|  |
| --- |
| ***Instructions to complete the template for your Preventative Maintenance Program****All grey italic text with borders are instructions to help you prepare the required BEST Practice for your building.*1. *Replace all* [blue text in brackets] *in the document with building specific information.*
2. *Where required, complete the necessary tasks, or engage a third-party consultant to complete the tasks so that you are able to fill the relevant sections of the template with building specific information.*
3. *Delete all grey italic text when you have filled all relevant sections with building specific information.*
4. *Additional Resources[[1]](#footnote-2) can be found here:*
* [*Preventative Maintenance Guidebook*](https://www.boma.org/BOMA/BOMA/Research-Resources/Publication_Pages/Preventive%20Maintenance%20Guidebook.aspx) *(BOMA International)*
* [*How to start a preventative maintenance program*](https://www.reminetwork.com/articles/how-to-start-preventive-maintenance-program/)
* *Example* [*Facilities Maintenance Plan*](https://www.ualberta.ca/vice-president-facilities-operations/media-library/documents/facilities-maintenance-plan.pdf) *– see Preventive Maintenance Sections for tips*
1. *Complete the Checklist below to confirm your Preventative Maintenance Program meets the BEST Practice requirements.*
 |

|  |
| --- |
| ***Checklist****The Preventative Maintenance Program must outline when preventative and corrective maintenance is required to be performed on the building’s equipment, including:* [ ]  *An inventory of the building’s systems and equipment components to be reviewed and the type of action that is required*[ ]  *Guidelines on how frequently these remedial actions must be taken*[ ]  *Logs showing that these actions have been taken, and that follow-ups were done when needed*[ ]  *Updates recorded when new equipment is added, and when old equipment is removed*[ ]  *The program must have been updated in the last five (5) years*[ ]  *The program can be common to a portfolio or campus of buildings however implementation must be building-specific*[ ]  *Demonstration of implementation is required* |

**PREVENTATIVE MAINTENANCE PROGRAM**

[Insert Building Name and / or Address]

[Insert Name of Organization]

[Insert Building Description – number of floors, tenants, parking spaces (underground or surface) and other distinguishing features]

# Introduction and Purpose

Preventative maintenance recognizes that certain systems and their components require scheduled periodic maintenance, as well as overhauling or replacement after a certain age, at certain intervals, or due to specific causes. The Preventative Maintenance Program is a systematic approach that outlines what equipment under the landlord’s control must be reviewed, the corrective action that must be taken and how frequently this must occur.

The purpose of a robust Preventative Maintenance Program is to improve the functional life of systems and equipment, reduce replacement costs and increase the efficiency of the building operations. The outcomes from these actions will improve environmental conditions in the building and the building’s impact on the environment.

# Responsibilities

[Insert Name], Property Manager ([Insert Name of Organization]) of [Insert Building Name], is responsible for the following:

* Building perform optimally
* Tasks are to be closely monitored to ensure the building operates effectively
* Oversee operations team responsible for
	+ Regular inspections
	+ Notifications of scheduled maintenance activities or through regular work orders
	+ updating the work order task with all relevant information before closing it
	+ If equipment requires more frequent repairs than indicated by the schedule, the schedule is revised or the equipment is replaced
* Hold service providers to contractual commitments for regular maintenance
* Maintain relevant documents
	+ Equipment manuals
	+ Work orders to demonstrate that a specific program is in place at the property
	+ Contracts, work orders, inspection records to determine if systems and components have periodic maintenance schedules in place
* Track evidence of training received and maintain training records.

## Training

[Insert Name], Property Manager ([Insert Name of Organization]) of [Insert Building Name] will identify training requirements for property management and building maintenance staff relating to the implementation of the Preventative Maintenance Program.

[Briefly outline applicable staff training required / delivered.]

|  |
| --- |
| *Discuss with your building operations and maintenance team the type of training that may benefit staff members as it applies to the preventative maintenance of building equipment and systems.**Where in-house personnel are not trained or equipped to manage mechanical, electrical and automation systems, maintenance contracts will be put into place along with appropriate schedules and tasks to be performed. Systems to be covered may include:* * *Building Automation System (BAS)*
* *HVAC*
* *Lighting control system*
* *Work order program*
* *Occupant response protocols*
* *Building checks, maintaining operations and maintenance logs*
* *Equipment / system set points*
* *Installed building energy saving systems*

*Check your staff’s current competencies in these areas and identify additional training required and when it will need to be completed.* |

# Strategy

## Inventory

Refer to the **Appendix** for the Preventative Maintenance Program implemented at the building.

|  |
| --- |
| *Prepare an inventory of major energy-using equipment and type of lighting systems in your building, covering the following aspects:** *Boiler plant systems*
* *Building envelope*
* *Compressed air systems*
* *Domestic and process hot water systems*
* *Fan and pump systems*
* *Heating, ventilation, and air-conditioning systems*
* *Lighting systems*
* *Process furnaces, dryers, and kilns*
* *Refrigeration systems*
* *Steam and condensate systems*

*If your building does not use a software program to deliver preventative maintenance, complete the Appendix based on the inventory you prepared for your building.**If your building has Preventative Maintenance Software installed, insert in the Appendix evidence of how preventative maintenance activities are monitored and tracked online (such as sample completed work order logs).* |

## Guidelines

[Describe the methodology necessary to maintain the optimal functioning of the respective building systems, outline the type of action (procedures) that is required and frequency of remedial actions (schedule) that are based on standards such as manufacturer specs, code requirements and industry best practices.]

## Record Action

[Detail the records building maintenance and operations staff are required to document preventative actions that have been taken, and that follow-ups were done when needed. Note updates also need to be recorded when new equipment is added and old equipment is removed.]

# Time Period

This program was implemented on [Insert Date] and will be reviewed and updated at least once every five (5) years [though annually is recommended].

Appendix: Preventative Maintenance Program for [Insert Building Name]

*If your building does not use a software program to deliver preventative maintenance, complete this table.*

*If your building has Preventative Maintenance Software installed, delete this table and insert evidence of how preventative maintenance activities are monitored and tracked online (such as sample completed work order logs).*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **System** | **Component** | **Action Taken** | **Date Completed** | **Follow-up Required?** | **Date Completed** | **Responsible Party** |
| **Annually** |
| HVAC | Outdoor Air Intakes | Clear obstructions, bird droppings, standing water, proximity to cooling towers, trash compactors, exhausts and other pollutant sources. |  |  |  |  |
| HVAC | Cooling towers | Water treatment functioning as intended. |  |  |  |  |
| FIRE | Fire Systems | Open fire dampers. |  |  |  |  |
| HVAC / ELEC | Measurement Devices, Sensors | Calibration of sensors (temperature, humidity, pressure, occupancy, photocell etc.) |  |  |  |  |
| ELEC | Controls (digital, pneumatic) | Ensure the proper functioning of all controls systems. |  |  |  |  |
| *[Add]* | *[Add for your building]* | *[Add for your building]* |  |  |  |  |
| **Semi-Annually** |
| HVAC | Building Equipment | Floor and equipment drain traps – properly sealed. |  |  |  |  |
| HVAC | HVAC | Air quality measurements in select occupied areas of the building. |  |  |  |  |
| *[Add]* | *[Add for your building]* | *[Add for your building]* |  |  |  |  |
| *[Add]* | *[Add for your building]* | *[Add for your building]* |  |  |  |  |
| **Quarterly** |
| ELEC | Controls (digital, pneumatic) | Operation of outdoor damper actuators. |  |  |  |  |
| ELEC | Lighting | Ensure all emergency lighting is functioning properly. |  |  |  |  |
| *[Add]* | *[Add for your building]* | *[Add for your building]* |  |  |  |  |
| **Monthly** |
| HVAC | Ventilation | Air filter loading. |  |  |  |  |
| ELEC | Lighting | Change lamps as required. |  |  |  |  |
| ELEC | Generator | Generator testing. |  |  |  |  |
| *[Add]* | *[Add for your building]* | *[Add for your building]* |  |  |  |  |

1. *The additional resources presented above are suggestions and not intended as an endorsement by BOMA Canada of any method, process or specific product* [↑](#footnote-ref-2)