewing the arc. The long paper tip at the center is seam allowance; the actual center is the solid-line intersection.

The dashed curved edge is 1/4 inch outside the solid 3 1/2-inch radius. Match the solid curve, not the different raw edge lengths, to the R unit.



Template R1 - normal

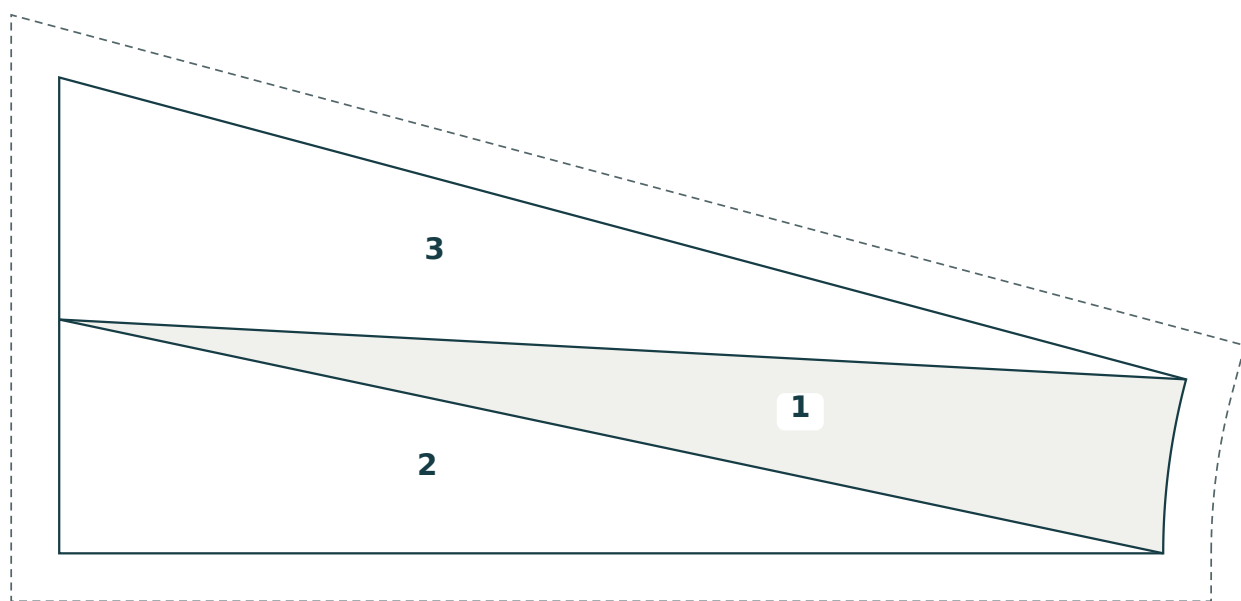
Print 8 copies. Piece 1: C6 espresso. Pieces 2 and 3: C7 sand. Sew 1, 2, 3. Fabric appears reversed from the printed paper. Dashed = cut; solid = sew.



1 inch
25.4 mm

Template R1 - mirrored

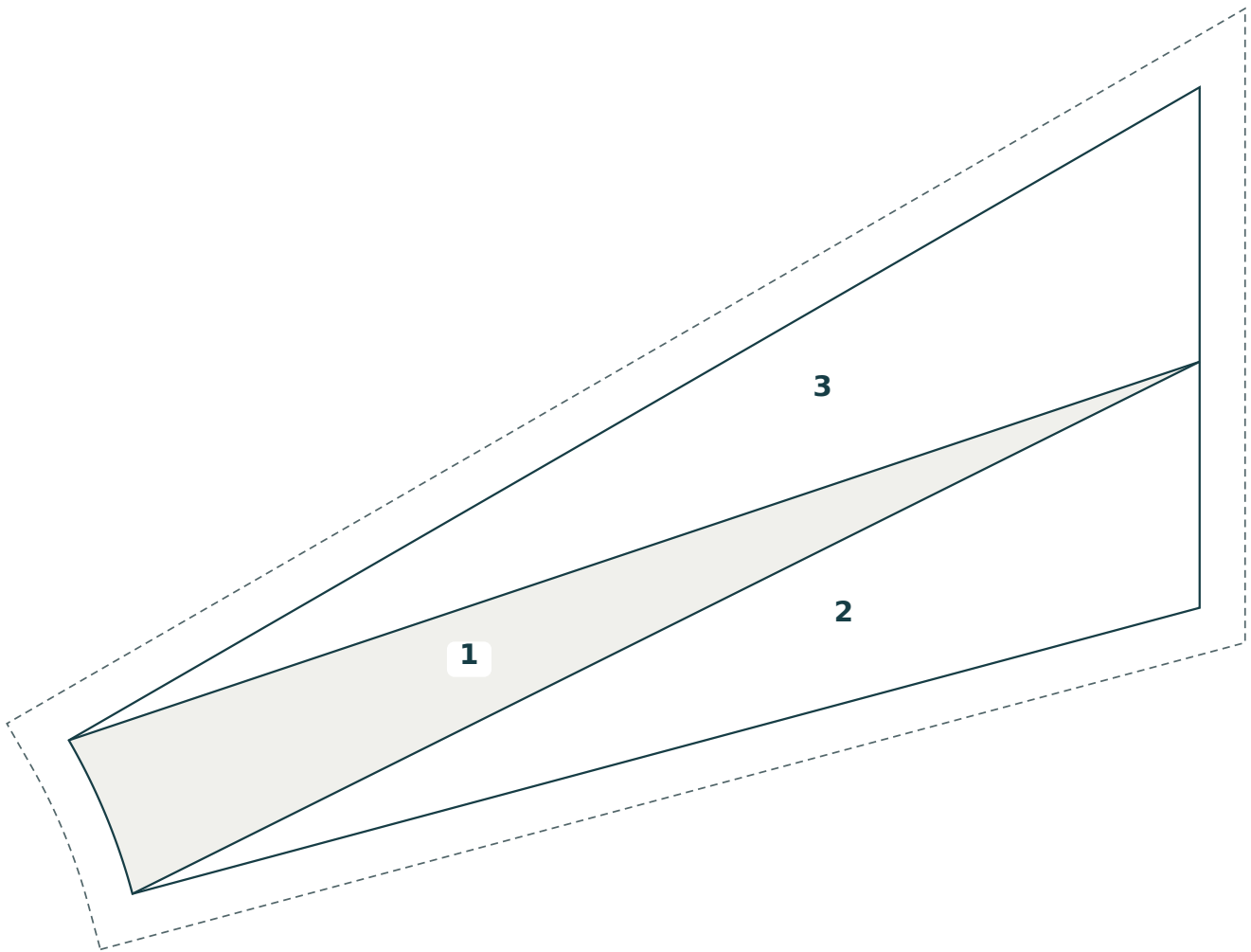
Print 8 copies. Piece 1: C6 espresso. Pieces 2 and 3: C7 sand. Sew 1, 2, 3. Fabric appears reversed from the printed paper. Dashed = cut; solid = sew.



1 inch
25.4 mm

Template R2 - normal

Print 8 copies. Piece 1: C6 espresso. Pieces 2 and 3: C7 sand. Sew 1, 2, 3. Fabric appears reversed from the printed paper. Dashed = cut; solid = sew.

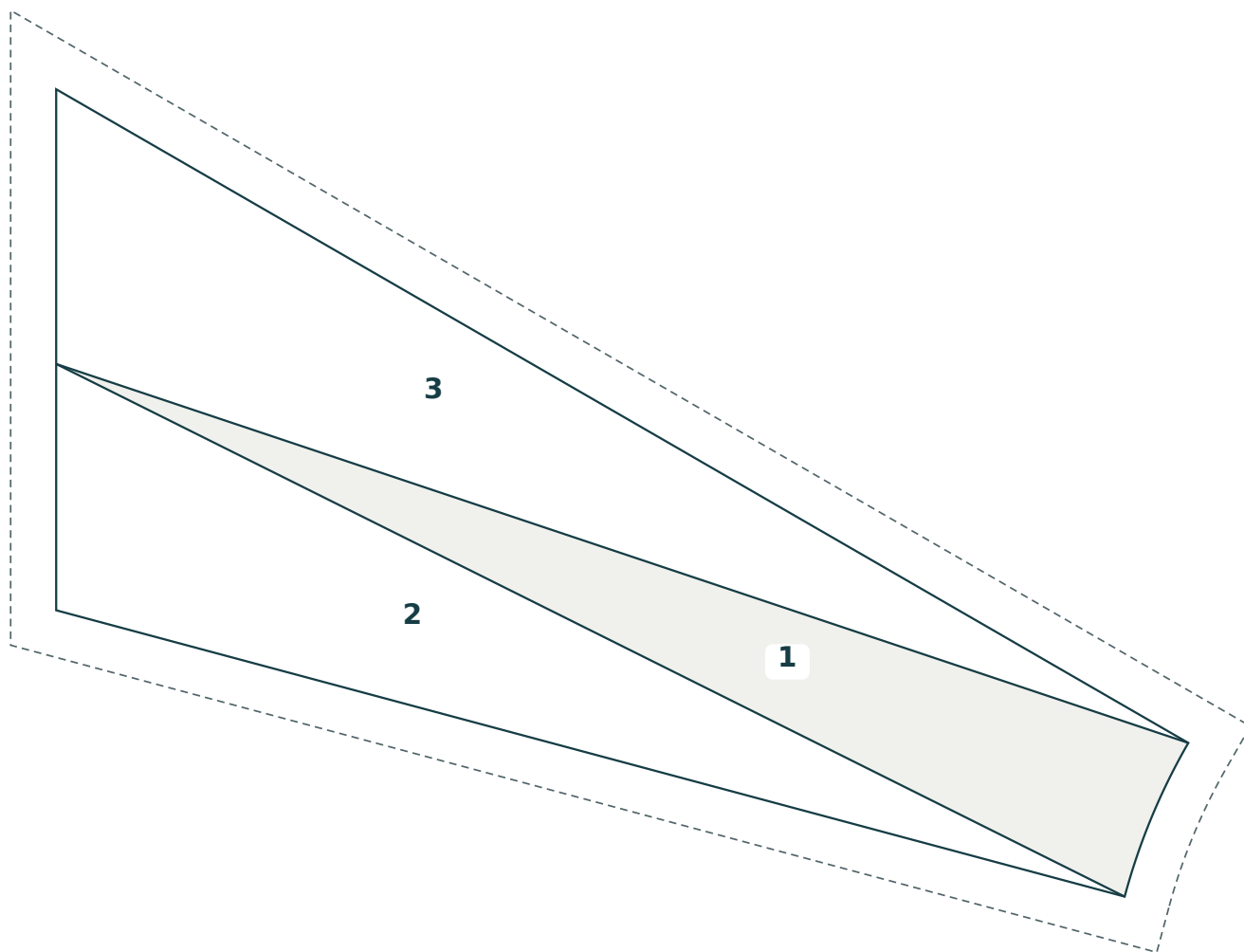


1 inch

25.4 mm

Template R2 - mirrored

Print 8 copies. Piece 1: C6 espresso. Pieces 2 and 3: C7 sand. Sew 1, 2, 3. Fabric appears reversed from the printed paper. Dashed = cut; solid = sew.



1 inch

25.4 mm

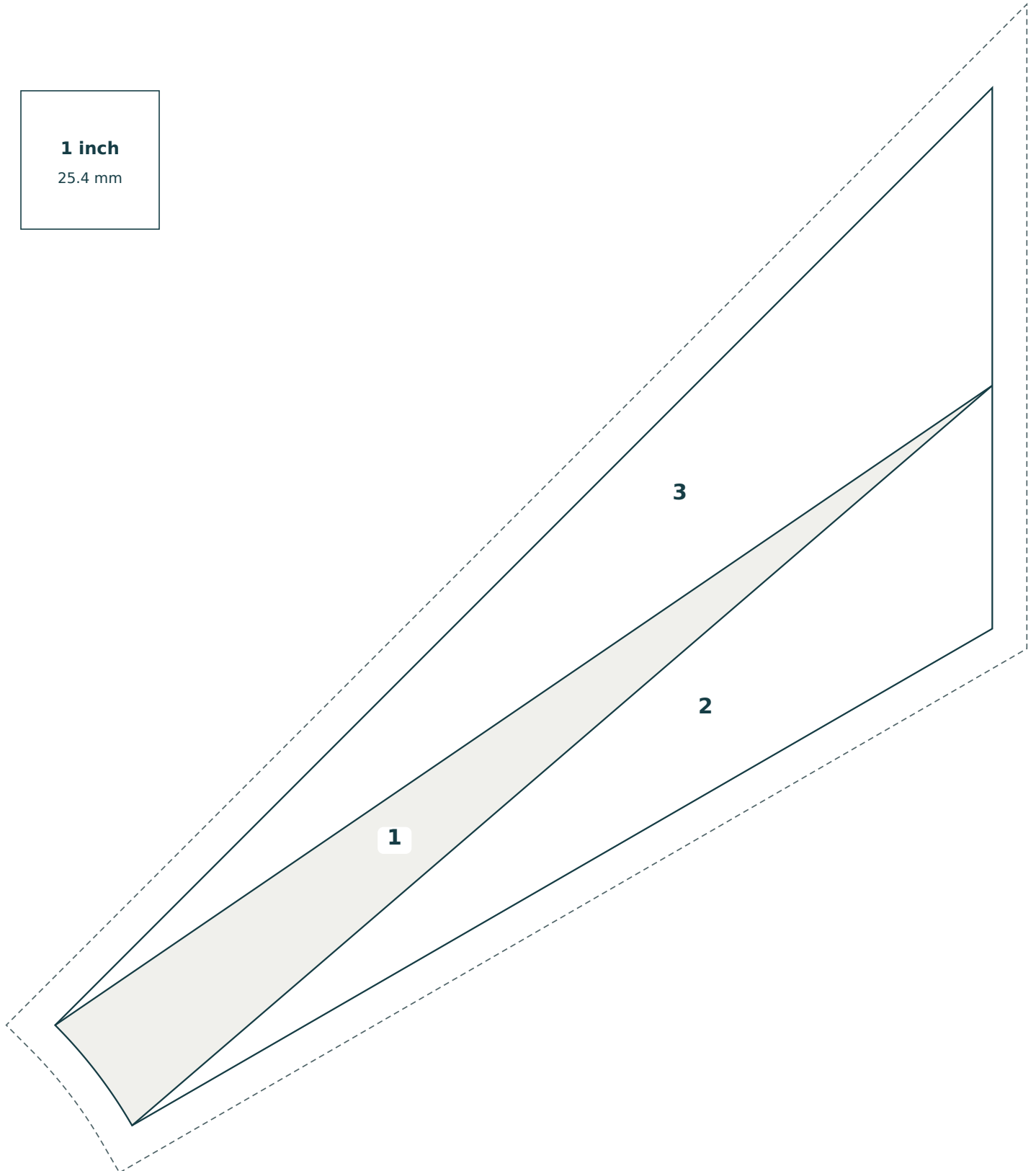
Template R3 - normal

Print 8 copies. C6 espresso: piece 1. C7 sand: pieces 2 and 3.

Sew 1, 2, 3. Printed side = stitching side. Dashed = cut; solid = sew.

1 inch

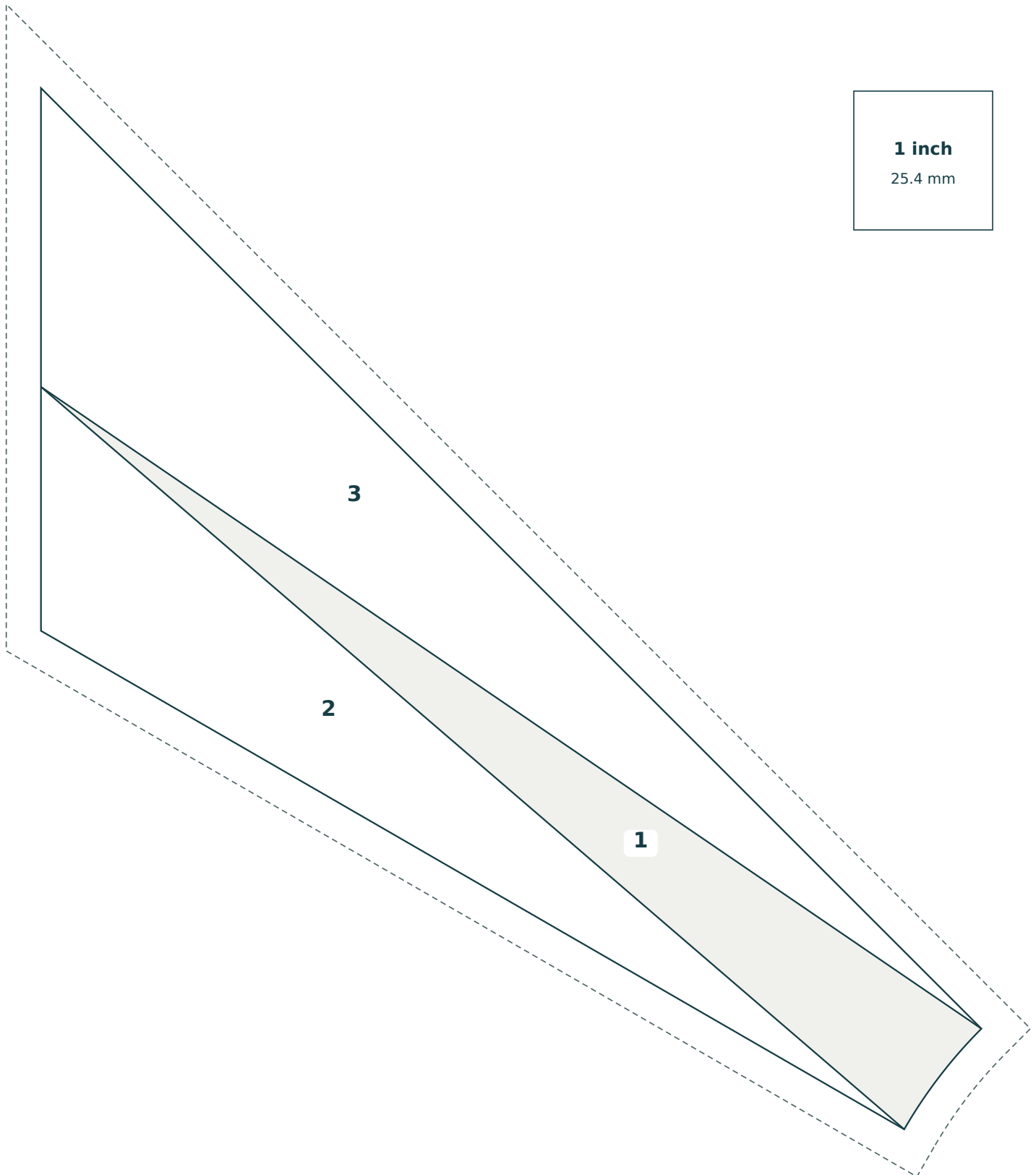
25.4 mm



Template R3 - mirrored

Print 8 copies. C6 espresso: piece 1. C7 sand: pieces 2 and 3.

Sew 1, 2, 3. Printed side = stitching side. Dashed = cut; solid = sew.

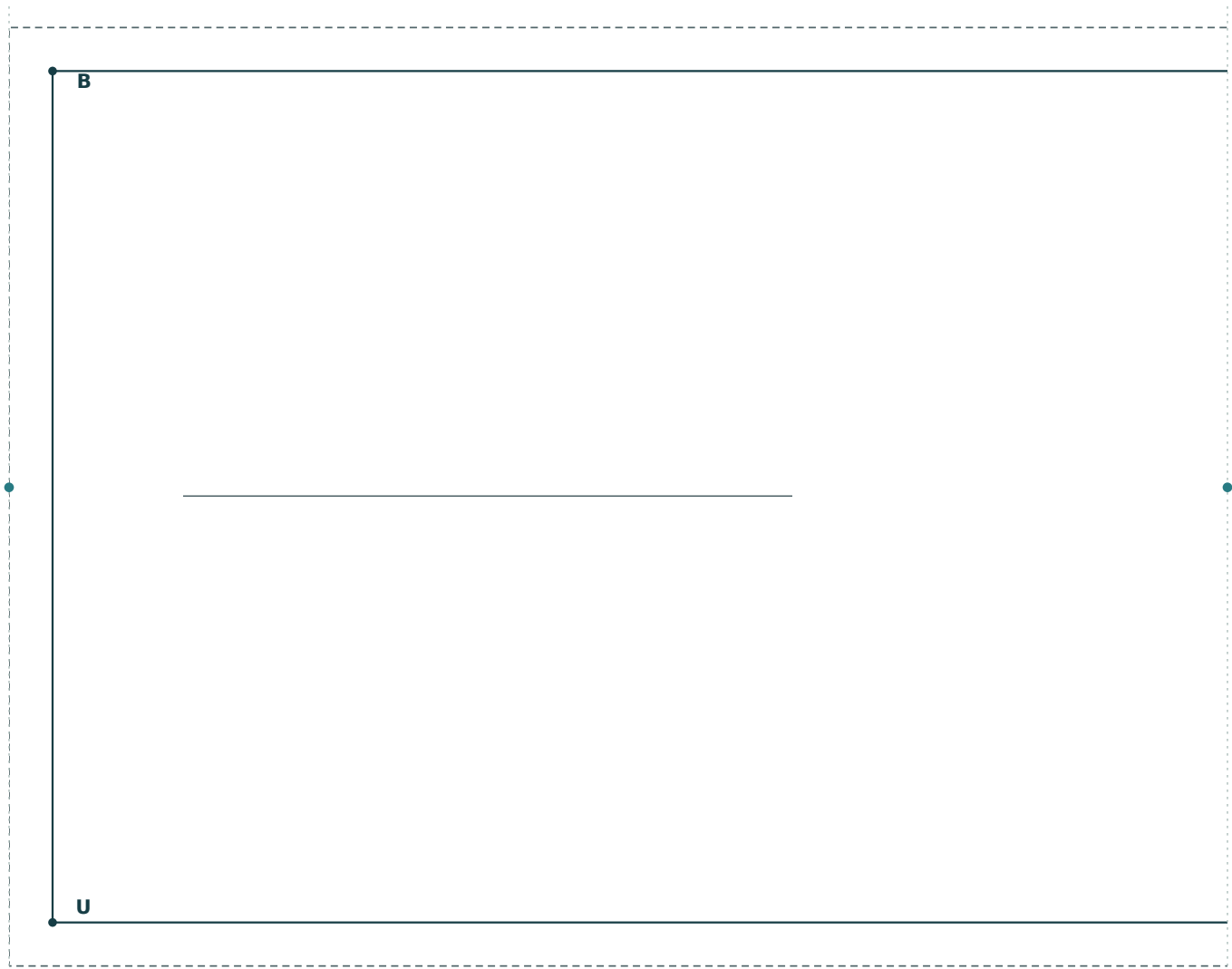


Template BG - tile 1 of 3

Join pages 26, 27 and 28 in order. Cut on the dashed OUTER outline only after taping. C9: cut 4 normal + 4 reversed. Solid outline = finished seam boundary.

LEFT JOIN

RIGHT JOIN



BG - tile 1 - joins at 7-inch intervals

1 inch

25.4 mm

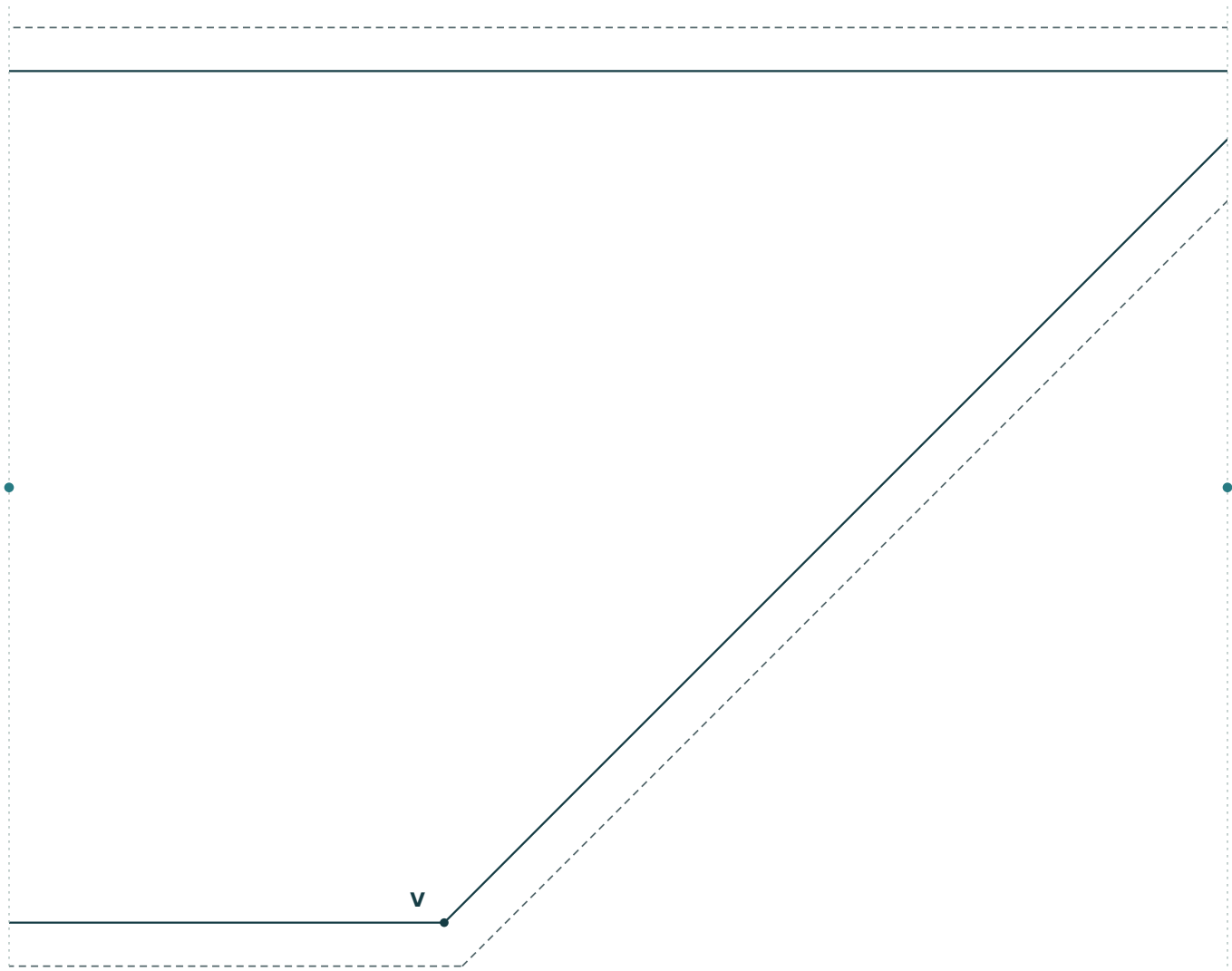
Tiles have no overlap. Align the vertical join lines and continuation marks. The final tile contains the end of the shape and intentional blank space.

Template BG - tile 2 of 3

Join pages 26, 27 and 28 in order. Cut on the dashed OUTER outline only after taping. C9: cut 4 normal + 4 reversed. Solid outline = finished seam boundary.

LEFT JOIN

RIGHT JOIN



BG - tile 2 - joins at 7-inch intervals

1 inch

25.4 mm

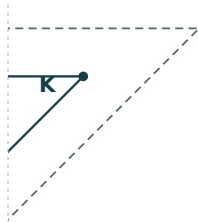
Tiles have no overlap. Align the vertical join lines and continuation marks. The final tile contains the end of the shape and intentional blank space.

Template BG - tile 3 of 3

Join pages 26, 27 and 28 in order. Cut on the dashed OUTER outline only after taping. C9: cut 4 normal + 4 reversed. Solid outline = finished seam boundary.

LEFT JOIN

RIGHT JOIN



BG - tile 3 - joins at 7-inch intervals

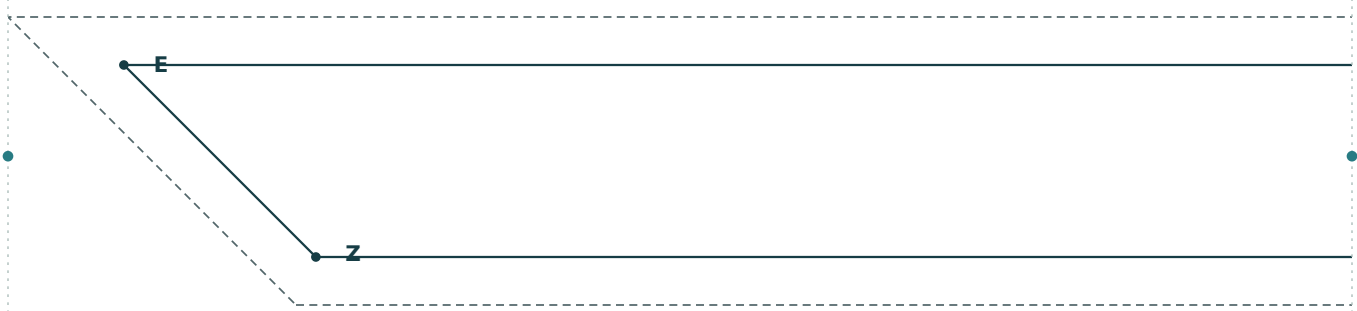
1 inch

25.4 mm

Tiles have no overlap. Align the vertical join lines and continuation marks. The final tile contains the end of the shape and intentional blank space.

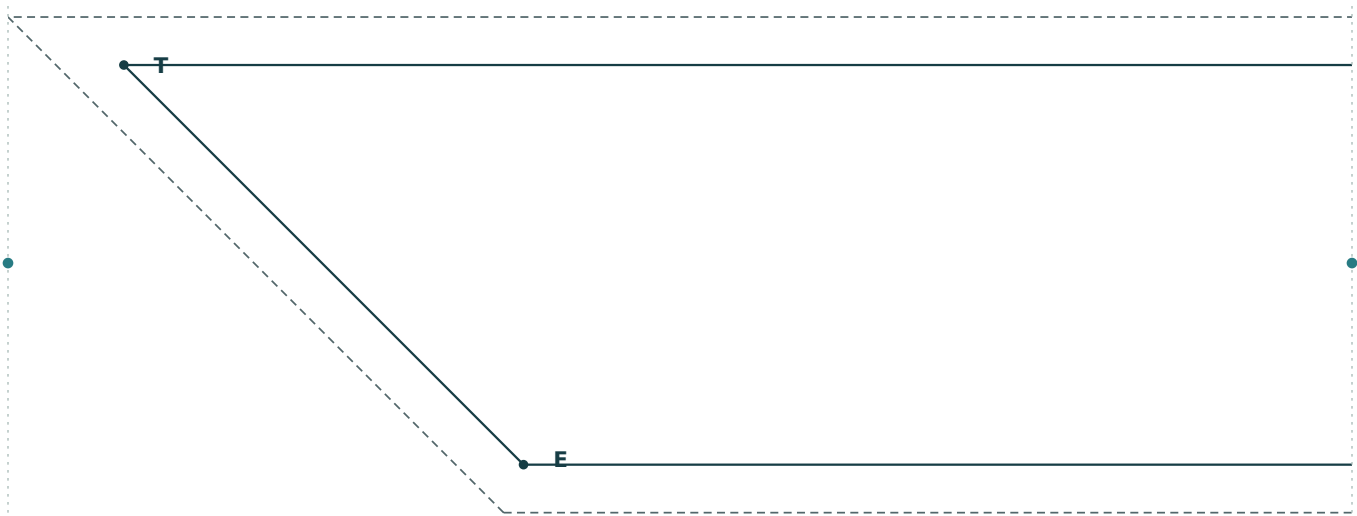
Border templates - tile 1 of 5

IB / MIDNIGHT / CUT 4 + 4 REVERSED



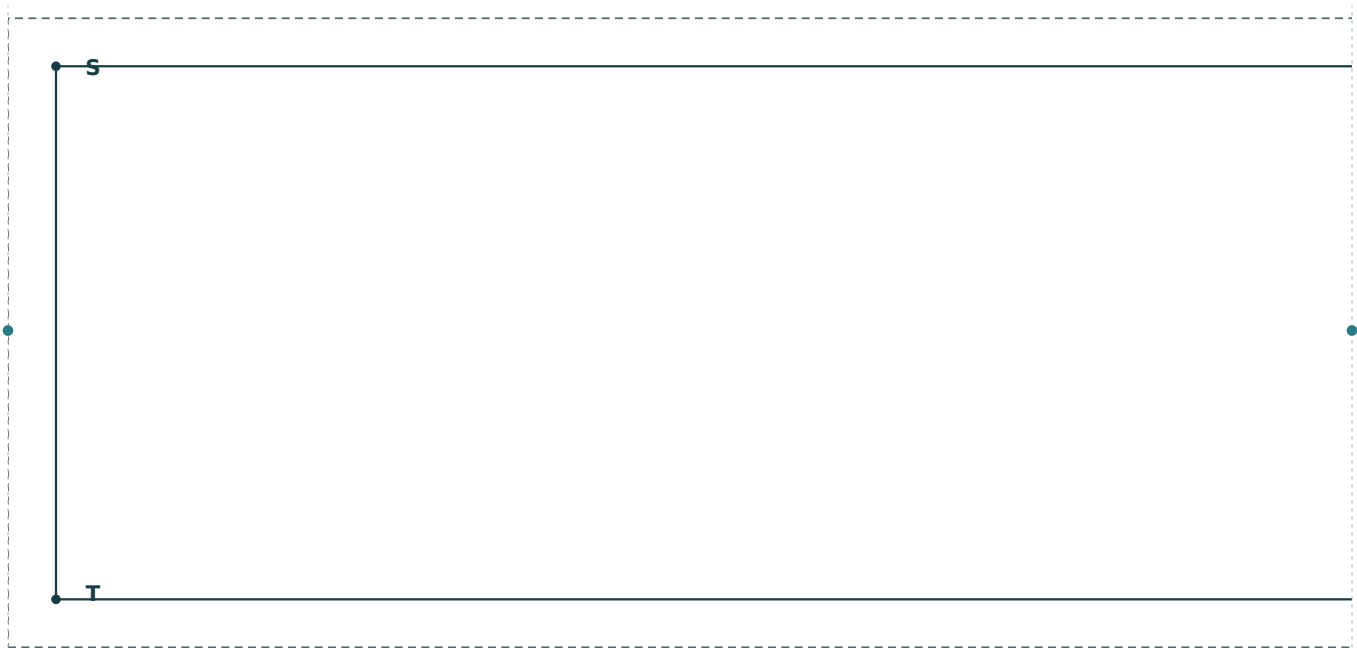
IB - tile 1 - joins at 7-inch intervals

OB1 / TURQUOISE / CUT 4 + 4 REVERSED



OB1 - tile 1 - joins at 7-inch intervals

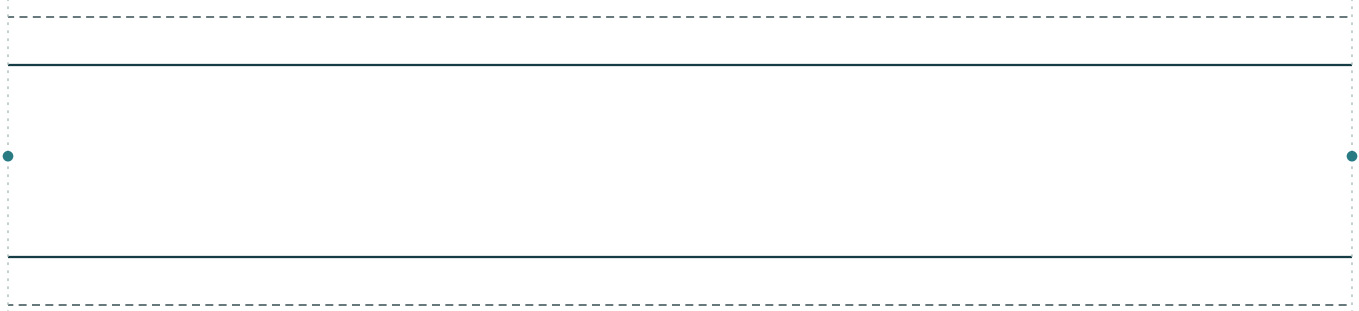
OB2 / TURQUOISE / CUT 4 + 4 REVERSED



OB2 - tile 1 - joins at 7-inch intervals

Border templates - tile 2 of 5

IB / MIDNIGHT / CUT 4 + 4 REVERSED



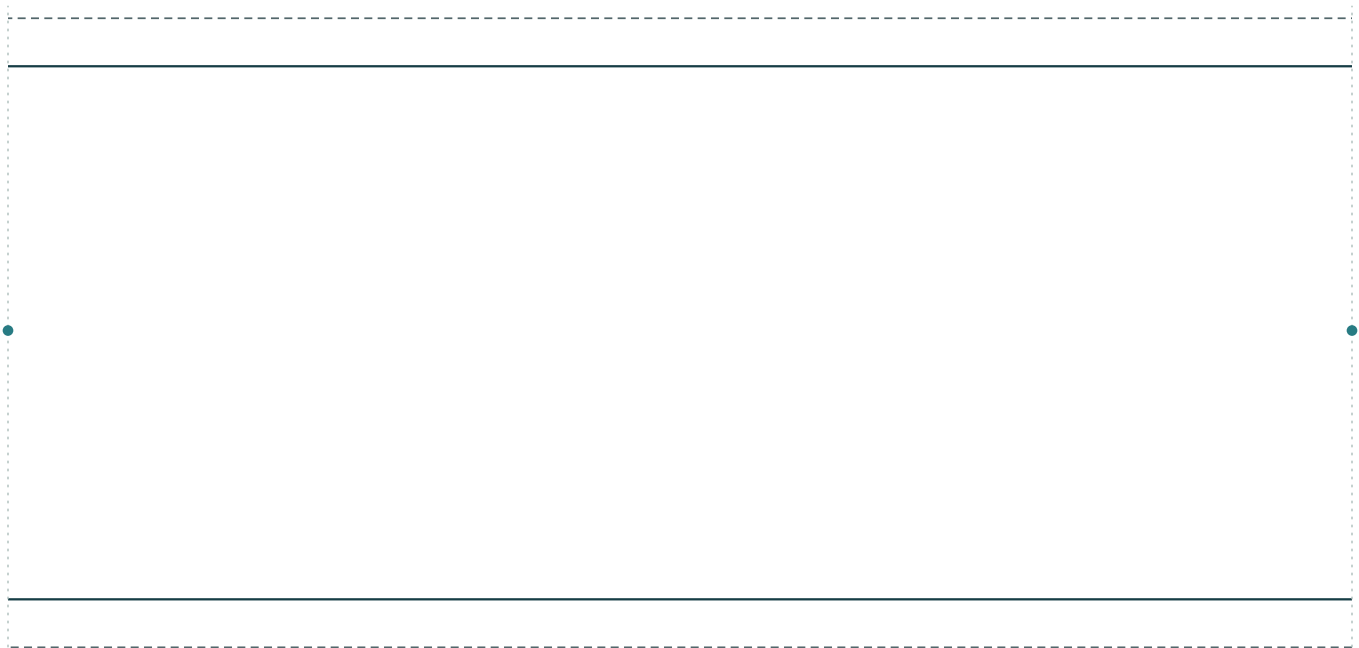
IB - tile 2 - joins at 7-inch intervals

OB1 / TURQUOISE / CUT 4 + 4 REVERSED



OB1 - tile 2 - joins at 7-inch intervals

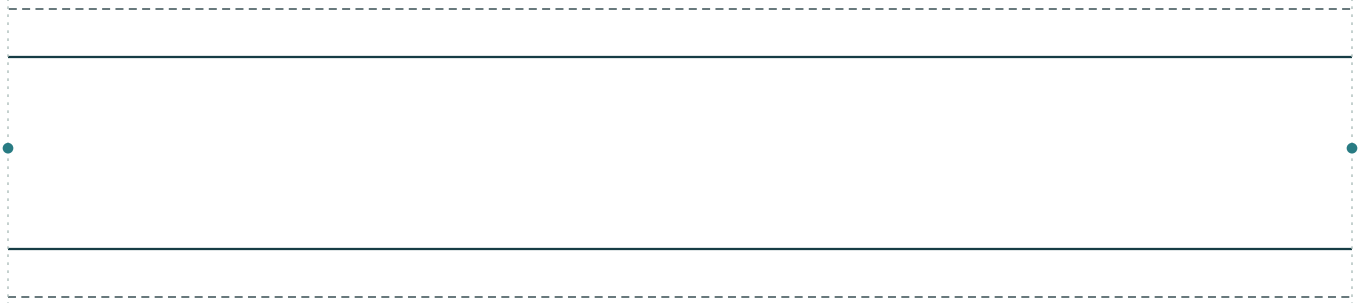
OB2 / TURQUOISE / CUT 4 + 4 REVERSED



OB2 - tile 2 - joins at 7-inch intervals

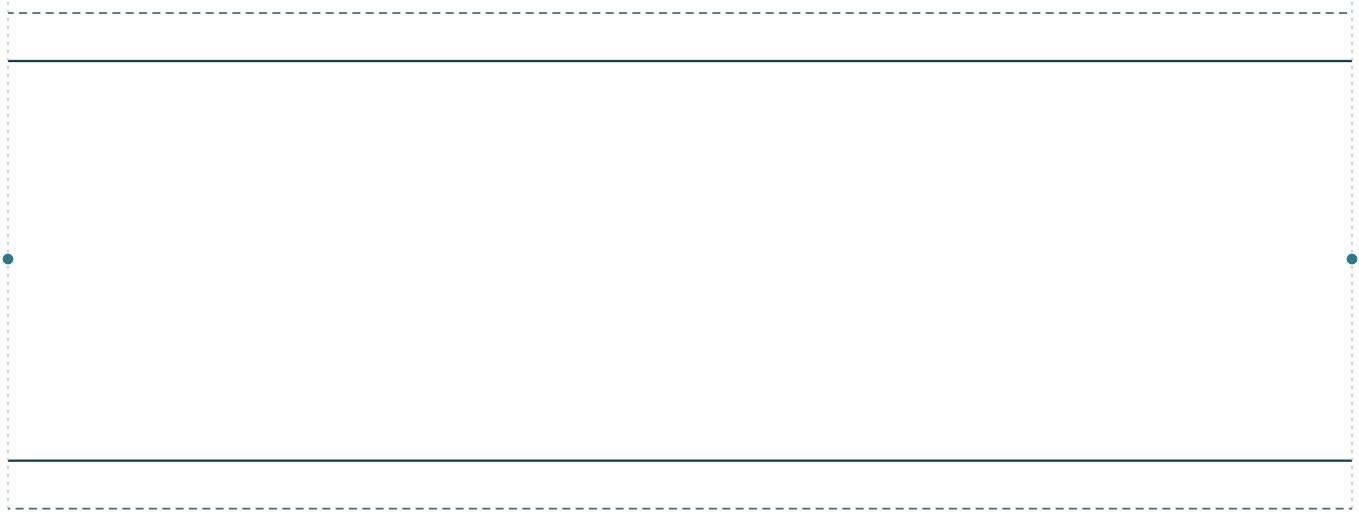
Border templates - tile 3 of 5

IB / MIDNIGHT / CUT 4 + 4 REVERSED



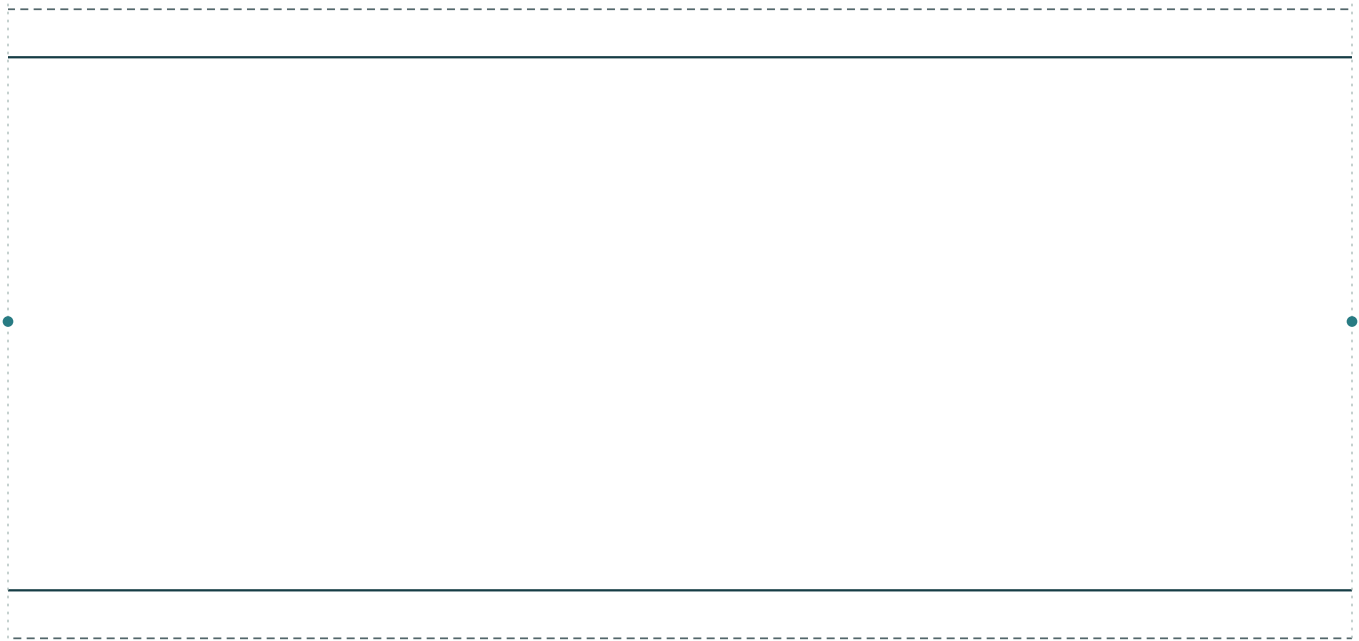
IB - tile 3 - joins at 7-inch intervals

OB1 / TURQUOISE / CUT 4 + 4 REVERSED



OB1 - tile 3 - joins at 7-inch intervals

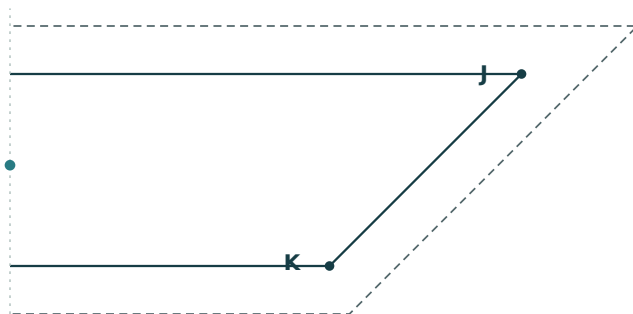
OB2 / TURQUOISE / CUT 4 + 4 REVERSED



OB2 - tile 3 - joins at 7-inch intervals

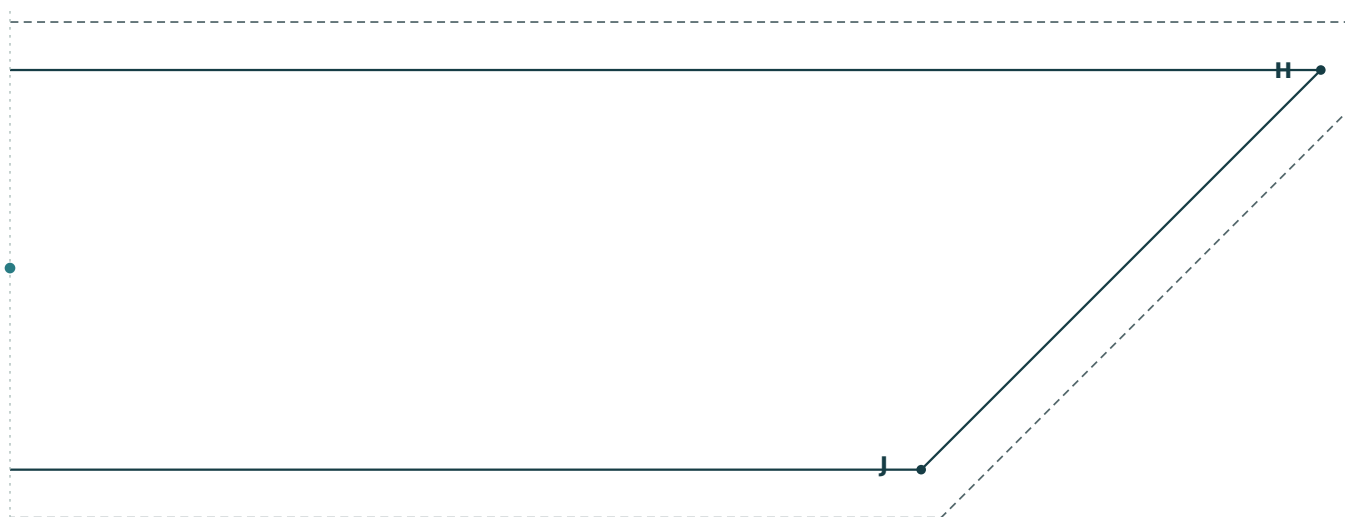
Border templates - tile 4 of 5

IB / MIDNIGHT / CUT 4 + 4 REVERSED



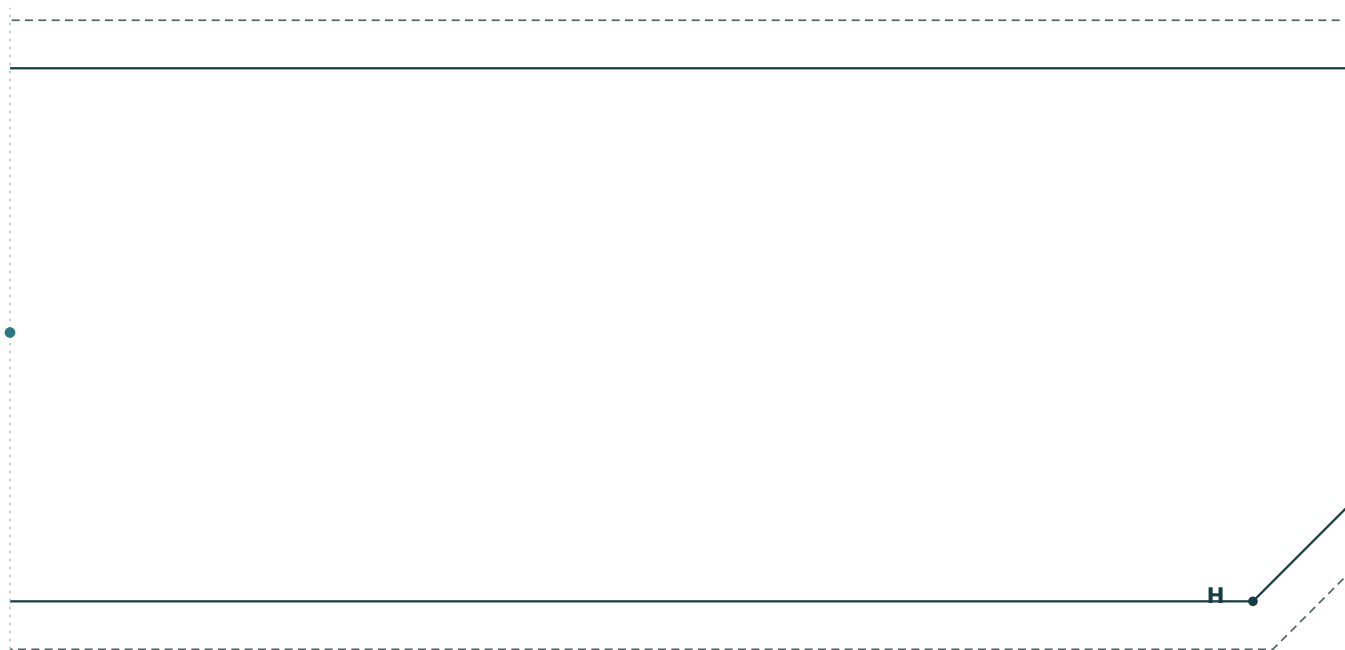
IB - tile 4 - joins at 7-inch intervals

OB1 / TURQUOISE / CUT 4 + 4 REVERSED



OB1 - tile 4 - joins at 7-inch intervals

OB2 / TURQUOISE / CUT 4 + 4 REVERSED



OB2 - tile 4 - joins at 7-inch intervals

Border templates - tile 5 of 5

IB / MIDNIGHT / CUT 4 + 4 REVERSED

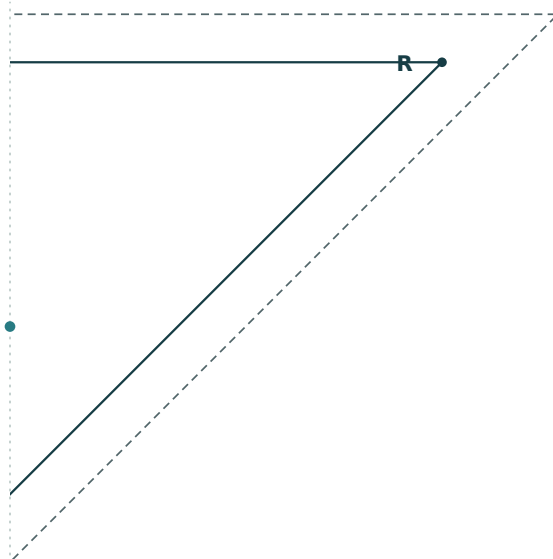
IB - tile 5 - joins at 7-inch intervals

OB1 / TURQUOISE / CUT 4 + 4 REVERSED



OB1 - tile 5 - joins at 7-inch intervals

OB2 / TURQUOISE / CUT 4 + 4 REVERSED



OB2 - tile 5 - joins at 7-inch intervals