

COVE BOX

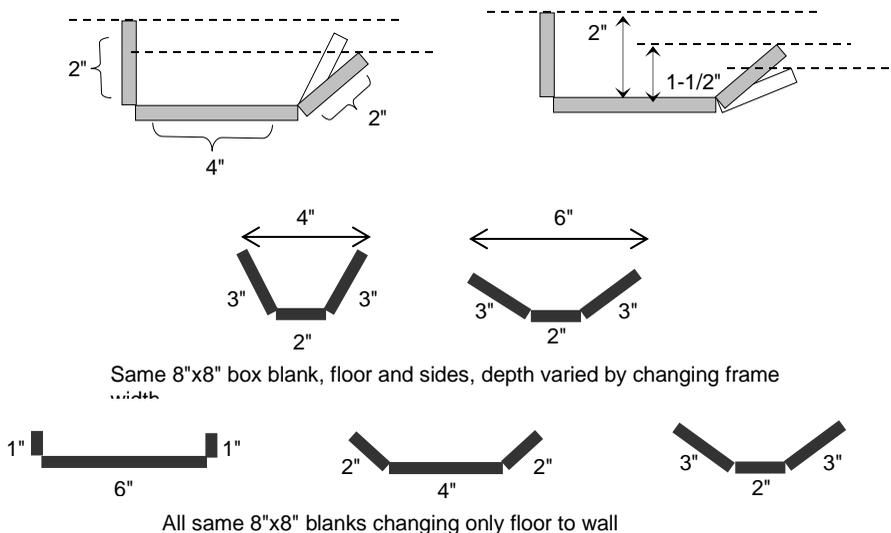
Slanting the walls to create a one-piece cove box simply requires an understanding of perpendicular vs. slanted sides. The degree of the cove angle is determined by the wedge or pie piece of mat or foam board removed from the corner of the box before folding. As with a one-piece design the length of any side (not the height) may only be as long as the inside of the frame it is required to fit into plus allowance.

DETERMINING DEPTH

When a 90-degree box corner is required, the entire square corner must be removed to allow the hinged sides to fold up into a cubed corner. To begin calculating the degree or slant of the cove sides first determine the width of the box bottom and the depth in order to accommodate the object or items to be showcased. Keep in mind that wall height (sides) when slanted will never have the same depth as when perpendicular to the floor.

A one-piece box is easy to calculate for depth. If the box may be no larger than 6"x 6" with 1" sides, the foam blank for the box might be cut 8"x 8", plus allowances for foam thickness and frame. By scoring 1" sides the box floor will be 6"x 6" and the sides will be 1" high. It stays a perpendicular corner box.

The slanted side of a cove is what impacts the depth. Using the same 8"x 8" box blank, making the floor of the box 4" and the sides 2" high ($4 + 2 + 2 = 8$) the slant depth will be about 1" from the glazing. With a 2" square floor and the walls 3" high ($2 + 3 + 3 = 8$) the depth becomes about 2". This is only true if all the samples are fitted into the same 6"x 6" frame. With a 4"x 4" frame and same 3" high wall the box is deepened to 2-1/2" same size frame deeper box.



Working from a fixed foam board blank (8"x 8") adding wall height makes a deeper box, but the floor of the box is made equally smaller. If the floor must remain 4" square and the walls must be 3" deep to accommodate a 2" object, then the blank must be enlarged to 10"x 10" or $4 + 3 + 3 = 10$ ". This will still fit into the same original 6"x 6" frame but will be deep enough to fit a tall item.

The most important thing to remember is **the full length of the side of the box after trimming away corner pieces must stay the same size of the inner rabbet of the frame**. Meaning a 6"x 6" frame may not house a box wider than 6"x 6" total width plus allowances once assembled.

BASIC COVE BOX

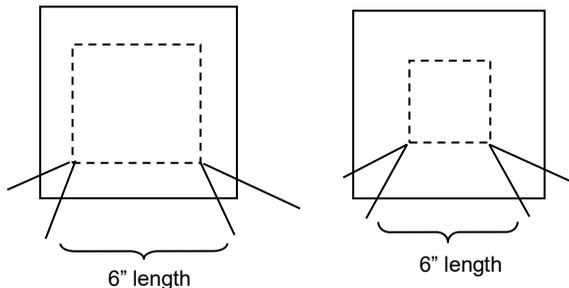
Once the blank has been selected, and sized, if it requires mounting that is the next step. Cold mounting methods of wet, spray, pressure-sensitive or heat setting with dry mount adhesives include all the mounting options. If it is to be a 3"x 3" box or a 16"x 20" box draw that on the back of the blank by measuring in the wall height. Keep in mind the actual inner dimensions of the box frame and allow for board widths and expansion

MATERIALS

- 4 ply Suede mat board
- 1" Linen tape
- 3/16" foam for backing and filler

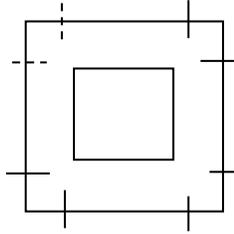
TO COMPLETE:

1. Turn the blank upside down, measure and mark the inner box floor.
2. For a 6"x 6" frame the widest part of the shadow box is about 5-5/8" which allows for 3/16" foam thicknesses and frame allowances of 1/8".
3. With a ruler mark the from the corner in both directions of the box blank, at the calculated measurement, 1-1/8" (in the sample) and connect the 1-1/8" mark to the inner corner of the box floor to establish the wedge.
4. With a new blade cut clear through the box to remove the corner wedges.
- 5.

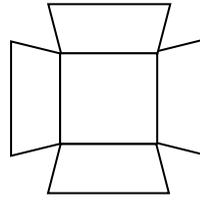


➤ **TIP: SATURATION OF ADHESIVES**

If saturation is extreme (30 minutes) the paper or fabric surface may feel waxy to the touch. If this is a mat design, a spacer should be placed between the glazing and mat.

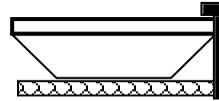


Pencil mark in from the corners, join to box



Removed corners leaves $4+2+2=8$ box ready to score and hinge

6. Score all four sides of the box floor at the pencil to create the hinge by cutting down to the surface papers but not all the way through the board.
7. Suede board as well as other mat boards have a tendency to separate at center ply so reinforcing the hinges with linen tape is necessary. White for light colored boards, black for dark boards. Burnish the linen with a bone burnisher into the stepped shape of the hinge.
8. Bind the corners together with the same linen tape, this time not allowing the tape to step into the corner but pulling snug around making sure the front corners match cleanly.



Cove boxes create a natural triangular shape at the sides of the box that disallow it to be nailed or tacked without an additional support board. This will also provide additional security and protection of threads and pin backs etc. that are otherwise exposed on the box back.

PLATFORM DIMENSIONAL BOX

Another variation on the one-piece box is the platform dimensional. Named for its availability to create multiple layers on the box floor for mounting fliers, papers, photos, or objects at different heights. Platform dimensionals are embossed one-piece boxes using a template during mounting to help establish placement of the background shapes and wrapping of fabrics and papers. See Embossed mats chapter 5.

Begin by sizing the box, complete with sides, and template exactly the same. All templates used must be made of paper mat board in order for the heat to transfer through the papers to the adhesive beneath. If an 1/8" platform is desired use an 8-ply mat, for a 3/16" platform a 12-ply mat. If a double embossing is desired, then the platform on top

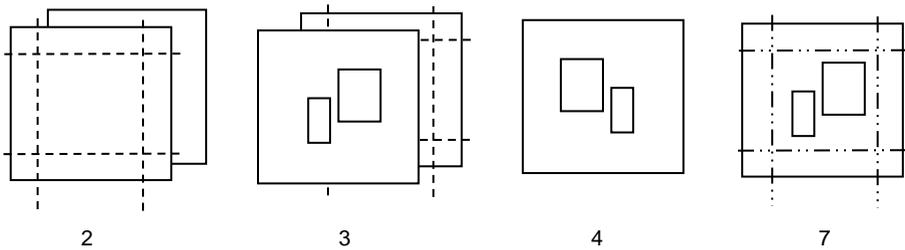
of a platform will require a second layered template. This will also need to be sized exactly the same as the box substrate.

MATERIALS

- 8 ply mat cut to exact dimensions of box blank
- 3/16" Acid free or Black foam board for box blank
- Pure film adhesive
- ATG tape
- Mat cutter, press, ruler...

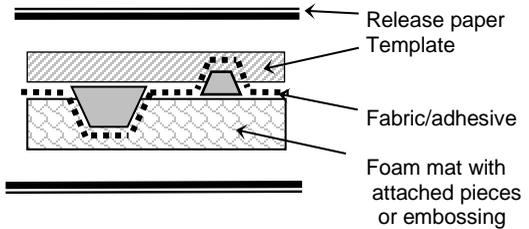
TO CREATE:

1. Begin with two sized box blanks.
2. Score back of box blank, as in one-piece box.
3. Draw platforms on tracing paper laid over the scored box to establish size, shape and placement.
4. Invert and transfer pattern to template
(tracing paper must be same size as blank).
5. Cut patterns at a bevel, hand inside the puzzle pieces.
6. Turn template face up, replace platform pieces.
7. Apply ATG tape to pieces, align and press unscored face of box to template to transfer pieces to box floor.
8. Mount fabric or paper to platformed box using mat template.



TO MOUNT: (top to bottom)

- Release paper
- Template
- Fabric
- Adhesive
- Box with embossed platforms
- Release paper



Place in 190-200F press for 2-3 minutes, 4-5 minutes Vacuum press.

TO COMPLETE:

- Fold and secure corners
- Assemble box as needed
- Fit into frame, fill, paper and add hangers



SHADOW BOX MOULDING

There are numerous companies who have made an effort to help accommodate the framer mouldings deep enough to handle these boxes. Plus, when there are no single mouldings deep enough there are plenty that may be successfully stacked. Check with your local or regional supplier for mouldings deep enough to accommodate shadow and cove mat designs.

