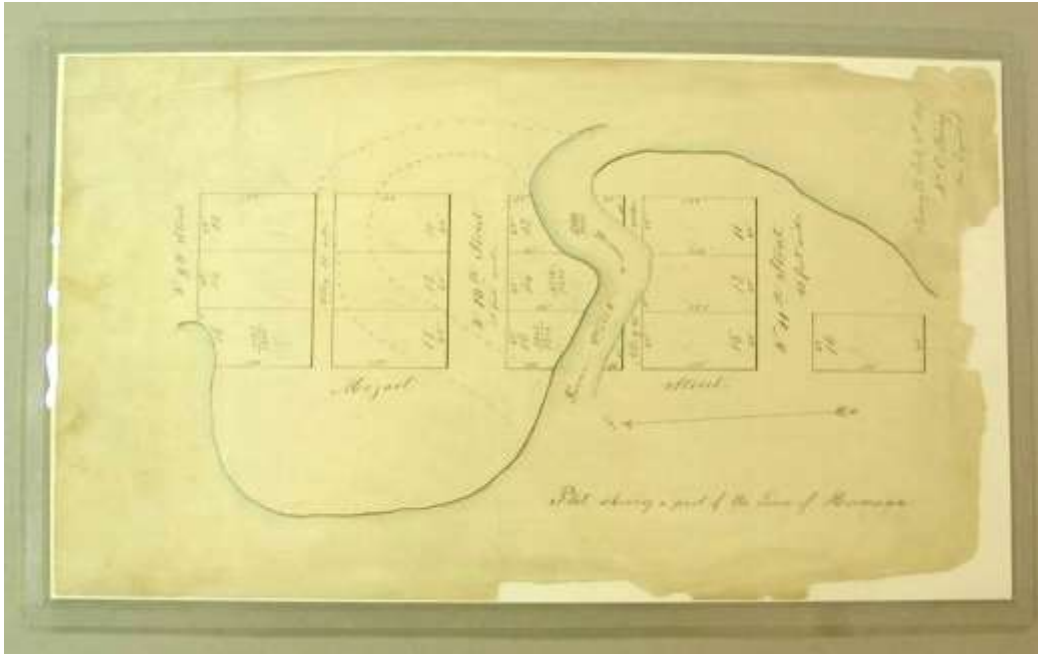## *ENCAPSULATION OF DOCUMENTS*

Encapsulation of a document is the act of sealing a paper document inside two pieces of clear polyester film. Not to be confused with lamination, which is extremely destructive to paper documents, encapsulation is a completely reversible process. Where lamination involves the actual adherance of a document to a piece of plastic using heat, with encapsulation the plastic is sealed only outside the edges of the document. This makes it easy to remove the document at any time simply by cutting the plastic film inside the seal.

Some reasons to encapsulate
➢ To hold together a torn, ragged or fragile document.
➢ To protect or support a document that will be handled frequently.

Some reasons *not* to encapsulate
➢ Encapsulation can have some drawbacks, so only encapsulate a document if there is a clear reason to do so.
➢ Encapsulation may actually accelerate deterioration of an acidic document by creating a microclimate inside which does not allow acid gasses to escape.
➢ Do not encapsulate documents with loose media (such as charcoal or gouache) or photographs with lifting or flaking emulsions. The static electricity inside can cause these to pull away from their support and stick to the plastic film.

Supplies needed (details below)
➢ two pieces of polyester film
➢ a dusting cloth
➢ a piece of good quality, alkaline paper
➢ double-sided tape
➢ clean white cotton gloves
➢ cutting tools
➢ a weight
➢ nail clippers

Choosing supplies

➢ *Polyester film* can be obtained from archival supply companies. Use only stable, good quality polyester films that have been manufactured without harmful additives. Polyester film comes in several thicknesses – 3 mil is a good weight for smaller documents, while 4 or 5 mil polyester would be better for larger documents. Cut the two pieces of polyester film at least one inch larger than the document on all four sides.

➢ *Dusting cloths* are used to clean the polyester film before encapsulating. Choose a cloth that is non-abrasive, as polyester film scratches very easily. Make sure the cloth is lint-free, to avoid encapsulating bits of the cloth in with your document. Also make sure that the cloth has no additives or chemical coatings that could damage your document. Magnetic dusting cloths, such as Dust Bunnies, work very well.

➢ *Alkaline paper* may be included in an encapsulate to provide support and helpe prevent the build up of acids inside the capsule. Choose a good quality, acid- and lignin-free, alkaline buffered paper. Cut the paper slightly larger than the document. If the document has information on its back, you can photocopy this information onto the alkaline paper.

➢ *Double-sided tape* is used to seal each side of the capsule. 3M #415 double-sided tape is the only type of tape considered to be appropriate for document encapsulation, and it will not degrade as quickly as some other tapes. It comes in 3 widths - normally, you will use the ¼" size. For very large documents, ½" may be better.

➢ *Clean, white cotton gloves* will prevent unsightly fingerprints inside your capsule. Polyester film scratches very easily.

➢ *Cutting tools*, such as sharp scissors, a blade and cutting mat, or a paper trimmer are used to cut the tape and trim the edges of the capsule.

➢ *Weights* should be flat and smooth, so as not to emboss the encapsulation materials or scratch the polyester.

➢ *Nail clippers* are used to round the corners of the capsule.

The procedure

1) Lay one piece of polyester on a clean, flat surface.
2) Use the dusting cloth to wipe the side that is facing up. That will be the side that is against your document.
3) Position the piece of alkaline paper in the middle of the polyester film. If the paper has information photocopied onto it, make sure it is image side down.
4) Place a weight on the insert sheet, to prevent it from shifting.

5) Place strips of tape on all four sides of the insert paper. Leave about 1/8" to 1/4" between the tape and the edge of the insert paper. Butt the tape at the corners - do not allow the tape to overlap. A small gap is fine.

6) Carefully remove the weight and place the document, face up, in the middle of the insert sheet.
7) Clean the other piece of polyester film with the dusting cloth. Position the clean polyester film on top of the document.
8) Place the weight back on top, to hold everything together.
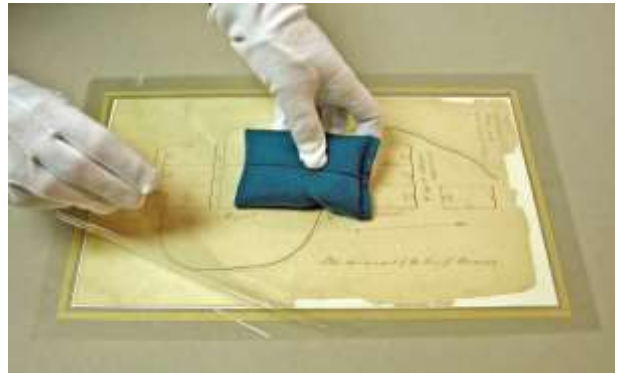
9) Lift the top piece of polyester film along one long side and remove the strip of brown release paper from the tape along that edge. Pull the release paper to the side, not straight up, so you don't detach the tape from the polyester film at the bottom.
10) Gently drop the top piece of polyester film onto the exposed tape. Use the dusting cloth to firmly smooth the taped area, to give good adhesion.
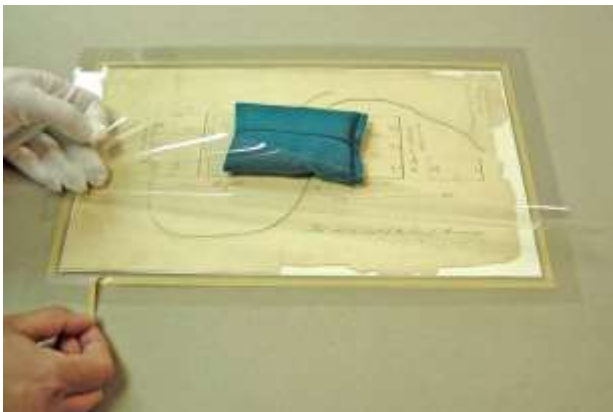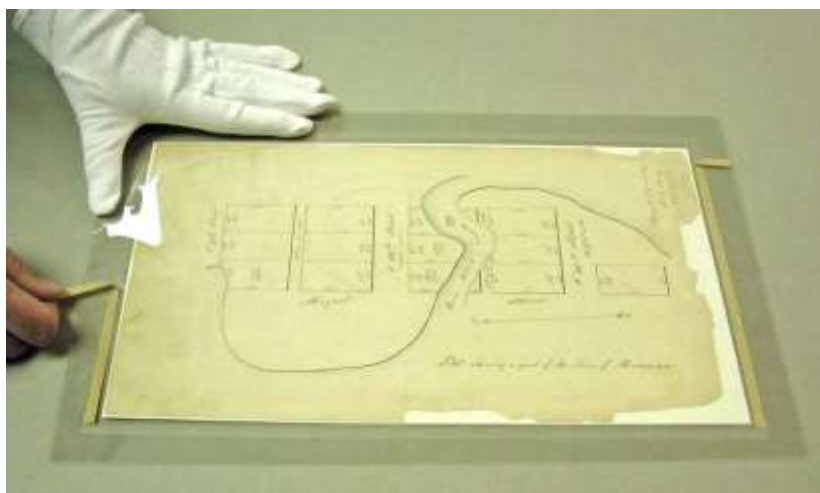

11) On the opposite side of the capsule, lift the top polyester film sheet and peel back about an inch of the release paper on the two sides perpendicular to the first taped side. These tabs will make it easier to remove the release papers later.
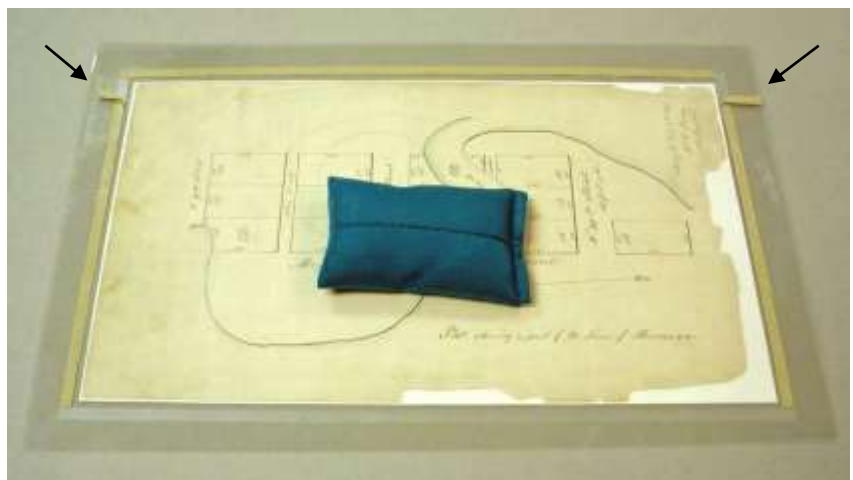
12) Remove the release paper from the tape at the opposite side from the first. Remove the weight, then gently drop the polyester film back in place. As you replace the polyester film, use the dusting cloth to smooth across the capsule from the first taped edge to the newly exposed tape, removing the air and keeping the film flat and smooth.


13) Remove the release paper from one of the remaining two sides by pulling the tab you made earlier. Firmly smooth the newly taped area.

14) Remove the release paper from the last side, but *don't* smooth down the taped area yet. Start at the opposite side and use the dusting cloth to force as much air as possible out of the capsule. Then firmly smooth the last taped area.
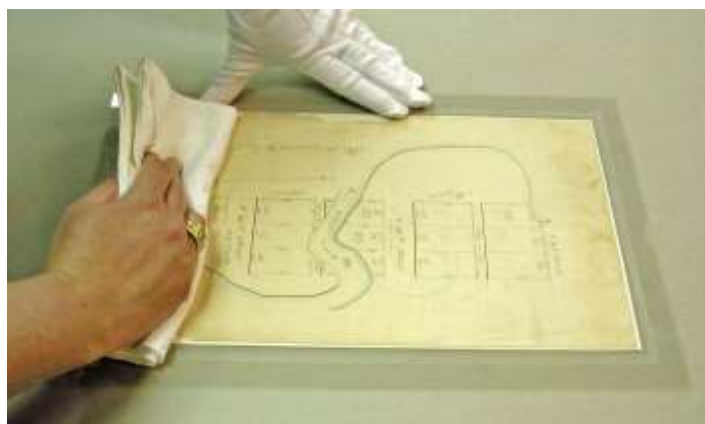
15) Trim the edges of the capsule with scissors, a sharp blade or a cutter. Leave at least 1/8" border beyond the edge of the tape. This will help prevent the tape edge from collecting dirt.
16) Round the corners of the capsule with nail clippers or a corner rounder. Sharp corners can scratch other documents, as well as people.
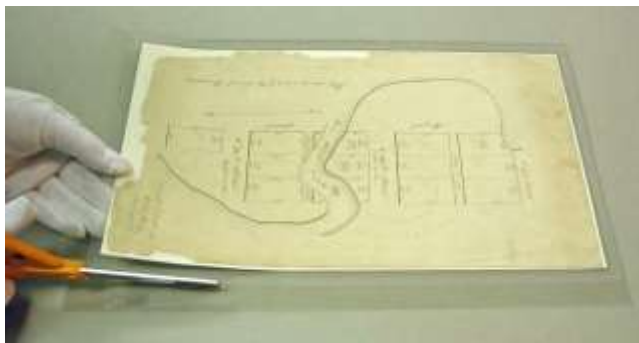
Cautions

Inspect your encapsulated document occasionally to see make sure that the document is not touching the edge of the tape. Sometimes a document can slide into the tape, particularly if the capsule is not tight, and there is air inside.

For very fragile or valuable objects, you may want to call a professional conservator. For help finding and selecting a conservator in your area, you can contact the American Institute for Conservation at (202) 452-9545 or visit their website at *http://www.conservation-us.org/*. More information on selecting a conservator can be found in Jan Paris' *Choosing and Working With a Conservator* at *https://www.nedcc.org/free-resources/preservation-leaflets/7.-conservation-procedures/7.7-choosing-and-working-with-a-conservator*.

For further information
The conservation staff of the Local Records Preservation Program is available to provide additional guidance and support. Contact them at: P.O Box 1747, Jefferson City, MO 65102, (573) 751-9047, or local.records@sos.mo.gov.

The Local Records staff has compiled a list of preservation-related vendors, particularly those that provide supplies and services to Missouri citizens and government officials. It is available from the Local Records office or at *https://www.sos.mo.gov/CMSImages/LocalRecords/Vendors_Information.pdf*.

Published by the Local Records Preservation Program, Missouri State Archives, Office of the Secretary of State. The full set of Conservation Notes on this and other topics is available at https://www.sos.mo.gov/archives/localrecs/conservation.

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