PROTECTIVE ENCLOSURES AND ARCHIVAL MATERIALS FOR PHOTOGRAPH ALBUMS AND BOUND VOLUMES

Protective enclosures serve as physical protection for bound volumes, reducing mechanical damage from handling, dust, and abrasion. As well, they provide a barrier from environmental fluctuations and airborne pollutants.

Whenever possible, use acid free or alkaline buffered materials to construct the enclosures. When acid free materials are not available, protective enclosures can still help protect archival objects. Use a barrier between the object and its enclosure, such as wrapping the object in a tri-fold of good quality paper or Mylar/Melinex before housing in the box.

1. Four flap enclosure
2. Card stock housing (tuxedo box) for materials less than 2cm thick
3. Corrugated box for materials more than 2cm thick

1. Four-flap protective enclosure

A four flap protective enclosure made from pH neutral or slightly buffered card stock or thin board will create a microclimate for an object. The bottom flap should be closed first, followed by the top flap. The flaps at the right and left sides should be closed so that the enclosure opens intuitively the way the volume inside does – either left reading or right reading, depending on printing/region of publication.

Measure the length (L), width (W), and thickness/depth (D) of the volume to be housed. Mark the measurements onto a strip of paper or board, as shown below. In the template, (BT) represents the thickness of the rehousing material being used for the enclosure.

BT **D**   **W**   **L**

Inner Wrapper: *See image below*. Cut the first piece of card stock exactly the (W) of the object, and (3L+2D) long, based on the measurements taken on the strip of paper – be certain to accommodate the widest part of the object. Mark the piece at the distances noted in the image below, beginning at Flap 1. Using a bone folder and a straight edge, fold the piece at the locations marked, being sure that the folds are perfectly perpendicular to the long edge. This will create a wrapper that exactly accommodates the depth of the volume. Flap 1 and Flap 2 should extend the complete Length of the volume. Cut off any excess material from the end of Flap 2.
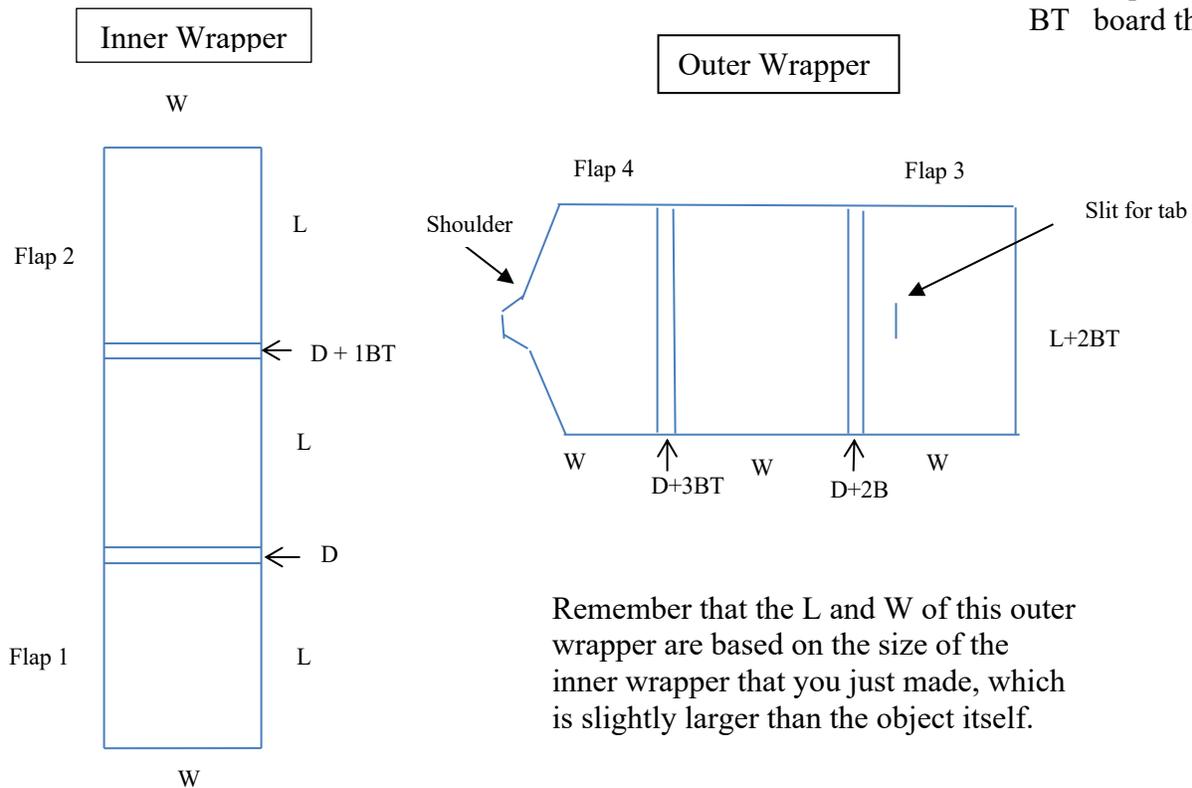
Outer Wrapper: To make the Outer Wrapper, again use your original measurement strip, and cut a second piece of card stock (L + 2BT) x (3W + 2D + 5BT). The addition of the board thickness (BT) is important, as the Outer Wrapper will need to fit around the Inner Wrapper with the object inside. Create the Outer Wrapper and fit it around the Inner Wrapper. Cut a tab at the left side of Flap 4, as shown below. There is not a formula for this tab, but it needs to be centered top to bottom.

Closure tab: Fit both the Inner Wrapper and the Outer Wrapper over the object. Where the angles of the closure tab (on Flap 4) meet Flap 3 below, make a pencil mark, exactly at the shoulders of the tab. Next, take the Outer Wrapper off the object, and make a straight cut between the 2 pencil marks. This cut makes a slit that will accommodate the tab and keep the enclosure closed, so be careful to not extend the cut beyond the 2 pencil marks.

Adhere the Inner and Outer wrappers to each other using 3M 415 double sided tape (or other adhesive), placing the strips of tape along the edges of the base of the enclosure. Be careful not to allow any of the tape to extend beyond the edges of the wrapper.

Four-flap protective enclosure

L   Length
W   Width
D   Depth
BT   board thickness

Inner Wrapper

W

Flap 2

L

D + 1BT

L

D

Flap 1

L

W

Outer Wrapper

Flap 4   Flap 3   Slit for tab

Shoulder

L+2BT

W   D+3BT   W   D+2B   W

Remember that the L and W of this outer wrapper are based on the size of the inner wrapper that you just made, which is slightly larger than the object itself.

2. Tuxedo Box/Card stock box
for objects/volumes less than 2cm thick

Measure the length (L), width (W), and thickness/depth (D) of the volume to be housed. Mark the measurements onto a strip of paper or board, as shown below. In the template, (BT) represents the thickness of the corrugated board being used for the enclosure.
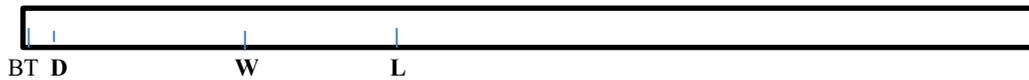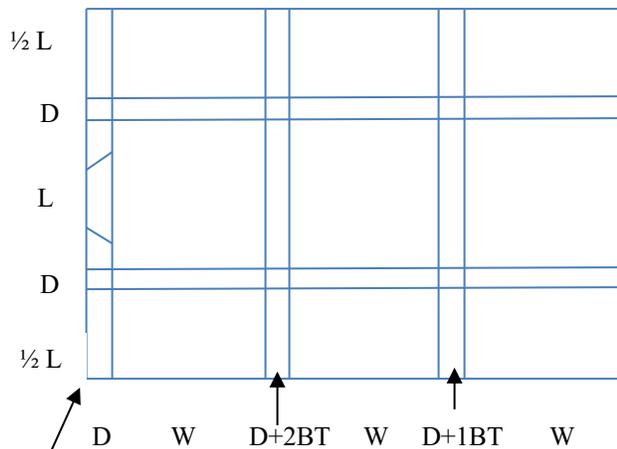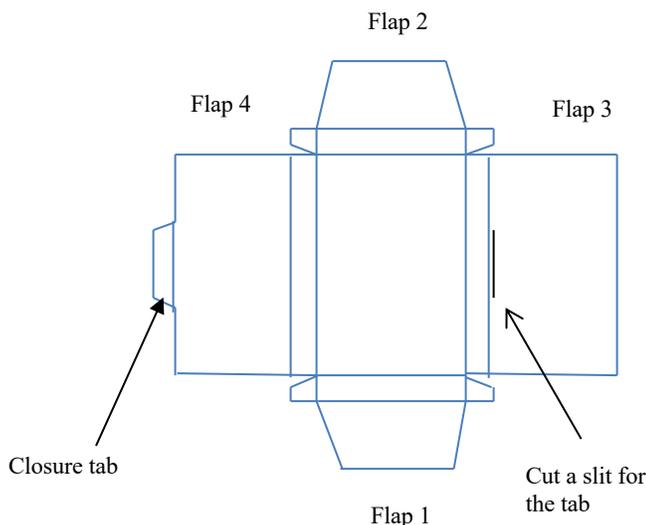
BT **D**   **W**   **L**

Figure A

½ L

D

L

D

½ L

D   W   D+2BT   W   D+1BT   W

(D) measurement for closure tab

Figure B

Flap 2

Flap 4

Flap 3

Closure tab

Cut a slit for the tab

Flap 1

Follow the template in **Figure A** to mark the card stock or other housing material, and then carefully cut out the template as shown in **Figure B**. The small tabs at the corners fold inside the box to keep out any dust/dirt. The (D) measurement at the left edge of the template is for the closure tab. There is not a formula for this tab, but it needs to be centered top to bottom.

Make the folds with a straight edge and bonefolder.

Place the object into the newly cut and folded box. Where each of the two angles of the closure tab (on Flap 4) meet Flap 3 below, make a pencil mark, exactly at the shoulders of the tab.

Take the object out of the box, turn the box over, and make a cut between the 2 pencil marks on Flap 3. This cut should be made on the flap, just to the outside of the fold, as shown in Figure B. This cut will accommodate the tab and keep the enclosure closed, so be careful to not extend the cut beyond the 2 pencil marks.

3. Corrugated Box
for objects/volumes more than 2cm thick

***See scanned template on following page to create Corrugated Box

Measure the length (L), width (W), and thickness/depth (D) of the volume to be housed. Mark the measurements onto a strip of paper or board, as shown below. In the template, (BT) represents the thickness of the corrugated board being used for the enclosure. Thinner corrugated board is easier to work with than thicker board, but either is effective with the BT accurately noted.

BT **D**   **W**   **L**

This one piece corrugated box has a slightly smaller Inner Tray, (in which sits the volume), as the Outer Tray folds over top of the Inner Tray to close the box. On the template, it is evident that the Inner Tray, at the right side of the image, is smaller than the Outer Tray, at the left hand side. Carefully review the template to see how to cut the inner and outer trays.

Use the measurements on the strip of paper, and follow the template instructions to carefully mark up the piece of corrugated board for the box. It is helpful to mark the 'inner' and 'outer' trays on the marked up corrugated board. When the template has been recreated on the corrugated board, cut out the box. Fold the box along the lines indicated with dashes to create the spine and box edges. The tabs that read 'Flatten + Tuck' should be pressed flat to reduce the thickness of the board (by flattening the corrugated flutes) and then folded to be enclosed by the 2 layers that make up the fore-edge walls of the box. With the tab tucked between, each double-thick fore-edge wall is held closed with 3M 415 double sided tape, (or other adhesive). As shown in the template, the left- and right-most edge fold over on themselves to create a double wall thickness, for strength. The 2BT gap allows this difficult fold to be accomplished, and accommodates the tab that is folded in to be adhered between the 2 layers.

Double-sided tape strip to adhere

D + 2 BT

D+2.5 BT

2 BT

FLATTEN + TUCK

FLATTEN + TUCK

[OUTER TRAY]

W + 4.5 BT

D + 2.5 BT

D + 2.5 BT

L + 3.5 BT

CUT ALONG SOLID LINES; SCORE + CREASE ALONG DASHED LINES

D+2.5 BT

1 BT slit

1 BT slit

[INNER TRAY]

W + 2.5 BT

D + 1.5 BT

D + 1.5 BT

L + 1.5 BT

D + 1.5 BT

2 BT

D + 1 BT

FLATTEN + TUCK

FLATTEN + TUCK

Double-sided tape strip to adhere