

## 3.4 Need for Effective Maintenance & Management

After reading through the preceding sections of this Chapter, readers can appreciate the size and complexity of problems and the paramount importance of effective maintenance and management. Formulation of long-term maintenance as well as surveillance and control plans are initial steps to ensure a safe and pleasant living environment.

### 3.4.1 Principles of Long Term Maintenance

Effective maintenance of buildings not only improves the quality of living environment but is also a vital means to uphold or even raise the value of properties.

Maintenance in general can be classified into servicing, repair, replacement and upgrading. There is also a marked difference in terms of methods, management and the result of "breakdown maintenance" versus "planned or preventive maintenance".

Planned maintenance gives the owners and the property managers more time to prepare for the works and, more importantly, to secure the necessary funding. It usually starts out by a thorough condition survey to assess the current situations, identify the full extent of works required and lay down the level of expectation. Considerations include implementation programs, standard of performance and reliability, as well as maintenance strategy, budget, and life cycles of certain elements and facilities.

Daily maintenance of essential features such as cleaning of surface water channels to avoid blockage of drains, servicing of small components of equipment or easily wearable items such as children's play furniture are essential to ensure safe and smooth operation. A detailed plan for maintenance to be carried out everyday should be drawn up as per the equipment supplier's recommendations, needs and expectations of the owners and priority in allocation of resources.



Section 4.4 of Chapter 4 provides more details on this subject.

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#### 3.4.2 Principles of Inspection, Surveillance and Control

##### (a) Inspections

##### (i) Day-to-Day inspection

The day-to-day inspection is to ensure the proper and safe functioning of different building elements, installations, services and facilities of a building. Examples of items that should be included in the checklist are:

- water pipes and pumps;
- gates and locks, fire doors and closers, intercoms and TV signaling, lights and fittings;
- hose reels, nozzle boxes and alarm glass;
- letter boxes and breakable panels;
- security TV and cameras, timer switches;
- surface water channels, drains, manholes covers, oil interceptors and grease traps;
- club facilities, flower beds and planters, playground equipment especially children's play furniture such as swings;
- staircases, windows, lobbies, false ceiling, sprinklers;
- air-conditioning units and pipes for coolants and condensate water; and
- building structures, external appendages and finishes.

Fire has taken many lives in the past. Readers' attention is drawn in particular to the importance of inspecting the provisions in fire service installations and means of escape as follows.

##### (ii) Special inspections

##### Means of escape

- Fire resisting doors, smoke lobby doors and staircase doors should be kept closed, and the door-closers should work effectively. All such doors shall bear appropriate signs reminding people that they should always be kept close.



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#### 3.4.2(a) Inspections (continues)

- No alteration such as door or ventilation openings should be made to walls enclosing staircases, smoke lobbies and exit routes unless prior approval from the Buildings Department (BD) on these alterations has been obtained.
- Staircase windows and vent openings should not be blocked. Normally, the frames should be made of steel instead of aluminum in order to comply with the required fire resisting requirements.
- Artificial and emergency lighting in staircases and exit routes including battery operated exit signs should be maintained in working order.
- The swing of doors or gates should not encroach onto exit routes, such as common corridors, staircases and rear lanes, causing obstruction to escape.
- Doors or gates in common parts should be readily openable from the inside without the use of a key.
- Doors giving access to the roof of single-staircase buildings should be readily openable from the inside without the use of a key.
- Exit routes should be free of any obstructions such as racks, shelves, cabinets, storerooms, or rubbish.
- Access from one stairway to an alternative stairway via a common corridor should best be available on each floor.
- Exit stairs at ground floor level should be separated from the rest of the building, such as storerooms, ground floor shops or other uses.
- Exit doors should open in the direction of exit when the room capacity exceeds 30 persons.
- Doors or gates should be set back at ground floor exit where there is a drop in level or a step. When they open outwards, they should not obstruct the public pedestrian flow.



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#### Means of access for firefighting and rescue

- Fireman's lifts are used by firemen for rescue in the event of fire. Access to fireman's lift at ground level should be available directly from a street and free from obstructions.
- Fireman's lift lobbies protect the firemen in using the lift for rescue. No alteration should be made to the lobby walls and doors.
- Exit staircases are used by the firemen for both access and rescue purposes. They should be free from obstructions.

#### (iii) Inspecting fire resisting components and construction

##### Regular maintenance

Buildings are made up of different components. Some of them are designed to be fire-rated for resisting spread of fire. Building owners should keep these fire-resisting components under proper maintenance. Unauthorized alterations to such components may affect their fire-resisting ability and thus the fire safety of the building and its occupiers. If there is unauthorized alteration or defective fire-resisting component, the advice of an Authorized Person (AP) on the conditions and remedial proposals is necessary. This section introduces the common types and functions of fire-resisting components and construction in a building. They should not be altered without proper professional advice and the prior approval by the Building Authority.

##### Walls and Floors

Most of the walls and floors in buildings serve to prevent the spread of fire and smoke from one part of a building to other parts, or from one building to another. No unprotected opening should be made in such walls and floors. If in doubt, the building owners should seek advice from an AP.

##### Staircases

Other than the required fire-fighting equipment and artificial lighting installations, staircases should not normally accommodate electrical cables, air ducts or similar services. Otherwise, such installations have to be properly protected by appropriate fire resisting enclosures.



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#### 3.4.2(a) Inspections (continues)

##### Fire-resisting door (Fire door or smoke door)

Fire-resisting doors prevent the spread of fire and smoke from one part of a building to others and therefore must not be removed. They should have adequate fire-resisting properties with self-closing device to keep them in a closed position. Replacement should be avoided unless with doors of the same performance. Usually, the main entrance door to a flat or unit is a fire-resisting door. The vision panel on a fire-resisting door, if found broken, should be replaced with suitable fire-resisting glass.



##### Other fire-resisting enclosures

Examples of fire-resisting enclosures include the enclosures to special hazard rooms such as commercial kitchens, dangerous goods stores, plant & machinery rooms, switch rooms, electric cable ducts, refuse chutes and refuse storage rooms. The enclosures, walls, floors and doors should be maintained as fire-resisting elements.

#### (iv) Fire service installations

The following are fire service installations and equipment commonly found in Hong Kong:

- Fire alarm system



- Fire/smoke detection system

- Fire hydrant/hose reel



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- Automatic sprinkler system



- Emergency lighting system

- Automatic gas extraction installation

- Exit sign



- Fireman's lift

- Fire extinguisher



- Dynamic smoke extraction system

- Fire dampers in ventilating/air-conditioning control system

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### 3.4.2(a) Inspections (continues)

#### Testing and routine maintenance requirements

To ensure that these essential installations work efficiently at all times, a registered fire service installation contractor should be employed by the building owners to inspect and maintain at least once every year.

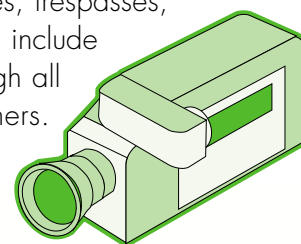
When the fire service installations are found to be not working properly or damaged, a registered fire service installation contractor should be employed immediately to inspect and repair as necessary.

If the owners have any doubt about the qualification of a contractor for fire service installations, they may consult the Fire Protection Command of the Fire Services Department. For more details on the execution of works, please refer to Section 4.3 of Chapter 4. For useful telephone contacts, please refer to Appendix 2.

#### (b) Surveillance

Surveillance serves to prevent or stop misuses, trespasses, theft or crime in the premises. The plan should include routes and frequencies of patrol going through all accessible common areas and hidden corners.

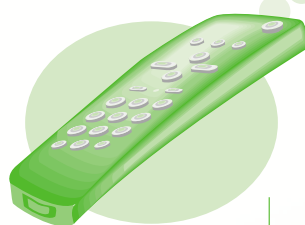
The patrol route should include staircases, roof tops, lobbies, open space, side and rear lanes, swimming pools, yards and podiums, machine rooms, switch rooms and ducts, refuse rooms and hidden corners.



#### (c) Control

The surveillance, checking and inspection carried out by the management personnel help all the owners to exercise control over the building for a safe, clean and pleasant living environment. Some areas requiring control are listed as follows:

- Identify all the malfunction and defective elements and facilities for immediate attention and repairs according to the agreed strategy and standard for proper functioning.
- Stop wedging open of fire doors to ensure proper protection of exit routes.
- Remove rubbish or obstructions from means of escape and other common parts and give warnings to occupiers who have caused the irregularities as described above or violated the house rules.



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- Prevent illegal extensions or misuses at the earliest possible time to prevent deterioration of environment.
- Stop any illegal connections of electricity, water, drainage, or signal cables for ensuring safety and proper functioning of utility supplies.
- Identify and prevent trespassers or any weak point in security which will lend itself to burglaries and trespasses.

#### 3.4.3 Forming Organizations

##### (a) Functions

Effective surveillance, inspection and control depend on a reliable reporting and recording system so that defects/loopholes/irregularities can be rectified the soonest possible. The system should cover a detailed plan serving the following functions:

- care-taking, knowing the owners & occupiers, identifying the strangers;
- preventing burglaries and trespassers;
- cleaning, disposing garbage and discarded furniture items and articles;
- repairing and replacing minor wearing items, e.g. light bulbs;
- posting notices and warnings, arranging emergency attendance to tackle critical situations;
- arranging tradesmen and contractors to carry out periodic maintenance to the facilities and installations;
- collecting management fee and keeping expenses records; and
- implementing an internal auditing system for cross checking and performance measurement.



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### 3.4.3 Forming Organizations (continues)

#### (b) Types of Organizations

With the above basic understanding on the scope of responsibilities for ensuring effective maintenance and management, owners should be able to appreciate the size and complexity of the job. There should be someone to set up the system, plans, house rules and to execute them. This requires full time attention of a property manager, not just a caretaker. Furthermore, the owners should organize themselves and appoint representatives to audit check on the effectiveness and proper operation of the building management arrangements. There are several types of owners or occupiers organizations, namely:

##### (i) Mutual Aid Committee (MAC)

It involves not only the owners but also tenants/occupiers. Its formation is comparatively easier than the other alternatives but is not recognized as a legal body under statute.

##### (ii) Owners' Committee established under DMC

It involves only owners and is not recognized as a legal body under statute.

##### (iii) Owners' Corporation (OC)

It is a legal entity formed in accordance with the Building Management Ordinance (Chapter 344). For more details, please refer to Section 4.6 of Chapter 4.

### 3.4.4 Taking out Appropriate Insurance Policies

Insurance is a major topic that deserves special consideration in details.

#### (a) Reasons for Maintaining Building Insurance

Building insurance provides compensation for financial losses in the case of death, injury, destruction and damage accidentally incurred through management of buildings, thus lowering the liabilities to be borne by the owners or management body of a building.



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It is common for individual owners to exclude the above from the insurance coverage maintained for their units and personal properties. Insurance covering common parts and facilities such as lifts, staircases, fire service installation, etc., of the building should be taken up by the Owners' Corporation (OC) or the management body.

Without building insurance, owners will have to bear the loss, cost for repairing and compensation. In case if money has to be raised for such purposes among all the owners, delay in repairs and disputes may result. Even if the damage is due to negligence of the OC or management company, individual owners may still be held liable.

#### (b) Types of Building Insurance

In general, there are three types of building insurance:

##### Property-All-Risks Insurance (Non-mandatory)

Such insurance usually covers loss or damages to the common facilities/parts of the building due to fire, storm, flood, malicious act, etc.

##### Third Party Liability Insurance

It covers claims for compensation and associated legal costs against the insured, as a result of damage or personal injury to a third party caused by the negligence of the insured or his employee in managing the building. Readers may wish to note that the legislation requiring compulsory maintenance of this insurance will soon be effective and should always check with district offices or the web site of the Home Affairs Department for details.

##### Employees' Compensation Insurance (Mandatory)

It is also known as "Workmen's Compensation Insurance". If staff are involved in the building management, under the Employee Compensation Ordinance, their employer (i.e. OC, Mutual Aid Committee or property manager) is required to maintain such insurance policy to provide compensation for those injured or killed in the course of their employment.

#### (c) Insurance Policy

Information supplied to the insurance vendor for formulation of policy must be accurate and true. Failure to do so may be regarded as an offence under the law and invalidate the policy.



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#### 3.4.4(c) Insurance Policy (continues)

Before adopting an insurance policy, attention should be paid to its coverage, terms and conditions. A reputable vendor/broker should be chosen. To attain the best value and secure the greatest insurance coverage with the most reasonable premium, quotations from a number of reliable insurance companies should be obtained for comparison before acceptance. If insurance is arranged by the property manager, the policy should be endorsed in the joint name of the OC (or Mutual Aid Committee) and the manager.

After the policy has come into effect, owners should obtain a copy from the property manager. Owners should also be extremely cautious in scrutinizing any revision of terms as proposed by the vendor.

Sufficient coverage and the amount insured for compensation should be maintained. Some guidelines are given below:

| Types                             | Coverage   |
|-----------------------------------|--|
| Property-All-Risks Insurance      | <ul style="list-style-type: none"> <li>The amount should be able to cover the current cost of repairing the common parts or replacing the common facilities of the building.</li> </ul>  |
| Third Party Liability Insurance   | <ul style="list-style-type: none"> <li>The amount is usually determined on the basis of the highest compensation payable for a single accident. Generally speaking, a larger building or a building with higher pedestrian flow warrants a larger amount of insurance coverage.</li> </ul> |
| Employees' Compensation Insurance | <ul style="list-style-type: none"> <li>The amount should be determined on the basis of the total annual income of all the employees, including salaries, double pay, bonus, allowance, cash award, etc. Readers should always refer to the latest legislation for reference.</li> </ul>    |

The OC should review annually the terms and amount insured for various types of insurance for the building. Policies and relevant documents, such as receipts for payment of premium, should also be displayed for inspection by owners.

Should accident occurs, the insurance company should be informed immediately and in no case later than the time frame stipulated in the policy to secure a valid claim.