



British Columbia
Museums Association
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Best Practices Module

FACILITY MANAGEMENT

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Introduction

When a museum has a collection, there is a need for a well-managed facility to care and preserve it. While larger institutions will have a position of Facilities Manager, in a smaller museum a Director or Assistant Director frequently fills the role. So where the term “Facilities Manager” is used, substitute who ever in the institution does this job. No matter what size the institution, the requirements are all the same. It is only a matter of scale. In most museums, the facilities portion of a budget is normally over 50% of the total budget. Yet, the loftier programs of the museum sometimes overshadow its importance.

A museums reputation in its community is frequently determined by how well the facility is managed. A museum should always aim to being an environmentally conscientious community leader and the facilities program is the best way to achieve this.

If the museum visitor has an enjoyable and memorable visit, it is because of content and comfort. It is the role of the Facilities Manager to ensure the comfort.

All museums have various programs to fulfill their mandate. In this case, the Facility is the program. The Facilities Managers **P**rogram is to integrate the **P**eople with the **P**urpose and the **P**lace.

Areas of Responsibility

The areas of responsibility will vary from museum to museum, listed below is what you would commonly expect. In a small museum, the tasks might be divided among a few staff.

Public Safety

Business Continuation Plan

Environment

Building Maintenance

Workplace Safety

Security

Space Planning

Systems / Telecommunications

Facilities Budget and Reports

Facilities Asset Management

Public Safety

Public safety is one of the most important roles of the Facilities Manager. Every museum must have a Fire Safety Plan. Sample Fire Safety plans are available from the *Office of the Fire Commissioner*. One of the main components of a Fire Safety Plan is having footprints (floor plans) posted in every area, showing the location of fire extinguishers, exits and egress routes. While an emergency evacuation plan is part of the Fire Safety plan, it should contain the procedures to ensure the building is completely cleared and that no one can re-enter until permitted (this should be part of the daily closing procedure). In BC, (at least on the coast), you must do an Earthquake Risk Assessment, identify the areas of greatest risk or hazard, and then do what ever is required to mitigate the risk. (See the BCMA Risk Management Module by David Hall and Rick Duckles for further details).

The facility should be inspected daily, prior to opening, for any hazards such as flammable material in a stair well or equipment left in a hallway.

Business Continuation Plan (BCP) (Sometimes called a Disaster Plan)

The BCP is the most important plan for any museum to have. The concept is after any disruptive event, to restore the operation of the museum as quickly and efficiently as possible. After an event, the short-term plan should be quick assessment and action. The long-term plan should be a learning experience and improved plans from the short-term.

Developing a BCP can be an intimidating task and can take a long time to complete. It then must be kept up-to-date. The first step is Risk Management. It should cover all possible scenarios that could interrupt the function of the museum. It should have:

- **An events log**
- **A plan** for each possible scenario
- **A list of the equipment needed** for each scenario
- **Emergency responses** to Fire, Earthquake, and Bomb threat
- **An hierarchy of staff** contacts
- **Recovery procedure** for each area that could be affected
- **Emergency Communications Plan**
- **A list all outside contractors** that might be required
- **A list all regulatory agencies** that might have to be involved
- **A list of possible alternative storage and office space**

The plan should be distributed to each staff member involved, so that they have a copy at home as well as at work.

In the event of a total closing of the facility, a remote command center should be identified. For smaller museums, this may well be a staff member's home. Larger institutions may require Internet and a telecommunications setup.

TIP:

The Royal British Columbia Museum (RBCM) has a well-developed Business Continuation Plan that is available to BC Museums. It can be scaled down to suit any museum. Request a copy from the RBCM.

TIP:

The Facilities Manager should evaluate that in the event of an external disaster in the community, could the facility be made available for triage, shelter or a command center?

Environment

The Facilities Manager has three environmental concerns: Public Safety, Staff / Volunteers and the Collection. Unfortunately, each of the three sometimes have different requirements for temperature and relative humidity. Larger institutions with the most sophisticated HVAC systems give some control, but in smaller institutions there is very little environmental or HVAC control especially with large climate variations. Nevertheless, it is important to know what the environmental variations are and do your best to provide a good, working, stable environment.

Building Maintenance

Cleaning

Nothing will turn a visitor off faster, or provoke an irate conservator more, than inadequate cleaning. Not only is it unappealing, but uncleanliness can create an environment for pests that can do a tremendous amount of damage to a collection. A cleaning standard and schedule must be established. Regular checks are done to ensure cleaning staff meet that standard. Special cleaning may well be required for upper levels, collections and storage spaces. All air and heating ducts must be inspected and cleaned as required.

Regular maintenance

A maintenance schedule for all building systems needs to be established and adhered to. Lighting is such an important part of museum displays, but all too frequently burnt out lights are not changed quickly enough which, as well as diminishing the visitors' enjoyment, can be a safety hazard in a public area such as a stairwell.

In many museums, the municipal or regional government or a building maintenance company provides services. While this may have some advantages, it can be a security headache and does not negate the Facilities Managers responsibility to ensure that the work is completed to the expected standard. One cannot expect a service contractor to have the same regard for the collection as museum staff. Therefore, one must take the time and have the patience to educate and supervise the contractors while they are working in a collection sensitive area.

Whenever there is some renovation or construction work going on, there is not only an increased security risk to the collection, but the added risk of damage by dust, water or fire. Museum staff must be extra diligent to mitigate the risk.

Energy

In today's world of increased awareness of energy use and global warming, it is very important that a museum does an energy audit and does everything it can to reduce and conserve energy. Motion controlled and timed lights, more efficient light bulbs and effective recycling programs are some examples that can make a difference. Having an energy consultant do an audit for you can frequently save you money. Many energy saving measures have a cost recovery of two to five years. All levels of government are interested in energy conservation and many have financial assistance or grants for energy audits. One Federal program from the *Office of Energy Efficiency* has just ended, but there may well be more available in the future. Contact them and enquire.

TIP:

BC Hydro is an excellent source for information on grants and other energy hints.

Workplace Safety

The Facilities Manager, or in the case of smaller institutions the director / curator, is answerable to more regulating bodies than any other position in a museum. The following are a few examples:

- **Local building inspectors** for all building changes and renovations
- **Health inspectors**, if food is prepared on the premises.
- **Fire Department inspectors** do annual inspections and require regular fire drills.
- **Workman's Compensation Board (WCB) Inspectors.** WCB governs all aspects of workplace conditions, safety training, air quality, WHMIS; First Aid, etc.
- While museums are generally safe places to work, frequently there is asbestos insulation and quantities of alcohol and other chemicals that must be properly handled.
- At the RBCM, the Facility Manager is a permanent member of the museum's *Occupational Health & Safety Committee*.

TIP:

The Facilities Manager should elicit advice and suggestions from these inspectors and then follow through on it. If they know that the Facilities Manager and the museum are responsive and keen on doing the right thing, they can be very helpful.

Security

A good security plan is like the layers of an onion and the museum's collection should be at the core. Every door should be an obstacle to an unauthorized person.

It is essential that all individuals who are responsible for facilities management make themselves familiar with the principles of CPTED (*Crime Prevention Through Environmental Design*). Vandalism and graffiti is becoming a major nuisance and cost. Doing a CPTED review of your facility and landscaping could help keep the building free of spray bomb artists. Keeping the CPTED principles in mind when planning an addition or renovation will avoid problems in the future. I recommend: *Crime Prevention Through Environmental Design* 2nd Edition by Timothy D. Crowe (available through Amazon.ca for under \$30.00)

Building

A security risk assessment of the building should be carried out and all weak or soft spots must be corrected. Frequently, this is not difficult or expensive. For example, better door locks, locks on windows, etc. Simple perimeter monitored alarm systems are not expensive and can be installed with minimal disruption. Securing a museum at night is most important. The Facilities Manager must be able to ensure, with normal security staff levels, that the building is clear and no unscrupulous person is hiding, waiting for everyone to leave. This will require a physical inspection of all publicly accessible areas at the closing of the facility. Before opening in the morning, ensure that all public areas are secure, clean and safe for the public.

Key control is the heart of museum security. If you don't know where the keys are or who has them, security is jeopardized and it might be a time to re-key and start a key control system. Good key control will determine who has access and where. Card access systems that used to exist only in large budget institutions are coming down in cost, so they are now within the means of smaller museums. While the initial cost is higher than a keyed access system, it provides much better security and can save money in the long-term. A card access system not only controls access, but can identify who and when an individual has had access.

Photo identification is very valuable in any size museum, as it clearly identifies museum staff to the public. A simple word processor and a digital camera will allow the smallest museum to produce their own photo ID.

The ID and keys must be turned in at the end of the workday as a security measure. This allows a quick assessment of who is still in the building in case of an emergency and will help keep keys and ID from being lost at home.

Collections

Collection managers are very good at curating and caring for a collection, but frequently they need to be reminded about the need for good access control and keeping the collection secure at all times.

Staff Safety

Staff and volunteer security is too often overlooked until something unpleasant happens to bring it to the forefront. Staff and volunteers should not be at risk from robbery or harassment while they are carrying out their duties. They should have a means of summoning help if required. They should also feel comfortable in exiting the museum at night. Looking at your exterior lighting and landscaping from a CPTED perspective can certainly be a big help.

Exhibit Security

Exhibits, whether permanent or traveling, should be critically examined for collection security and with CPTED principals. Some of the most popular traveling exhibits from some of the largest institutions can be security nightmares. Open exhibit cases are a temptation for young children. Accessible spaces in corners or behind exhibits are places for children or nefarious individuals to hide and require extra security staff and diligence to ensure that the exhibit is secure at night.

TIP:

Many local police and RCMP officers have now had CPTED training and may be available to do a security audit or review of your premises or exhibits.

Security Staff

Security staff are frequently the only museum staff the museum visitor comes in contact with. Therefore, it is imperative that they are identifiable, pleasant, courteous, presentable and well informed. In the event of an emergency, the security staff must be well trained to take control of the situation, safely evacuate the building and assist emergency personnel. Many small local museums do not have dedicated security staff, so all staff and volunteers that come in contact with the public must be aware of what security measures are required to ensure that the building can be evacuated quickly and safely in an emergency or at closing.

TIP:

Security staff are your front line, so they will be asked questions. Therefore, they need to know what is going on with exhibits, programs and anything else that the visitor may want information on. Making an effort to keep security informed pays off for the visitors as well as giving the security staff a sense of ownership.

Space Planning

Space planning is one of the hardest tasks for a Facilities Manager. The amount of space required will be 50% more than the amount of space available. When planning an expansion or renovation, a well thought out space plan can save you years of headaches and a lot of money.

TIP:

The ARES (formally the BCBC) Government Office Space Standard is available to all and can be used or adapted to suit your needs.

See: http://www.bcbc.bc.ca/Doing_Business_With_Us/Technical_Manuals/goss/

TIP:

*In dealing with staff over space issues remember the “4 F’s” of good management ... be **Firm, Fair, Factual & Friendly***

Systems / Telecommunications

In small to medium size museums, the Facilities Manager will normally install all systems and phones. In larger institutions, systems people will have the responsibility of connecting their own equipment, but the Facilities Manager must ensure that the systems people run their wires without jeopardizing the integrity or security of the building.

Facilities Budget & Reports

As previously stated a facilities budget is frequently the major portion of a museum's budget. It is usually a major portion of the operations budget. Since most museums funding comes from a variety of grants and sources and is never enough, the facilities budget is well scrutinized. Every penny spent on the facility is a penny that is not available for research or exhibits.

A facilities budget is both complex and simple. The major portion of a facilities budget will be for accommodation, utilities, cleaning and contract staff, which is easy to manage. The few dollars left will probably be divided up into 50 different itemized categories that will require most of one's budgeting time.

Monthly Reports

Monthly reports should include the month's activity, all unusual events, and any expenditure that was not in the budget forecast.

Even if your museum does not require monthly reports, it is highly recommend that one be written, because when you write the annual report all the information you need is at hand.

Annual Report

An Annual report will contain the information that the Director will present to the board. It should outline what the Facilities Program has achieved over the year, how it has improved the facility, what will be required in the future, what the facilities budget forecast is, and a list of all fixed assets.

Benchmarking

Setting a standard by which one can compare performance and costs is more important in a larger museum, but even in smaller ones benchmarking energy consumption, public and staff complaints, and cleaning can give an idea of how effective the facilities program is.

TIP:

Call other museums of comparable size and find out how they set their standards and how much they are paying for similar services.

Facility Asset Management

Every facility has assets that represent the operation. It is important to know what the key assets are such as furnace, boilers, pumps, Fire Prevention Systems, alarms, vehicles, etc. What are the costs of operation and what is their life cycle? Knowing the life expectancy of assets helps with budget planning and allows one to develop a replacement program to upgrade or replace at one's convenience.

TIP:

It is well worth the investment of bringing in a consultant to do an audit of equipment and provide the information to develop an effective assets management program. It will make a smooth running facility and may well avoid the need to bring out the Business Continuation Plan.

Final Thoughts

It is imperative for a museum Facilities Manager to develop and maintain a good working relationship with all staff and volunteers. No other program crosses so many areas that directly affect the lives and environment of every person that comes through the door. A facilities manager with limited staff cannot possibly carry out their program without the cooperation of museum staff.

Walk through all spaces at least once a month or once a week preferably. Talk to the staff and ask them to let you know if there are any problems.

Collection areas can become cluttered very quickly as artifacts arrive waiting to be catalogued and accessioned. Make sure that all aisles and egress routes are clear. It might be necessary to paint yellow lines on the floor to delineate areas that must be kept clear. Look for items stored on top of cupboards or cabinets that might interfere with a fire suppression system and materials that are too close to a heat source.

TIP:

Take a walk through all spaces at night with the lights off. Are the egress routes clearly identifiable in the dark? Some luminescence tape can help mark door knobs, light switches and egress routes. There are some readily available, inexpensive rechargeable emergency lights that plug into a standard 110 outlet and will come on in the event of a power failure.

Tools for the job (Other than a hard hat)

A good spread sheet such as Excel is essential for the budget as well as tracking the individual components of the budget such as phones, vehicles, supplies, movers, space, etc.

A project management software program such as MS Project is extremely helpful.

A good drawing program such as Auto CAD is essential for space planning, renovations and any building changes. Current floor plans can then be made available to the fire department and anyone else that could use them.

Joining an organization such as the *'International Association of Museum Facility Administrator'* (see: <http://www.iamfa.org>) can provide you with many tools and a network to other institutions providing information and advice. The annual cost is within the budget of any museum.

While there is dedicated facilities management software programs available, they are expensive and usually focused on larger organizations (I've never tried one).

Resources

Books

Facilities Management Casebook, Keith Alexander. 1996

Benchmarking, Robert C. Camp

Crime Prevention Through Environmental Design 2nd Edition, Timothy D. Crowe, National Crime Prevention Institute, 2000.

Designing Safer Communities, National Crime Prevention Council

The Facility Management Handbook 2nd Edition, David Cotts 1999.

Pamphlets

Assessing Risk to Collections, Royal British Columbia Museum (RBCM) and University of Victoria Cultural Resource Management Program

Before Disaster Strikes, Institute of Real Estate Management
See: <http://www.irem.org/>

Financial Management Module and *Risk Management Module*, BCMA
(David Hall and Rick Duckles)

Suggested Guidelines in Museum Security, American Association of Museums

Internet

Design Centre for CPTED

See: <http://www.designcentreforcpted.org/>

Victoria Police Department, Crime Prevention through Environmental Design

See: <http://www.city.vancouver.bc.ca/police/operations/comServ/cpted.html>

Natural Resources Canada, Energy Audit

See: <http://oee.nrcan.gc.ca/industrial/financial-assistance/existing/audits/>

Fire Safety Plan, Office of the Fire Commissioner

See: <http://www.pssg.gov.bc.ca/firecom/fsp/index.htm>

Human Resources and Social Development Canada, Guide to Fire Safety Planning. See:

http://www.hrsdc.gc.ca/asp/gateway.asp?hr=en/lp/lo/fp/fire_safety_plan/introduction.shtml&hs=fzp

Resources, cont'd...

Government Office Space Standards

See: http://www.bcbc.bc.ca/Doing_Business_With_Us/Technical_Manuals/goss/

International Association of Museum Facility Administrators

See: <http://www.iamfa.org/>

Museum Security

See: <http://www.museum-security.org/>

See: <http://elib.zib.de/museum/voc/>

See: <http://palimpsest.stanford.edu/waac/wn/wn18/wn18-2/wn18-206.html>

Threat Management Program, Justice Institute of BC

See:

<http://www.jibc.bc.ca/courts/programs/Threat%20Mgmt/Threat%20Mgmt%20Main.htm>