



David B. Cohen
Mayor

APPLICATION FOR COMMUNITY PRESERVATION FUNDING

Form CPA-1

Submit to:

Robert Ricchi, Community Preservation Planner
Newton Planning and Development Department
1000 Commonwealth Ave., Newton, MA 02459
rricchi@newtonma.gov
617-796-1144

Name of Applicant¹ City Clerk/Clerk of the Board of Aldermen

Name of Co-Applicant, if applicable City of Newton, Engineering Department

Contact Name David A. Olson, City Clerk/Clerk of the Board of Aldermen

Mailing Address 1000 Commonwealth Avenue City Newton State MA Zip 02459

Daytime Phone 617-796-1210 Email dolson@newtonma.gov

Name of Proposal City Archive Preservation Project

Address of Proposal City Hall, 1000 Commonwealth Avenue

CPA Category (circle all that apply): Open space **Historic preservation** Recreation Community housing

CPA Funding Requested \$150,000 Total Cost of Proposed Project \$150,000

PROJECT DESCRIPTION: Attach answers to the following questions. Applications will be returned as incomplete if all requested information is not provided. Include supporting materials as necessary.

1. **Goals:** What are the goals of the proposed project?
2. **Community Need:** Why is this project needed? Does it address needs identified in existing City plans?
3. **Community Support:** What is the nature and level of support for this project? Include letters of support and any petitions.
4. **Timeline:** What is the schedule for project implementation, including a timeline for all critical milestones?
5. **Credentials:** How will the experience of the applicant contribute to the success of this project?
6. **Success Factors:** How will the success of this project be measured? Be as specific as possible.
7. **Budget:** What is the total budget for the project and how will CPA funds be spent? All items of expenditure must be clearly identified. Distinguish between hard and soft costs and contingencies. (NOTE: CPA funds may NOT be used for maintenance.)
8. **Other Funding:** What additional funding sources are available, committed, or under consideration? Include commitment letters, if available, and describe any other attempts to secure funding for this project.
9. **Maintenance:** If ongoing maintenance is required for your project, how will it be funded?

ADDITIONAL INFORMATION: Provide the following additional information, as applicable.

¹ If the proposal is on City-owned land, either the applicant or the co-applicant must be the City Board, Commission, or Department that has custody of the land.

10. Documentation that you have control over the site, such as Purchase and Sale Agreement, option, or deed.
11. For projects that include construction or rehabilitation, include the existing and proposed site plan, floor plans, elevations, and any other drawings as necessary to visually describe the proposal.
12. Evidence that the project is in compliance with the zoning ordinance, Architectural Access Board Regulations, or any other laws or regulations. Or, if zoning relief is required, specify what relief is needed and when an application will be made to the City for zoning review.
13. Evidence that the appropriate City Boards and Commissions have approved the project (for example, proposed new uses on Parks & Recreation land requires approval from the Parks and Recreation Commission)
14. Evidence that the proposed site is free of hazardous materials or that there is a plan for remediation in place.
15. Evidence that appropriate professional standards will be followed if construction, restoration or rehabilitation is proposed.
16. Information indicating how this project can be used to achieve additional community benefits.

NOTE: If the requested funds are for a real estate acquisition, an independent appraisal will be required which the applicant will be required to fund initially. No funding decisions will be made without an independent appraisal.

Refer to the City web site (ci.newton.ma.us/Planning/CPA) for further information.
Form CPA-1 (Revised 9/11/03)

Goals: What are the goals of the proposed project?

The overarching goal of this project is to preserve Newton's Historic Archival Material located in the vaults of the City Clerk and the City Engineer. To achieve this goal, the project will undertake the following tasks:

1. Provide adequate and appropriate storage facilities in the City Clerk's vault for the permanent preservation of Newton's municipal archival material including the city's Vital Records (birth, death, marriage, and adoption records) and records relating to Government functions including Oaths of Office, current ordinances enacted by the Board of Aldermen, Depositions, and Aldermanic committee meeting agendas and reports.
2. Provide adequate housing in fireproof cabinets for material in active use that is generated by the Board of Aldermen including Board Actions, Orders, and deliberative material.
3. Preserve records that are in danger of being lost due to overuse and benign neglect in the City Clerk's and Engineering Department's vaults.
4. Create alternate means of access to historic records in order to accomplish the permanent preservation of original material. This will be accomplished by scanning the originals as they are preserved and by creating digital images for web access.
5. Meet our legal obligations as defined in Massachusetts General Law Chapter 66 Section 9. Preservation and copying of worn, etc., records

Section 9. Every person having custody of any public record books of the commonwealth, or of a county, city or town shall, at its expense, cause them to be properly and substantially bound. He shall have any such books, which may have been left incomplete, made up and completed from the files and usual memoranda, so far as practicable. He shall cause fair and legible copies to be seasonably made of any books which are worn, mutilated or are becoming illegible, and cause them to be repaired, rebound or renovated. . .

Community Need: Why is this project needed? Does it address needs identified in existing City plans?

The City Archives actively manages a growing collection of historical documents dating from 1679 to the present, as well as an ongoing series of municipal documents which include vital records, Selectmen's and Aldermanic documents, Assessors records, Annual Reports, Annual Budgets, and other departmental documents. The active and ongoing use of this material reinforces the value of the archives to the community while fulfilling the City's legal responsibility to provide access to public documents.

The Newton City Archives is not only a local historic resource. It also has national significance as it records the details that document the history of an American community from 1679 to the present. Newton is a microcosm for the study of the growth and development of a small, multi-faceted American city, which although similar to many others, over time has seen itself as a model for others. The significance of the collection lies in its ability to mirror the issues of American life in the documentary record.

The history of settlement of Newton begins in the 1630s. As a part of the "New Town", which came to be called Cambridge, it was one of the earliest on the Boston perimeter. By 1688 Newton had become

an independent town and for the first two hundred years of its existence, a collection of villages and two small industrial centers on the Charles River at Upper and Lower Falls were the defining characteristics of the settlement. This pattern of dispersed settlement was uncommon, but despite occasional efforts to divide the town, Newton was preserved as a single municipal entity and to this day, the villages retain individual characteristics while being part of the whole.

Beginning in the 1830s the railroads became a major force for change. The Boston and Worcester Railroad was the first to initiate service to areas outside of Boston, making Newton one of the first areas in New England to experience suburban development. New village centers began to emerge along this north-side line and later along a south-side line that opened in the 1850s. With a growing population, the town began to grapple with the need to provide new services. Discussions in the selectman's records about establishing a separate high school reveal the conservative nature of the community, but with a growing sophistication, the town soon looked to schools as a source of pride and invested accordingly. In 1873, Newton became a City. In the next fifty years, the city developed its infrastructure, constructing water and sewer systems, schools and fire stations, and parks and playgrounds, all richly documented in the public records.

The growing area also drew immigrants who found employment building the roads, railroads, street railroads, and other public projects. Naturalization applications, records of the Overseers of the Poor and Welfare Department, and Veteran's records reveal aspects of social services provided by the City and provide records of people whose lives are otherwise undocumented. The Overseers/Welfare records are particularly important as they form a complete series ending with the State takeover of services in 1966, and detail efforts to address what remains an urgent social problem today.

Surrounded on three sides by the Charles River, with easy access to Boston and the metropolitan area, Newton's picturesque landscape drew men and women eager to build homes and raise families. They built educational, social, and cultural organizations, and nurtured the development of a progressive community, which became known in the late nineteenth-century as the Garden City of the Commonwealth.

Important planning issues of the twentieth century including urban renewal, housing, open space, and the Massachusetts Turnpike construction are well documented in the Aldermanic records and in the Planning and Engineering Department collections. The Engineering Department glass plate negative collection contains a unique series of public works photographs dating from the 1890s to the 1940s. The papers of several Mayors including John Wingate Weeks, who went on to become a State Senator and Secretary of War in the 1920s, and those of Edwin Childs and Theodore D. Mann, each of whom served for more than twenty years, also provide broad insight into the issues affecting Newton in the twentieth century. While documents of the seventeenth, eighteenth, and nineteenth centuries provide critical historical perspective, documents from the twentieth century are essential resources that inform today's policy and planning efforts. In all, these records, which are freely available to the public, provide valuable insight and understanding of the American experience.

The Newton Archives are frequently used by departments within the city. The City Clerk, Law, and Planning Departments rely heavily on the Aldermanic records, which date from the late 1800s, and in recent years, there has been increasing use of the archives for in-house research services.

Public research questions relate to all aspects of Newton history, municipal issues, and genealogy. Currently there are several hundred inquiries each year. A recent query led to the discovery of Mrs. Harriet J. Moore, who in 1862, using a newly passed Massachusetts General Law that allowed women to do business "on their separate account" established a business in Newton and Boston to supply gaiters to

the Union Army. A Civil War costume designer published this story on his website. Materials from the Newton City Archives have been used to provide historical information for several scholarly publications as well as exhibitions shown at the Newton History Museum. Publications include *A Biographical Index: Newton 1678-1778* written by Priscilla Ritter and Thelma Fleishman, and published by the New England Historic Genealogical Society. This publication was a product of the 1977 NHPRC grant. *Where Newton Began, A Guide to the East Parish Burying Ground* (2004) by Thelma Fleishman was published by the Newton History Museum. Newton History Museum exhibitions such as *Newton the Garden City: The Growth of an American Suburb* (1988), which was funded in part by the National Endowment for the Humanities, and *Rivers, Roads, and Rails: Mapping Newton* (2001) also drew from the resources of the Archives. Karen Dacey, author of *In the Shadow of the Great Blue Hill*, used the archives to study the Colonial contact period for her book on Native Americans in Massachusetts and Susan Dargan researched Newton's Irish community for a Doctoral thesis published in 2000.

This project is based on recommendations included in a Preservation Study that was done for the Newton city Archives in December of 2004 by Allyson Donahue, Simmons College Graduate School of Library and Information Science. The body of this report can be found at the end of this application.

Community Support: What is the nature and level of support for this project? Include letters of support and any petitions.

This project is supported by:

The Newton Historical Commission

The Veterans Office of the City of Newton.

The Newton Free Library

Letters of Support from these organizations are included in Attachment #1.

Timeline: What is the schedule for project implementation, including a timeline for all critical milestones?

The project will begin during calendar year 2007 and end in 2008. Several of the components can occur concurrently. The first component of each of the sections will be to undertake the bid process to contract with the appropriate companies.

June – July 2007

1. Purchase and Install Compact Shelving in the Vault in the City Clerks Office.

Transfer material currently in the vault to locations within the Clerk's Office.

Remove current shelving and light fixtures from vault

Install compact Shelving and new lighting

Place material back in the vault

Transfer vital record material stored in the office and basement vaults to the office vault

2. Purchase and Install Fireproof Cabinetry in the City Clerk's Office to protect material not able to be housed in the vault.

Transfer material to office storage in the Clerk's Office

Remove wooden cubbies from office

Install fireproof cabinets to house the material

Transfer material to new cabinetry

June – December 2007

3. Conserve, Digitize, and preserve records in need of urgent repair. Work will be done following current professional standards. For a complete list of items to be conserved see Attachment #2.

January – June 2008

4. Conserve, digitize and preserve records in need of immediate repair. Work will be done following current professional standards. For a complete list of items to be conserved see Attachment #2.

Credentials: How will the experience of the applicant contribute to the success of this project?

Overseeing the project will be City Clerk David A. Olson. David has been involved in the museum and archival fields for more than 20 years. Prior to serving as City Clerk he was the Director of the Newton History Museum. Mr. Olson is a member of the City's Public Buildings Preservation Task Force and was the project manager for the CPA funded Historic Burying Ground project while he was at the Newton History Museum.

The City Archivist will also be intimately involved in this project. Currently funded, but unfilled, the position should be in place this fall.

Success Factors: How will the success of this project be measured? Be as specific as possible.

The Success of the project will be documented through the completion of each of the components outlined in the timeline.

Budget: What is the total budget for the project and how will CPA funds be spent? All items of expenditure must be clearly identified. Distinguish between hard and soft costs and contingencies. (NOTE: CPA funds may NOT be used for maintenance.)

The total budget for the project is \$150,000.

Conservation/Preservation	80,000
Atlas Scanning	10,000
Sub-Total	90,000
Mobile Shelving	32,000
Fireproof Cabinets	14,360
Sub-Total	136,360
10% Contingency	13,640
Total	150,000

Other Funding: What additional funding sources are available, committed, or under consideration? Include commitment letters, if available, and describe any other attempts to secure funding for this project.

Project Management and Staff time needed to complete this project will be funded through the City of Newton's Operating Budget.

Maintenance: If ongoing maintenance is required for your project, how will it be funded?

The City has funded an archivist position to care for and maintain these collections. Funds in the Board of Aldermen Budgets and the City Clerk's Budgets are dedicated each year to continuing maintenance of the material.

Documentation that you have control over the site, such as Purchase and Sale Agreement, option, or deed.

The City Archives and the vaults in City Hall are owned by the City of Newton.

For projects that include construction or rehabilitation, include the existing and proposed site plan, floor plans, elevations, and any other drawings as necessary to visually describe the proposal.

Please see Attachment #3.

Evidence that the project is in compliance with the zoning ordinance, Architectural Access Board Regulations, or any other laws or regulations. Or, if zoning relief is required, specify what relief is needed and when an application will be made to the City for zoning review.

N/A

Evidence that the appropriate City Boards and Commissions have approved the project (for example, proposed new uses on Parks & Recreation land requires approval from the Parks and Recreation Commission)

N/A

Evidence that the proposed site is free of hazardous materials or that there is a plan for remediation in place.

N/A

Evidence that appropriate professional standards will be followed if construction, restoration or rehabilitation is proposed.

For a scope of work, please see attachment #4.

Information indicating how this project can be used to achieve additional community benefits.

Once this project has been completed and the archival material has been properly housed, preserved, and documented, the next step will be to increase the public's access to the wealth of the city's historic

resources. The Newton History Museum, the Newton Free Library, the City Archives, and the City's IT Department are working together to develop plans to create a searchable database of all of the city's historic resources. The City Archives has already been awarded a federal grant from the National Historical Publications and Records Commission to make the records in the city archives more accessible.

**Attachment #1
Letters of Support**



CITY OF NEWTON, MASSACHUSETTS

Department of Planning and Development
Michael J. Kruse, Director

David B. Cohen
Mayor

Telephone
(617)-796-1120
Telefax
(617) 796-1086
TDD/TTY
(617) 796-1089

September 28, 2006

Community Preservation Committee
c/o Planning and Development Department
1000 Commonwealth Avenue
Newton, MA 02459

RE: City of Newton Archival Project

Dear Community Preservation Committee Members:

The Newton Historical Commission would like to express its strong support for the grant application from the Office of the City Clerk/Clerk of the Board of Aldermen and the Engineering Office to preserve, conserve, and restore the City's archival materials. The City's archives document Newton's growth and development from its inception in 1679 to today and are invaluable historical resources that deserve to be preserved for future generations. The Newton Historical Commission considers these documents, artifacts, and materials to be historic resources which are significant to the history and culture of the City of Newton.

Newton's archival documents and materials contain significant information on the residents and officials who have influenced the City over time. They contain the background materials and information to understand the City's ordinances and laws, its infrastructure and development, and the planning choices that have shaped its villages and neighborhoods. In addition to their legal necessity to the City, these documents play a key role in any historical study of the City's citizens, architecture, villages and events, and have been used in numerous publications on the City's history.

The significance of the documents and materials found within the City of Newton's archival vaults cannot be underestimated. The preservation, conservation and restoration of the City's archival materials will have a significant impact on the integrity of these historic resources and the Newton Historical Commission hopes that you will look favorably upon this grant application.

Sincerely,

John S. Rodman, Chairman
Newton Historical Commission

Newton Historical Commission
1000 Commonwealth Avenue, Newton, Massachusetts 02459
Email: lkritzer@newtonma.gov
www.ci.newton.ma.us

City of Newton



David B. Cohen
Mayor

Newton Free Library
Kathy Glick-Weil, Library Director

330 Homer Street
Newton, Massachusetts 02459
Telephone: (617) 796-1360 / FAX: (617) 965-8457
www.ci.newton.ma.us



September 27, 2006

David Olson, City Clerk
Newton City Hall
1000 Commonwealth Avenue
Newton, MA 02459

Dear David,

I'm very happy to provide you with a letter of support for your CPA project to preserve, conserve, and restore historical Newton documents held in the archival vaults at City Hall. Here at the library, our Newton historical materials are used all the time, and we also have been spending money to conserve and restore them. These materials in the Library and at City Hall are the city's historical patrimony, and the importance of maintaining them in the best possible condition cannot be emphasized enough. The Newton history programs we present are better attended than ever, and our Newton history documents are used often. Residents are interested in Newton history and deceased Newton residents; additionally we receive many emails from users across the country searching for information about their deceased Newton relations. I'm sure you receive many similar requests for access to the City's rich trove of historical information.

I commend you on your interest in conserving the precious documents under your authority, and support you in your pursuit of CPA funding.

Sincerely,

A handwritten signature in cursive script that reads "Kathy Glick - Weil".

Kathy Glick-Weil

City of Newton



David B. Cohen
Mayor

DEPARTMENT OF VETERANS' SERVICES

Alfred R. Guzzi, Jr., Agent
1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Telephone
617-796-1090
Facsimile
617-796-1094

September 27, 2006

Community Preservation Committee:

I support keeping, preserving, and restoring all material and records in the archival vaults at City Hall.

Sincerely,

A handwritten signature in black ink, appearing to read "Alfred R. Guzzi, Jr.", written over a horizontal line.

Alfred R. Guzzi, Jr.
Director of Veterans' Services

E-Mail aguzzi@newtonma.gov

Items to be Conserved.

As part of the conservation process, each page of each volume will be photographed and scanned while it is unbound to provide a digital image to prepare for on-line access to the material. Volumes that receive high use or have heavily damaged pages will have each page encased in Mylar to preserve and protect the volume.

Births, Marriages, Deaths Vol. A, compiled 1854	
Births, Marriages, Deaths Vol. 3, 1844-1864	Mylar, 2 vols.
Births Vol. 4, 1865-1876	Mylar, 1 vol.
Births Vol. 5, 1876-1895	Mylar, 3 vols.
Births Vol. 6, 1895-1904	Mylar, 3 vols.
Births Vol. 7, 1905-1910	Mylar, 2 vols.
Births Vol. 8, 1911-1916	Mylar, 2 vols.
Births Vol. 8, 1917-1921	Mylar, 2 vols.
Births Vol. 9, 1922-1926	Mylar, 2 vols.
Births Vol. 9, 1927-1930	Mylar, 2 vols.
Births 1931-1936	
Births 1937-1942	
Births 1943-1945	Mylar, 1 vol.
Births 1946-1947	Mylar, 1 vol.
Births 1948-1949	
Births 1950-1952	Mylar, 2 vols.
Births 1953-1955	
Births 1956-1958	
Births 1959-1960	
Births 1961-1962	
Births 1963-1964	
Births 1965-1966	
Births 1967-1968	
Births 1969-1970	Mylar, 1 vol.
Births 1971-1972	
Deaths Vol. 4, 1863-1877	Mylar, 1 vol.
Deaths Vol. 5, 1878-1901	
Deaths Vol. 6, 1902-1913	
Deaths Vol. 7, 1915-1919	
Deaths Vol. 8, 1920-1925	
Deaths Vol. 9, 1926-1931	
Deaths Vol. 10, 1932-1935	
Deaths Vol. 11, 1936-1940	
Deaths Vol. 12, 1941-1945	
Deaths Vol. 13, 1946-1949	
Deaths Vol. 14, 1950-1952	
Deaths Vol. 15, 1953-1955	
Deaths Vol. 16, 1956-1958	
Deaths Vol. 17, 1959-1960	
Deaths Vol. 18, 1961-1962	
Deaths Vol. 19, 1963-1964	

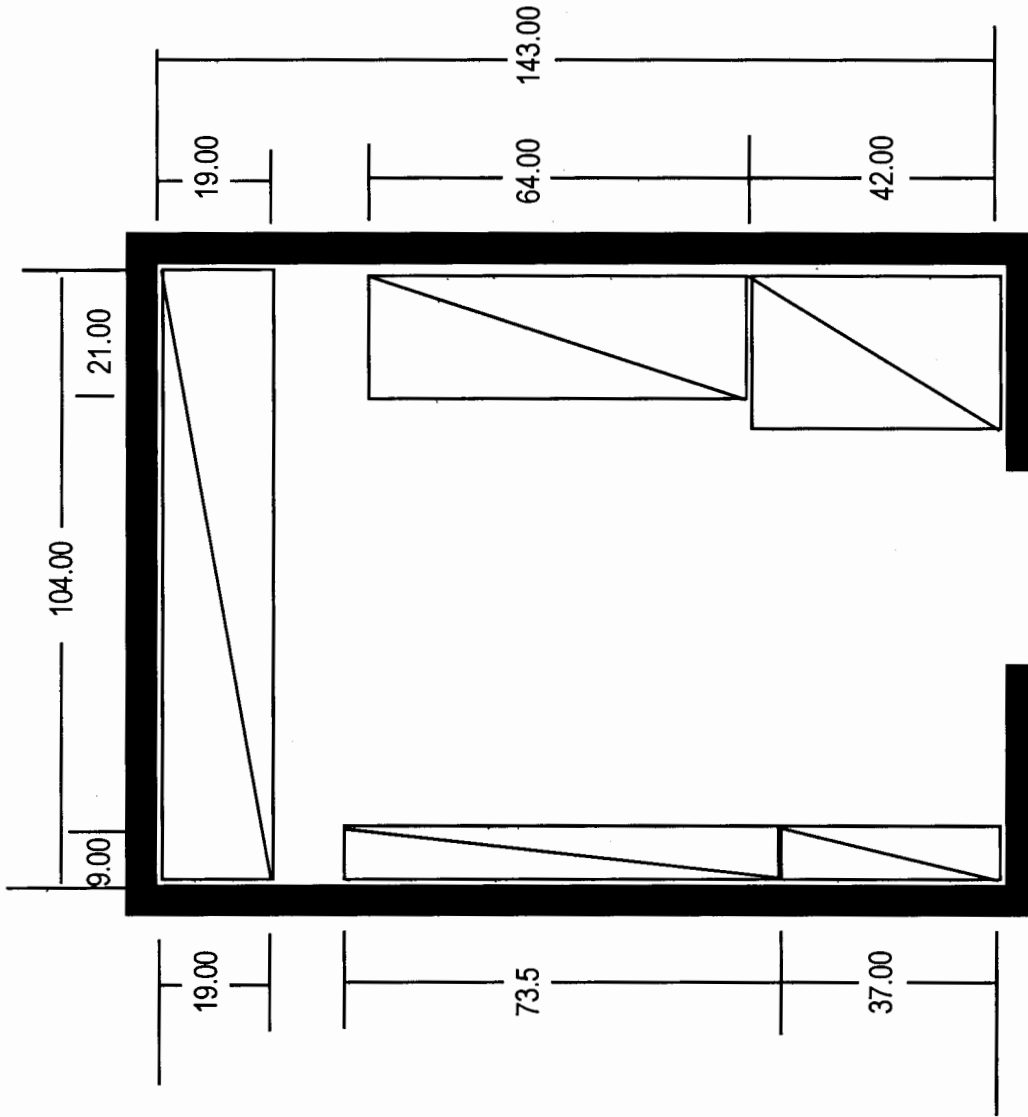
Deaths Vol. 20, 1965-1966
Deaths Vol. 21, 1967-1968
Deaths Vol. 22, 1969-1970
Deaths Vol. 23, 1971
Marriages Vol. 4, 1856-1877 Mylar, 1 vol.
Marriages Vol. 5, 1878-1895
Marriages Vol. 6, 1896-1902
Marriages Vol. 7, 1903-1911
Marriages Vol. 8, 1912-1921 Mylar, 2 vols.
Marriages Vol. 9 & 10, 1922-1928 Mylar, 2 vols.
Oath Book 1933-1976
Oath Book 1976-2006

Engineering Vault

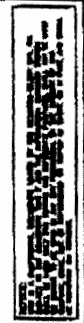
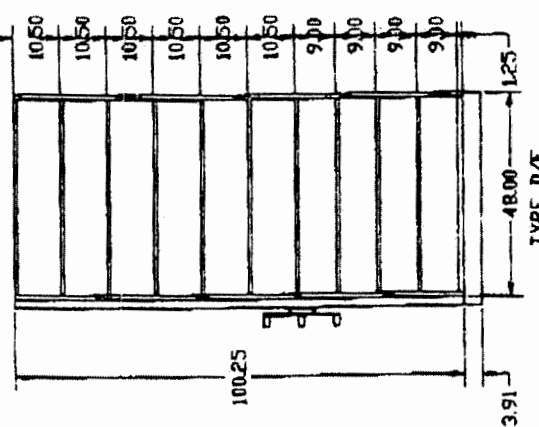
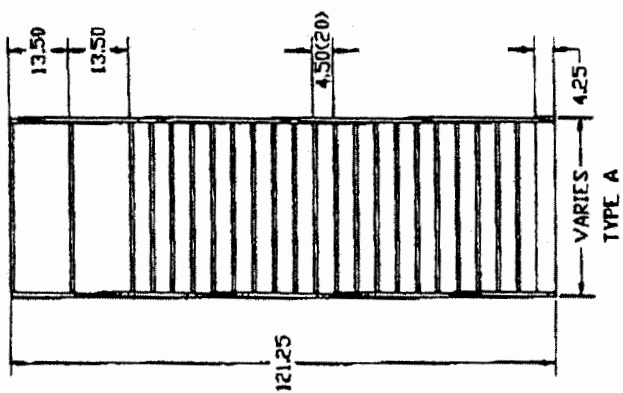
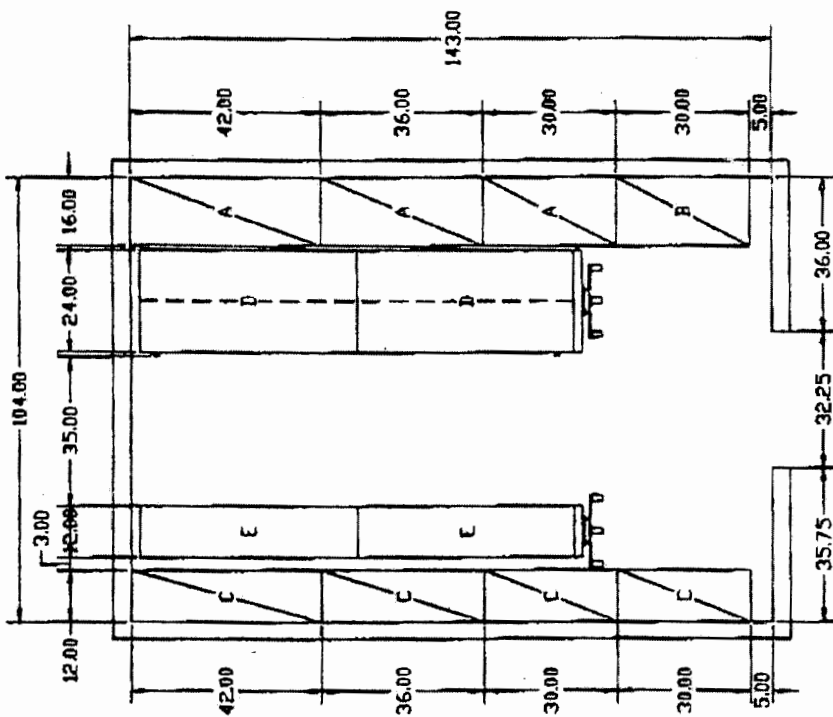
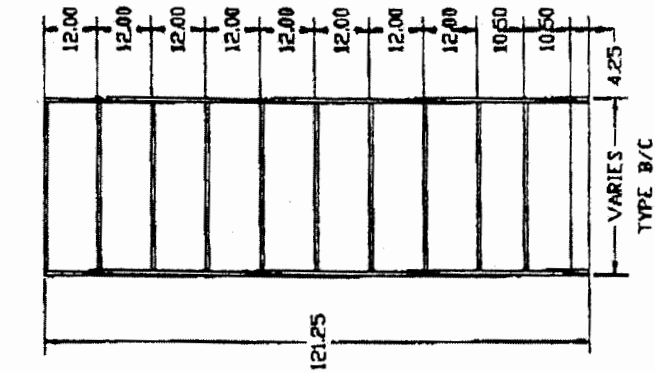
Field Work Vol. 1, 1873-1891 A-K
Field Work Vol. 2, 1873-1891 L-Z
Field Work Vol. 3, 1891, A-C Mylar, 2 vols.
Field Work Vol. 4, 1891, D-K Mylar, 2 vols.
Field Work Vol. 5, 1891, L-R Mylar, 2 vols.
Field Work Vol. 6, 1891, S-Z
Public Streets Vol. 1 Mylar, 2 vols.

12 Atlases - color scan to CD TIFF

**Attachment #3
Floor Plans**



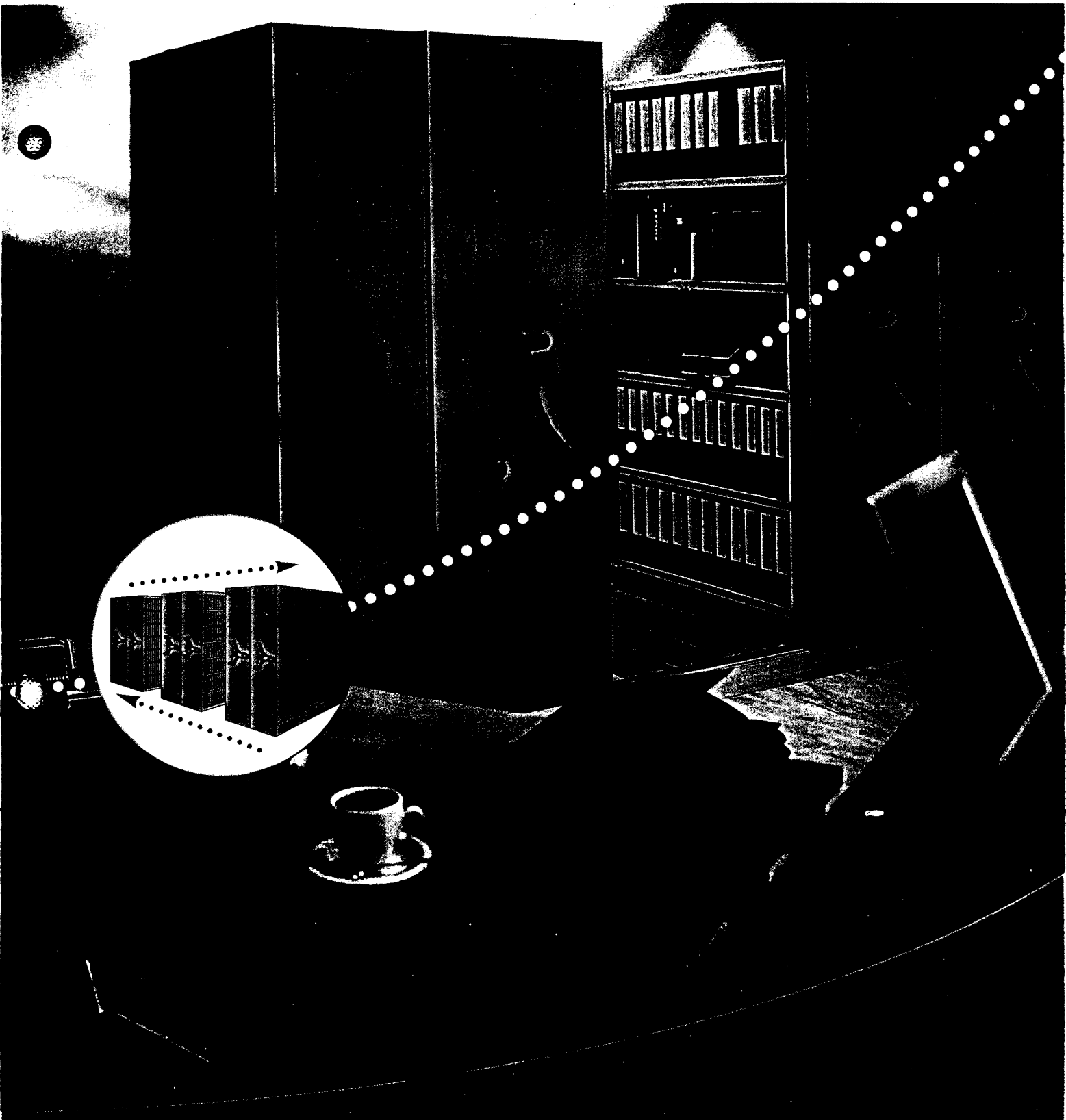
City Clerk's Vault
Current Conditions



REVISION DATE	NO.	DATE:	09/26/06	DRY FT:	CHK'D:
		SCALE:	NTS	DWG NO.	JMM
					Newton, MA (Opt-2A)

Dupont Systems

option 2



AURORA MOBILE

STORAGE ON THE GO!

Store It!

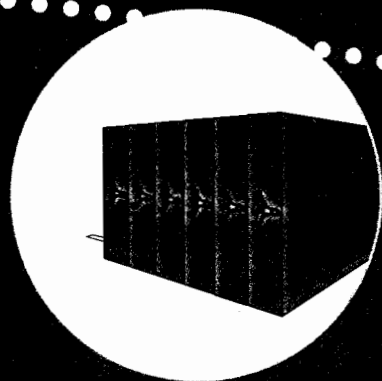
Move It!

Get It!

AURORA

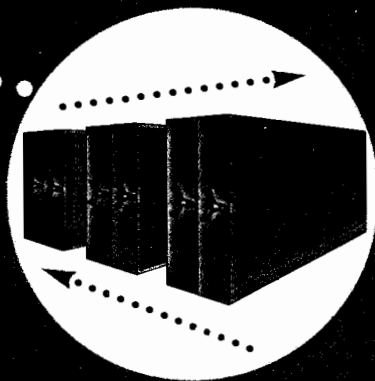
AURORA MOBILE®

THE CONCEPT IS SIMPLE



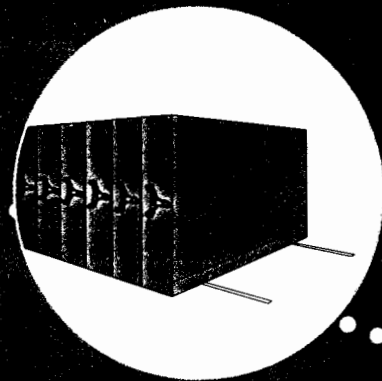
Store It,

Aurora Mobile stores every imaginable item in space-efficient moving carriages.



Move It,

The carriages glide apart on rails to create an access aisle.

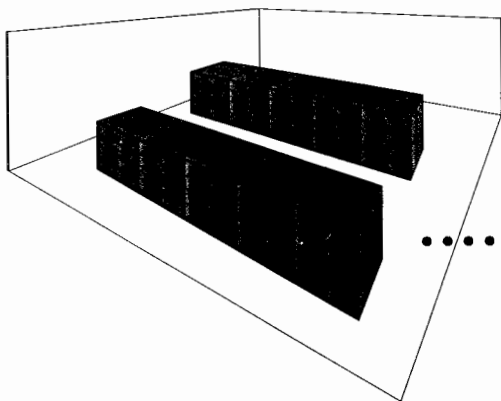


Get It!

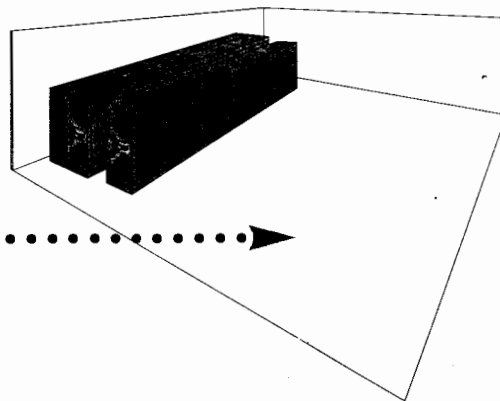
Then glide to a closed position, storing more in less space.



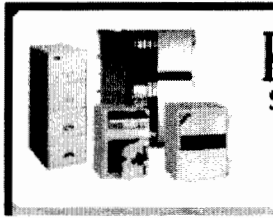
LATERALS JUST WON'T DO.



Go from this...



...to this with Aurora Mobile



KEYSTONE
SAFE COMPANY

Lowest Prices Guaranteed!

**Free Shipping
Nationwide**

Search: _____

Go! |

[FAQ](#)

[Purchase Orders](#)

[Home](#) > [FireKing Fireproof Storage Cabinets](#) > [Models CF4436-F and CF7236-F](#)

Shopping Cart

- [Client Login](#)

Fireproof Files

- [Vertical](#)
- [Lateral](#)
- [Storage Cabinets](#)
- [Need Help?](#)

Data Safes

- [View All](#)
- [Sort by Price](#)
- [Sort by Size](#)
- [Sort by Rating](#)
- [For DLT/LTO](#)

Fireproof Safes

- [View All](#)
- [Sort by Price](#)
- [Sort by Size](#)
- [Sort by Rating](#)

Security Safes

- [Drop Safes](#)
- [Depository](#)
- [Burglary Safes](#)

Clearance!

Company Info

- [Contact Info](#)
- [Policies](#)
- [Sitemap](#)
- [Links](#)

[Keystone Home](#)

[Home for Chairs](#)

[Home for Safes](#)

[Fireproof Safes](#)

[Media Safes](#)

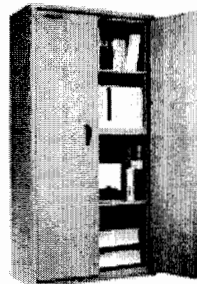
[Fireproof Files](#)

[Security Safes](#)

[Depository Safes](#)



FireKing 44 and 72 inch Fireproof Storage Cabinets



- [Rated UL 350 1/2 hour](#)
- [Includes Adjustable Shelves](#)
- [Equipped with a Medeco Key Lock](#)
- [Scratch-Resistant Finish](#)
- [Big protection for oversized documents, binders, end-tab filing, Bankers Box, and other valuable items.](#)
- [1 Year Parts and Labor Warranty](#)

Models CF4436-F (44") and CF7236-F (72")

Weight: 455 lbs. and 750 lbs.

Exterior: 44" or 72"H x 36"W x 19 1/32"D

Interior: 39 7/8" or 67 7/8"H x 31 7/8"W x 15"D

\$1398.99

\$2078.99

**Lowest Price
Guaranteed!**

Select Your Size

72 Inches Tall - Includes 4 Shelves - \$2078.99

Select One Shipping Method

Select Shipping Method

FREE Shipping Dock-to-Dock: Your product will be delivered to your dock or to your curb. However, you are responsible for removing the product from the truck. It will be on a pallet.

Lift Gate: Add \$75 per order. Your product will be lowered to the ground. You must move it from that point.

Installation: Inside delivery and installation are available, but please [contact us](#) for a quote.

Quantity:



Ships in 2-3 weeks

[Click Here](#) to send **Purchase Order**

102"
3-5

6

SCOPE OF WORK - BOOKS AND DOCUMENTS

Book and document conservation includes:

1. Maintain an INFORMATION LOG for each volume noting the following:

- Condition of document upon receipt
- # pages and proper pagination, blank pages
- Presence of pressure sensitive material
- Presence of previous repairs
- Presence of staples, paper clips, brads, etc.
- Presence of acidic glues
- Identity of certificates/records (manuscript, photostat, originally typed, etc.)
- Notation of original lettering on spine and covers
- Loose pages or attachments
- Special characteristics
- Any other information pertinent to the identification of the volume

2. DISMANTLE BINDINGS completely, following accepted archival restoration guidelines. Extreme care must be taken not to cut the spine and folds of the section off the backs of the documents; therefore, cutting or chopping is not acceptable. The text block must be well cleaned and carefully disassembled.

- Remove all original binding materials and adhesive residues.
- Remove staples, paper clips, brads, etc.
- Remove pressure sensitive tape and old glue.
- Remove any sheets that are blank on both sides.

For books to be Mylar encapsulated, manually separate folios into single sheets.

3. SURFACE DRY CLEAN all paper as necessary and prudent by accepted archival methods.

4. REPAIR/RESTORE

Mend/Reinforce

- Mend and guard paper tears. Mending tissue to be lightweight, closely matched in color and flexibility, eliminating formation of a breaking point in the sheet (Gampi or proven equal for tear repairs, Koso, Sekishu or proven equal for guarding). Adhesive for all tear repairs and guarding of folios to be ethyl cellulose paste or proven equal. Sufficient press time to be allowed after mending to insure paper will not cockle and that text block lies flat with no external pressure.
- Reinforce weak or tattered sheets to maintain mechanical integrity of document.
- Repair or replace index tabs as necessary.

Trim/Flatten

- Any sheets needing trimming must be neatly hand-trimmed to consistent size for uniformity and appearance.
- Flatten sheets as necessary.

Deacidification

- For each page/folio, deacidification and buffering to be done by the following method: Non-aqueous spray method using magnesium oxide (Bookkeeper).

5. RE-SEW/REBIND

Encapsulated Records:

- Encapsulate sheets where necessary utilizing 3 mil archival grade polyester envelopes. Polyester must be Mylar Type D or equivalent. Envelopes to be of uniform size with heat seal weld on edges (not ultrasonic weld).
- Envelopes to be placed in Public Record binders: Tenacity TMC or equivalent, hard back covered type with piano hinge.
- Loose leaf volumes to be in binders as follows:
 - Cover material of customer's choice
 - Metals of .035 gauge polished nickel plated cold-rolled steel
 - Upright rough post diameter as necessary - 5/16 or as original
 - Binders to be lettered on spine with gold foil and according to stamping information supplied by vendor and approved by clerk.

Rebound Records:

- Binding style can be "case construction" with reinforcement in the end papers, cover to text attachment and cover construction. Any re-sewing should follow existing sewing stations and include sewn-in end papers.

- Sewing to be done by hand, with sewing thread thickness evaluated and selected for each volume. Sewing thread to be chosen from unbleached linen stock or proven equal. Tapes to be linen or cotton.
- Backing material to be linen of 50-75 threads/square inch weight.
- End sheets to be chosen from a stock of strong, durable alkaline machine-made paper such as 80 lb. text Mohawk Super Fine ivory or 100 lb. text weight Mohawk Super Fine Soft White or proven equal.
- Hinge to be of Library Buckram or proven equal and must open with no strain on text block.
- Boards to be of acid-free binders board of the best quality available and must be of sufficient thickness to preclude sagging or warping due to moisture or use.
- Cover material to be hard-finished Hewit vegetable tanned goatskin or proven equal.
- Tooling to be performed with 23-karat gold foil.

6. TITLE STAMPING to be reviewed and approved in advance by clerk. It will generally follow the same format/style of originals. If any titling, dates or other information from an original volume is found or noted to be in error, the clerk will be notified to determine if correction would be appropriate. Any changes would be approved by clerk.

7. TREATMENT REPORT, referenced to information log, to be provided for each completed volume.

8. SHIPPING MATERIALS with instructions for packing and shipping to be provided by vendor.

9. VENDOR must have tracking systems located in its facility for instant tracking of county or municipality's shipment.

10. All restoration MUST BE COMPLETED WITHIN A PERIOD OF APPROXIMATELY 10 WEEKS, beginning on the date of receipt of each item.

11. Vendor must be able to accommodate a MINIMUM OF 50 BOOKS AT A TIME.

12. Vendor (including all subcontractors) must be able to TRANSMIT REQUESTED SPECIFIED INFORMATION AND/OR IMAGES from documents/books which are being restored to the county or municipality.

13. All procedures to be performed by the vendor in accordance with generally accepted standards of conservation and restoration practice. Alterations, changes or insertions of any new material in any record is strictly forbidden.

14. Vendor is to provide evidence of at least 10 years EXPERIENCE in archival conservation of COUNTY AND MUNICIPAL RECORDS. Experience must include deacidification in addition to binding and paper conservation. Reference list of similar projects for county or municipal governments to be provided.

Report of a Preservation Survey

Newton City Archives

Newton, MA

December 8, 2004

**Allyson Donahoe
Simmons College
Graduate School of Library and Information Science**

ACKNOWLEDGEMENT

I would like to thank Ms. Susan Abele for her gracious assistance in providing information regarding the Newton City Archives, giving access to the storage areas for review and answering numerous questions about the history and operation of the archives.

Executive Summary

In October 2004, Allyson Donahoe, graduate student at Simmons College Graduate School of Library and Information Science, conducted a preservation needs assessment survey of the Newton City Archives. The survey focused on aspects of storage related to environmental conditions and loss protection, as well as how records are stored and handled. The survey looked at the collection as a whole, not at individual records. This Executive Summary provides a listing of the survey's recommendations for future preservation activities and planning. For details on the survey, please review the attached narrative report.

Deterioration of Paper-Based Records

The collection is primarily paper-based. Paper is vulnerable to deterioration from its own inherent chemical and physical properties and from external storage conditions. In The Preservation Challenge, Carolyn Clark Morrow describes the deterioration of paper due to its chemical and physical properties (23-30). Paper produced from 1850 to 1950 may contain acid or impurities that form acids. Acid in paper can cause it to deteriorate and become brittle. Once paper becomes brittle, the process can not be reversed but steps such as preservation photocopying can be taken to preserve the information contained on the paper. Paper with acid impurities that has not become brittle may be deacidified or placed in folders with alkaline buffering to slow deterioration.

The effect of external factors such as storage conditions on paper deterioration is further explored in Shereilyn Ogden's technical leaflet "Temperature, Relative Humidity, Light, and Air Quality: Basic Guidelines for Preservation" (69-73). The environmental conditions under which paper-based collections are stored are critical to the longevity of the records. Good storage conditions for preserving paper-based collections are:

- Stable temperatures, around 70°F
- Stable relative humidity, between 30 to 50%
- Limited exposure to light
- Good air quality, with filtered ventilation
- Protection from water damage
- Automatic protection from fire damage

Improper storage and handling can also negatively affect preservation of paper-based records. The records must also be protected from theft and vandalism.

The recommendations that follow are related to archives management (the institution's policies and procedures), environmental conditions in storage areas and the storage and handling of the records. The recommendations range from actions that can be implemented on a short term, low cost basis to those that require study and evaluation prior to implementation. The recommendations focus on those actions that will have the broadest beneficial impact on the collection, rather than on individual documents or volumes.

Newton City Archives

The archives are housed in two vaults at City Hall (the City Clerk Basement Vault Storage Area and the City Clerk Office Vault) and a vault, compact shelves and the archivist's office in the Newton Free Library (referred to as the Archives Vault, Compact Shelves and Archivist Office). The storage locations comprise a relatively small footprint in the two municipal buildings; therefore the survey looked at localized environmental conditions in each storage area rather than the buildings as a whole. The attached survey report provides additional detail on the observations and recommendations listed, as well as relevant technical materials in appendices.

The records are currently in good condition and are well managed. The oldest records are stored in the Archives Vault, which has excellent climate control, security, and protection from fire

and water damage. Records stored in the nearby Compact Shelves and in the Archivist Office are also stored under good conditions. Records stored at the two City Hall locations do not have the benefit of climate controls and automatic protection from water and fire damage.

Recommendations for Archives Management

Archives management refers to the institution's policies and procedures, as they relate to preservation of records.

- Complete a mission statement and collecting policy for the Newton City Archives.
- If possible, develop a coordinated collecting policy with the Newton Free Library and the Newton History Museum.
- Draft a preservation plan that complements the archives' mission statement and collecting policy. The plan should consider the recommendations in this survey and prioritize future preservation activities.
- Develop a disaster plan for the Newton City Archives and ensure that plan is compatible with the existing Newton Free Library Disaster Action Plan and any City Hall disaster procedures that may be in place.
- Ensure that sufficient funds are allocated annually to cover the cost of archival storage supplies such as lignin-free buffered folders, archive boxes and other materials, as needed.

Recommendations Related to Environmental Factors and Loss Prevention

Environmental factors and loss prevention relate to temperature, humidity, light, air quality, protection from water and fire damage, and security.

City Clerk Basement Vault Storage Area in City Hall

- Basement storage of records on a long-term basis is not advisable, although the records observed were currently in relatively good condition. The cloth-covered volumes exhibited rust spots on the spines, indicating past humidity problems. Uncontrolled humidity could cause mold to form on the records (not just the bindings), which would be detrimental to the records and personnel who use them. The City should evaluate opportunities to store records in another location that has climate control and protection from water and fire damage. In the meantime, the City should consider installing monitoring equipment to determine what kind of fluctuations in temperature and relative humidity occur in the storage area. Monitoring equipment could be purchased or borrowed. The Massachusetts Board of Library Commissioners (MBLC) loans temperature and humidity dataloggers to institutions for a five month period, free of charge. MBLC staff analyzes the data and provides a report with recommendations to the institution. There is a waiting list for obtaining the dataloggers, however, this option may be worth considering.
- From a general housekeeping perspective, all storage area floors should be vacuumed regularly to prevent buildup of dirt and dust. Ideally, this should be done every week or every two weeks. Additional cleaning by trained personnel should also be considered on a regular basis, such as annually or every two years, to prevent dust buildup directly on the records or on their housings. This recommendation applies to all the storage areas but particularly the basement area because it was observed to have the most dust and dirt.
- Building maintenance personnel should determine if the overhead pipe near the storage area bears water, and if it does, records should be relocated away from the pipe.
- The basement should be routinely inspected for seeps and leaks, and maintained as needed to keep dry. The installation of water-sensing alarms should be considered to ensure flooding is quickly detected.
- The City should confer with the Fire Department to evaluate fire protection options. The fire extinguisher located near the storage area should be lowered closer to the floor for easier access and should be inspected regularly. The existing fire extinguisher is a water extinguisher. The Northeast Document Conservation Center ("NEDCC") recommends using ABC dry chemical

portable fire extinguishers, rather than water extinguishers. The Fire Department should assist the City in determining what type of portable extinguisher should be placed near the archives and in training personnel in how to use the extinguisher.

City Clerk Office Vault in City Hall

- The City should monitor temperature and relative humidity in the vault to determine the extent of fluctuation. If temperatures routinely exceed 75°F, the City should consider installing local air conditioning equipment to maintain the temperature below 75°F.
- The lights in the vault should remain off when not in use. If this is not feasible, install UV filters on the lights.
- As with the Basement Vault Storage Area, the City should confer with the Fire Department to evaluate fire protection options. At a minimum, a fire extinguisher should be located near the vault and personnel should be trained in how to use it.
- Additional shelving should be provided to alleviate overcrowding of volumes and to allow air circulation behind the volumes. Inadequate air circulation is a particular problem when the storage area has no temperature or humidity controls.

Archives Vault in Newton Free Library

When this vault was designed and constructed, Halon 1301 was the preferred fire extinguishing media for archives, but is no longer used in new installations due to its deleterious effect on the earth's ozone layer. Halon 1301 is no longer manufactured and will become increasingly difficult to obtain to recharge the system, if needed.

- The City should initiate a study to evaluate long term options for modification or replacement of the Halon fire suppression system. Representatives from the Fire Department, Newton Free Library and Newton City Archives will need to have input into the study and any decisions that may result from the study.

Compact Shelves in Newton Free Library

- The Newton City Archives, in cooperation with the Newton Free Library, should consider installing monitoring equipment to determine what kind of fluctuations in temperature and relative humidity occur. Dataloggers are available on loan from the MBLC, as previously mentioned.

Recommendations Related to Storage and Handling Practices

The storage and handling practices reviewed included the appropriateness of storage furniture, enclosures for records and physical handling of records.

- Re-folder documents (deeds) currently housed in acidic folders, using low-lignin, buffered folders. Approximately 10 archive boxes of records require re-folding.
- Evaluate options for leather bound volumes with red rot, including segregation, boxing or making polyester film jackets for the volumes.
- Obtain additional shelf space for volumes in the City Clerk Office vault, as mentioned above, to alleviate overcrowding.
- Move Newton Graphics volumes off the floor in the City Clerk Basement Vault Storage Area.
- Consider elevating the City Clerk Basement Vault's metal and wood card files 4" or more off the floor to protect the contents from potential water damage in the event of a water leak.

TABLE OF CONTENTS

- I. INTRODUCTION
 - A. Overview of Newton City Archives
 - B. Description of Survey Scope
 - II. ARCHIVES MANAGEMENT
 - A. Collection Policy and Mission Statement
 - B. Organizational Structure and Funding
 - C. Intellectual Control
 - III. PRESERVATION PLANNING
 - IV. ENVIRONMENTAL FACTORS AND LOSS PROTECTION
 - A. Overview
 - B. City Hall
 - 1. City Clerk Basement Vault Storage Area
 - 2. City Clerk Office Vault
 - C. Newton Free Library
 - 1. Archives Vault
 - 2. Compact Shelves
 - 3. Archivist Office
 - V. STORAGE, HANDLING AND CONDITION OF ARCHIVES
 - A. Storage materials
 - B. Storage furniture
 - C. Cleaning and maintenance
 - D. Handling
 - E. Condition of records
 - VI. CONCLUSIONS
- APPENDICES
- A. Photographs from Survey
 - B. Massachusetts Archives Web Page - Records Management Unit Information Sources and Tools – Preservation Basics
 - C. Halon 1301 Material Safety Data Sheet
 - D. U.S. National Archives & Records Administration – Fire Protection in Cultural Institutions
 - E. NEDCC Technical Leaflet – Protecting Books with Custom-Fitted Boxes
 - F. NEDCC Technical Leaflet – Polyester Film Book Jacket
 - G. Preservation Needs Assessment Survey Worksheets
 - H. Newton City Archives “NHPRC Grant Proposal for Cataloging and Accessing the Collections of the Newton City Archives, October 1, 2004”

I. INTRODUCTION

A. OVERVIEW OF NEWTON CITY ARCHIVES

The City of Newton operates three organizations with responsibility for maintaining historical materials. The Newton City Archives is responsible for municipal records. The Special Collections area of the Newton Free Library has mixed historical materials, primarily bibliographic. The Newton History Museum at the Jackson Homestead houses private, personal papers and artifacts related to Newton's history. The Newton City Archives operates under the City Clerk's jurisdiction. The archives are housed in five storage areas in two municipal buildings. Two of the areas are vaults in City Hall and the other three areas are in the Newton Free Library.

The Newton City Archives contain historical records dating back to 1679, when Newton was a town. The records have benefited from ongoing preservation efforts since 1977 when the City of Newton received a grant from the National Historical Publications and Records Commission (NHPRC) to establish an archival center. The grant was used to inventory and assess the condition of the city's historical records. The city established a position for City Archivist and eventually constructed an engineered vault with compact shelving in the Newton Free Library in 1992. The oldest and most-valued records are stored in this vault, including all the seventeenth and eighteenth century documents, as well as a majority of nineteenth and early twentieth century material. The City Archivist's position is currently filled part-time by Ms. Susan D. Abele, who is the Curator of Manuscripts and Photographs for the Newton History Museum.

The Newton City Archives' five storage areas are the Archives Vault, Compact Shelves and Archivist Office in the Newton Free Library. The City Hall storage areas are the City Clerk Basement Vault Storage Area and City Clerk Office Vault. Each storage area was surveyed to evaluate environmental conditions related to archive preservation, as well as the area's ability to provide loss protection. The Newton Free Library is a new building, having opened in 1992. City Hall was built in 1932. As would be expected, the storage areas in the library provide better storage conditions than those at City Hall, due to the presence of climate control systems, automatic protection from fire and water damage and better security. The older and more fragile records in the archives are stored in the Archives Vault in the library, which demonstrates good preservation planning.

The Newton City Archives includes 1577 linear feet of records, with approximately 600 individual collections or series. The records include aldermanic documents and orders, assessor's records, the city charter, ordinances, mayoral papers, vital records and deeds. Most of the records are manuscripts or bound volumes, but also include microfilm, maps, plans and photographs.

Users of the archives include the City Clerk, Law and Planning Departments, as well as individual researchers. The aldermanic records are frequently used in the course of conducting municipal business. The City Archivist indicates that she receives several hundred inquiries per year requiring consultation of the archives. All use of the archives by the public is under the direct supervision of the Archivist.

B. DESCRIPTION OF SURVEY SCOPE

In October 2004, Allyson Donahoe, graduate student at Simmons College Graduate School of Library and Information Science, conducted a preservation needs assessment survey of the Newton City Archives. The purpose of the survey was to:

- evaluate the archives' storage environment, including climate control, light, housekeeping, fire and water protection and security;
- examine storage and handling practices; and
- assess the overall condition of the records.

The survey methodology was based on Patkus' Assessing Preservation Needs: A Self-Survey Guide. Completed survey work sheets are in Appendix G. Some of the responses in the survey were

derived from the Newton City Archives "NHPRC Grant Proposal for Cataloging and Accessing the Collections of the Newton City Archives, October 1, 2004", which is attached in Appendix H.

The survey was limited in scope in that the condition of individual records was generally not evaluated. If a volume's binding was in poor condition, the contents were checked to determine if the information in the volume was at risk; and some volumes were checked at random for pests and mold. In addition, since the bulk of the archives are in the form of manuscripts and volumes, other media such as microfilm, maps, plans and photographs were not evaluated in detail. However, some general comments about the storage of these records are included in section V.

Observations and recommendations resulting from the survey are presented in this report. The recommendations range from actions that can be implemented on a short term, low cost basis to those that require study and evaluation prior to implementation. The recommendations focus on those actions that will have the broadest beneficial impact on the collection, rather than on individual documents or volumes.

The report is also meant to serve as a source of technical information for future preservation planning and actions, particularly for issues noted in the recommendations. The appendices include technical bulletins from the Northeast Document Conservation Center, which is a regional conservation center whose mission is to assist institutions such as archives in preserving their collections. Other appendices provide information from the National Archives & Records Administration on fire protection and general preservation guidance from the Massachusetts Archives Records Management Unit.

II. ARCHIVES MANAGEMENT

This section reviews the management of the archives, including the status of written policies and procedures, resources and intellectual control of the archives. Dr. Margaret Child's "Collections Policies and Preservation" describes the importance of an institution's mission statement, collection policy and preservation plan in the following way:

To put it colloquially, the mission statement tells you where you are going; the collection policy gives you the details of how you will get there and the preservation policy makes sure that at least the most valuable portions of the baggage do not fall apart en route. (23)

A. COLLECTIONS POLICY AND MISSION STATEMENT

The Commonwealth of Massachusetts regulates the retention of public documents through its municipal government record retention requirements. State requirements for municipal record keeping are tailored to each municipal function, with separate disposal schedules issued for each. The state's City Clerk Records Disposal Schedule, DS-3-86, REV. 9-95, applies to the Newton City Archives. The schedule lists three types of records - records that may be destroyed without the permission of the Supervisor of Public Records, records that may be destroyed with permission and records that may not be destroyed at all, such as records created prior to 1870. The schedule lists each record category, the minimum time period the record must be maintained and whether or not the record must be kept in hard copy format (or if it may be microfilmed and destroyed). Examples of records listed in the City Clerk Records Disposal Schedule are city charters and vital statistics records, which must be kept in perpetuity, and annual lists of dog owners, which may be destroyed after one year. Many of the City Clerk's records require permanent storage; thus many of the decisions typically embodied in a collections policy are fixed by state requirements.

However, the Newton City Archives also house records not strictly required by state regulations, such as mayoral papers and historical photographs. Thus, collection development decisions are made to ensure that records valued by the city are preserved, even if state regulations do not apply. The City Archivist also recommends deaccessioning certain documents that do not need to be maintained under state law and that are not intrinsically valuable to the City.

The Newton City Archives does not have a written mission statement or collecting policy. The Archivist is currently drafting a mission statement that will clarify the Newton City Archives' goals. Once the mission statement is adopted, a collecting policy should be developed that discusses the scope of the collection and indicates the basis for addition (or de-selection) of records in the future. The collecting policy should take into account those of the Newton Free Library and the Newton History Museum to avoid duplication of efforts and to coordinate collection activities for the City.

Recommendations:

- **Complete a mission statement and collecting policy for the Newton City Archives.**
- **If possible, develop a coordinated collecting policy with the Newton Free Library and the Newton History Museum.**

B. ORGANIZATIONAL STRUCTURE AND FUNDING

The Newton City Archives is under the jurisdiction of the City Clerk, with the city archivist reporting directly to the City Clerk. Mr. Edward English currently holds the office of City Clerk and Ms. Susan D. Abele, the acting City Archivist, reports to Mr. English. The City Archivist position is funded for 12 hours/week and there is no paid support staff. Student assistants and trained volunteers provide assistance 6 – 10 hours per week.

The municipal budget includes a line item for the Newton City Archives. The FY2003 budget was \$16,000 for part-time staff and \$1,500 for materials. The FY2004 and FY2005 budgets were \$25,013 and \$25,363, respectively. The line item in the budget for the archives is a sign of the city's commitment to the archives' function. The budget does not distinguish between labor and material costs. In order to insure that sufficient funding is available for archival storage materials such as alkaline-buffered folders, archive boxes and other materials, future budgets should be set up to include a line item for materials or supplies.

Recommendation:

- **Include a line item in future archives management budgets for materials or supplies to insure sufficient funds are available for archival storage material.**

C. INTELLECTUAL CONTROL

Intellectual control for archives can be defined as "knowing what the pieces of an archival collection are, where they come from, and how they fit together. To achieve intellectual control is to be able to answer with varying degrees of specificity, the question, 'What is this?'" (O'Toole 55).

Information regarding intellectual control of the archives was derived from review of a document provided by the Newton City Archives entitled "NHPRC Grant Proposal for Cataloging and Accessing the Collection of the Newton City Archives, October 1, 2004", which is provided in Appendix H. The grant proposal lists the following status of intellectual control of the archives, namely:

- More than 400 series and collections are inventoried in an Access database, but are not fully described
- Approximately 200 collections require entry into the database
- Completion of the database is targeted for June 2005

The grant proposal describes proposed cataloging activities for the Newton City Archives, including generation of MARC records for all series and collections and development of a web-based search engine for the database, with links to the search engine provided on the City, Newton Free Library and Museum web sites. In addition, MARC records will be sent to the National Union Catalogue of Manuscript Collections.

Intellectual control of the Newton City Archives collection is adequate at this time, with sufficient inventory lists and finding aids available for smooth operation. Intellectual control will be excellent at the completion of the proposed cataloging project.

III. PRESERVATION PLANNING

Preservation planning is a process that prioritizes the preservation needs for an institution. The benefit of a plan is that “a carefully planned program ensures that limited resources are expended consistently and economically” (Ward 49-50).

The Newton City Archives have benefited from ongoing preservation activities since an initial NHPRC grant was received in 1977. Preservation steps have included construction of an engineered vault and associated compact shelving in the Newton Free Library in 1992 and subsequent re-location of older and more fragile documents to the controlled environment of the vault and compact shelving. Early documents from the seventeenth and early eighteenth centuries were cleaned then re-housed in folders and archival boxes. Currently, volunteers are re-folding and re-housing later nineteenth century manuscripts. In addition, some volumes were sent out for library binding.

The City Archivist has done an excellent job prioritizing records and acting to ensure that records given the highest priority are stored in the most secure and controlled environment – either the Archives Vault or Compact Shelving in the Library. Ideally, all the Archive’s records would be stored in one of those two locations or in similar secure, controlled conditions. However, the decisions made regarding which records to house at the Library show good preservation planning skills and execution.

The Newton City Archives currently doesn’t have a written preservation plan. A written plan can be helpful in setting priorities and for effective resource allocation, whether labor or funds. A preservation plan should be considered a living document that may change as the collection or its environment changes. One of the purposes of this survey is to serve as a planning tool for the development of a plan.

Recommendation:

- **Draft a preservation plan that complements the archives’ mission statement and collecting policy. The plan should consider the recommendations in this survey and prioritize future preservation activities.**

IV. ENVIRONMENTAL FACTORS AND LOSS PROTECTION

A. Overview

This section of the report will describe environmental conditions noted during the survey in the Newton City Archives storage locations. The term “environmental conditions” as used here will refer to storage area conditions such as temperature and relative humidity, protection from water and fire damage, protection from light damage, housekeeping and security. The archives are housed in two buildings in five distinct storage areas:

Newton City Hall

- City Clerk Basement Vault Storage Area
- City Clerk Office Vault

Newton Free Library

- Archives Vault
- Compact Shelves
- Archivist Office

Photographs of the buildings’ exteriors and parts of the collection may be found in Appendix A.

Before reviewing conditions in each area, the following discussion of the impact of environmental conditions on archival materials is provided to provide a context for the observations and recommendations noted. The effect of temperature, relative humidity, light and air quality on the longevity of paper-based records is well documented in preservation literature (Banks 115-118; Ogden 69-73), as well as on national

and state archive web sites, such as the Massachusetts Archives web site. The background information provided below draws from all three sources.

The Massachusetts Archives web site's section on preservation basics states:

“The single most important thing you can do for collections is to provide a stable cool, dark and dry storage environment.”

See Appendix B for a copy of the information provided at the web site. The web site further cautions archives managers to “avoid damp basements and overheated attics”.

High temperatures accelerate chemical reactions that cause paper to deteriorate. The deterioration rate doubles with each 18F increase in temperature. Thus, lower storage temperatures will lead to longer life for paper records. As for humidity, paper typically absorbs and desorbs moisture in the air, causing the paper to expand then contract. Expansion and contraction affects the paper adversely from a structural perspective, leading to a shortened life span. The expansion and contraction can cause a number of noticeable issues with manuscripts and books including paper cockling, flaking ink and warped book covers. Therefore, wide fluctuations in relative humidity in storage areas are undesirable. High relative humidity in storage areas can lead to mold damage and encourages insect habitation. Visible light, ultraviolet radiation (from sunlight and fluorescent lights) and infrared radiation (from sunlight and incandescent lights) have deleterious effects on paper and the materials that may be used to cover books, such as textiles and leather. Control of temperature from 65-75° F, relative humidity from 40-50% and protection from light damage will have a significant beneficial effect on the life span of archive records.

Other environmental conditions that can cause accelerated deterioration of paper records include the presence of particulate and gaseous pollutants, dust and dirt, harsh cleaning agents, paints or varnishes and pests. Buildings with good HVAC systems provide protection against environmental pollutants. Buildings that do not have central HVAC systems can still provide some protection with local climate control and ventilation systems. Routine vacuuming in storage areas can prevent accumulation of harmful dirt and dust. Any kind of chemical use in the vicinity of archive records must be specifically reviewed and approved by the archivist, as the vapors emitted may irreparably harm records.

Finally, archives must be protected from losses due to water or fire damage and theft. Protection from water damage can involve locating storage areas away from water pipes or easily flooded areas, elevating records off the floor and periodically inspecting and maintaining the integrity of the storage area to prevent seepage and leaks. Fire prevention measures should include smoke, heat and fire detection systems and fire suppression systems, including but not limited to placement of fire extinguishers. Protection from theft should include adequate security measures during storage and procedures for how records in the collection are used by researchers or other members of the public.

The Newton City Archives do not have a written disaster plan. The Newton Free Library has a disaster plan that covers library materials, including the library's Special Collections manuscripts that are housed in compact shelves near those used by the Newton City Archives. In the event of a disaster, the two organizations would need to coordinate their responses.

Recommendation:

- **Develop a disaster plan for the Newton City Archives and ensure that plan is compatible with the existing Newton Free Library Disaster Action Plan and City Hall disaster procedures.**

B. CITY HALL

City Hall was dedicated in 1932 and is listed in the National Register of Historic Places. Most municipal departments are housed in the building and it is also used for public meetings. The Newton City Archives uses two storage areas in City Hall – the City Clerk Basement Vault Storage Area and the City

Clerk Office Vault Storage Area. In addition to these repositories, different municipal departments manage their own storage areas.

The building has central heat but no central air conditioning. It has automatic fire detection systems and an alarm system but no automatic fire suppression systems, probably due to its age. As a heavily used public building, it is unlocked during most weekdays and many evenings when public meetings are scheduled. There does not appear to be a security guard present in the building when open.

1. City Clerk Basement Vault Storage Area

The basement in City Hall is a large vault. The door to the vault appears to be normally open and the vault itself has numerous penetrations for pipes and wiring. Therefore, the vault's ability to protect its contents from a fire that starts outside the vault is questionable. The vault is divided into multiple locked cages where municipal records are stored. One of the locked areas is the City Clerk Basement Vault Storage Area. The area is approximately 16 x 18 feet and is kept secure with a padlock. The Archivist and the City Clerk's office have keys for the area. The area does not have temperature or humidity controls, fire, heat, or smoke detection or automatic fire suppression. The area has no windows and is kept dark unless in use.

Environmental Factors

Temperature and Relative Humidity

The area does not have dedicated climate control or monitoring equipment. On the day of the survey, the area was dry and a comfortable temperature. However, a number of volumes with cloth-covered binding exhibited rust spots as can be seen in one of the photographs in Appendix A. The presence of rust implies that humidity has been a problem in the past. Fortunately, only the bindings' spines are rusted and the contents of the volumes are in good shape. However, high humidity levels could lead to mold, which would be adverse to the records (not just the bindings) and to the people using them. If building inspection and maintenance is performed to keep the basement dry, the environment provided is adequate although not optimum. If the basement develops leaks or seepage, the records should be relocated or humidity controls installed unless effective repairs can be made.

Light

The basement, which is a vault, does not have windows and the storage area's lights are not kept on unless in use. The documents stored did not appear to have suffered any light damage, as the result of this arrangement.

Other Environmental Hazards

No evidence of pests such as insects or rodents was observed. The area, while organized and free of extraneous materials, was very dusty. Dirt and dust can be potentially damaging to records that are not completely housed in files or boxes. Many of the records in this area are bound volumes not contained in boxes and are susceptible to dirt and dust damage. Periodic (weekly or every two weeks) vacuuming of the floor would help keep dirt levels down, as would cleaning the shelves and records. However, any cleaning beyond vacuuming of the floor must be done with supervision to ensure records are not inadvertently damaged. Records and their enclosures should be cleaned by trained professionals every year or two years.

Protection from Water Damage

A basement is not a good location for long-term storage of records particularly with respect to potential water damage. While no evidence of water damage or seepage on the walls or ceiling was noted, some of the cloth-bound volumes exhibited rust-like spots that were probably caused by moisture. According to archive records, a leak in the area occurred in 1981 that damaged assessor's records but it was unclear how the leak occurred. No overhead pipes were observed in

1. City Clerk Basement Vault Storage Area (continued)

the storage area but a pipe just outside the cage was noted that may bear water and could pose a threat of water damage to the collection. The records are generally stored 4" or more off the floor, with the exception of bound newspapers and card files that were observed on the floor. If the overhead pipe is confirmed to be water bearing, consideration should be given to moving records away from the pipe. The basement should also be routinely inspected for leaks, as previously mentioned. Another option is installation of water detection equipment to alert building maintenance personnel to flooding conditions.

Protection from Fire Damage

No fuel or ignition sources were noted in or near the storage area during the walk-through. The storage area does not have electrical equipment other than lighting but additional electrical wiring passes overhead through the vault. There's no documented history of electrical fire hazards related to this area. The area does not have smoke, heat or fire detection equipment. Since people are not routinely in the basement, a fire may not be detected quickly even during the week. A fire that starts on the weekend could remain undetected for some time. Some level of smoke or fire detection equipment should be installed and the City should consider installation of fire suppression equipment such as sprinklers. A water fire extinguisher located outside the storage area was observed. The extinguisher is installed high off the ground and is heavy, which would make it very difficult for many people to use. In addition the extinguisher is not routinely inspected. The municipal fire department should be consulted to provide recommendations on further steps that should be taken to prevent fire damage, including replacement of the water fire extinguisher with an ABC dry chemical extinguisher and reinstallation to make it more accessible.

Security

The building is open to the public but the storage area is locked at all times, except when in use. Researchers are not allowed into the area to review records. Between the lock and the procedures for researchers, security was found to be very good.

Recommendations:

- **From a long-term perspective, basement storage of records is not advisable, although the records observed were in relatively good condition. The City should evaluate opportunities to store records in another location that has climate control and protection from water and fire damage. In the meantime, the City should consider installing monitoring equipment to determine what kind of fluctuations in temperature and relative humidity occur in the storage area. While monitoring equipment could be purchased, the Massachusetts Board of Library Commissioners (MBLC) loans temperature and humidity dataloggers to institutions for a five month period. MBLC staff analyzes the data and provides a report with recommendations to the institution. There is a waiting list for obtaining the dataloggers, however, this option may be worth considering.**
- **From a general housekeeping perspective, all storage area floors should be vacuumed regularly to prevent buildup of dirt and dust. Ideally, this should be done every week or every two weeks. Additional cleaning by trained personnel should also be considered on a regular basis, such as annually, to prevent dust buildup directly on the records or on their housings. This recommendation applies to all the storage areas but particularly the basement area because it was observed to have the most dust and dirt.**
- **Building maintenance personnel should determine if the overhead pipe near the storage area bears water, and if it does, records should be relocated away from the pipe.**
- **The basement should be routinely inspected for seeps and leaks, and maintained as needed to keep dry. The installation of water-sensing alarms should be considered to ensure flooding is quickly detected.**

1. City Clerk Basement Vault Storage Area (continued)

Recommendations (continued)

- The City should confer with the Fire Department to evaluate fire protection options. At a minimum, the fire extinguisher located near the storage area should be lowered closer to the floor for easier access and should be inspected regularly. The existing fire extinguisher is a water extinguisher. Currently, the Northeast Document Conservation Center ("NEDCC") recommends using ABC dry chemical portable fire extinguishers, rather than water extinguishers. The Fire Department should assist the City in determining what type of portable extinguisher is placed near the archives and in training personnel in how to use the extinguisher.

2. City Clerk Office Vault

Environmental Factors

Temperature and Relative Humidity

The temperature in the vault is not controlled. The day the vault was surveyed, the temperature was uncomfortably hot. Relative humidity is also not controlled. The City should consider localized temperature and humidity controls for the vault to maintain stable conditions.

Volumes of vital records were stored in double rows on the shelves. This does not allow for adequate air circulation around the volumes, which is particularly important if temperature and relative humidity in a storage area are not controlled. Additional shelving is needed to alleviate the overcrowding. If volumes are stored in single rows on shelves, they will also be easier to find and to replace in their proper location.

Light

There are no windows in the vault but fluorescent lights appear to be kept on during the workday. The lights should either be turned off when the vault is not being used or ultraviolet filters should be installed on the lights.

Other Environmental Hazards

There was no evidence of pests and the vault was relatively clean with some minor dust observed on lower shelves.

Protection from Water Damage

No water sources were observed in or near the vault and there was no evidence of leaks or seepage on the walls or ceiling. Records showed no evidence of mold, rust or other water damage, and records are stored 4" or more off the floor.

Protection from Fire Damage

There is no electrical equipment in the vault but smoldering wiring was observed in 1982. No residual damage from this event was observed. The vault is not equipped with fire detection or suppression equipment and no portable fire extinguisher was observed in the area. The vault's ceiling and walls appear to have some penetrations for wiring. Therefore, the ability of the vault to withstand a fire in the building is questionable. The City should consider equipping the vault with fire detection and suppression devices. At a minimum, a portable fire extinguisher should be installed nearby.

Security

It is not clear if the vault is locked at any time, so its ability to provide security is questionable. During working hours, access to the vault is limited to employees of the City Clerk's office and the office is locked during non-working hours. Security appears to be adequate.

2. City Clerk Office Vault (continued)

Recommendations:

- **The City should monitor temperature and relative humidity in the vault to determine the extent of fluctuation. If temperatures routinely exceed 75°F, the City should consider installing local air conditioning equipment to maintain the temperature below 75°F.**
- **Additional shelving should be provided to alleviate overcrowding of volumes and thus improve air circulation around the volumes.**
- **The lights in the vault should remain off when not in use. If this is not feasible, UV filters should be installed on the lights.**
- **As with the Basement Vault Storage Area, the City should confer with the Fire Department to evaluate fire protection options. At a minimum, a fire extinguisher should be located near the vault and personnel should be trained on how to use it.**

C. Newton Free Library

The Newton Free Library's main building, the Theodore D. Mann Building (hereafter referred to as the Newton Free Library) opened in 1992. The building has a central heating ventilation and air conditioning ("HVAC") system. The air conditioning for the building is based on a thermo storage system. The system does not provide for humidity control. The building is protected from fire damage by smoke detectors and wet pipe sprinklers. The smoke detectors activate an alarm at the near by fire department

In addition to building's systems, the Archives Vault and nearby Compact Shelves are equipped with a Halon 1301 automatic fire suppression system. The vault also has a separate air conditioning system to provide cooling and humidity control.

The Archives Vault, Compact Shelves and Archivist Office are located in rooms adjacent to the library's Special Collection Room. The Special Collections Room is unlocked and not monitored at all times, however the room that holds the Compact Shelves and access to the Archives Vault is always locked unless in use.

1. Archives Vault

Environmental Factors

Temperature and Relative Humidity

Temperature and relative humidity are controlled and monitored in the vault. Environmental conditions are excellent.

Light

There are no windows in the vault and the lights remain off unless the vault is in use.

Other Environmental Hazards

There was no evidence of pests and the vault was clean except in the vicinity of leather bound books that showed signs of red rot, where dust was observed.

Protection from Water Damage

No water sources were observed in or near the vault and there was no evidence of leaks or seepage on the walls or ceiling. Records in the vault are stored more than 4" off the floor and the floor of the vault is elevated off the slab of the library floor. Some clothbound volumes that were originally housed in the City Hall Basement Vault Storage Area showed signs of rust on the spines which likely occurred during their stay in the basement.

1. **Archives Vault (continued)**

Protection from Fire Damage

The Archives Vault and nearby Compact Shelves are protected by an automatic fire detection and suppression system, using Halon 1301 as the extinguishing agent. A copy of the Material Safety Data Sheet for Halon 1301 is provided in Appendix B. When this area was designed, Halon was the preferred fire extinguishing media, but is no longer used in new installations because of its deleterious effect on the earth's ozone layer. Halon 1301 is no longer being manufactured and it will become increasingly difficult to obtain to recharge the system, if needed. The Halon system at the Library is inspected quarterly by an outside contractor. Any alarms are automatically sent to the nearby fire department.

The fire protection provided by Halon is excellent for archival material, particularly in a sealed vault where the gas can not easily escape and disperse. However, the system will eventually require modification to either replace the Halon with an alternative gas, if possible, or to replace the system with some form of sprinkler system, either wet pipe, dry pipe or water mist. The City should begin evaluating options for modification or replacement of the system through an engineering study. The options should be carefully considered by representatives from the Archives, Library and the fire department to ensure that all parties' needs are met.

Appendix C contains a material safety data sheet for Halon 1301 and Appendix D has information from the National Archives & Records Administration concerning fire protection in cultural institutions

Security

The vault is locked when not in use. Security is excellent.

Recommendations:

- **The City should initiate a study to evaluate long term options for modification or replacement of the Halon fire suppression system. Representatives from the Fire Department, Newton Free Library and Newton City Archives will need to have input into the study and any decisions that may result from the study.**

2. **Compact Shelves**

Environmental Factors

Temperature and Relative Humidity

The area's temperature is controlled by the Library's HVAC system. Temperature and relative humidity are not monitored in this area. The preservation survey performed for the Library in 2002 recommended that the Library install monitoring equipment in the Compact Shelve room (where some of the Library's Special Collections are located) and in the main Special Collections room. To date, no monitoring has occurred. On the day of the survey, conditions in the Compact Shelve room were very good.

Light

There are no windows in the Compact Shelve room and the lights remain off unless in use.

Other Environmental Hazards

There was no evidence of pests but there was a moderate amount of dust. The area would benefit from some floor vacuuming and careful dusting.

Protection from Water Damage

No water sources were observed and there was no evidence of leaks or seepage on the walls or ceiling. Records are stored more than 4" off the floor.

2. Compact Shelves (continued)

Protection from Fire Damage

See the discussion of protection from fire damage for the Archives Vault.

Security

The room is locked when not in use. Security is excellent.

Recommendation:

- **As with the City Hall storage areas, the Newton City Archives should consider installing monitoring equipment to determine what kind of fluctuations in temperature and relative humidity occur.**

3. Archivist Office

Environmental Factors

Temperature and Relative Humidity

The office's temperature is controlled by the Library's HVAC system. On several days during the survey, the office temperature and humidity were comfortable.

Light

There are windows in the office but most records are stored in file cabinets or boxes, so light damage is negligible. According to the Library's preservation survey, the windows have a built-in UV filter.

Other Environmental Hazards

There was no evidence of pests and the office is clean.

Protection from Water Damage

No water sources were observed and there was no evidence of leaks or seepage on the walls or ceiling.

Protection from Fire Damage

The office is well protected from fire damage by automatic smoke detectors and a sprinkler system.

Security

The room is not locked but records storage cabinets are kept locked. Access to the office is through the main Special Collections room, which is monitored periodically by Library personnel.

V. STORAGE, HANDLING AND CONDITION OF ARCHIVES

Overall storage and handling practices are assessed in this section of the report. The background information provided on proper storage and handling is derived from Ritzenthaler 67-75. The manner in which records are stored and handled can directly impact their life span. Aspects of storage that impact the life span of bound volumes include how they are placed on shelves. Books should be stored upright, on their tails and the books should be supported by each other or bookends. Large books that are too tall to fit on shelves should be placed flat, no more than two or three deep. Books shouldn't be allowed to hang off a shelf or structural distortion will ensue. Books should not be shelved spine up as eventually gravity will pull the text block away from the cover. Books should not be overcrowded as damage to the binding will result when trying to remove the book from the shelf. Books should not be stored in double rows or too close to the back of the shelf because this will lead to inadequate air circulation around the books. In storage areas where temperature and relative humidity are not controlled, lack of circulation could lead to

buildup of humidity between the books and the back of the shelf. High humidity can lead to pests and mold infestations.

Books with leather bindings, which are susceptible to red rot, should not be stored in contact with books with cloth or paper bindings as the acids and oils in the leather will migrate to the cloth and paper, causing their deterioration to accelerate. Books with leather bindings should be boxed or covered in polyethylene jackets. If this is not feasible, books with leather bindings should be stored separately from books with cloth or paper bindings.

Manuscripts should be stored in low-lignin, buffered folders and the folders should be housed in archive boxes or in hanging folders in a standard metal file cabinet.

The selection of storage furniture is also important. Ideally, metal shelving is used for bound volumes and box storage. The shelves should be adequately deep and spaced sufficiently far apart to hold the bound volumes to allow for some air circulation around the materials. Wooden storage furniture is not recommended for archival storage because wood emits volatile acid compounds that accelerate deterioration of paper.

One storage practice previously mentioned concerns decisions made regarding which storage area records reside in. The City Archivist has located the oldest most fragile records to the Archives Vault, which has the best climate control, security and protection from water and fire damage.

Storage and handling practices do not vary between the different storage locations, however some areas have more suitable storage furniture than other areas and this will be noted in the report. Otherwise, observations and recommendations apply to the collection and not individual areas.

A. Storage Materials

Manuscripts are either already in folders and archives boxes or are being foldered and boxed by volunteers. The folders and archive boxes currently purchased to house manuscripts are low lignin and are suitable for protection of the records. Some of the folders that deeds were placed in during the early years of the archives' preservation program are not acid-free and should be replaced by lignin-free folders. The contents of over 10 archive boxes will require re-foldering.

Some very old leather bound volumes are stored flat in folders and over twenty volumes are stored in phase boxes.

Overall, unbound records are properly housed with the exception of the deeds that are in acidic folders.

B. Storage Furniture

Metal shelves and file cabinets are used in each of the storage areas. The only wooden storage equipment noted was a card file in the City Clerk Basement Vault. The card file holds vital records that are used by City Clerk personnel. Due to the specialized nature of the card file, it could not be easily replaced with metal facsimile. Other storage mechanisms, such as boxes or traditional file cabinets would not be suitable replacements because access to the cards would be significantly more difficult.

The metal shelving is very sturdy and provides for some shelf height adjustment. The shelf units in the City Clerk Office Vault are more crowded than in the other areas, with many shelves having two rows of volumes, one behind the other. Additional shelving is recommended to alleviate this overcrowding.

C. Storage Practices

Storage practices were observed in each of the five storage areas and were generally found to be very good. Books are stored upright, with books in the same series stored adjacent to one another. This eliminates potential structural damage from short volumes stored tightly against taller volumes. Bookends are not used because the shelves are mostly filled, however the collection could use some bookends on less full shelves. Oversize books are stored horizontally one to three volumes deep. No books were stored on their fore edge. A small number of volumes were stored spine down due to their height.

Oversized bound volumes of the local newspaper Newton Graphics were stored directly on the floor of the basement vault. These volumes should be elevated and stored flat. Fortunately, all issues of this newspaper are on microfilm at the library, so the hard copy could be viewed as supplemental. There are also card files and vertical files stored directly on the floor. The contents of the vertical files are being emptied and re-folded but the card files will probably continue to be used for record storage. Consideration should be given to elevating the card files at least 4" off the floor if the records need to be stored on a long-term basis.

C. Handling and Processing of the Collection

The City Archivist, trained volunteers and student interns handle the Newton City Archives records. The handling practices observed were excellent. At the time of the survey, two volunteers were re-folding late nineteenth century documents. The volunteers wore cotton gloves and were extremely careful while handling the documents.

If copies of documents are needed for municipal requirements or the public, the City Archivist makes the copies. A photocopier with an UV filter is used. Typically, photocopying of archive records is minimal.

Researchers are required to make appointments and are directly supervised during their use of the records. City Hall employees access some portions of the records such as birth and death certificates located at City Hall in either of the two vaults.

D. Condition of Records

This preservation survey did not focus on the condition of individual records but attempted to assess the condition of the overall collection. However, certain records were examined if their housing, such as folders, boxes or bindings, appeared to be inappropriate or deteriorated. For example, some of the manuscripts contained in acidic folders were viewed and volumes whose bindings exhibited rust or red rot were examined. In each case, the documents within the housings were in good condition.

Documents housed in acidic folders should be removed from the folders and placed in low-lignin, buffered folders. Another option is inserting low-lignin, buffered papers between the documents and the folders, but this will take additional space. In any event, additional folders or papers will need to be purchased to address the issue.

The cloth-bound volumes that have rust spots are significant from the perspective that high humidity storage conditions may have caused the rust. High humidity and wide fluctuations in humidity will harm paper through mold formation and structural distortion. As previously recommended, the City should consider monitoring storage areas that have no humidity control to document humidity fluctuations. The data could be used to determine if localized humidity control would be advisable.

Many volumes with leather bindings exhibited red rot. Red rot is caused by excessive acidity present in the leather, which causes the leather to become brittle and eventually crumbly. The binding deteriorates into red powder. Red rot is a problem for the collection in a couple of ways. Red rot generates dust and debris, which can potentially settle nearby records and adversely affect them. If the

volume with red rot is handled, the dust can be inadvertently spread to the interior of the volume or to other records, which could result in staining. There are a number of options for dealing with this issue depending upon how often the volumes are used and the resources available. The most resource-intensive option is rebinding the volumes, but it does not appear the level of use warrants rebinding. Another option is to locate the volumes with red rot in one or two areas and maintain good cleaning in those areas to reduce the presence of dust and debris. The volumes could also be individually boxed or encased in a polyester film book jacket. Boxes could be purchased from a supplier of archival-quality products for \$5-7/each. The cost of purchasing boxes should be weighed against the logistical difficulties that would be encountered in trying to make phase boxes or fitting the volumes with polyester film book jackets. Copies of NEDCC leaflets about protecting books with custom-fitted boxes and polyester film book jackets are included in Appendices E and F.

Recommendations:

- **Re-folder documents currently housed in acidic folders, using low-lignin, buffered folders.**
- **Evaluate options for leather bound volumes with red rot, including segregation, boxing and covering with jackets.**
- **Obtain additional shelves for the City Clerk Office Vault shelving to alleviate overcrowding of volumes.**
- **Move Newton Graphics volumes off the floor in the City Clerk Basement Vault Storage Area.**
- **Consider elevating the wooden card file 4" or more off the floor to protect its contents from potential water damage in the event of a water leak.**

D. CONCLUSIONS

The Newton City Archives records are currently in good condition. The oldest records are stored in an engineered vault that has excellent climate control, security and protection from water and fire damage. The records that are stored in the adjacent Compact Shelves and nearby Archivist Office are also well protected from water and fire damage and theft.

The records stored in the City Clerk Basement Vault Storage Area and City Clerk Office Vault are more at risk because they are not protected from water or fire damage and neither area has climate controls. In order to ensure the records in these areas are preserved adequately for the future, the City should evaluate the feasibility of providing better storage conditions. A first step could be determining the fluctuations in temperature and relative humidity in the areas, which could be done with the assistance of the MBLC's Environmental Monitoring Program. Based on the monitoring data, MBLC will issue a report with recommendations, which could be helpful in determining next steps.

Good housekeeping can extend the life of archives. This report recommends floor vacuuming every week or two weeks in all storage areas and professional cleaning of the records or enclosures every year or two years.

Works Cited

Banks, Paul N. "Environment and Building Design." Preservation Issues and Planning. Ed. Paul N. Banks and Roberta Pilette. Chicago: American Library Association, 2000. 115-118

Child, Margaret. "Collection Policies and Preservation." Preservation of Library and Archival Materials: A Manual. Ed. Sherelyn Ogden. 3rd Ed. Andover, MA: Northeast Document Conservation Center, 1999. 23

Morrow, Carolyn Clark. The Preservation Challenge. White Plains, NY: Knowledge Industry Publications, Inc. 1983. 23-30

Ogden, Sherelyn. "Temperature, Relative Humidity, Light, and Air Quality: Basic Guidelines for Preservation." Preservation of Library and Archival Materials: A Manual. Ed. Sherelyn Ogden. 3rd Ed. Andover, MA: Northeast Document Conservation Center, 1999. 69-73

O'Toole, James M. Understanding Archives and Manuscripts. Chicago: Society of American Archivists, 1990. 55

Patkus, Beth. Assessing Preservation Needs: A Self-Survey Guide. Andover, MA: Northeast Document Conservation Center, 2003.

Ritzenthaler, Mary Lynn. Preserving Archives and Manuscripts. Chicago: Society of American Archivists, 1993. 67-75

Ward, Christine. "Preservation Program Planning for Archives and Historical Records." Preservation Issues and Planning. Ed. Paul N. Banks, and Roberta Pilette. Chicago: American Library Association, 2000. 49-50