

Maryland State Archives
Archives Storage Request
Facility Program – Volume I



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Archival and Special Collections Facilities – Guidelines for Archivists, Librarians, Architects, and Engineers (Draft) Society of American Archivists, August 3, 2008.

Archival Storage Standards Directive, National Archives and Records Administration (NARA 1571), February 15, 2002

Planning New and Remodeled Archival Facilities, Thomas P. Wilsted, Society of American Archivists, 2007

Archives II, Using Technology to Safeguard Archival Records, National Archives and Records Administration, College Park, MD.

Program and Specifications, Maryland State Archives, Annapolis, Maryland. DGS Project No. BA-767(2) revised / updated April 1981.



A. Project Overview

Maryland State Archives
350 Rowe Boulevard
Annapolis MD 21401

Mission of the Archives: The State Archives is the central depository for Maryland government records, and certain designated private records of permanent value. Holdings date from 1634 to the present. Our central mission is to appraise, acquire, describe, preserve and make electronically available the permanent records of the past, while providing reliable current information about Maryland state, county and municipal government. Materials are made accessible through a secure and (where appropriate) web-enabled environment continually compiled and updated for the benefit and use of Maryland citizens and public officials.

Through the Commission on Artistic Property, the Archives is also responsible for the care and management of the state-owned fine arts collections, which are comprised of the Annapolis Collection and the Peabody Art Collection. This program provides research on the State House and Government House and support for the State House Trust and Government House Trust and creates exhibitions of state-owned art collections and other archival materials.

Project Description

Construct a 167,000 GSF / 115,000 NSF archival facility on state-owned land in the Jessup area. The facility will provide a secure and environmentally stable home for the state's considerable fine arts collections and documentary treasures. Presently, well over half of the state's total holdings of records deemed to have permanent value are housed in substandard, rented facilities that lack even the most rudimentary environmental controls or security. The state's fine art collections, too, have for far too long been scattered in "borrowed" spaces in non-state institutions. This project will allow the Archives to consolidate our permanent record material and art; provide for the long term care and preservation of that which has been entrusted to our care; and will facilitate public access and interpretation of our treasures.



Records Storage – The Archives has suitable storage capacity for records totaling 168,680 cubic feet (cf). The Archives has in its custody 362,000 cf of record material, 194,000 cf of which is in space ill-suited to storage of permanent record material.

Historical Summary

“Secure the Laws and records of your Country, for the Advantage and quiet of future Generations.”

Gov. John Seymour
5 December 1704

As this quote from Governor Seymour illustrates, the challenge of identifying the resources to properly care for the people’s records has been with us almost since the landing of the *Ark* and *Dove* in 1634. The General Assembly was moved to conduct repeated inquiries into the state of public record keeping throughout the 17th century. While these reports often bristled with sharp criticism of current condition of public records and pointed recommendations for improvement, little was actually done until conditions reached a crisis. In 1716 the General Assembly appropriated funds for an ambitious project to copy a substantial quantity of badly deteriorated records. These materials, some dating back to the founding of the Province, were found to be in such poor condition that they were in serious danger of being lost altogether. These transcribed records were saved by the foresight, commitment, and timely intervention of the General Assembly, and exist today as some of the core collections of the State Archives. Perhaps just as significantly, the future pattern for care of the people’s records had been set: long periods of benign neglect leading to a near crisis situation requiring action. This sequence was to repeat several times throughout the 18th and early-19th centuries, and indeed up to the present day.

In 1834, recognizing that the overall condition of the people’s records was again becoming precarious, the General Assembly directed the State Librarian to survey all of the records then stored in various state offices, to prepare detailed lists of these materials, and to recommend ways and means of improving the situation. This was the first time that the General Assembly had looked outside of its own ranks to deal with the problem of deteriorating public records, and State Librarian David Ridgely’s recommendation to concentrate records into a few offices better able to care for them can be seen as the first step towards the creation of a modern Archives, that is, towards the creation of an agency whose primary mandate is the care of other agencies records.

Apparently these recommendations were implemented only in part, and in spite of these limited efforts, by the time of the Civil War the condition of Maryland’s public records had continued to deteriorate, with many of the items identified by David Ridgely only thirty years previously no longer extant. In 1882, in yet another effort to address this persistent problem, the General Assembly ordered all the state’s Colonial and Revolutionary records to be transferred from Annapolis to the Maryland Historical Society in Baltimore – an early effort to privatize a public function. The General



Assembly, for the first time, also provided an ongoing appropriation for the care and publication of records. For the next half century the Historical Society became a de-facto archival agency of Maryland. This was a distinction it shared with the Land Office (which housed the early land records and records of the Colonial Probate Court), the Court of Appeals (which held its own records and those of the defunct Provincial and General Courts), and Maryland's county courthouses (which housed county records).

Throughout these early years, the General Assembly's attention had been focused exclusively on the records of state government. Very little thought had been given to the imperiled records of county government. In general, as bad as the condition of state records had repeatedly been found to be, the condition of records in the counties was even worse. Lack of local resources or will combined with inadequate facilities, deliberate theft, and occasional disastrous fires led to the outright loss of most of the early records of Calvert, Dorchester, and St. Mary's counties. In 1904, moved by the actions of other states and the educational campaign of the American Historical Association, the General Assembly provided for the appointment of a Public Records Commission to survey all the records of government in Maryland and to make recommendations for their better care. Beginning their work in 1905, the Commission conducted the most extensive survey of state, local, and municipal government records ever undertaken in Maryland up to that time. Tragically, the Commission's 2,000 page final report supposedly deposited with the Land Office, was lost almost immediately. Perhaps as a result, the Commission's funding was not renewed and its work left unfinished.

This state of affairs continued until 1934, when the celebration of Maryland's tercentenary provided an unexpected opportunity to realize the idea of creating a centralized archival agency charged with caring for the records of all levels of government in Maryland. Apparently at the instigation of Chief Judge Carroll T. Bond, construction of a "Memorial Hall of Records . . . in which shall be gathered all ancient public and private records of the Province and State of Maryland from the beginning of the province to the adoption of the Federal Constitution." (Acts of 1931, Ch. 253) became a central component of the tercentenary celebrations. Construction was completed in early 1935, and the Land Office (which retained responsibility for all state records created since statehood) and the Hall of Records Commission took possession of the facility later that same year.

The first purpose-built state archives in America, the Hall of Records, as envisioned by architect Laurence Hall Fowler, was a state-of-the-art archival facility, as well as a distinctive architectural accomplishment, and a special place of public attraction and attention. The Hall of Records was designed to provide adequate fire-proof and environmentally controlled space to accommodate all identified existing records plus anticipated accumulation for an additional 25 years. In addition to substantial office space and amenities for staff, the facility could boast of a sizeable public research room, substantial exhibit space, plus records conservation and preservation facilities, as well as photographic facilities and a dark room. It gained almost immediate notice for its state-of-the-art design and for many years was a much-imitated model for other states planning their own new archival facilities.

By the 1970s, the dramatic growth in state government activity during the twentieth century was accompanied by an exponential surge in the production of permanent records destined for eventual transfer to the Hall of Records. This phenomenon, together with a remarkable increase in the level of public interest in and demand for access to public records, added urgency to the state's plans for its archival agency. Designed to hold 40,000 cubic feet of records and expected to house Maryland's priceless records heritage until 1960, the Hall of Records was filled to capacity by the early 1970s. An overflow of permanent records was stored under inadequate conditions in a state tobacco warehouse in southern Prince George's County,



and an unknown quantity of records awaiting transfer remained stored with individual state, local, and municipal agencies. Complicating the situation, as part of a reorganization and consolidation of state government in 1970, the Hall of Records, an independent agency since its inception, was made part of the new Department of General Services. Although this arrangement arguably had the advantage of placing a small agency under the protective wing of a much larger department, the Hall of Records found itself in an ambiguous position.

But once again, a quickly approaching crisis was averted in the nick of time. Just in time for the state's celebration of the 350th anniversary of Maryland's founding in 1984, the General Assembly (Acts of 1984, ch. 286) formally re-established the Hall of Records (rechristened the Maryland State Archives) as an independent agency in the Executive Department. This move recognized the unique position of the Archives as an agency that served all three branches of state government and conferred upon it an enhanced status and visibility which have enabled the Archives to assume a leading role in the state's historical records programs. As perhaps the crowning achievement in the celebration of Maryland's 350th anniversary the state constructed the new Hall of Records Building in Annapolis, a state-of-the-art facility intended to accommodate the state's permanent records storage needs for the next 25 years.

Sadly, these expectations proved to be wildly over-optimistic. Over the next 20 years the rate of growth in agency demand to transfer materials to Archives' custody quickly and repeatedly outpaced the Archives' ability to house those materials. Within a decade of taking possession of the new Hall of Records in 1986, the Archives once again was in need of additional space in which to house Maryland's permanently valuable records. Serendipitously, in the mid-1990s, a warehouse in Linthicum formerly operated by the Maryland Deposit Insurance Fund (MDIF) became available to the Archives, along with the remaining records pertaining to the savings and loan crisis. This warehouse provided the Archives with additional capacity sufficient to house 31,416 cubic feet of record material, and helped ease the strain for a few years. But by 1998, the Archives once again was in desperate need for additional space in which to house the many thousands of cubic feet of permanently valuable government records no longer needed by agencies for current business. The situation again was looking desperate when, again serendipitously, relief appeared in the form of substantial revenues realized through large cooperative inter-agency digitization projects funded by the Judiciary which enabled the Archives to acquire rented space sufficient to house an additional 59,940 cubic feet in Glen Burnie in 1998, and much-needed rented storage space for an additional 78,372 cubic feet in Hanover a few short years later in 2006. As recently as 2010, room to house an additional 29,568 cubic feet became available at the newly resuscitated Baltimore City Archives.

But even though the Archives has been extraordinarily fortunate in its efforts to acquire additional space when it had to have it, acquiring rented space sufficient to house nearly 200,000 cubic feet of permanently valuable public records over the last 15 years without any general fund support for this activity, once again we are on the precipice.

Major Functions and Organizational Units Included in the Project. This proposal is almost exclusively archival storage supporting all organizational units within the agency. Minimal staff will be assigned to the location. Staff functions will be limited to reference, retrieval and scanning as well as art curatorial functions.

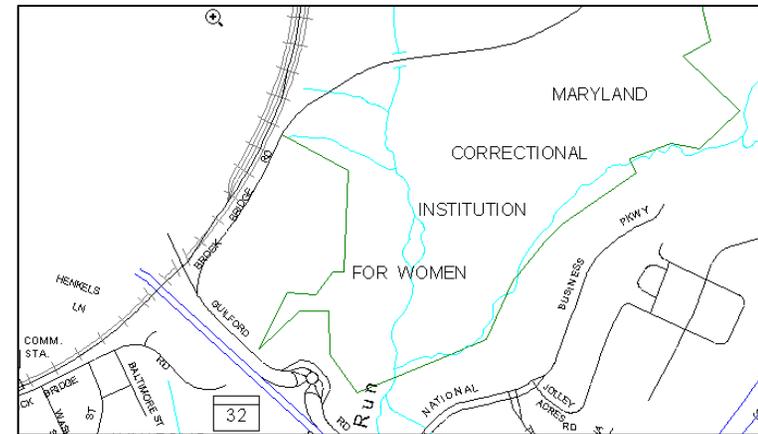
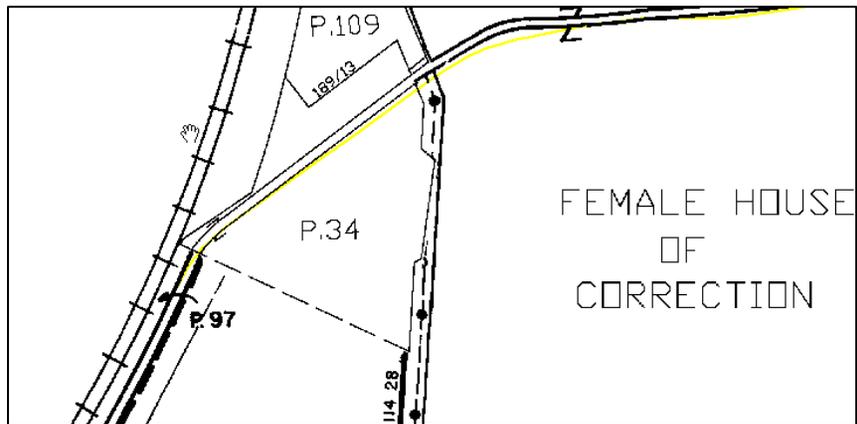


Purpose of the project

1. To provide long-term preservation of permanent record material and the state's fine art collections in temperature and humidity controlled environment;
2. To consolidate the storage of permanent record material and fine art collections;
3. To provide for the care and preservation of permanent electronic record material and stand up adequate disaster recovery / business continuity infrastructure for critical, permanent electronic record material;
4. To provide adequate access to the public through processing and scanning of record material and
5. To provide for the care and preservation of the state's fine art collection through conservation treatment.

The project supports all of the agency's Managing For Results goals:

- | | |
|---------|---|
| Goal 1. | Identify, appraise, acquire, describe, preserve, and make accessible records deemed to have permanent administrative, fiscal, legal, historical or educational value. Where appropriate, make these materials available online. |
| Goal 2. | Describe the agencies, budgets, functions, historical evolution, organizational structure, origin, personnel, reports (mandated) and other aspects of state, county and municipal government in the Maryland Manual On-Line (mdmanual.net). |
| Goal 3. | Facilitate a broad and better understanding of the archival record through educational programs and published historical works searchable in the Archives of Maryland Online (aomol.net). |
| Goal 4. | Manage, conserve, exhibit, and interpret the state's fine arts collections. |



The properties are located within Anne Arundel County.

The coordinates are: X: 418667.5, Y: 162529.0

The deed to the surplus property warehouse property is recorded among the land records of Anne Arundel county Liber 5001, Folio 487.

Larger photos of this area are supplied in the appendices.



Summary of Proposed Project

Goals of the Archival Agency:

1. Preservation – provide long-term archival storage for the state’s treasures in whatever form or format they may exist
2. Access –enrich and inform future generations, the reason that we create and preserve documentary and artistic treasures
3. Explanation – provide adequate processing description and context to further the prime directives to preserve and provide access

The most fundamental objectives of the agency as it relates to both record material and fine art can be summed up in three words:

- Preservation
- Access
- Explanation

This project will construct a 115,000 NASF / 167,000 GSF Archives facility to house the state’s permanent records and artistic property not on display. The space would consist of 86,000 square feet of records storage which will accommodate records currently housed at warehouse facilities and will be adequate for anticipated records transfers through FY 2022.

The facility would include the following elements:

<u>Element</u>	<u>SF</u>
Records Storage	85,929
Records Processing	2,500
Electronic Archives	5,000
Cold Storage	2,000
Artistic Property	10,000
Staff	1,426
kitchen / lunchroom	200
Scanning Storage	600
Research Room	1,000
Reception Area	195
Conference Space	500
Large Object Storage	5,000
Loading Dock	300



B. Project Justification

1. Facilities Problems Proposed Project is Intended to Solve

The Permanent Record

Why do government records matter?

Why do records matter? Why do state governments and we, as American citizens, need to take action to preserve records and make them available for a wide range of users?

Records are essential to protecting life. When disasters strike, infrastructure records have proven themselves to be absolutely essential for protecting life. During and immediately after both the World Trade Center attack in 2001 and the Gulf Coast hurricanes in 2005, rescue workers needed maps of utility lines and gas mains, building layouts, and the composition of bridges, levees, and buildings. Without records, we cannot protect life.

Records are essential to protecting property. Among the most active government records used by the public are land records. The daily news is replete with controversies ranging from school district boundaries to land ownership issues resulting from land treaties signed with Native Americans over the past several centuries. Land surveyors and title searchers actively use land records to prove ownership, boundaries, and other essential information for home and business owners. When we think about property records, we tend to think of deeds and mortgages and property maps, but proving what is mine may involve other types of records: probate records and wills may prove an inheritance; divorce settlements may include property distributions; school records prove what is mine by attainment. People care about what is theirs, and records are key to proving ownership.

Today, land records are “born digital.” Since the implementation of electronic recordation, the courts have recorded what would have been 60,000 cubic feet of record material. These records are now housed in the “electronic archives,” but the pre-existing paper records still must be maintained.

Records are essential to protecting the rights of our citizens. Government records provide the documentation to verify the rights of citizens. These include such individual rights as the right to vote (voter registrations), the right to government services (military service records, birth records, employment records, education records), and the right to justice (court records). Rights of communities and groups are also supported by government records, including civil rights (employment regulations, laws, court records), community welfare (land records, transportation records, public health records), and civil protection (military records, criminal justice records). Government records provide the foundation for, and reflect our efforts to sustain, a democratic, civil society.

Records are essential to maintaining order and the operation of our governments. State and local government agencies, businesses, and families depend on records to document transactions, decisions, and precedents. The importance of effective records is evident from several recent incidents in which secretaries of state and local election officials have struggled to validate an election for governor or the U.S. Senate because of issues with voter registration lists and ballots. The need for accurate, authentic records in such cases can have an impact well beyond the jurisdiction or agency that created or maintained them. We must have the ability to hold our government accountable for providing the services and protections with which it is charged.

Records are the foundation of our nation’s information infrastructure. Just as we need roads and bridges to travel from place to place, we need records to prove identity, certify contracts and



agreements, verify ownership, and establish rights to benefits. Records in today's world are not just paper—they also exist as electronic files, still and moving images, and audio recordings, all subject to their own unique vulnerabilities and capable of disappearing without proper care and attention. Just as we move people and information more freely and rapidly than ever before, records are also more interrelated and integrated than ever before.

Maryland State Archives S455-D012242A.TIF



Records are essential to protecting tranquility. People want to have a sense of community, a sense of belonging, a sense of place. This sense begins with records and documents focused on individuals—birth and marriage certificates, high school diplomas, cemetery records, city council resolutions honoring local citizens or businesses, photographs and videotapes of school and community events—all of which tie each of us to a specific place, time, and group. From there, the sense of community stretches out to embrace the historical records of a location or a community in its broadest sense.



Dr. Edward C. Papenfuss directing students in a salvage project (Associated Press)

Government records are particularly important in providing evidence of all the people in a state or the nation. Unlike private manuscript repositories, which hold evidence predominantly of those who could write or were considered important enough to have their records preserved permanently, government archives reflect the wide range of people whose lives were affected in some way by government functions. Native American encounters with state government, for example, provide some of the only written documentation in the eighteenth and nineteenth centuries for those indigenous nations which did not have a written tradition. Similarly, immigrant groups such as Italian Americans, Asian Americans, and Latinos rarely appear in the private sector records retained from the nineteenth and even the twentieth century. However, because they paid taxes, served in the military, were educated, inoculated, or sometimes institutionalized, the traces of their experiences survive in government archives.



Even when the direct documentation that links a person individually to his or her community has not survived, historical records housed in government archives can restore a sense of significance and connection to the community and its collective experience.¹

Good Records Management is just simply *Good Government*. It was not that long ago that we as Americans chartered an entirely new course for humanity. Instead of having rulers govern by edict, we decided we would document the rights and privileges of the people; we would document the responsibilities of our leaders as well as the limitations placed on their authority. Records, and access to them, are foundational to our system of government.

State-Owned Art Collections

Why does art matter?

Art is essential to our understanding of ourselves and our society. Paintings, sculpture, furniture and other artifacts enhance our knowledge of the past and are an important foundation for an enlightened citizenship. Working beyond the capacity of words to explain, fine art and our special collections (private records, photo collections etc) capture the social history of Maryland's people, providing a window into the thoughts and passions of ordinary citizens over time. Portraits of Maryland's elected officials, and other historical figures, exist as visual documents of their contribution to the history of our state. The non-public records dovetail with the public records to provide a clearer picture of the rich mosaic that is our state's history.

¹ "Why do Government Records Matter" is excerpted from: *The State of State Records – A Status Report on State Archives and Records Management Programs in the United States* January 2007; Council of State Archivists. Used here with permission.



The Burning of the Peggy Stewart, Francis Blackwell Mayer, 1896. The Annapolis Collection.

The State of Maryland is extremely fortunate to own two art collections that are of enormous national artistic and historical importance - the Annapolis Collection and the Peabody Collection. The collections are comprised of those works of art and decorative objects that document the history of Maryland through subject, maker, or provenance. The goal of the Commission on Artistic Property, which is a unit of the State Archives, is to make the collection accessible to the public through preservation, conservation, display, and interpretation. Both collections are made accessible to the public through exhibitions within the Annapolis complex, at cultural institutions in Baltimore, through loan to museums throughout the world, and on the Archives' website.



The Annapolis Collection

In 1781, the Maryland Legislature commissioned Charles Willson Peale to paint a full-length portrait of General George Washington for the State House, in honor of the American victory at Yorktown. While it would become fashionable for state governments to commission portraits of Washington after his death in 1799, only the legislatures of Maryland and Pennsylvania ordered his portrait to be displayed in their respective statehouses while he served as commander in chief of the Continental Army.

This monumental portrait, known as *Washington, Lafayette, and Tilghman at Yorktown*, has been on public display in the Maryland State House since its completion in 1784. One of only a few full-length portraits of Washington by Peale, also a native Marylander and this country's most famous Colonial-era artist, this painting is without question one of the most important portraits of Washington in existence—and certainly the most valuable painting in the state's collection. (It is currently on temporary display at the Maryland Historical Society while the Old Senate Chamber undergoes architectural investigation and restoration).

The Legislature's foresight in honoring Washington began a tradition of commissioning portraits of Maryland's governors, legislators, and other elected officials that continues to the present day, as well as paintings commemorating historic events such as the founding of the colony in the 17th century, and Washington's resignation in the Old Senate Chamber. These portraits and historical paintings are a visual record of not only those people and events that have shaped Maryland's history, but also the accomplishments of Maryland artists over the past two centuries.

Over time, the state's collection has expanded to include historic furnishings and fixtures commissioned and acquired by the Executive and the Legislature for use in the state's most important buildings

including the State House and Government House. On display throughout the Annapolis complex, this collection adds immeasurably to the interpretation of these public buildings, particularly the State House and Government House. Without the portraits of Maryland's Four Signers of the Declaration of Independence and paintings of *Washington, Lafayette and Tilghman at Yorktown* and *Washington Resigning His Commission*, the State House would not be nearly as historically and artistically interesting as it is today.

The Peabody Collection

In 1996, the state-owned art collection was significantly expanded to include the Peabody Institute Collection, a diverse collection of paintings, sculpture, drawings, and decorative arts. Valued then at over \$19 million, this internationally renowned collection is one of the finest in the country and includes works by American and European masters. Assembled by prominent Baltimoreans for the citizens of Maryland, the Peabody Collection is a significant collection of American and European art of the 18th, 19th and 20th centuries. Recent loan requests for paintings in the Peabody Collection have come from major cultural institutions in Europe and the U.S. This collection, once largely unknown, has been made more accessible through imaging technology and is an important resource for art history scholars around the world.

According to the terms of the transfer agreement, the state of Maryland gave \$15 million to the Peabody Institute for its endowment fund, and in exchange the state assumed ownership of the collection, thereby preserving it for the people of Maryland and avoiding its sale, piece-by-piece, at public auction. In doing so, the state made a commitment to care for the collection so that it could be displayed for the benefit of the citizens of Maryland and the general public.

As with many other museums and historical institutions throughout the country, only a small fraction of the Commission's collection is



physically on display, with the remainder housed in secure storage. Therefore, in order for the Commission to uphold its fiduciary reasonability to provide access to the collection, and to ensure the preservation of the collection for future generations, it is essential to properly maintain and manage adequate storage facilities.

art collection into an additional facility at the Archives building will significantly increase its overall access, security, and preservation.

A fine art collections storage facility must be able to preserve its current holdings and accommodate future acquisitions. The use of high-quality museum storage equipment enables art collections to be better protected, preserved and accessed.



Morning on the Severn River, Maryland, Hugh Bolton Jones, 1873. The Peabody Art Collection.

The Archives building currently has 2,560 cubic feet designated as secure storage for the state-owned art collection. This storage space is shared with the Department of Special Collections for objects of higher value and irregular size. Due to the lack of adequate and proper storage space at the Archives, a significant portion of the collection is in storage at rented off-site facilities or stored at other museums and cultural institutions in the Baltimore Metropolitan area as part of long-term loans.

The large dispersal of the collection (1,561 capitalized items) makes it difficult for the Commission staff to effectively care for and preserve the collection. Consolidation of the storage space for the state-owned



Justification

In presenting this justification, the focus will be on two precepts for an archives and two fundamental concerns:

Foundational Precepts

Condition - the state of, fitness and suitability of the space that houses permanent record material and fine art

Capacity - the amount of space dedicated to accommodating Maryland's permanent treasures

Other Concerns

Efficiency - degree to which the Archives has effective storage and retrieval of public documents, and

Security – degree to which material is safeguarded against theft, loss or alienation

Condition

Environmental control is vitally important to the long-term preservation of record material and fine art.

The condition under which our historical treasures are stored is paramount to their survivability. The rented warehouses that house permanent record material have no environmental controls. They lack adequate security as well as adequate space for scanning of records for electronic retrieval.

The fine art collections have been scattered about in many institutions for far too long. Here too, at least one of the rented facilities that house the state's art is totally unacceptable.

The consequence of inaction over the long term is the degradation and ultimate destruction of Maryland's treasures.

Only a small percentage of the records created by government should be preserved for posterity. These permanently valuable records should be transferred to archival custody once no longer needed for current agency business. All other public records created or received by an agency should be destroyed once no longer needed for current agency business. This is the essence of good records management. It is the responsibility of the creating/receiving agency to dispose of its non-permanent records according to approved agency records retention and disposal schedules. These schedules specify how long agencies must retain their records, and sometimes specify a particular form of destruction (i.e. shredding, burning, or landfill). This process is spelled out in State Government Article 10-639, Annotated Code of Maryland and COMAR 14.18.02.

The records transferred to the Archives have been designated permanent through the records scheduling process. Developing Records Retention and Disposition Schedules is a collaborative process



involving the originating agency, the Department of General Services and the Archivist. Policies are often driven by existing statutes and regulations.

Permanent records are to be retained forever. It is the mission of the Archives to preserve, make accessible and explain Maryland's permanent records through the end of the Republic. Central to this mission is ensuring that records are given the proper care and environmental controls.

More information regarding policy for records management can be found at:

http://www.msa.md.gov/msa/intromsa/html/record_mgmt/homepage.html

Capacity

From 1980 to the mid 1990s the average amount of record material that was transferred to the Archives was just over 6,500 cubic feet per year. From the mid 1990s to the present, the average amount of material transferred per year is over a little over 13,000 cubic feet.

Since 1995, the Archives main facility in Annapolis has been full. As a stop gap measure off-site storage facilities have been rented to accommodate state agency record transfers. Now, at the beginning of Fiscal Year 2012, more than half of the state's permanent records are housed in four separate rented warehouses, none of which are suitable. (Note: Some large objects and materials are also housed at the state-owned tobacco warehouse in Cheltenham).

There will continue to be a need for archival storage space well in to the foreseeable future, and there is a demonstrable need for the square footage requested in this capital item.

As to the art collections specifically, the proposed new storage and conservation areas will solve many current issues that adversely effect the long-term preservation and access of the state-owned art collection. A new facility will provide enhanced security as well as optimal environmental conditions and storage equipment for museum collections. The existing off-site fine art storage does not provide any space for preparation or examination of objects. The incorporation of a covered loading dock, conservation and examination areas, and object preparation spaces designed according to museum standards, will significantly enhance the Archives' ability to provide long-term preservation of the art collection as well as improve its accessibility.

Finally, it should be noted that the Archives is most grateful to the institutions that have helped care for and store objects in our collections. In some cases, objects have been on permanent display at the institutions since the 1930's. For those institutions that have demonstrated a long-term commitment to the conservation and display of Maryland's public art, it is the Archives intention to keep these objects at those institutions. The space request for the fine art is exclusively related to the items in permanent storage and not on display. The request also will provide the Commission on Artistic Property staff with the ability to manage items that are in need of treatment or are in transition due to renovation, request for traveling exhibits and similar circumstances.

Efficiency

The adjunct record warehouse facilities are on average 23 miles from the main facility in Annapolis. This presents a variety of efficiency issues including:

- o Inability to adequately staff multiple buildings,
- o Difficulty in accessioning and maintaining records, and
- o Inability to make this documentary material accessible in a timely manner even though, having been transferred more recently, it is generally in high demand.



Security

Beyond a locking front door, none of the existing records warehouses possess even the most rudimentary security.

Furthermore, security relating to records that have not yet been transferred to the Archives is a continuing concern. More detail on these areas of concern is provided later in this program document.

Where are Maryland's documentary and artistic treasures presently being stored?

Warehouse facilities which store records

Edward C. Papenfuse State Archives Building
350 Rowe Boulevard
Annapolis MD 21401

713 East Ordnance Road
Baltimore MD 21226

611 Hammonds Ferry Road
Linthicum MD 21090

7465 Candlewood Road
Hanover MD 21076

The Maryland State Tobacco Warehouse
Cheltenham MD

Baltimore City Archives
2615 Matthews Street
Baltimore MD 21218

Rented Facilities which store fine art

Security Moving, Storage, Logistics
1701 Florida Ave., N.W.
Washington, DC 20009-2697

Please note: the following addresses are associated with facilities / institutions that house portions of the state's fine art collections but currently do not charge for the service:

Baltimore Museum of Art
10 Art Museum Drive
Baltimore, MD 21218-3898

Homewood Museum
3400 N. Charles Street
Baltimore, MD 21218

Maryland Historical Society
201 West Monument Street
Baltimore MD

Maryland Institute College of Art
1300 Mount Royal Avenue
Baltimore, MD 21217

The Peabody Institute
17 East Mount Vernon Place
Baltimore, MD 21202-2397

The Walters Art Museum
600 North Charles Street
Baltimore, MD 21201



Art Conservation Services
410 Lyman Avenue
Baltimore, MD 21212

Limited storage for fine arts at current Archives building

There are currently one hundred and eight framed works of art that are stored vertically at the Archives on stationary shelving units. For the moment, this is a functional, but not an ideal, situation for long-term access and preservation. Alternatively, the use of art racks or movable panels is beneficial for paintings and framed works compared to vertical storage of art because it offers better protection, complete accessibility and takes up a minimal amount overall storage space. Three institutions (The Baltimore Museum of Art, The Maryland Historical Society and the Walters Art Museum) which currently provide long-term painting storage for the state-owned art collection utilize art racks.

The impact of environmental conditions has been studied by institutions the world over. Four factors have been routinely cited as the most important determinants of survivability of records and artifacts:

- Temperature
- Relative Humidity
- Air Quality / Pollutants
- Light

Why are environmental controls so important?

The primary materials in our records collections are paper based and therefore organic in nature. Thus, they will degrade naturally over time. The tendency of material to deteriorate due to the essential instability of the components or interaction among components is defined by the Society of American Archivists as “inherent vice.” The cooler, drier and darker we can keep our paper records without sudden fluctuations the longer they will last.

The materials created since 1850 are actually in the worst condition because they were made more cheaply, more quickly and out of material with less strength on the molecular level than materials previous to 1850. Before 1850 paper was made out of cotton, linen, and hemp. These materials have long, strong fibers even after they are beaten into pulp. At that time there were few additives put into the paper. As the process became more mechanized and industrialized in the 1850's trees were used as the base material and bleaches and fillers were added to enhance the brightness and smoothness of the sheets and generally make the paper more saleable to publishers.

As paper ages the bonds that hold the fibers together become brittle and darken. This process is not so noticeable in papers from the 17th and 18th century because of the inherent strength of the linen and cotton but trees are short fibered and as the aging process occurs paper made from trees breaks down more quickly, the chemical additives aiding in the rapid breakdown. Fluctuations in relative humidity (RH) and temperature (temp) cause acceleration of chemical reactions within the paper that speed up its deterioration. We also have other materials within our collection that are not paper based such as furniture, textiles and photographs which also have their own inherent vice and their own temperature and relative humidity needs that can help slow down their deterioration.



For fine art and furniture the differences in response to changes in RH are even more problematic. A painting, for example, can be even more susceptible to damage. A treasure such as this may have a linen canvas that is particularly responsive to changes in RH, but also have oil-based paint that is far less responsive. The result: expanding and contracting backing leading to cracking and eventual flaking off of the paint. In this example too, the frame and hanging hardware for the piece may experience the same type of expanding and contracting weakening the frame.

What is critical to the long-term survival of Maryland's documentary treasures and artistic property is stability and consistency in RH. It is clear from the data we have that this required stability does not exist at our rented facilities. The other enemy of our collections is temperature. It too will cause long term deterioration. Here again, there is ample evidence that our rented facilities do not provide the kind of protection we should be providing.

Owing to basic fundamentals of chemistry, all natural materials degrade with time. Our responsibility is to control the temperature, relative humidity, light levels and pollution to retard this degradation for the benefit of future generations.

What are the "correct" temperature and humidity set points for archival storage?

There has been an enormous amount of research in the area but as yet no definitive standard adopted worldwide. What we do know is this:

1. Fluctuations in temperature (temp) and relative humidity (RH) cannot be tolerated
2. Set points have been decreasing over time, meaning the science has been pointing to lower temp and RH as having the most beneficial effect
3. Most buildings not built specifically for an archival purpose cannot achieve the desired stability in temp and RH. Most also

lack the filtration systems necessary to eliminate mold, pollution and other contaminants.

Sound archival practice dictates that temperature for stored paper materials be below 68 degrees Fahrenheit with a relative humidity range of 45 to 50 percent. 68 % humidity is the level at which mold begins to grow and higher temperatures will accelerate the growth of mold. Most importantly, though, temperature and humidity must remain constant - - 24 hours a day, 365 days a year. The only caveat to this is that guidelines for the storage of paper records allow for a gradual shift in temperature and relative humidity (in one direction) of three degrees Fahrenheit and / or the percent relative humidity following a change of the seasons.

Consequences for Artwork and Furniture

Accepted museum and conservation standards for fine arts and furniture indicate that the optimum range for most objects is 68°-72°F with a no more than a plus or minus 3° fluctuation in 24 hours. Relative humidity (RH) in the range of 50% with a plus or minus 5% variation is preferred for collections of oil paintings and furniture, which are especially vulnerable to variations in RH. While small fluctuations of temperature and relative humidity (as well as seasonal drift) are unavoidable, daily conditions should not change more than 1-2° F and the humidity levels should be controlled to within a 5% variance daily. Damage and embrittlement can begin to occur to organic materials (paint and wood) when RH drops below 45%.

2. Factors that influence the existence and/or magnitude of the problem

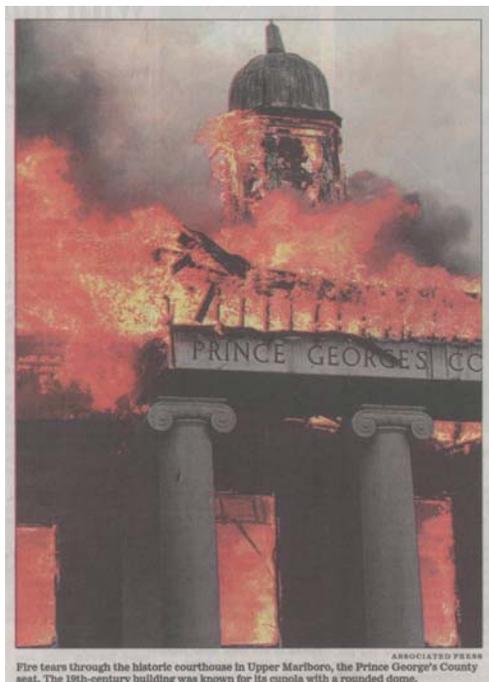
The Permanent Record

Records transfers to the Archives over the past 10 years have exceeded expectations. The main Archives facility in Annapolis was filled to



capacity before 2000, although, when it was built in 1985, it was projected to be able to meet demand until 2005. Records transfers are not expected to subside, and in fact, agencies should be encouraged to move permanent record material out of office space and into archival storage. Agencies should also move non-permanent record material into less expensive warehouse space managed by the Department of General Services.

The most significant problem is the lack of climate control in any of the adjunct rented facilities. The appropriate guideline temperature range for permanent retention of record material is 64 to 68 degrees Fahrenheit with a Relative Humidity (RH) between 45 and 50%. These temperature and humidity levels should be maintained constant 24 hours a day and 365 days per year. The temperature should not vary more than plus or minus two degrees Fahrenheit and the relative humidity should not vary more than plus or minus three percent in any given twenty-four hour period. Electronic equipment requires similar environmental conditions. Note that furniture and fine art have slightly different guidelines as a slightly higher RH is recommended



The Prince George's County Courthouse engulfed in flames, November 3, 2004. (Associated Press photo)

Materials adapt to changes in ambient RH by changes in their internal moisture content. Each material has its own behavior pattern (e.g., will soak up more or less RH, may ripple or distort etc), and each possesses its own “equilibrium” for any specific RH level.

Expansion is one response to an increase in moisture. Fluctuations in RH are particularly problematic because they cause additional internal stresses to the material created by the differences that exist between the inside of, for example, a book and the surrounding air and the constant struggle to achieve moisture equilibrium.

There is another factor that influences the existence of the problem. That is the real threat from total loss due to fire or some other disaster. In the unfortunate incident depicted above, the courthouse burned immediately following renovations and mere days before the court records were to be returned to the building.

Fine Art

In 1996, the State of Maryland gave \$15 million to the Peabody Institute for its endowment fund and, in exchange, the state assumed ownership of the Peabody Collection, thereby preserving it for the people of Maryland and avoiding its sale, piece-by-piece, at public auction. In doing so, the state made a commitment to care for the collection so that it could be displayed for the benefit of the citizens of Maryland and the general public.

To a certain extent the state has followed through on this promise—many of the finest works from the Peabody Collection are on loan to cultural institutions in Baltimore where they are seen by thousands of visitors to the Baltimore Museum of Art and the Walters Art Museum. This is possible through the support of those institutions in sharing the responsibility for the care and interpretation of these works of art.



However, in other cases the state has fallen far behind in maintaining the Peabody Collection. In FY2001, the Commission on Artistic Property received \$30,000 to fund a condition assessment of the Peabody Collection, which determined that overall the collection required over 28,000 hours of conservation, amounting to roughly \$2.25 million in contractual services. To date, the total amount of conservation funds received for all state owned art collections, has been less than \$200,000.

The state has also failed to make good on other aspects of that promise made in 1996. Our inventory shows that over 1,000 items from the state-owned art collection are housed in storage at other institutions. In addition, the state has been paying rent for offsite storage at a number of facilities. There are many objects that are stored in spaces not appropriate for art storage.

We have documented past occasions when landlords have allowed furniture and fine art to be intermingled with a variety of other items from vending machines to pallets of computer equipment. The fact that this took place clearly demonstrated that the art was not secure enough. We have documented multiple events where the landlord moved the state's fine art without permission and contrary to the terms of the lease. Damage has in fact already occurred to an historic Senate desk, normally on display in the State House, which has had to be stored in a non-state facility while construction work is underway in the in the Old Senate Chamber. While in this rented space, the desk was moved by personnel of that facility improperly, and unauthorized by APC staff. A piece of the desk was broken off and now requires conservation treatment. Despite the fact that this was the fault of the vendor, the only insurance compensation that was received was \$21.00, based on the standard insurance valuation coverage of \$0.30 per pound of the item. The cost of conserving this desk may be several thousand dollars, but damage to irreplaceable artifacts even if repairable should not be tolerated at all. This damage occurred in a professionally managed art storage facility, illustrating that whenever the art collection

is forced to be stored outside of the direct care of the Artistic Property staff it is placed at risk.

Most significantly, the data logger readings (provided with prior year capital budget requests) demonstrate that while the space is purported to be conditioned, it is frequently out of acceptable range. As documented through irrefutable scientific evidence, there have been times when the temperature and humidity have been so bad that the condition would result in mold growth in less than 19 days.

- The art collections must be properly stored.
- When possible, the art should be made available for public viewing.
- Some measured steps should be taken to preserve and conserve the fine art by providing a conservation lab dedicated to that purpose.
- The intent of this request is NOT to take art that is already on display in our cultural institutions and move them to an Annapolis facility. Rather, those objects should stay on display. Objects that have been in long-term storage are what is targeted by this request.

3. Historical data showing how factors have changed over time and future projections

Attached to this program document are the historical equivalents of the Part I Facilities Master Plan documents from the early 1930's and the plan document that was drafted in the early 1980's. Both documents convey similar arguments to those presented herein. The factors have really changed little over time.

A small percentage of the records created by government should be preserved for posterity. The fine art, furniture and other objects that



have been deemed worthy of accessioning in to the fine arts collection deserve preservation and the public deserves to have periodic access to view the most significant of these pieces.

The factors influencing the problem relating specifically to the amount of material regularly transferred to the Archives have remained static.

Each year there has been a steady flow of permanent record material to the Archives. The chart below indicates in cubic feet how much record material was transferred to the Archives as well as total holdings in each of the fiscal years conveyed. It should be pointed out that in those years when the amount of material transferred dipped below 9,000 cubic feet, transfers had been halted because of lack of storage space.

FY	Transfers	Records in Custody
2001	7,005	213,303
2002	12,664	225,967
2003	9,810	235,777
2004	15,671	251,448
2005	9,775	261,223
2006	16,017	277,240
2007	18,013	295,253
2008	28,136	323,389
2009	17,852	341,241
2010	12,124	353,365
2011	9,021	362,386
Total	156,088	362,386

Table 1 Cubic Feet of record material transferred to the Archives with cumulative total of amount of record material in all facilities

Note: In the 2005 Part 1 submission the analyst raised a good question about standard measurement methodology and whether all items conformed to a standard measurement e.g., one box = one cubic foot. Not all holdings conform to a standard measurement. Objects under the care of the Commission on Artistic Property will vary greatly in size and storage requirements. Even records will vary greatly in size and container requirements. The Archives attempts to normalize the storage requirements into cubic feet for presentations such as the capital budget request and the Managing For Results submission. For example, bound volumes which may be placed twelve volumes to one shelf that normally would accommodate six cubic feet would be calculated as .5 cubic feet per volume.

Significantly, more than 50% of the total holdings of record materials of the State of Maryland are now housed in rented facilities that lack environmental controls.

The sources of this data are annual reports for early years (1980 and 1996) and information is derived from databases which track the holdings of the Maryland State Archives down to the box level. For each record container type (clam shell, volume, record center box etc.), there is a known space requirement e.g., a standard record center box takes up 1 cubic foot of space. In performing background research for



this document, the Archives reviewed the measurement methodology and analyzed all records transfer receipts for the last ten years.

4. Historical data showing how the facilities problems themselves have changed in the recent past and projections to show how they are expected to change in the future.

All of the Archives' adjunct warehouse facilities are now full to capacity. On June 30, 2010, in an effort to forestall a complete stoppage of transfers, the archives entered into a cooperative MOU with the City of Baltimore wherein the Archives agreed to assume management responsibilities of the City Archives and in exchange the City agreed to provide \$90,000 in financial support and enough space to accommodate records transfers through the end of June 2011. This space, too, will be filled to capacity by the time this program document goes to print.

For this facilities program request we continue to assume an annual accretion of an additional 15,000 cubic feet of material per year for the next ten years. This is based on the anticipated transfers.

The lack of environmental controls at the rented facilities is not anticipated to be rectified.

5. Consequences of the facilities problems for the Archives conduct of operations

At the most fundamental level the consequences can be summed up quite simply: future generations will be deprived of access to material that help shape and define our society and ourselves.

The Image Permanence Institute at the Rochester Institute of Technology has developed The Preservation Calculator which measures the length of time a collection of organic materials (paper) will last at given temperature and humidity levels. Archives' Conservation Lab staff have been monitoring these levels at three of the four off-site storage facilities, using state-of-the-art data loggers. The data are being collected by Onset HOBO Pro Series data loggers. The devices were calibrated by the manufacturers, and because they are not located outside in extreme weather, the calibrations should last at least 3 years with no more than a 1% drift over time. Based on the data collected, the following results from the three off-site warehouses are as follows:

Facility	Annual Temperature Range (degrees F.)	Annual Humidity Range	Expected materials lifespan
Hammonds Ferry	50-80	27-66%	15-44 years
Ordnance Road	51-84	23-62%	15-51 years
Candlewood Road (51 days of readings)	Above 78	41 days: over 58% 24 days: over 68% (note: 68% is the RH at which mold spores begin to germinate)	5-35 years

Sound archival practice dictates that temperature for stored paper materials be below 68 degrees Fahrenheit with a relative humidity range of 45 to 50 percent. (Artwork and furniture have slightly different requirements). Most importantly though, temperature and humidity must remain constant - - 24 hours a day, 365 a year.



The only caveat to this is that guidelines for the storage of paper records allow for a gradual shift in temperature and relative humidity (in one direction) of three degrees Fahrenheit and / or the percent relative humidity following a change of the seasons. The Archives conservation staff monitoring indicates that none of the warehouse facilities comes close to meeting these standards.

Efficiency – while secondary to the issue of the very survival of the record, it is worth noting nonetheless

The reference function of State Archives continues to serve citizens, executive, legislative and judicial agencies by providing ready access to public records which touch upon the daily lives of Marylanders and which facilitate the efficient and effective running of state government. The function provides individuals with access to vital records, deeds to property, criminal and civil court cases, tax assessments and a wide-variety of other documents needed for legal purposes or the conduct of personal or business affairs. In effect, the State Archives provides individuals with the essential evidence they need to secure and protect their rights. Traditionally, these records have also been used by genealogists and historical researchers, who in the past have been a major component of the Archives' patronage. While visits by our traditional patrons, i.e., genealogists and historical researchers have been on the decline, visits by individuals seeking more modern records have been on the rise and, given the increase in court records and other records being transferred to the Archives, will grow.

Archives' Reference Services also serve the Maryland Judiciary and other state agencies by maintaining government records in a secure and safe environment and by providing timely access, either traditionally through providing paper copies or electronically with on-line access. Given the increase in the transfer of court records and other state agency records to the Archives and its three off-site warehouses, the demand for access will only grow.

Aside from the daily research requests from governmental officials, the press and others, the Archives fulfills many other types of demands for access to governmental records, publications, personal papers, records of private organizations, maps, Maryland historical newspapers and the list goes on. At the broadest level, the three most significant types of requests may be categorized as:

1. files management services provided to government agencies
2. research and copy services to the public and government
3. requests handled via the Internet.

For the first two types of requests, the Archives analyzed two years of data (FY2006 and FY2007) from the reference work order system. Fully 51% of orders for Archives services fall into that first category. Due to the method by which request records are categorized, the balance between research/copy orders for private citizens and government agencies is less clearly defined. However, 8.3% of research requests can be clearly attributed to government agencies, for a total of 59.3% of requests coming from government. 40.3% of the total falls into categories dominated by citizen requests.

The government requests can be further broken down. 7.3% of these actions are criminal history checks undertaken in compliance with the Federal Brady firearms law. Due to the time limits required by the Brady law these requests are given first priority for fulfillment, and are generally completed within three business days of receipt. 30% are legal case files requested back by the Judiciary for use in court. These have second priority and can take 1-5 business days to fulfill, depending upon the size (number of files requested) and complexity of the order. Files services for other agencies, which are somewhat less time critical, take significantly longer. DHR social services requests (10.8% of the total) can take 1-10 business days to fulfill, as do general requests from other agencies, such as the Office of the Chief Medical Examiner (post-mortem files.)



Direct citizen services (40.3% of the overall total) have necessarily been given secondary priority. These range from requests for legal documents (i.e. marriage, birth or death certificates) to historical and legal research. Response times can range from a half an hour (for a simple request placed in person for a death certificate held at the Annapolis building) to four weeks for complex research inquiries requiring extensive investigations in collections that are physically separated by miles.

Thus, response time to inquiries vary widely. A critical factor is that the storage location of a requested file can be in any one of four buildings (Annapolis or the three warehouses) separated by at least 20 miles from headquarters. Orders must be written and transmitted to the remote staff, with the delays inherent in such communications. The warehouse staff must shuttle from facility to facility to service the requests. Documents must be removed from the relative safety of storage and transported across public roads to imaging facilities for copying. The remote operations require duplication of services that could be consolidated in one facility.

This facility program proposes consolidating all of the warehouse facilities and including on the site a small scanning operation to handle most requests for files.

State-Owned Art Collections

Failure to resolve the inappropriate storage of the state-owned art collection will lead to continued deterioration of the objects and reduce the number of objects suitable for public display. This will mean that fewer people will be able to have access to the treasures of the state's collection unless adequate state funding is provided to pay for the necessary conservation treatments. Over time, the continued

deterioration of the objects will cause irreparable damage that will prevent further exhibition and access of certain objects.

This fact is perhaps most dramatically illustrated in the case of the state's obligation in accepting responsibility for the care and preservation of the Peabody Collection in 1996. The lack of resources dedicated to the state-owned art collections since then has seriously jeopardized the Commission on Artistic Property's ability to fulfill this obligation.

According to the terms of the agreement negotiated in 1996, the State of Maryland gave \$15 million to the Peabody Institute for its endowment fund, and in exchange the state assumed ownership of the collection, thereby preserving it for the people of Maryland and avoiding its sale, piece-by-piece, at public auction. In doing so, the state made a commitment to care for the collection so that it could be displayed for the benefit of the citizens of Maryland and the general public.

To a certain extent the state has followed through on this promise—many of the finest works from the Peabody Collection are on loan to cultural institutions in Baltimore where they are seen by thousands of visitors to the Baltimore Museum of Art and the Walters Art Museum. This is possible through the support of those institutions in sharing the responsibility for the care and interpretation of these works of art. For example, *Young Woman in Black* (also called *Portrait of Madame J*) was painted by Mary Cassatt in 1883. This painting is considered to be a masterpiece of the American Impressionist movement, and has been featured in exhibitions throughout the world. On long-term loan from the state to the Baltimore Museum of Art, it should remain in the custody of the BMA because its exhibit there (as well as its exhibit overseas) offers the maximum exposure to the citizens of Maryland and the general public.



Mary Cassatt's *Young Woman in Black*

In some respects, however, the state has failed to make good on that promise made in 1996. In FY2001, the Commission on Artistic Property received \$30,000 to fund a condition assessment of the Peabody Collection, which determined that overall the collection required over 28,000 hours of conservation, amounting to roughly \$2.25 million in contractual services. To date, the total amount of conservation funds received for the entire state-owned art collections, has been less than \$200,000.

The significance of this point cannot be understated. Many of the objects in storage are there because they require some investment in conservation. If we cannot afford at present to provide for conservation to make these objects available, at least they should be stored in a suitable place in the custody of the state.

6. How the facilities problems contribute to the operational and service delivery deficiencies

Preservation

First and foremost, the Archives, as the custodian of the permanent record and of the fine art collections, is charged by statute and regulation with ensuring the long-term viability of these treasures. This capital item will address a deficiency that goes to the heart of the most fundamental mission of the Archives by providing an adequate amount of space suitable to the purpose of preservation.

Preservation of Our Fine Art

Storage of objects at off-site locations make it difficult for Archives staff to regularly monitor environmental conditions, security and access, and to effectively manage the collections on a day-to-day basis. Storage of artwork in a facility without suitable climate control for museum objects has caused damage to the objects and artifacts in that location. Visible mold growth has been documented on several pieces of furniture and continued exposure to inappropriate environmental conditions will cause additional mold growth, flaking paint, corroding surfaces, failing mattes, losses of ornament on gilt frames, and embrittlement of all objects. The majority of objects in storage are unsuitable for public display because of continued exposure to these conditions. These objects will continue deteriorate without expenditures of conservation monies to stabilize and make them suitable for public display.



All that we really know of ourselves and our world is the past; and all that we really know of the past is that part which has survived in the form of material objects. Only a small fraction of our history is recorded in literature, and literature is subject to the errors of human interpretation. Only the material specimens of human and natural history are indisputable; they are the raw materials of history, the undeniable facts, the truth about our past. Conservation is the means by which we preserve them. It is an act of faith in the future. (Ward,1982)²

The Maryland State Archives is fortunate to have a working and quite functional paper conservation lab. Over the years, countless number of works on paper have been preserved and repaired most often to make them capable of being scanned before retiring them in an appropriate container.

The fine art lab proposed in this program specializes in the preservation and conservation of paintings and other objects. Often, paintings and objects that require conservation will need to be in the laboratory setting for months and maybe even years at a time. Having an art conservation lab on site will allow the archives the opportunity to begin to repair the many, many pieces of fine art in need of attention. It will also afford us the opportunity to lend space to conservators who may not be able to afford a laboratory setting. The Archives has been successful with identifying talented instructors in the art of conservation and utilizing their skills as they teach the next generation of conservators using objects within the state's collection. The Archives recognizes that it will never be budgeted the funds necessary to totally contract out these expensive services, but a thoughtful, entrepreneurial approach will lead to the preservation of

the most important elements of our collections. An art conservation lab is imperative to this endeavor.

Preservation of the Record

The Archives has applied the data gathered by the data loggers to a tool known as the Preservation Calculator. The Preservation Calculator is a computer modeling program designed for use as a planning and analysis tool for collection storage environments in libraries, archives, and museums. It was developed by The Image Permanence Institute (IPI). The IPI is a University-based research laboratory devoted to scientific research in the preservation of visual and other forms of recorded information and was founded by the combined efforts and sponsorship of the Rochester Institute of Technology and the Society for Imaging Science and Technology.

The Preservation Calculator shows how temperature and humidity combine to influence the rate of decay of organic material such as paper records. The Preservation Calculator is concerned with two forms of decay that commonly occur in collections containing organic materials:

- Natural aging caused by spontaneous chemical change within the material. This is the form of decay that causes browning and embrittlement of paper, fading of dyes, and many other preservation problems. The effect of storage conditions on the rate of natural aging of collections is measured by the Preservation Index (PI). The higher the PI, the better conditions are for preservation of organic materials.
- Mold damage due to the growth of xerophilic species of mold such as aspergillus and penicillium. Mold growth causes stains, odors, weakening, and general disintegration of organic collection objects. The Preservation Calculator gives the

² Ward, P.R. 1982 'Conservation: Keeping the Past Alive', *Museum 34 (1)*, 6-9



estimated time it will take for spores of xerophilic mold species to germinate at a particular environmental condition.³

Summary temperature and humidity range information from the three warehouse facilities appear below. The numbers in (parentheses) indicate the degree of fluctuation.

Readings from the prior capital budget request – data collected August of 2005.

Candlewood Temperature 76.5 – 90.2 degrees F (14)
Relative Humidity 32.4 % - 67.2 % (35)

Hammonds Ferry Temperature 76.6 – 84.4 degrees F (8)
Relative Humidity 51 % - 64 % (13)

Ordnance Road Temperature 78.8 – 88.8 degrees F (10)
Relative Humidity 39.3 % - 59.9 % (20)

Using the Preservation Calculator, the Archives developed the chart below. The chart provides the lifespan in years for documents housed at the warehouse if the given extremes in temperature and humidity were to continue at that extreme.

Lifespan in Years of Documents as Calculated by the Preservation Calendar

	Hammonds Ferry	Ordnance Road	Candlewood
Lowest Temperature Lowest Humidity	25	28	38
Highest Temperature Lowest Humidity	15	16	17
Lowest Temperature Highest Humidity	17	17	16
Highest Temperature Highest Humidity	11	10	7

Examples of Unacceptable 1-Day Temperature Fluctuations at Off-Site Storage Facilities

Off-site storage facility	Date Range	High Temperature	Low Temperature	Notable spikes during 24-hour period
Hammonds Ferry Road	4/23/07	72.4°F	63.5°F	65.6° to 63.5° to 72.4°
Ordnance Road	3/12/07	69.7° F	62.8° F	62.8° to 69.7°
Candlewood Road	7/27/06	90.9°F	84.3°F	85.8° to 84.3° to 90.9°
CDS Logistics	9/17/06	72.4° F	66.9° F	68.3° to 66.9° to 72.4°

³ The Image Permanence Institute, September 2005,
<http://www.imagepermanenceinstitute.org/index.html>



Examples of Unacceptable 1-Day Relative Humidity Fluctuations at Off-Site Storage Facilities

Off-site storage facility	Date Range	High Humidity	Low Humidity	Notable spikes during 24-hour period
Hammonds Ferry Road	11/16/06	52.1%	44.8%	50% to 47.4% to 49% to 44.8% to 52.1%
Ordnance Road	2/12/07	25.3%	17.9%	23% to 17.9% to 25.3%
Candlewood Road	3/14/06	46.0%	22.2%	46.0% to 22.2% to 34.8%
CDS Logistics	7/1/07	80.5%	58.6%	58.6% to 9.9% to 62.3% to 71.4% to 7.4% to 80.5% to 68.4% to 73.3%

Another deficiency arises from the storage of records in separate facilities. Service to the public and to state agencies has deteriorated as more and more record material is being stored in multiple locations. Each adjunct facility is over 20 miles from the main Archives building in Annapolis. At present, it can take several days for a requested record to be located and delivered to Annapolis for viewing or for scanning for electronic delivery. This presents a serious problem for

individuals or businesses that need a legal document immediately. In addition, records have to be moved around among facilities for accessioning, processing, conservation, and storage. This is detrimental to the records and an inefficient use of staff and resources.

Security is another important component of our preservation responsibility. As noted earlier, none of the warehouse facilities are patrolled by state security. No monitoring or alarm system exists. None of the entrance or loading dock / garage doors to the warehouse facilities are reinforced.

Providing a secure environment for agencies to transfer permanent records helps to ensure that they will not be discarded.

But there is another aspect of security. It relates to preservation by the mere act of having an archive in which to transfer permanent material. Lacking such a facility has led to the unauthorized destruction of material. It also is manifest in the safeguarding of the material from theft or alienation. Having an institution dedicated to preservation and access helps ensure the safety of the record. The Archives will present in Section 8 a long list of real world examples of theft, alienation and outright disregard for the records management law.

Access

The ability to make historical records available in an electronic environment, including land records, vital records, and probate records, is critical to the Archives' mission of making records accessible. As resources to serve people in the Archives' public search room and through telephone reference services – both of which have been seriously curtailed in recent years – it has become increasingly important to place such records and the indexes to them online. This



capital item will provide space necessary to have scanning and digitizing capabilities where the records are located.

An archives should be designed and built with specific design criteria including:

1. The ability to deal with extreme conditions such as tornadoes and hurricanes
2. Maximum fire rating for walls, roof, columns, floors etc., and minimum of combustible materials. (There are also many materials and finishing products common to other facilities that should be avoided)
3. Adequate vapor barriers and insulation to inhibit moisture infiltration and to reduce thermal gain or loss
4. The number of windows and doors should be minimized

7. How seriously the operational and service delivery deficiencies affect the ability of the Archives to attain its mission

The primary mission of the Archives is to preserve and make accessible the records of state government that are of permanent value.

Given the climate conditions in which many of these records are stored, their very long-term survival is in jeopardy. It is imperative that they be maintained in an archival secure environment. The existing storage facilities situation prevents the Archives and the Commission on Artistic Property from carrying out their missions to preserve, manage, secure, make publicly accessible and interpret the art collections owned by the State of Maryland.

The acquisition of rented warehouse facilities was meant to be a short term, stop gap measure. Warehouses generally are substandard from an archival standpoint for many, many reasons. The very fabric of a building, (its floors, foundation, structural columns, roof etc), are key to the survival of an Archives. The building must be constructed of sturdy, fireproof materials given the volatile nature of the contents of the building.

Most important is an HVAC system specifically designed to maintain a constant level temperature and humidity. Standard air-conditioning systems simply do not have the ability to maintain the constancy that is required. Further, facilities available for rent on the open market almost never have the kind of temperature and humidity control that is needed for archives and museum spaces. Fine art storage and true archival storage is a very specialized market with limited space.

Air quality is also an important component of the HVAC system. Modern day archives (including the Edward C. Papenfuss State Archives) are designed with specialized filtration systems that keep the air in constant motion and eliminate contaminants such as Co₂, dust, mold and other impurities.

Light, or more specifically ultraviolet light, needs to be minimized. The “stack spaces” of an archives should not have any exterior windows. Access and egress should never be directly to the outdoors.



The standard, contemporary warehouse facility is not much more than a concrete slab with a shell enclosure, flat roof and loading docks. The warehouse facilities that currently house Maryland's permanent records have:

- No air-conditioning or pollution control
- No insulation to speak of - No vapor barrier at all
- Too many loading dock doors, windows and skylights
- Insufficient fire detection and suppression
- Minimal intrusion protection
- No security
- Insufficient structural integrity to withstand extreme weather

These and other deficiencies render the concept of retrofitting to correct for temperature impractical.

8. Historical data showing how the magnitude of the operational and service delivery deficiencies has in the past and projections showing how it is expected to change in the future

The magnitude of operational and service delivery deficiencies are measured and presented here in four distinct areas:

- a. Capacity - Maximum amount of Maryland's permanent treasures that can be accommodated.
- b. Efficiency - Degree to which the Archives has effective storage and retrieval of public documents, and
- c. Condition – the state of, fitness and suitability of the space that houses permanent material.
- d. Security – degree to which materials are safeguarded against theft, loss or alienation

Capacity

The most basic requirement for record preservation is to move records from a costly (often destructive) office environment to the secure and environmentally stable custody of the State Archives. A huge obstacle to achieving this primary objective is the lack of space in which to safely house archival material. Presently, in addition to the Dr. Edward C. Papenfuss State Archives Building in Annapolis, four adjunct facilities (soon to be five) hold government records. Together, these facilities store 362,386 cubic feet of permanent record material. Significantly, over half that amount is held in substandard, rented facilities. The lack of temperature and humidity controls in the rented spaces threatens the longevity of these permanent records. In addition, despite the migration from paper to electronic records in government, the quantity of permanent records created by state and local government likely continues to grow. Even if all aspects of government were now automated, there would still be considerable paper holdings at the agencies that would have to be accommodated.

The Records Management Division of the Department of General Services has in the past conducted statewide records inventories. The first one occurred in 1985 and the last one in 2001. The surveys are planning tools designed, in part, to quantify the amount of permanently valuable record materials that will over time become the responsibility of the Archives for both storage and preservation. The actual results of the surveys have not met expectations because many agencies submitted incomplete inventory forms or none at all. The following chart provides some summary information taken from each 5 year survey.



state” including county and municipal governments, task forces, commissions etc.

A review back in 2002 of the eighteen executive departments shows the obstacles preventing effective use the survey results. Eleven of the departments returned survey forms. The data from some agencies, such as Health and Mental Hygiene and the Environment seemed to be especially thorough. With other departments, such as Human Resources and Transportation, only a few divisions or offices completed the inventories.

It should also be noted that the 2001 survey was based on existing lists of permanent records as identified on retention schedules, no matter how out of date. Thus, many records that would be classified as permanent, if not described on a schedule, were likely missed completely.

The Archives was recently made aware of a whole division with the Maryland State Highway Administration that has gone for years without a retention schedule. This realization came about when the Archives was asked to assist with the scanning and ultimate storage of hundreds of thousands of road inventory forms. The forms document the establishment and condition of the whole of the state road system. They are exceptionally important not just from a historical perspective but also from a financial one as the data derived from the inventory is what is used to distribute road maintenance funds among the jurisdictions. This division, the Highway Information Services Division, is the custodian of some of the most important information within the State Highway Administration. They map the roads, maintain the inventory and possess some very significant collections including documentation relating to the boundary dispute between Allegany and Garrett County and survey material related to the Mason Dixon line.

Permanent Record Material in Agency Custody (cubic feet)

BRANCH/ENTITY	1985	1990	1995	2001
Executive	14,188	53,802	18,847	39,202
Legislative	63	6,437	0	0
Judiciary	48,809	149,601	134,935	0
Registers of Wills	11,866	18,632	18,794	0
Colleges and Universities	12,871	39,688	14,102	6,202
TOTALS	87,797	268,160	186,678	45,404

Quantities are given in cubic feet. Columns with totals of 0 reflect the absence of survey forms being submitted.

The Archives has used these figures to quantify the volume of permanent records remaining in agency custody, and ultimately destined for archival storage, but with not with much confidence that the numbers reflected reality. What we do know is that the numbers are on the low side and there is more permanent material destined for the Archives that has not captured in any of the surveys conducted.

An analysis of the 2001 survey results illustrates many of the problems. No returns are available for the legislative and judicial branches and the registers of wills. Yet, these three areas alone generate significant permanent collections. Only six colleges and universities responded. Only twenty-nine constitutional offices, executive departments, or independent agencies submitted forms. No information is available from local government, yet the law specifically calls on the archives to be the ultimate custodian of all records of all “instrumentalities of the



Lacking a retention schedule means that there is no knowledge of these important records outside of the unit of government. It also means that there is no legitimate way to determine what to hold on to and for how long. This is NOT meant as a criticism of this particular unit of government. In fact, they have done a good job of maintaining and organizing vital governmental records. The point is that a less than robust records management program stymies the effective planning for and execution of an information lifecycle management scheme.

Despite the incomplete data, an analysis in 2002 indicated that there was at least 161,113 cubic feet of record material still in the custody of agencies that was destined to be transferred to the Archives. The analysis also indicated that the state was creating more permanent record material each year - - - not less. The rate of increase was estimated to be about 3,800 cubic feet per year.

Indeed, an analysis of records transfers to the Archives, which is definitive and tracked by a database down to the box level, reveals a long-term trend of steady increases in the amount of permanent record material being created. From 1980 to the mid 1990's the average amount of material that was transferred to the Archives was a bit over 6,500 cubic feet per year. From the mid 1990's to the present the average amount of material transferred per year is over 13,000 cubic feet.

The land records initiatives with the Judiciary have resulted in the transfers of large amounts of materials. While it might be tempting to argue that material that has been scanned may be candidates for destruction, this is not prudent or desirable at this point in time for the reasons discussed later in this section. It is, however, relevant to point out that since the inception of the automated recordation system, the state has *avoided* creating the equivalent of over 65,000 cubic feet of paper land record material.

Efficiency

The Archives warehouses are on average 23 miles from the main facility in Annapolis. These adjunct facilities tend to house material that was transferred more recently than those materials that fill the space in Annapolis. Quiet naturally, this tends to be material for which people coming to the Archives may have the most urgent need.

The Archives does not have staff to maintain a presence at each of these facilities. Thus, people coming to Annapolis hoping to get immediate service and walk away with whatever legal document they are after are disappointed to find that it may be a couple days before the document can be retrieved.

Consolidating the record material in at a remote site with scanning capabilities will allow the agency to more efficiently manage records and provide same day service through scanning and electronic transfer of documents.

Condition

The most compelling reason of all for this capital project is premised in our responsibility for the care and preservation of the permanent record. It is a well-established fact supported by credible research that record material of permanent value must be housed in a temperature and humidity controlled environment. As stated earlier, the appropriate guideline temperature range for permanent retention of record material is 64 to 68 degrees Fahrenheit with a relative humidity between 45 and 50%. These temperature and humidity levels should be maintained constant 24 hours a day and 365 days per year. The temperature should not vary more than +/- two degrees Fahrenheit and the relative humidity should not vary more than +/- three percent in any given twenty-four hour period. Allowances can be made for modest seasonal shifts, but the most dramatic damage is done to paper records in environments where there exists the combination of



temperature and humidity being outside of acceptable norms coupled with significant fluctuations in short periods of time.

For a number of years, the Archives tracked temperature and relative humidity readings at all facilities. The data were collected by Onset HOBO Pro Series data loggers. The devices were calibrated by the manufacturers, and because they are not located outside in extreme weather, the calibrations should last at least 3 years with no more than a 1% drift over time.

Overall we are not doing well in the long-term preservation of our historical records particularly those housed at warehouse facilities.

The rented warehouse facilities used by the Maryland State Archives have really no environmental controls. As such, they tend to reflect the outside environment with some buffering of the temperature and relative humidity.

Our analysis of the data back in 2005 revealed the following:

At the Hammonds Ferry facility the temperature ranged from 50 – 80 degrees over the course of the year and the relative humidity 27% - 66% at any given time. It was within our acceptable RH range from mid November to late December and in mid May to the end of June. The Preservation Calculator gives a materials lifespan of 15 – 44 years. The daily relative humidity fluctuations are from 2 – 6%.

The Ordnance Road facility had a yearly temperature range from 51 – 84 degrees and a relative humidity range of 23 – 62 %. It was also within the acceptable range from mid November to late December and June. The temperature is only at the acceptable storage range for the month of April and for a few weeks in October. The Preservation Calculator gives a materials lifespan of 15 – 51 years. The daily relative humidity fluctuations are from 1 – 12% in a day.

For the 2005 study the Candlewood Road facility had only been in use for a short time and thus had the least amount of data to analyze. It was evident from the 51 days of readings that the documents housed there will have mold problems in the summer months. Except for a week in June the temperatures have been consistently above 78 degrees, the maximum office temperature and at no time has the warehouse been below 73 degrees. The relative humidity has little control and fluctuates as much as 3% to 15% in a single day. Of the 51 days recorded 26 days appear to have relative humidity fluctuations of greater than 12 % in a day. In that same 51 day period 41 days have a relative humidity reading of greater than 55% and 24 days the relative humidity was over 68%, the point at which mold spores germinate. The Preservation Calculator indicates that the material in the Candlewood Road facility will last from 5 – 35 years.

Data logger readings for the Archives' three offsite records storage facilities showed the following results back in the 2005 analysis:

**Temperature Readings at Off-site Storage Facilities
May 2004 – July 2005**

Off-site storage facility	Date Range	Days Measured	Days out of acceptable temperature range	% of days out of acceptable temperature range
Hammonds Ferry Road	5/27/04-7/28/05	463	318	66.5 %
Ordnance Road	5/26/04-7/26/05	462	304	65.8 %
Candlewood Road	6/6/05-7/26/05	97	97	100 %



**Humidity Readings at Off-site Storage Facilities
 May 2004 – July 2005**

Off-site storage facility	Date Range	Days Measured	Days out of acceptable humidity range	% of days out of acceptable humidity range
Hammonds Ferry Road	5/27/04-7/28/05	463	403	87.0 %
Ordnance Road	5/26/04-7/26/05	462	370	80.0 %
Candlewood Road	6/6/05-7/26/05	97	80	82.5 %

As these readings indicate, the temperature at these facilities is within acceptable limits, at best, about one-third of the time and the humidity no more than one-fifth of the days measured.

All of the warehouse facilities of the Maryland State Archives are giving an average of 11 - 43 years of protection to the documents kept inside them.

**Temperature Readings at Off-site Storage Facilities
 May 2004 – December 2007**

Off-site storage facility	Date Range	Days Measured	Days out of acceptable temperature range	% of days out of acceptable temperature range
Hammonds Ferry Road	5/27/04-11/4/07	1183	991	84 %
Ordnance Road	5/26/04-12/4/07	1184	996	84 %
Candlewood Road	6/6/05-11/4/07	686	605	88 %
CDS Logistics	6/3/04-12/25/07	1240	578	46 %

**Humidity Readings at Off-site Storage Facilities
 May 2004 – December 2007**

Off-site storage facility	Date Range	Days Measured	Days out of acceptable humidity range	% of days out of acceptable humidity range
Hammonds Ferry Road	5/27/04-12/4/07	1183	754	64.0 %
Ordnance Road	5/26/04-12/4/07	1184	855	72.0 %
Candlewood Road	6/6/05-11/04/07	686	465	68.0 %
CDS Logistics	6/3/04-12/25/07	1240	846	68 %



Security – Loss through Theft or Wrongful or Negligent Conduct

Security has always been a critical concern for cultural heritage institutions, such as archives, libraries and museums. For archives and manuscript repositories the threat of loss is real and irreparable as these collections are by their nature unique and usually irreplaceable. Documents, both textual and graphic, have an intrinsic value, bestowed their information content, but can acquire additional artifactual value from context, signatures or other factors. These intrinsic and additional values have attracted unwanted attention from thieves, both professional and amateur.

In decades past notable thieves have victimized famous repositories. Charles Merrill Mount removed materials from the Library of Congress. Anthony Melnikas, a professor at Ohio State University, cut maps from 15th Century volumes, previously owned by the Renaissance poet and author Petrarch, in the Vatican Library. Stephen Blumberg was tried and found guilty on four counts of possessing and transporting stolen property, more than 20,000 rare books and 10,000 manuscripts from 140 or more universities in 45 states and Canada. The threat is real and growing.

Theft has always been a problem, but technology has exacerbated it. Antiques Roadshow and History Detectives have increased general awareness of the market value of historical documents. e-Bay has provided a sales outlet for materials that is nearly anonymous due to the sheer volume of transactions. Perhaps the best clearinghouse of information related to thefts from archives, manuscripts repositories and special collections is found at

<http://www.rbms.info/committees/security/index.shtml>

the Website for the Rare Books and Manuscripts Section of the American Library Association. Years of incidents are reported there, indicating the full reported scope of the issue.

For transactional governmental records, the integrity of the custodial regimen is critical for maintaining the physical safety and evidential authority of the records. The current rented warehouses present a variety of problems. First, they are nearly full, impeding the proper transfer of permanently valuable records from agencies to the Archives. Next, they lack proper climate controls and security systems. Ranging from 5 to 10 miles apart and 22 ½ miles from the headquarters building in Annapolis, staff must drive from building to building on a rotating schedule for document retrieval and copying. None of the buildings are staffed except for times when retrieval is being performed. Delays and errors necessarily occur in such a regimen. Effective collection management, the allocation of storage space based upon frequency of utilization, is impeded by the costs of transferring materials between buildings, and the threat of loss occasioned by moving the documents on the public roads.

It is not possible to completely centralize the archival functions of the state in one location, with the entire Archives staff available to monitor the security and integrity of both special collections and permanently valuable state records. However, consolidation at one remote facility with a modest staff presence presents a superior opportunity to safeguard the fundamental documents of the state in a single dedicated facility, compared to distant, decentralized warehouses retrofitted with varying degrees of success for the purpose.

The importance of transferring permanent record material to a safe and secure environment at the Archives cannot be overstated. In addition to legitimate concerns over records destruction due to the wear and tear of everyday use, and the slow but steady physical deterioration caused by inadequate storage and environmental conditions common in an office, attic, or basement setting, a troubling



history of records being lost or alienated, whether from mishap or from outright theft, the result of inadequate agency security or safety procedures, also constitutes a continuing source of concern. A few examples can serve to illustrate this problem.

Several years ago, the Civil War muster rolls of the 19th regiment USCT were offered for sale by A B Bookman's Weekly. The 19th USCT was one of several regiments of African-American soldiers raised in Maryland for service against the rebel states. These important, permanently valuable public records, by what circuitous route is not known, had come into the possession of a private citizen in West Chester, PA. He was asking \$150 for them.

In 1991, the Archives learned through the grapevine that it had been common practice for many years for officers retiring from the Baltimore City PD to take one of the old dockets of the Police Court as a souvenir. These dockets had been brought under retention schedule control many years before, and had been identified as permanent records to be transferred to the custody of the State Archives. However, when the day came that the Police Department offered the dockets to the Archives, we were not able to take them on due to lack of space. Needing their own space for other purposes, the officer in charge took matters into his own hands and got rid of them. Many individual docket books, no doubt those that seemed most interesting or valuable, were taken by individual officers as mementos. Many others were simply thrown out.

The fate of one particularly important docket is known – the consolidated docket for 1861. A Captain Hennessy had been involved in setting up the police museum on the first floor of the headquarters building in downtown Baltimore in the early 1960s. He took the consolidated docket for 1861 because it contained the names of all the individuals involved in the famous “Baltimore Riot” of April 19, 1861. The docket also identified all those killed in the riot. Captain Hennessy wanted this book in his museum. Some time later, about 1971-1973,

Captain Hennessy fielded an inquiry from the Maryland Historical Society about the names of those killed in the April 19th riot. Immediately recognizing the great historical value of the consolidated docket for 1861, the Historical Society asked if they could have the docket. Captain Hennessy agreed to swap this treasure for something else in the Historical Society's possession. He ended up trading this important, permanent public record for some cannon balls.

In 1997, Susanne Flowers and Donna Russell, two concerned citizens with an abiding interest in and love for Maryland history, discovered a large quantity of permanent 19th century record material in the attic of the Frederick County courthouse. These materials had been stored for many years in poorly ventilated attic space that had contributed directly to their physical deterioration over time. In fact, these records had been in the attic for so long that their existence had been lost to the collective memory. Thanks to the alert interest and aggressive persistence of these two local researchers, and the willing cooperation of the Clerk and his staff, these permanent records were transferred to the Archives and saved from what otherwise would have been almost certain destruction.

In 1991, a large quantity of 19th century Frederick County government records were literally saved from the trash dumpster by lucky happenstance and the willingness of the staff of the C. Burr Artz Library in Frederick to go the extra mile. On June 28, 1991, the Archives received a call from John Quinn with SDAT. He had received a call from the local assessments office in Frederick County with information that a local Frederick library had in its possession “a pallet sized load” of mostly unidentified, disordered records. Library staff had noted that one of the volumes had the word “assessment” on it, and this had prompted them to call the local assessment office to see what they should do with these records.

Archives staff immediately contacted Beth Telly of the C. Burr Artz Library and informed her that we were very interested in taking these



old records off her hands. Ms. Telly informed the Archives that we were too late. These records had been thrown into the dumpster just the day before because the library's need to free up space was critical, and because no one had expressed the slightest interest in having these records or provided any guidance as to what the library should do with them. As Ms. Telly related the story, it became clear that these records had come into the possession of the C. Burr Artz Library more than five years previously. In early 1991, the library's need for additional space became critical. This led library personnel to try and unload these records. Library staff contacted the local assessments office to see if SDAT wanted the records or could offer any guidance on what to do with them. The local office contacted SDAT headquarters but met with silence. For a period of more than six months, no communications passed between the C. Burr Artz Library, the local assessment office, or SDAT headquarters. During this entire time, nobody thought to contact the Archives. Finally, in desperation, library staff had deposited the materials in the dumpster.

Luck was with us, however. The dumpster had not been emptied since the assessment records had been deposited in it. We urged Ms. Telly not to let those records out of her sight, and arranged for Archives staff to run up to Frederick the next day, a Saturday, to retrieve them. Ms. Telly promptly directed her staff to pull out what volumes they could and place them inside the library for safe keeping pending our arrival. Once again, by happy accident rather than by design, permanent records that otherwise would certainly have been lost forever were saved by the good will and cheerful cooperation of alert citizens.

Another well-known and well-documented example, that of land records, can serve to bring home the scope of this problem.

Land records constitute one of the most voluminous, and arguably most important, record series created and maintained by government in Maryland. Since the beginning of European settlement in 1634,

county court clerks have been vested with responsibility to record, index, and maintain all land record instruments affecting title to or interest in real property. These include deeds, mortgages, releases, leases, assignments, powers of attorney, agreements, easements, and other instruments.

During Maryland's first 300 years these records were created and maintained exclusively in paper form. Anyone needing to access these materials had to travel to the courthouse to look at the single paper copy of each individual book. Following the Second World War, primarily in response to the heightened security concerns of the nuclear age, there was a concerted effort to duplicate these materials in micrographic form. This not only permitted a security copy of these land records to be deposited off-site in the Maryland State Archives, but also allowed for the circulation of multiple microfilm copies of land records, greatly increasing both ease and breadth of public access to these materials. In many jurisdictions, for a variety of reasons, all or portions of their land records were microfilmed more than once over the past 60 years, creating "slice in time" captures of the books as they existed at that moment. This is another happy accident, the unintended consequences of which were to pay rich dividends.

But still, well into the 1990s, virtually all individuals interested in accessing land records did so at the local courthouse. And visitors to the great majority of Maryland's 24 county courthouses were directed to the original paper volume still sitting on the courthouse shelf when accessing land records. From the beginning, reliance on a single paper copy of a land record was problematic. For many years the Archives received periodic requests from individual courts asking if we could help with a missing page from a land record. The process usually went like this. A land title abstractor or other researcher discovered that a page or pages he/she needed to review were missing from the original paper book sitting on the shelf in the courthouse. Upon being informed of this, court staff contacted the Archives to ask that we check our archival microfilm (often filmed decades previously, and



therefore reflecting the book as it existed many years before) to determine if the now-missing page still had been in the book at the time of microfilming. In most cases, the image would be found on the microfilm, printed and delivered to the requesting court.

In 2003, the Judiciary and the Maryland State Archives partnered in a project to combine the Judiciary's robust digital recordation and indexing system (ELROI) with a digital retrieval system that ensures the integrity of documents and data through a security archival system known as mdlandrec.net. As an electronic archives indexing and retrieval system, working seamlessly with ELROI, mdlandrec.net provides comprehensive index access to the records (based upon indexing done at the time of recordation) and provides online intranet access to images preserved in mdlandrec.net as part of a comprehensive effort to digitize all existing land records as well as new instruments recorded through ELROI.

In the course of digitizing all the pre-ELROI land records of Maryland's 24 jurisdictions it quickly became apparent that the volumes, absolutely essential for the protection of individual property rights, had suffered considerable loss over time due to accident or theft. **In the first comprehensive analysis of the Maryland's land records ever undertaken, Archival staff discovered 295,835 pages seemingly "missing" from the land records.** Archival staff has to investigate every one of these thousands of pages to determine if it is extant in some form or truly lost forever. In many cases, this meant examining multiple paper versions of a particular volume as well as up to four microfilm versions for each missing page under investigation.

This is a herculean task. Limited staff resources mean that it will take several years to complete. To date, we have finished our analysis for five jurisdictions. Of the 45,451 pages initially identified as missing from the land records of these five jurisdictions, archival staff were able to track down the great majority. But in four of the five jurisdictions examined, there remain a number of pages that are lost

forever; i.e., no longer in the paper book sitting on the shelf in the courthouse and not captured on any of the multiple filmings that had taken place over the years.

Anne Arundel County land records	8 pages missing
Caroline County land records	164 pages missing
Frederick County land records	42 pages missing
Harford County land records	33 pages missing
Washington County land records	0 pages missing

These missing pages had been removed or become separated from the original books years before. Many clearly had been cut and removed, presumably stolen, for what purpose we cannot now say. Others appear to have been torn from the binding, whether deliberately or accidentally we cannot determine. Some of the books were in such poor physical condition from prolonged ill-use in the courthouse that the missing pages may simply have fallen out one day without anyone noticing their loss. However they became separated from their parent books, these vital records relating to establishing and defining title to real property were not available when these volumes were microfilmed and so now are gone forever.

Now some might argue that this is much ado about nothing. After all, if some materials have been lost through theft or mishap, the vast majority have been preserved for posterity. They might also add that the 247 pages identified above constitute a statistically insignificant percentage of the 32,793,964 pages encompassed by the land record of these five jurisdictions (as of June 2, 2008). And that line of argument might appear very reasonable, right up to the time when the pages discovered to be lost forever are the deed that helps to establish your clear title to your property. And surely, they might add, the important



records lost over the years to war, fire, flood, and other disasters, natural and man-made, constitute a far greater loss.

But our hypothetical skeptic would be mistaken on several counts. First, we have no way of knowing the universe of records that have disappeared without notice. We only learned of the sometimes deplorable state of our land records because we had the time and resources to look. There are thousands of other records series that have not been examined in such close detail, and for which there are no resources to do so. Second, allowing that some records loss probably is unavoidable, this in no way absolves us from doing everything possible to minimize this loss. Historically, the lack of archival space to accommodate requested transfer of records at times has inadvertently contributed to the deterioration and loss of permanent record material. This should never be allowed to happen. And finally, while no system devised by humans can be perfect we can say with assurance that an office environment is known to be very detrimental over time to the long-term survival of important records. In spite of the best intentions of public officials and employees, over time agencies cannot properly care for their permanent records in an office environment. The solution is to move records appraised as having permanent administrative, fiscal, historical, legal, or other archival value into secure, environmentally controlled archival storage as quickly as feasible once they are no longer needed for current agency operations.

Scanning and discarding permanent record material is not prudent or desirable at this time. There may be some time in the future where some records could be culled, but we are no where near that point in time when we can ensure a complete, accurate and authenticatable electronic version of the paper record.

Finally, to highlight the problem of physical security we reiterate the fact that the warehouse facilities do not have any reinforced entrances

or garage doors, they are not supervised or patrolled by DGS police and they lack any other semblance of security.

9. Alternatives to the proposed project, both capital and non-capital. Comparative analysis: budgetary impact and degree to which they address the operational and service deficiencies

Options

Given the unique requirements of truly archival storage and the special needs of space for the artistic property, there are few prospects for conversion of existing facilities. That does not mean that there are *no* possibilities to explore alternatives. In all likelihood, there are a few buildings in existence that could lend themselves quite nicely to conversion to archival and artistic property storage and perhaps even display. Suitable buildings certainly do exist.

Some alternatives to the proposed project include the following.

Leasing Suitable Space on the Open Market

The primary obstacle in pursuing this option is the lack of suitable archival space available in the open market. MSA has continually explored this option as the need for off-site storage space has arisen over the past decade, and, out of necessity, has rented multiple warehouses for storage of record material. None of these warehouses provide a suitable environment for permanent storage of archival materials. These facilities are designed using standard warehouse construction, on a slab, susceptible to extreme weather, and without appropriate climate control for the preservation of record material and fine arts. The Archives is not aware of any adequately-sized facility suitable for archival storage that is available for lease.

In addition to lacking the fundamental precepts for archival storage, any leased warehouse space would be located outside the Annapolis



campus and thus would not enable MSA to utilize existing staff for management and retrieval of records/collections that are stored there, nor would its location be able to replicate the ideal conditions present at the current MSA site, namely proximity to fire and police protection, as well as to the Annapolis complex.

Finally, we note the difficulty of securing the necessary operating budget appropriations to lease a facility long term.

Leasing from Firms Providing Records Management as a Service

Companies that provide records management and retrieval do not have as their principal core objective records preservation. Their business model appears similar in function, but is in fact quite different in a variety of very important ways.

First, the structure, again, must be considered. Most of these operations exist in standard warehouses. Standard warehouses are by their very nature not archival facilities.

Over the course of the past couple years, the Archives visited many potential facilities. Every one had very similar defects. All are simply concrete slabs with four walls of concrete block providing absolutely no vapor barrier from the outside. Most have numerous windows, too many loading dock bay doors, sky lights etc. To effectively renovate one of these, reinforced insulated rooms would have to be built within the building. Even still, this would only satisfy a portion of the requirements for building a truly archival facility. And, the square footage requirement would be much larger than a purpose built archives.

From the materials and finishes to the special environmental controls and security concerns, all must be considered for a building whose principal purpose is to preserve the public record. An archives should be designed and built with many unique design criteria including:

- o Constancy of temperature and relative humidity
- o Proper air filtration to remove pollution and such things as mold spores
- o The ability to deal with extreme conditions such as tornadoes and hurricanes
- o A maximum fire rating for walls, roof, columns, floors etc., and minimum of combustible materials. (There are also many materials and finishing products common to other facilities that should be avoided)
- o Adequate vapor barriers and insulation to inhibit moisture infiltration and to reduce thermal gain or loss
- o A minimum number of windows and doors
- o Adequate security

Most important is an HVAC system specifically designed to maintain a constant level temperature and humidity. Standard air-conditioning systems simply do not have the ability to maintain the constancy that is required. Further, the kind of temperature and humidity control that is needed for archives and museum spaces are not readily available for rent on the open market. It is a very specialized market with limited space.

The standard, contemporary warehouse facility is not much more than a concrete slab with a shell and flat roof. The warehouse facilities that currently house Maryland's permanent records have:

- o No air-conditioning
- o No insulation to speak of - or vapor barrier at all
- o Too many loading dock doors and skylights
- o Insufficient fire detection and suppression



- o Minimal intrusion protection
- o No security

Many of the facilities we visited were no better than the standard, commercially available space. The Archives asked one of the best known companies providing this type of space as well as records management services to show us the best space they had for “archival storage.” We were shown roughly 5,000 sf of air conditioned space. The “best” facility that we visited was not much more than a standard warehouse that features some level of air conditioning, but no vapor barrier, no HEPPA filtration for mold spore removal. The bottom line is we have found no space that adequately addresses the many design requirements spelled out in the supporting design specification guidance documentation that the Archives has provided.

In addition, there are fundamental problems with utilizing the traditional records management type model both from a business and a facility perspective.

The business model is not compatible with the way in which an archives functions. The firms we looked at are basically dead storage for material that is destined to be destroyed. Only a small percentage of record material (3 to 4%) is ever retrieved. They tend to store material in large sections of 16 boxes per section which makes retrieval quite difficult. In an Archives, a researcher may only need a few pages out of a volume or a box.

In addition, when records are called for in a records management business, they are not returned to their original location, but to a new location. This is fine for a model in which very few records are ever retrieved and all are ultimately destroyed in a relatively short amount of time. However, the Archives maintains record locations in a detailed database that makes retrieval accurate and fast. Constantly changing locations would present staff with an impossible logistical task of

tracking location changes and finding records. Inevitably, intellectual control over the records would most certainly be lost.

In addition, the cost of reasserting intellectual control over a collection that has been managed by a records management firm would be astronomical.

Moreover, in a records management environment “all records are created equal,” and that is not the case in an archives. Medical records, for example, are all treated the same way even though their contents may be quite different. All records are indexed and accessed in the same way. That is simply not the way an Archives is forced to deal with records some of which may have more information related to the interpretation of the item than is contained in the record itself, while there may be records series consisting of hundreds of cubic feet of material that has yet been barely described. In an archival setting records simply are not cataloged and accessed in the same way that the kind of records typically found in a records management environment are.

Finally, the Archivist and his senior staff all feel that it is simply bad public policy to alienate the public record from public officials and place it in the custody of the private sector in perpetuity.

From a more global perspective, the Archives has performed some analysis on the potential to utilize alternate structures for archival facilities. A very worthwhile summary of the types of alternatives is attached to this request. It is a document published by the U.S. National Archives and Records Administration entitled “Overview of Alternative Space Options for Libraries and Archives” by Paul Banks.



10. The best alternative

The Archives believes that the rental of commercial space, especially of the size and quality that is required for long-term storage of paper, electronic records and fine art, is not a cost-effective or feasible alternative.

The site we are suggesting, proximate to the former Surplus Property Warehouse, will allow the state to provide a cost effective means of dealing with the long-term needs of the our permanent record material and our artistic property not on display.



C. Project Scope

This project will construct a 115,000 NASF / 167,000 GSF Archives facility to house the state’s permanent records and artistic property not on display. The space would consist of 86,000 square feet of records storage which will accommodate records currently housed at warehouse facilities and will be adequate for anticipated records transfers through FY 2022.

The facility would include the following elements:

<u>Element</u>	<u>SF</u>
Records Storage	85,929
Records Processing	2,500
Electronic Archives	5,000
Cold Storage	2,000
Artistic Property	10,000
Staff	1,426
kitchen / lunchroom	200
Scanning Storage	600
Research Room	1,000
Reception Area	195
Conference Space	500
Large Object Storage	5,000
Loading Dock	300

The Artistic Properties program will require a total of 10,000 square feet broken down as follows:

Fine Art Storage	8,000
Fine Arts Conservation Lab	1,000
Fine Arts Processing	1,000
Total	10,000

The total amount of space that will be required for staff is 1,426 square feet.

<u>Activity</u>	<u>SF</u>
Archivist / Deputy	250
Records Processing / Reference	
Professional Supervisor Private (1)	126
Professional Supervisor open (1)	120
Professional Open (5)	450
Scanner operator	
Professional Supervisor Open (1)	120
Operators (4)	360
total	1,426



General Characteristics of the Facility / Architectural and Environmental Considerations

In order to achieve the desired storage conditions, the Archives adjunct facility needs to be designed with the utmost consideration given to the development of mechanical systems that can adhere to rigorous environmental conditions. Specifically, the storage areas must maintain stable and constant temperature and humidity levels. The ability of the systems to effectively remove particulate matter such as mold spores and other pollutants such as gases is particularly important.

During design and construction special care should be given to prohibiting the use of materials and finishes that may be damaging to the records.

The facility itself should be built to withstand extreme weather conditions.

Adequate load-bearing capacity must be provided.

Specialized fire detection and protection systems for the storage areas are needed.

Consideration should be given to security. Given the location proposed (far away from the general security sweeps provided by the Department of General Services), the perimeter of the building must be quite secure. Security controls within the building should be provided to ensure that only approved, designated staff have access to the most secure items.

More details on building characteristics and design criteria are provided in Volume II of the program document.

Description of each Element

Records Storage

The calculations for the GSF / NSF of this proposed facility were based on known records in custody by cubic feet and the estimated accretion of 15,000 cubic feet of record material per year for ten years. The assumption was made that the new facility would utilize the same type of compact / movable shelving at the existing archives building. This shelving achieves a density of roughly 4 cubic feet of storage per square foot of space. These numbers were verified by the architectural firm Purple Cherry in a study conducted for the Archives program document submitted June of 2010.

The Archives recommends that the stack areas be constructed of the same type of compact shelving as the existing facility. These mobile, high density units double the storage capacity of any given space by eliminating aisle space. Space conservation should be a consideration not just for the economic benefits of reduced construction costs, but also for environmental reasons. Mobile shelving offers environmental benefits by reducing ongoing energy requirements. More importantly, the tightness with which records are stored actually helps maintain their stability. Finally, they also aid in the retrieval of items given that less energy needs to be expended to get to the record material.

The current modular shelving in Annapolis, in place for nearly 30 years, has stood the test of time. The simple construction has meant that the Archives staff can maintain and repair the shelving units. In addition, they offer a great deal of flexibility and versatility.

Below are various images of the compact shelving within the State Archives Building.



1 Deck 1 storage



3 Stack areas



2 Map Collection

Records Processing

Records being accessioned in to the Archives need to be processed before they reach their permanent home in the stacks. Processing tasks may include appraisal work, re-boxing, indexing, location assignment and generally relate to preparing the record material for the stack storage. The amount of space requested is comparable to the amount of space used for processing in Annapolis.

Electronic Archives

The Archives manages nearly 300 million images online through its many websites. Last year, users downloaded an astonishing 70,000 gigabytes of record material from the Archives.

The following links are website publications by the Maryland State Archives related to Maryland history. These online publications represent value-added material produced by the Archives' staff and include detailed educational guides, enhanced cataloging, interpretation



of select collections, and dynamic presentations of topical research findings.

aomol.net Archives of Maryland Online, currently providing access to over 558,598 historical documents that form the constitutional, legal, legislative, judicial, and administrative basis of Maryland's government

baltimorecityhistory.net - A Guide to Research and Writing about the History of Baltimore City

editonline.us - Transcription and editing of historical documents online

lrac.us - Land Records Access Committee and Image Retrieval System for Maryland

mappingmaryland.net - The Interactive Maps component of the Flight to Freedom project allows historians, genealogists, and researchers to search for Maryland property owners. The site also documents the origins of the current boundaries of Maryland's jurisdictions.

martenet.org - Maryland Historical Maps

mdelect.net - Find your Elected Officials

mdgovpics.net - The Governor's Office Photo Gallery of contemporary photos

mdgovpubs.net - Government Publication Library

mdhistory.net – Research of the Maryland State Archivist

mdhistpics.net - Historical Photographs of Maryland

mdihp.net - Maryland Historical Trust's Historic Sites Survey materials

mdlandrec.net - A Digital Image Retrieval System for Land Records in Maryland

mdmanual.net - A Guide to Maryland Government

mdnewspapers.net - Guide to Maryland Newspapers

mdprobate.net - Digital Image Reference System for Maryland Probate Records

mdroads.net - Maryland State Archives Digital Imaging Management for State Highway Administration

mdsa.net - Maryland State Archives' Homepage

mdslavery.net, slaverymd.net - African American Research at The Maryland State Archives

mdstatehouse.net - This website represents the initial phase of the Maryland State House Historic Structure Report Project

mdvitalrec.net - Vital Records Indexing Project

mopw.net - Montgomery County Public Works

plats.net - Digital Image Reference System for Land Survey, Subdivision, and Condominium Plats

potomachistory.net - Maryland's Ownership of the Potomac River

teachingamericanhistorymd.net - A partnership program bringing historical resource materials and professional-development experiences to K-12 U.S. history teachers



transfer.mdsa.net - Records Transfer and Storage Management

The space requirement was calculated based on existing space allocated to information technology infrastructure including considerable space made available to the Archives at UMBC. The UMBC site provides a redundancy for all electronic holdings of the archives as houses the backup / disaster recovery / business continuity component of the Archives. The MOU which provides this space will expire in six years.

Cold Storage

This element is a sorely needed component of the Archives. We have extensive collections of materials that while presently housed in archival storage, really need to be in cold storage. The space was calculated based on existing collections of such things as glass plate negatives from the civil war era as depicted here. These deteriorating negatives are in particularly bad shape.



Deteriorating glass negatives - peeling emulsion
MSA SC 5349 (H. Hanford Hopkins Collection)

Artistic Property

This project will accommodate the numerous artifacts and objects of the state's fine arts collections as well as providing for a suitable conservation lab to facilitate the long-term goal of restoring the many pieces of the collection to stable conditions.

The facility will require state-of-the-art climate control to protect the electronic data backup systems and for records longevity. It will also require state-of-the-art security protection for the electronic data backup equipment, the scanning and computer equipment, and for the records themselves.



Carvel Hall interior, 1947

Deteriorating film negative - exhibits "channeling"
MSA SC 1672 (Meade Photographic Collection)



The proper way to care for paintings is to hang them in space efficient screens depicted below:



Example of vertical screen storage from the Minnesota Historical Society, (left).



The facilities program document calls for an additional conservation lab for works of art. The new lab should be modeled after the existing paper conservation lab depicted in the next few photos.

The accommodation of a fine art lab, in addition to our paper lab in Annapolis, will greatly enhance the ability to care for paintings and other works of art in poor condition. Often, paintings and objects that require conservation need to be in the laboratory setting for months and possibly even years at a time.

Having an art conservation lab will allow the Archives the opportunity to begin to repair the many, many pieces of fine art in need of attention. It will also afford us the opportunity to lend space to conservators who may not be able to afford a laboratory setting. The Archives has been successful in identifying teaching conservators who utilize their skills as they teach the next generation of conservators using objects within the state's collection. The Archives recognizes that it will never be budgeted the funds necessary to contract for all of the necessary conservation treatment that the state-owned art collections require. However, a thoughtful, cooperative approach with academic institutions will lead to the preservation of the most important items in our collections. It is a model that the Archives has used with a great deal of success and cost savings.



The additional lab space will also allow the Archives to better accommodate some items that are currently in temperature and humidity controlled space at the Archives, but really need to be housed in a different arrangement. For example, the civil war battle flags depicted below are properly wrapped and hung in the Archives large format / map room. They should, however, be stored flat in containers designed for fabric and periodically brought out to the exhibits area for public display.



Civil War Battle Flags



Civil War flag in need of conservation work



The "Outer" Lab is used for staff and preparation



Outer Lab



Inside the paper conservation lab



Proper storage of negatives at the Archives

Staff

Staff spaces were calculated based on DGS published office space standards.

The total amount of space that will be required for staff is 1,426 square feet.

Activity	SF
Archivist / Deputy	250
Warehouse / Reference	
Professional Supervisor Private (1)	126
Professional Supervisor open (1)	120
Professional Open (5)	450
Scanner operator	
Professional Supervisor Open (1)	120
Operators (4)	360
total	1,426

kitchen / lunchroom

Eating in proximity to record material can never be tolerated. A small lunchroom will help ensure that records are protected. Further, there



are no lunch facilities within walking distance and few within a short drive.

Scanning Storage

No record material should ever be left out in the open or staff areas. The scanning storage environment will be used to temporarily house record material that is being prepped for, or awaiting, digitization. The space requirement is based on our experience in scanning operations.

Research Room

Without question, staff from Annapolis as well as visiting scholars and patrons will need space to perform research. This is a very modest amount of space and is based on our recent experiences with the Baltimore City Archives as well as our considerable experience serving the public in Annapolis.

In addition, the Archives plans to explore a concept floated some time ago where we would bring in trustees from the women's correctional institute and train them in scanning and indexing digitized records. The research room would be the space in which we would set up indexing terminals.

Given the close proximity to the Women's Correctional Institution, we think this is a worthwhile endeavor.

Reception Area

Requirement based on published DGS standards.

Conference Space

The Archives is requesting the project include sufficient conference space so that the agency can conduct meetings and training with staff from Annapolis at the Jessup site. The request is above the space allocation of 22 square feet per person, but is deemed to be a conservative estimate of the requirement and appropriate given this will be an adjunct building.

Large Object Storage

Separate and distinct from large objects in the artistic property collections, the Archives must accommodate a considerable amount of very large objects not currently in use. We can, upon request, provide photos to provide a sense of these objects. They range from exhibits not currently in use to very expensive crates specifically designed to transport the most valuable of the art collections. They also include such relics as the *Federalist* ship and her accompanying horse drawn carriage as well as the boat trailer used to transport it about. Presently the trailer and carriage are housed at the old Cheltenham tobacco warehouse along with a great deal of other miscellany. The ship is temporarily on display at BWI Thurgood Marshall Airport. Significantly, this space will also be serve as a temporary storage / retrieval area off the loading dock / processing areas so as not to introduce pests into collections storage area. Objects and records typically must spend at least 24 hours in separable space before they are unpacked.

The space requirement was developed based on a rough survey of the large objects already under Archives control.



While this space does not require the rigorous temperature and humidity controls of the stack spaces, the space needs to be served by regular building HVAC to ensure that the items do not warp and crack.

Loading Dock

An absolutely essential element, this is roughly the size of the Archives loading dock area in Annapolis.

Additional Site Improvements

In addition to transferring usage of a portion of the state-own parcel immediately adjacent to the former Surplus Property Warehouse, there will only need to be a clearing of the currently vacant land.

Utilities on Site

Adequate electrical utilities are on site.

The area is believed to be served by adequate water and sewer given its close proximity to the Women's Correctional Institution.

Network connectivity is very important to the Archives. We understand from the Department of Information Technology that the state's network infrastructure is about one mile from the site but will have to be brought to the site.

Miscellaneous Requirements

The Archives will need some assistance in definitively making the determinations that are outlined below.

- o Within flood plain – not believed to be so. This will have to be verified because the flood map for the area indicated: “No base flood elevations determined. [100-yr Floodplain]”
- o In Wetlands area – no

- o Involves clearing of forested areas – some
- o Within Critical Area – No
- o Effect on historic and cultural programs – no
- o Consistent with “smart growth” policies - yes