Developing a Records Storage System

By Teri J. Mark, CRM, CPM

Records Management Technical Bulletins

This publication, one of sixteen bulletins in the *2012 Local Government Records Management Technical Publication Series*, is a joint effort of the Municipal Clerks Education Foundation (MCEF), the International Institute of Municipal Clerks (IIMC), and the National Association of Government Archives and Records Administrators (NAGARA). Funding for this project was made available, in part, by a grant from the National Historical Publications and Records Commission.

The Municipal Clerks Education Foundation (MCEF), established in 1984, is a tax-exempt, nonprofit foundation under Section 501 (C)(3) created to raise funds for its partner, the International Institute of Municipal Clerks. IIMC uses these funds to promote, train and educate Municipal Clerks, making them proficient in the services they provide for the citizens of their community.   MCEF is a diverse team of volunteers who are passionately committed to helping IIMC pursue its educational objectives.

The International Institute of Municipal Clerks (IIMC) is devoted to advancing the professionalization of the Office of Municipal Clerk and improving the efficiency of municipal government. The IIMC provides its members with educational, conference, reference, research, and informational services designed to keep them informed of changes in the professional community.

The National Association of Government Archives and Records Administrators (NAGARA) is a professional association dedicated to the improvement of federal, state, and local government records and information management programs and the professional development of government records administrators and archivists.

The National Historical Publications and Records Commission (NHPRC), a statutory body affiliated with the National Archives and Records Administration (NARA), supports a wide range of activities to preserve, publish, and encourage the use of documentary sources, created in every medium ranging from quill pen to computer, relating to the history of the United States.

Preface

Like every organization, local governments create and maintain large quantities of records. Many of these records not only are of great value to the local government, but also are of concern and essential to the citizens of the community. Federal and state-mandated program requirements, changes in growth and development patterns, expanded service needs, the use of computers and other technologies for creating and using information, and the proliferation of copies in various formats, have all contributed to this enormous accumulation of records. Each publication is intended to make available to local governments the basic principles, policies, and guidelines that should be followed in establishing a sound records management program and in carrying out sound records management practices.

The series is intended for local officials, with limited resources, who lack formal records management or archival training but who have custodial responsibility for records. These local governments include townships, villages, cities, counties, school districts, and other local political subdivisions and special-purpose districts. Each of the following publications in the series includes a bibliography that refers to other reading for more detailed information and guidance.

Overview:

Starting a Records Management Program, The Daily Management of Records and Information, Making Your Records Management Program Successful, Managing Records on Limited Resources, Funding Your Records Management Project

Creation, Collection and Storage:

Identifying and Locating Your Records, Establishing Records Retention, The Selection and Development of Local Government Records Storage Facilities, Developing a Records Storage System

Preservation, Promotion, Use and Access:

Archives for Local Governments, Protecting Records, Using and Storing Microfilm

Care, Management, and Preservation of Electronic Records:

E-Mail Management, Selecting and Using Document Imaging Systems, Managing Electronic Records, Preparing for E-Discovery

Copies of these bulletins are available on the IIMC and NAGARA websites.
IIMC at www.iimc.com • www.nagara.org

Acknowledgements

Meet the Author: **Teri J. Mark, CRM, CPM**

Teri J. Mark is the State Records Manager for Nevada. She is a certified records manager and a certified public manager with over thirty years of experience in records and information management. As State Records Manager, she manages the Records Management program, which establishes the standards, procedures and practices for managing Nevada's official records. The Program develops retention and disposition requirements, operates the State Records Center, and serves as the primary records management resource for state agencies and local governments. Ms. Mark is a frequent speaker on records and information management topics for various government and professional groups and has authored articles for professional journals. Her book, Organize Your Office: A Small Business Survival Guide to Managing Records published by ARMA International, introduces records management practices to the non-records professional.

Editor: **Dr. Julian L. Mims III, CRM, CA**

Julian Mims is a career archivist, records manager and educator. He directed the local records program at the South Carolina Archives from its inception. He was in charge of the Long Island office of the New York State Archives and Records Administration (NYSARA). As a Vice President and Award of Merit winner of ARMA International, he helped to found a record ten ARMA chapters. Dr. Mims is the author of the International City/County Managers Association (ICMA) best-seller, *Records Management: A Practical Guide for Counties and Cities*, and was editor of ICMA's *Electronic Records Management*. Earning a doctorate from the University of South Carolina in 2001, he has taught at six colleges and universities.

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Dale Barstow Project Co-Director and MCEF President, Municipal Code Corp., *Tallahassee, FL*

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Chris Shalby IIMC Executive Director and IIMC Liaison, *Rancho Cucamonga, CA*

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Introduction

Records are essential to the operation of local government for they are the government's memory of decisions and transactions across a range of legal, business and social issues. Public servants, through this documentation, have the information they need to conduct programs, make decisions, and ensure administrative continuity. Managing records is critical to ensuring a capable, accountable government. Records attest to the delivery of services, provide legal accountability, give evidence of the responsible management and expenditure of public funds, and support the historical development of government and the community it serves. In short, records are a public trust, crucial informational assets for local governments and its citizens. Effective records management minimizes risk to government and enables efficient service to the public.

Inactive Records Storage

An inactive records storage center is a central area for the housing records with too low a reference rate to warrant retention in expensive office space. It is often helpful to segregate *active records* – those records in frequent use, from *inactive records* – records that must be retained and preserved for legal or operational reasons, but are seldom referenced.

Active records are those records most frequently referenced in daily operations. Active records follow dynamic business transactions; they need to be well organized and easily accessible in the main office environment. Not all offices are fortunate enough to have much available filing space. Most governmental offices have limited storage space; storage in an inactive records center may be the solution.

The business case for creating a records center includes reduction in records volume and filing equipment in the high-cost office space.

Determining Need

Inactive records are typically stashed in closets, basements, attics, storage sheds, abandoned jail cells, rented storage units, or anywhere a little free space exists. Access to the boxes is typically limited by content information written on the box end panel. If a record is requested, staff can spend hours, even days rummaging through multiple boxes in search of a much-needed record.

Little thought goes into the consequences of such haphazard storage; basements flood, sheds are susceptible to wind damage, rodents nest in attics, desert heat bakes paper, records mold in high humidity, and identity thieves steal unprotected records. The consequences: records are placed in potential jeopardy, unintentionally destroyed; or lost - - local government pays the penalty.

Records management controls the storage/retrieval of inactive records. Managed control allows the records center's supervisor to oversee and maintain a records storage area for the benefit of the entire governmental entity.

Estimating Cost Savings

A records center's cost advantage over office space is based on a combination of location and storage density:

- A four-drawer letter-sized conventional filing cabinet holds 6 cubic feet of records but consumes roughly 11 square feet of floor space, including cabinet foot print, drawer extension and user access space. (Bennick 62-63) Assuming office space rents for $18 per square foot per year, then the annual cost of records storage per cubic foot of records is $33.

- Compare this to a typical records center facility, which maximizes the use of space with high-density rack shelving. Warehouse storage space is less expensive than office space – records center warehouse floor space costs two-thirds less than office floor space. Since records are stored in boxes on shelving racks, the storage ratio can be as high as 5 cubic feet of records per square

foot of floor space. (ARMA International 6) The annual cost per cubic foot of filing can be reduced to as little as $2.20 per cubic foot.

Estimating Volume

The essential tool to estimate the volume of inactive records is the record inventory, the foundation of all records management plans. A records inventory is a descriptive list of all the different types of records, also known as *records series*, retained within the entity. A records inventory ascertains the quantity of records, their physical and environmental condition, how often they are referenced, and where they are located. The inventory can also identify the annual growth rate of the inactive records; typically the volume of the records center will grow an average of 15-20% per year, which includes new boxes, minus destroyed or permanently removed records. (ARMA International 4-5)

In-house vs. Commercial

Once the total estimated space needed is known, the next step is selecting an appropriate facility to house the records. Typical choices are establishing an in-house facility, or contracting with a commercial records center storage vendor. Rather than building a warehouse or renovating an existing warehouse, purchasing shelving, material handling equipment, and software, and hiring records center employees, a local government may find that outsourcing its inactive records is a more viable option. A commercial records center is a vendor with a facility for box-storage and related services. Vendor rates include monthly cubic-foot charges and service charges related to retrievals/deliveries, re-files, disposals, and (if applicable) permanent withdrawals. Detailed costs analysis will determine which option is better.

Facility Planning

The facility must be secure, and provide a suitable environment for records storage. Records should be stored in fire-resistant buildings, with temperature/humidity levels maintained to insure optimum longevity for paper, film, discs, or tapes.

Public records of enduring value should not be stored where:

- heat, drips, or condensation from pipes could damage them

- windows, doors, walls, or roofs are likely to admit moisture

- they will be exposed to sunlight or extreme temperature variations

- they are not adequately protected from rodent or insect infestations.

Selecting a Facility

When selecting a facility, factor in security and safety, plus protection from adverse environmental conditions and pest infestations. Office storage areas or an adjacent warehouse may work, and less ideal, but frequently available, are basements. If used, the space must be continually monitored for ground water flooding, broken water pipes, insect/rodent infestations, or other threats.

Records centers built/maintained as warehouses maximize space and provide the greatest economy for holding records. While storage rooms offer some economy, they are usually viewed as potential office space – records centers are not. It is important to identify, and firmly claim, space that will continue to be committed to records storage.

Maintaining records in commercial, self-storage warehouse or any another unsecured remote location is not advised Without security, boxes are vulnerable to vandalism and box confidentiality cannot be guaranteed. Self-storage units lack security and expose records to insect or rodent infestations. In addition, the contents of neighboring units are unknown, they could be harmless or they could contain hazardous materials such as flammable painting supplies or gasoline.

Facility Requirements

Storage facility condition/protection is important. Since the governmental entity is responsible to preserve these records, records stored off premises must be maintained with the same, or better, security and protection as an office environment.

- Locate in a clean, fireproof building equipped with fire alarms, a fire suppression (sprinkler) system, and the recommended number of fire extinguishers. Consult with the fire marshal to ensure the facility is in compliance with local regulations.

- Ask a structural engineer to ensure the floor is strong enough to support the weight of the records.

- HVAC system inspection will ascertain ability to maintain/sustain temperature/humidity controls with maximum temperature of 70° F (21.11° C) and humidity level at 30 to 50 percent. (Saffady 108-111)

- If the facility is located in a flood plain or below ground level, install an early warning water leak or moisture detection alarm system.

- Ensure access to a reliable freight elevator.

- A loading dock/receiving bay will be needed.

- Adequate lighting will enhance reference and promote safety.

- Guard against obvious environmental hazards, such as overhanging water pipes and chemical storage areas. Establish periodic controls for protection from rodents, insects, dirt, mold, and other hazards.

- Secure the facility from any unauthorized entry. Restrict access to the area and install an intrusion alarm system.

The National Fire Protection Association (NFPA) periodically updates its publication for records center storage facilities, *NFPA 232 Standard for the Protection of Records*. It details requirements for records storage facilities to protect records in various media forms from fire hazards. It addresses records storage in vaults, archives, file rooms, compartmented records centers, and records centers, and is essential when designing a facility. (NFPA 5)

Space Planning

Other space, in addition to the storage space, must be planned. Facility size and box volume will determine the need/size of these areas. Visit other area records centers before developing a plan.

Staging area. Temporary holding areas for records while processing. Ideally two areas, one to process incoming and a second to process outgoing. Absent two staging areas, proper procedures avoid accidental records destruction/misplacement. Staging areas should be secure and access controlled.

Work and Reference areas. Staff work stations and user tables/chairs to support records on-site review.

Equipment

A records center envisions the solution of high-density storage; space utilization should facilitate accessibility.

Containers

Inactive records are most efficiently housed in standard-sized storage boxes. Commonly used is a "letter/legal" box, measuring 15" x 12" x 10" in which both letter-size and legal-size records fit, with a storage capacity of one cubic foot. Packed boxes average around 35 pounds, hand openings aid easier lifting.

Shelving

Equip with industrial-type steel shelving constructed of 18-gauge steel, with shelves measuring 42 inches wide and 15 inches deep (accommodates three boxes across, one deep) or 42 inches wide and 30 inches deep (three boxes across, two deep). Quicker access to records is via only one layer of boxes per shelf. (ARMA International 10; Saffady 106-107)

Unit height depends upon ceiling allowances and acceptable distance from the highest shelving unit point to a ceiling fire sprinkler (typically 18 inches, see local fire code). Standard shelving heights range from 5 to 10 feet, with an additional 3 or 4 inches allowed to keep the bottom shelf off the floor. Shelving 6 feet or higher requires a ladder to reach top shelf boxes. (ARMA International 10-11; Saffady 107)

Back–to-back shelving can maximize storage space/unit stability Reinforce shelving with nuts, bolts, and lateral braces, and floor anchors Follow recommended shelving design/installation guidelines found in a seismic area local building. (ARMA International 10)
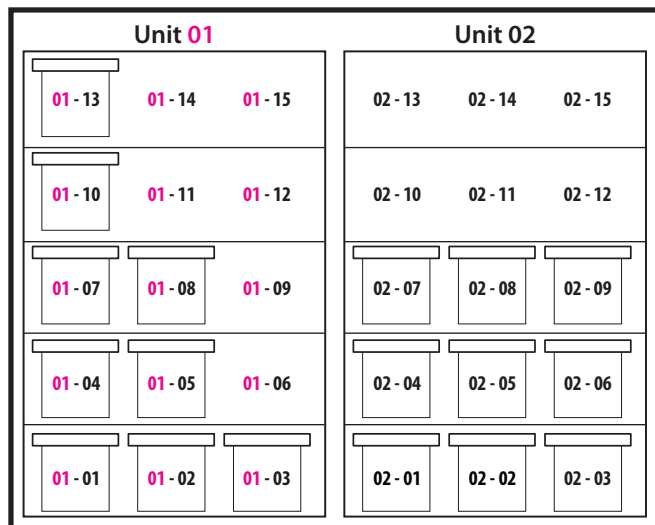
Shelving Layout

Records center layout is a key factor to achieving efficiency in space utilization. Begin with a floor plan. On it show all configurations, such as columns, doorways, stairwells, ventilation, overhead pipes, and lighting; note everything that will affect square footage available for shelving units.

Design the shelving layout in the most cost-effective scheme possible. For example, long rows may be more economical than numerous short rows, yet excessively long rows will limit accessibility. Set the aisle space approximately 36 inches wide to promote access. Wider aisles may be necessary for access equipment, such as ladders or carts. For safety/access, avoid dead-end aisles. (ARMA International 10, Saffady 107)

Leave a few inches of free space between shelving unit and wall to allow circulation. Place bottom shelves approximately 4 to 6 inches above the floor to allow airflow and to protect against flooding. (ARMA International 10, Saffady 107)

Within the unit, each space is assigned a unique address: a unit-space numbering system. To create an address, assign each shelving unit, and each space within the unit, a number.

Unit 01			Unit 02		
01 - 13	01 - 14	01 - 15	02 - 13	02 - 14	02 - 15
01 - 10	01 - 11	01 - 12	02 - 10	02 - 11	02 - 12
01 - 07	01 - 08	01 - 09	02 - 07	02 - 08	02 - 09
01 - 04	01 - 05	01 - 06	02 - 04	02 - 05	02 - 06
01 - 01	01 - 02	01 - 03	02 - 01	02 - 02	02 - 03

Each box put in storage is assigned an address. This address is written on the box and stays with the box until box contents are destroyed. Using a permanent marker pen, write the address on the narrow end of the box below the handgrip.

077

01-06
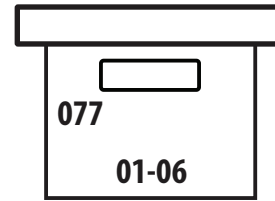
Access Equipment

Determine additional equipment needed to retrieve/move the boxes, such as rolling safety ladders, hand carts, flatbed carts, manual or electric pallet jacks, conveyors, and portable hydraulic lifts. Adequate equipment enables the staff to retrieve records safely, in the shortest possible time.

Software

Implement commercial-off-the-shelf (COTS) or customized box inventory/tracking software to manage/control the inventory. Typical functions include: locating box/file, checking out/in boxes/files, tracking disposition, tracking charge-backs, adding new inventory and reporting activity. Barcode labels affixed to storage shelving and boxes facilitate tracking.

Operations

Records center effectiveness is directly dependent upon how well it is managed. Management needs to be systematic and consistent, with each process clearly defined and documented.

To ensure compliance with standard records management practices, the inactive records center should be administered by the records manager or the appointed records officer.

It is the staff's duty to ensure:

- Requests are serviced in a timely and accurate manner.
- Records are guarded against inappropriate access.
- Records are preserved in an environmentally appropriate space per the retention schedule.
- Additional records service needs are addressed in a professional, courteous manner.

Budget

Record center planning should include total cost analysis of operating the facility. Space occupancy costs, such as rent, utilities, janitorial service (if not included in the rent) and shelving installation, should be expanded to other operational/administrative costs associated with the facility:

- Office/administration: wiring, telephone system, photocopier, fax, and computer equipment, shredder, microfilm equipment, imaging equipment, offices supplies, and furnishings.

- Equipment, purchase and on-going maintenance.

- Staff salary and benefits.

- Supplies: boxes, labels, shrink wrap, shredder bags

Records Center Policy

With the approval of upper management, establish a policy that governs the processes of the records center. The policy should explain the purpose and scope (whom it affects) of the records center. It should also stress the advantages of inactive storage, such cost savings, security and records stewardship. The policy should note the effective date, and have affixed the signature of the approving authority,

> *Policy statement example*: The records center provides safe, economical, high-density storage of inactive records that must be retained for legal or operational reasons but are infrequently referenced; active records are not eligible for transfer. All records stored in this secured facility remain under the jurisdiction of the creating office until they are destroyed according to the approved records retention schedule.

Records Center Processes

Procedures must be established to manage records center processes. Intellectual and physical control must be maintained at all times.

Transfer to the records center. This procedure outlines the process to transfer records to the records center. Since these functions are usually performed by office staff who are transferring the records to the records center, these procedures must be clear,

detailed instructions on how to perform these tasks. The procedure should include how to organize/pack the records; instructions for completing the Transfer Request form, (which much like a packing list details all of the information about the records being transferred); the process to submit the Transfer Request form to the records center; and the accepted methods to transfer the records to the records center.

Retrieving records. This procedure explains the process for requesting records. The procedure will include who has the authority to request records; instructions for completing the Records Request form; how to submit the Records Request form; the expected time frame for fulfillment of the request; accepted methods to deliver the records to the requestor; and, if any time limit exists on how long the records may be checked out.

Returning records. This procedure describes how to return records to storage. It identifies the necessary documentation that the records center needs from the originating office to re-file the records, and the accepted methods to transfer the records to the records center.

Destruction. This explains the records disposition process. Included is an explanation of the Disposition Notification form; if the originating office must respond to the Disposition Notification, and if so, how and within what time period; the approved disposition methods; and procedures for the records center staff to perform the destruction. Also included is a procedure for suspending destruction; approved reasons that may trigger a disposition hold; and how the records center monitors disposition holds.

> *Legal Hold policy example*: Preserving information related to a lawsuit, investigation, or audit is the responsibility of every employee and department. Notification of legal holds and termination of legal holds must be reported in writing to the Records Management division.

Documentation. Records center manuals document these processes for records center staff and users/customers. Manuals assist in records center staff training and establish a standard method for performing the job. Consider posting the user/cus-

tomer manual on-line to permit those who use, or are directly affected by, policies and procedures to have quick, efficient access to current procedures.

Maintenance

Ongoing management/maintenance of the records center requires periodic documentation of activities and analysis. Data collected provides valuable statistical information to the records manager for developing a budget, planning for expansion, improving processes, and justifying value.

Reporting

Weekly and/or monthly activity reports the number of boxes transferred, destroyed, retrieved, and returned for re-filing; and the amount of vacant space available. These reports identify successes of the facility, for example, the volume of records removed from active office space. They also pinpoint unexpected irregularities, such as box transfers that are exceeding (or less than) planned growth projections.

Measuring Efficiency

Another benefit of statistical analysis is ability to measure efficiency of records center staff. An annual review of procedures should identify any performance weaknesses, if additional staff training is required or recommended, or if processes need change. The main objectives are to identify/document key processes; measure/document workload; validate manpower requirements; identify process improvement opportunities; and improve business practices in order to enhance efficiency, improve customer service, and save money.

On-Going Maintenance Requirements

These requirements ensure continuous preservation, protection and upkeep of records center holdings through regular maintenance procedures. Failure to maintain the facility will result in unclean, untidy and unprofessional premises, giving a negative impression to visitors/users, and making it an impractical or unsafe place to work. Maintenance includes keeping boxes off of the floor, making sure all boxes are refilled by the end of the day; inspection of boxes/labels, replacing damaged items; and regularly

scheduled equipment maintenance, facility cleanings, and pest control services.

Summary

The business case for creating a records center includes reduction in records volume and filing equipment in the high-cost office space. Effective records storage manifests efficiency and economy.

The two types of storage options are an in-house and a commercial storage vendor. When selecting a facility, factor in security and safety, plus protection from adverse environmental conditions and pest infestations.

Records center layout is a key factor to achieving efficiency in space utilization. Management needs to be systematic and consistent, with each process clearly defined and documented.

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