

City of Richmond Archives Bylaws Conservation Treatment Project

As part of the Richmond's 125th birthday celebrations in 2004, the City of Richmond Archives undertook a major conservation project to ensure the long-term preservation of our most historic records. The Bylaws are extremely significant records as they document the beginning of civic government in our community at the time European settlers were becoming established in the west.

The City's first 197 Bylaws were nearly destroyed in a fire which engulfed Richmond Town Hall sometime between December 23, 1912 and January 6, 1913. Two auditors were reviewing the City's financial records, with a kerosene heater to warm the wood frame building. By mistake a can of gasoline was poured on the heater. The result was an explosion and fire which destroyed the building. The only records salvaged from this blaze were the bylaws and minute books. Both men risked their lives to save the Municipal records. Tragically, one of the men, Mr. Lancaster, died of his injuries.

These City of Richmond Bylaws were identified as a high priority for conservation treatment as they represent significant City records. In their pre-treatment condition, even

gentle handling could result in damage as the paper in the bound bylaw volumes was acidic and embrittled.

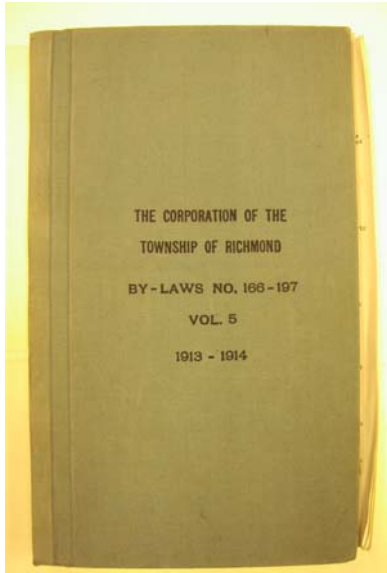
When this important conservation treatment project was completed, the first 196 bylaws had been treated – five volumes and 697 individual pages in all!



Richmond's Town Hall circa 1990.
City of Richmond Archives photograph 1978 14 13

Pre-Treatment Condition of Bylaws

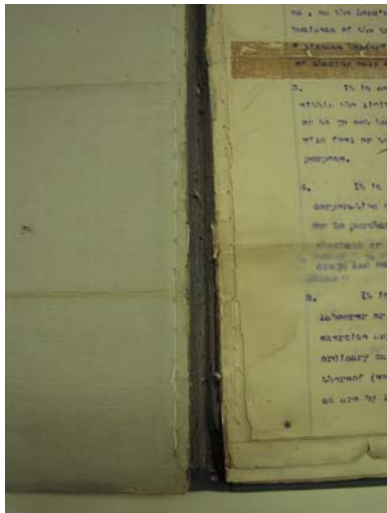
All early City bylaws were bound into cloth covered case bindings probably sometime in the 1940s.

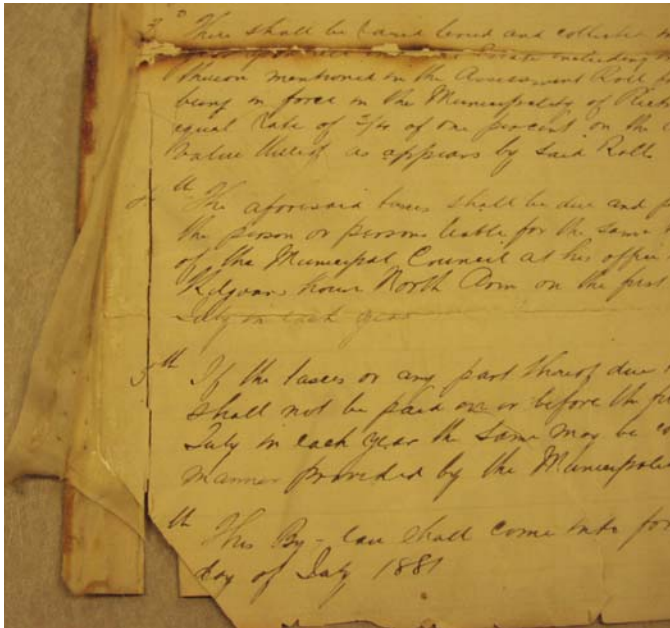


These bylaws are composed of papers made from a variety of rag and machine-made wood pulp paper. The use of a variety of irregularly sized sheets of paper had also lead to handling problems over the years which has resulted in edge tears and dog ears. Overall, the bylaws were in very poor condition.

The pH of the paper was taken and pH levels were in the range of 3.5-4.5. This is very acidic. Acidic paper is less stable and deteriorates far more rapidly than non-acidic paper. As the acid levels of paper increase, the mechanical strength of the paper decreases substantially resulting in embrittlement, breakage and subsequent loss during handling.

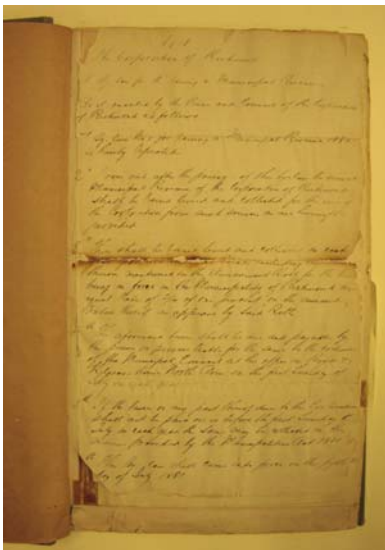
The case binding style had also caused severe damage along the spine edge of the bylaws. This style of binding had resulted in tears and paper breakage along the signature sewing lines shown below.



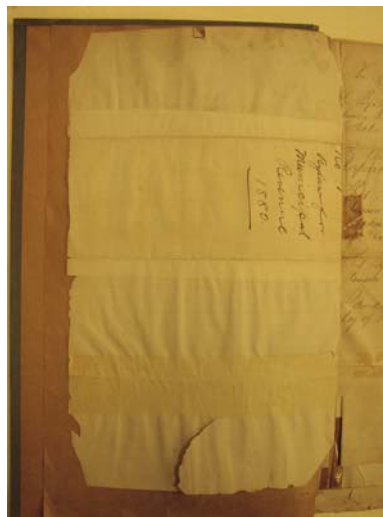


Adhesive staining from gummed linen tape was found along the spine edge on many bylaws. The gummed linen taped was used in some cases as a sewing/binding edge for the bylaws.

Bylaw 1 (below) shows clear evidence of loss from paper embrittlement and poor handling. Charring of the paper from the fire which engulfed the Town Hall is also clearly visible along the central fold.

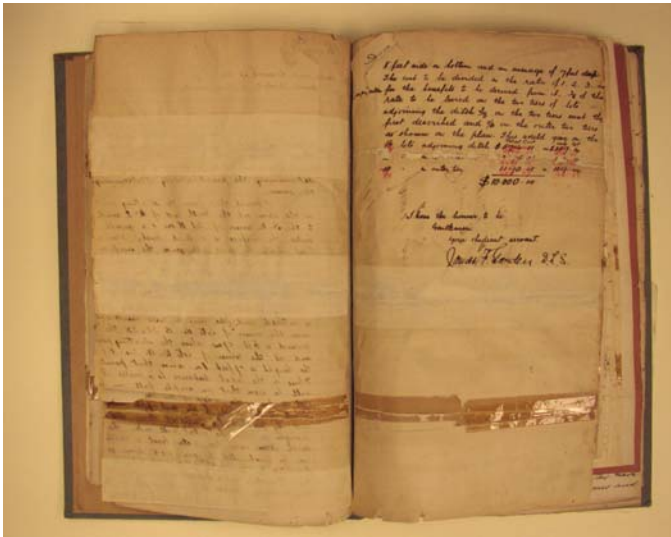


Bylaw 1 front before treatment

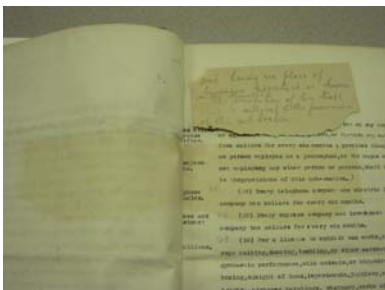


Bylaw 1 back before treatment

The use of pressure sensitive adhesive tape (Cello type, magic mending tape, etc.) had led to severe staining and paper breakage along the tape edge. Adhesive tape creates areas of greater and lesser strength which in weak paper can lead to tears from even gentle handling.



Surface soiling had occurred from the regular usage of the document during its lifetime. Staining and other discolouration remains on many bylaws. Water damage is also common in the earliest bylaws as shown to the left.



Staining from acid transfer occurred when the bylaws were in contact with a more acidic sheet of paper such as the tan piece of newsprint shown to the left.

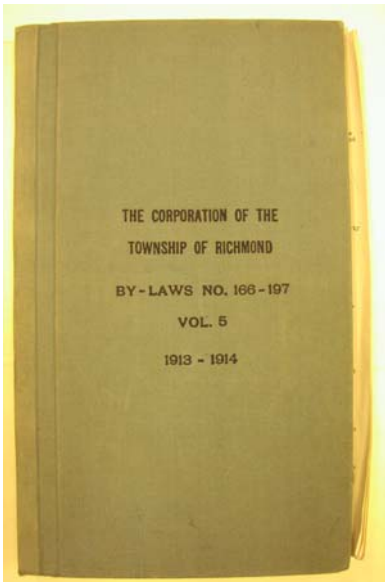
Conservation Treatment

The City of Richmond Archives does not have a conservation lab so a ‘conservation work station’ was set up in the City Archives work room.



A standard conservation treatment protocol was undertaken to ensure the long-term life expectancy of the bylaws.

The bylaws were first disbound from their cloth bindings and individual bylaw pages were separated. Residual binding adhesives were removed during this first stage.



All bylaws were then dry cleaned to remove surface soiling. Adhesive tape carriers were removed but no attempt was made to reduce adhesive staining as it did not impair reading of the bylaws.



The bylaws were then washed in a two step process to remove soluble acidic components in the paper and to introduce an alkaline reserve to the paper. Addition of an alkaline



reserve increases the life expectancy of paper. The small number of bylaws which could not be washed because of ink solubility in deionized water were deacidified using Bookkeepers deacidification spray.



Paper tears were repaired with a range of Japanese tissues and wheat starch or methyl cellulose adhesive.

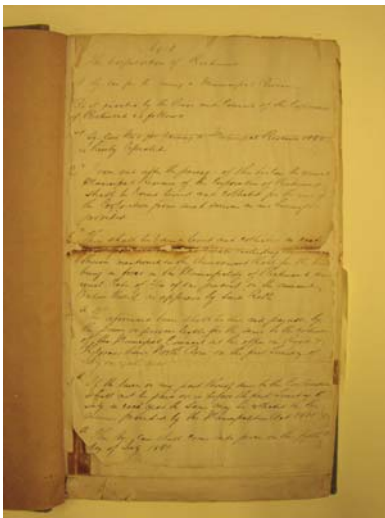
The final steps in the conservation treatment were to humidify and flatten of the bylaws.

All bylaws were then rehoused into acid-free file folders and placed in acid-free document boxes.

Benefits

The benefits of undertaking this City bylaw conservation treatment project include a significant increase in the bylaw life expectancy and enable Archives staff to safely handle the original bylaws.

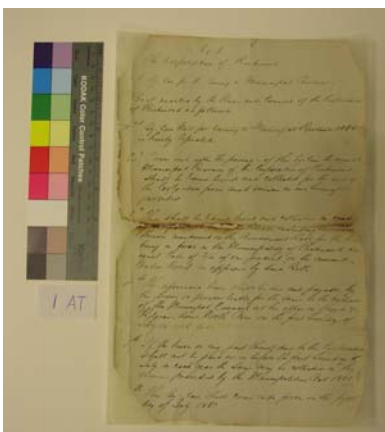
Each bylaw is now housed in its own acid-free folder. Today, when a researcher makes a request for a specific bylaw, it is only that bylaw which is retrieved and not the complete volume of bylaws as before. This reduces the overall handling of the bylaws and will enable them to be safely scanned or otherwise copied at a later date.



Bound – before disbinding



Bound – before disbinding



Bylaw 1 – After treatment



Bylaw 1 – After treatment - back