



Chelsea Housing Authority Preventive Maintenance Plan

Ensuring Safe, Reliable, and Sustainable Housing for All Residents

Prepared by: Chelsea Housing Authority

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Chelsea Housing Authority Preventive Maintenance Plan

Adopted: , 2025

Preventive maintenance is work undertaken according to a schedule to prevent breakdowns of major mechanical systems and equipment, and to prevent the deterioration of apartments and equipment. The Chelsea Housing Authority (CHA) Preventive Maintenance Program will include regular comprehensive inspections and repairs of all units, equipment, buildings, and common areas. Identifying these maintenance needs will help the Authority reduce the frequency and severity of breakdowns and service interruptions. These inspections will include checking, measuring, observing, and correcting deficiencies found in the units, major mechanical systems, equipment/vehicles, exterior of units, and grounds.

The CHA Preventive Maintenance Program will be the key to achieving control of maintenance. It will reduce resident-generated work orders to a manageable level, speed up vacancy turnaround since units will be generally in better condition upon a vacate, and provide information to management for follow-up with regard to care of the unit by the occupant.

The Maintenance Department will have more control over the scheduling of preventive maintenance than it has over routine corrective or emergency maintenance. Repair needs caught early will prevent emergencies, save dollars later, and substantially reduce resident-generated work orders. The preventive maintenance inspections and work also will help establish a record of deterioration which may signal modernization needs that can be systematically planned and scheduled. This maintenance will avoid waiting for a major crisis to occur before addressing a predictable problem.

The CHA Preventive Maintenance Schedule will identify when tasks need to be completed. The system in place will record the date each inspection was conducted; who did it, and a process for ensuring that needed work is completed. This process will assign accountability to inspectors and provide a sense of responsibility for their work. A Computerized Maintenance Management System (CMMS) will be used to track schedules, inspections, work orders, and historical data for trend analysis and predictive maintenance.

When the preventive maintenance program requires work that is predictable and repetitive (such as cleaning burners or replacing filters), maintenance staff will tend to work from a schedule. If inspections identify a need for unanticipated repairs or replacements, the staff will generate work orders. If work orders are written, they will be identified as routine or emergency and will follow the work assignment process. A schedule of unit inspections will be prepared at the beginning of each calendar year and monitored each month to ensure that all units are inspected at least annually.

The Plan will be reviewed annually by the Preventive Maintenance Committee to incorporate new technologies, regulations, and operational needs.

Preventive Maintenance Committee.

Maintenance Director

Maintenance Supervisor

Maintenance Foreman

1.0 PREVENTIVE MAINTENANCE PROGRAM

Preventive maintenance is part of the planned or scheduled maintenance program of the Housing Authority. The purpose of the scheduled maintenance program is to allow the Authority to anticipate maintenance requirements and make sure the Authority can address them in the most cost-effective manner. The preventive maintenance program focuses on the major systems that keep the properties operating. These systems include heating and air conditioning, electrical, life safety, plumbing, and now incorporate energy efficiency, climate resilience, and cybersecurity measures for networked systems.

A. General Operating Systems

The heart of any preventive maintenance program is a schedule that calls for the regular servicing of all systems. The development of this schedule begins with the identification of each system or item that must be checked and serviced, the date it must be serviced, and the individual responsible for the work. The servicing intervals and tasks for each system must be included in the schedule. The completion of all required tasks is considered a high priority for the Housing Authority.

The systems covered by the preventive maintenance program include but are not limited to:

1. HVAC SYSTEMS

- A. Boilers
- B. Circulators
- C. Domestic hot water tanks
- D. Air conditioning units
- E. Smart thermostats and energy-efficient components

2. SECURITY SYSTEMS

- A. Exterior lighting
- B. Public hallway lighting
- C. Building doors and locks
- D. Networked security systems (e.g., cameras, access controls)

3. FIRE AND LIFE SAFETY SYSTEMS

- A. Emergency generators
- B. Fire extinguishers
- C. Emergency lighting
- D. Exit lights
- E. Sprinkler systems
- F. Fire alarm systems
- G. Carbon monoxide detectors

4. ROOFS

- A. Roof inspection
- B. Gutter cleaning

5. ELEVATORS

- A. Elevator inspection

6. PLUMBING

- A. Catch basins
- B. Sanitary drains
- C. Storm drains
- D. Quarterly Jetting of Waste lines

7. VEHICLES

- A. Safety inspection
- B. Tune-up
- C. Fluid check
- D. Electric vehicle (EV) charging stations and battery health (if applicable)

8. ELECTRICAL HEAT

- A. Common area electric heaters

9. LARGE EXHAUST FANS

- A. Rooftop units

10. ANNUAL INSPECTIONS

- A. Dwelling units
- B. Site
- C. Building systems
- D. Common areas

11. MECHANICAL EQUIPMENT

- A. Sump pumps

12. COMMON AREAS

- A. Grounds
- B. Hallways and stairwells
- C. Community rooms and restrooms
- D. Elevators

13. PLAYGROUNDS

- A. Inspection

14. PEST CONTROL

- A. Extermination and Integrated Pest Management (IPM)

15. CLIMATE RESILIENCE

- A. Weatherproofing and flood protection
- B. Post-event inspections (e.g., after storms)

16. ENERGY EFFICIENCY

- A. Insulation and LED lighting retrofits
- B. IoT sensors for system monitoring

2.0 PREVENTIVE MAINTENANCE PROCEDURE

A specific program will be developed for each system. This program shall include a list of the scheduled service maintenance for each system and the frequency and interval at which that service must be performed. The equipment and materials required to perform the service will be listed as well so that they will be on hand when needed. An assessment of the skills or licensing needed to perform the tasks will also be made to determine if an outside contractor must be used to perform the work. Contractors must be licensed, insured, and certified for specific tasks, selected through competitive bidding, and evaluated annually for performance. The preventive maintenance schedule must be updated each time a system is added, updated, or replaced.

1. HVAC Systems

The Housing Authority will have a program for maintenance of the mechanical systems to ensure that the proper amount of heat and hot water is readily available and maintained at the proper temperature and that all circulator pumps are serviced and air filters changed. This includes retrofitting with energy-efficient components and using smart thermostats to optimize energy use.

A. Check all units including controls.

B. Inspect unit and piping for leaks, holes, or loose connections.

C. Natural Gas Units: Inspect and clean burners if needed; check pilot operation; inspect flue and clean if needed; check firebox for soot buildup; check temperature settings—hot water tanks should not exceed 120°F to prevent scalding; check pressure relief valve for proper operation and check that drain pipe length satisfies code requirements; remove any combustible materials.

D. Check circulator pumps for proper operation and leaks. Oil if required.

E. Check A.C. units for proper operation: Listen for short cycling; check for refrigerant and oil leaks; inspect wiring and controls; check for corrosion; replace air filters bi-annually.

2. Security Systems

The Housing Authority will have a program for maintenance of security systems to ensure they will perform as needed to maintain a well-lit and secure environment. This includes cybersecurity checks for networked systems.

- A. Check that all exterior and hallway lights are in place, undamaged, and working; replace bulbs with LEDs as needed.
- B. Check operation of time clocks and/or sensors.
- C. Check door closers to ensure doors close and latch.
- D. Make sure doorknobs and panic bars are not loose.
- E. Inspect door frame and glass.
- F. Perform cybersecurity audits on networked systems annually.

3. Life Safety Systems

The Housing Authority shall have a comprehensive program for maintenance of life safety systems to ensure that they will be fully functional in the case of an emergency.

Implementation of a schedule that includes the inspection, servicing, and testing of this equipment to be included in the plan includes the following:

- A. Exercise the emergency generator every week; inspect generator battery for corrosion; check generator for oil leaks.
- B. Have all fire extinguishers inspected and certified annually.
- C. Inspect all emergency lights annually; test each light with test switch; replace bulbs or batteries as needed.
- D. Inspect all exit lights; replace bulbs as needed.
- E. Check sprinkler system for signs of corrosion and leaks; have system inspected by a certified sprinkler engineering firm annually.

F. Inspect and test every smoke alarm, heat detector, and carbon monoxide detector in every unit, hallway, common area, boiler room, basement, and attic to ensure that each device works and rings out to the fire alarm panel annually, in compliance with Massachusetts General Laws, Chapter 148, Section 26F½.

G. Inspect and test all fire alarm panels to ensure that all signals will report to central fire alarm monitoring system annually.

The plan will include the required testing and servicing as required by manufacturer's recommendations. It will also include a determination of the most reliable and cost-effective way to perform the work, including the decision to hire a contractor.

4. Roof Repairs/Replacement

Maintenance of roofs requires regular inspections by knowledgeable personnel to ensure that there is no unauthorized access to roof surfaces and that there is good drainage, clear gutters, and prompt discovery of any deficiencies.

A. Remove any trash and debris from roof.

B. Inspect roof for damage and deterioration; punctures; missing shingles; loose flashing.

C. Inspect gutters and downspouts for obstructions (clean as necessary).

D. Inspect stack vents for obstruction and security covers.

The Authority maintenance staff will usually undertake only minor roof repairs. Therefore, there should be a list of approved roofing contractors to take on more serious problems for roofs no longer under warranty. Contractors must provide warranties for repairs or replacements.

5. Elevators

The Housing Authority will have a program that ensures that the elevators are inspected annually by the Commonwealth of Massachusetts Department of Public Safety – Elevator Inspection Division. The elevators will be properly maintained by a reputable elevator service company.

- A. Check elevator signal lights for proper operation.
- B. Inspect elevators for graffiti and damage – clean as needed.

6. Plumbing

The Housing Authority will have a program which will ensure that the storm drains, catch basins, and sanitary drain lines are maintained and remain flowing at all times.

- A. Quarterly Jetting of Waste lines (All Sites)
- B. Storm drains and catch basins should be inspected as needed, including after heavy rain events for climate resilience.
- C. Storm drains and catch basins should be cleaned annually.

7. Vehicle/Equipment Maintenance

The Housing Authority will protect the investment it has made in vehicles and other motorized equipment by putting in place a comprehensive maintenance program. This includes transitioning to zero-emission vehicles (ZEVs) in alignment with Executive Order 594 and the Massachusetts Clean Energy and Climate Plan for 2025 and 2030, aiming for incremental electrification targets toward 100% ZEV fleet by 2050. The vehicles and equipment to be covered include those listed in Appendix A.

- A. See Appendix A for current inventory.
- B. For EVs: Inspect charging stations, battery health, and software updates.
- C. Conduct emissions testing as required by Massachusetts vehicle inspection regulations.

8. Electrical Heat

The Housing Authority will have a program that inspects all common area electric heaters to ensure that the public areas of all buildings are adequately heated and that all building systems in these areas are protected.

- A. Check electric heating units for proper operation, including any thermostats.
- B. Check that fan motors are operating properly if applicable.

9. Large Exhaust Fans

The Housing Authority will have a program that inspects all rooftop exhaust fans for operation. Motors will be checked and belts adjusted to ensure the longest life possible for all mechanical parts.

- A. Listen for unusual noises or vibrations.
- B. Inspect belt condition and alignment; adjust tension as required.
- C. Check motor and fan bearings.
- D. Inspect general condition of exterior and interior of unit.
- E. Check operation of controls.

10. Annual Inspections

The Housing Authority's goals of efficiency and cost-effectiveness are achieved through a carefully designed and rigorously implemented inspection program. This program calls for the inspection of all areas of the Authority's property including:

- A. Dwelling units
- B. Site
- C. Common areas
- D. Building exterior
- E. Building systems

Each area is to be inspected annually and documented with inspection forms and work orders as backup and will ensure that all areas comply with standards set by HUD, the 10th Edition of the Massachusetts State Building Code (780 CMR), and local codes.

11. Mechanical Equipment

Sump pumps are to be inspected and tested for proper operation to provide protection against flooding and subsequent damage to boilers, hot water tanks, basements, and crawl spaces. Elevate equipment in flood-prone areas for climate resilience.

- A. Manually test all flotation devices to ensure proper function.
- B. Visually inspect each sump pump and its associated wires and switches for wear and proper connections.

12. Common Areas

Regular inspections of the property grounds and building exteriors as well as building interiors are required to maintain the curb appeal and marketability of the property. Include inspections for energy efficiency, such as insulation and weatherproofing.

- A. Grounds will be policed daily and any trash or debris will be disposed of from the site as well as around any and all dumpster enclosures.
- B. Grounds and buildings will be policed daily for any graffiti. Graffiti will be removed within twenty-four hours whenever possible.
- C. Common hallways and stairs will be swept and mopped on a regular schedule. Each hallway should be done at least once per week.
- D. Community rooms, kitchens, and restrooms will be cleaned and vacuumed daily. All trash barrels will be emptied and any paper supplies will be restocked as needed.

13. Playgrounds

- A. Playgrounds will be policed daily for graffiti and trash, and all shall be removed immediately.
- B. Check all apparatus daily for any damage.
- C. Tighten any and all nuts and bolts bi-annually.
- D. Conduct monthly safety inspections of surfaces and equipment per the 2025 U.S. Consumer Product Safety Commission (CPSC) Public Playground Safety Handbook and ASTM F1487-25 standards.
- E. Perform accessibility audits annually to ensure compliance with the Americans with Disabilities Act (ADA).

14. Pest Control

The Housing Authority will make all efforts to provide a healthy and pest-free environment for its residents. The Authority will determine which, if any, pests infest its properties and will then provide the best possible treatment for the eradication of those pests using an Integrated Pest Management (IPM) approach, emphasizing prevention. All residents will be informed at least forty-eight hours before treatment. The notification will be in writing and will include instructions that describe how to prepare the unit for treatment. If necessary, the instructions shall be bilingual to properly notify the resident population. Include resident education programs on pest prevention.

Resident requests for extermination will be done routinely at least once per week or as often as needed. Annual flush-out of buildings will be completed on an as-needed basis and determined by funding.

15. Climate Resilience

To address increasing climate risks, the Housing Authority will implement maintenance practices for resilience:

- A. Inspect storm drains, roofs, and basements after extreme weather events.
- B. Ensure weatherproofing of building exteriors annually.
- C. Test backup systems under simulated outage conditions.

Appendix B: Scheduled Checklist (Updated September 2025)

The following table outlines the maintenance schedule with frequencies and responsible parties. Completion will be tracked in the CMMS.

Task	Frequency	Responsible Party
Grounds Check	Daily	Maintenance Staff
Playgrounds Check	Daily	Maintenance Staff
Hallway Cleaning	Daily	Maintenance Staff
Stairwell Cleaning	Daily	Maintenance Staff
Community Rooms Cleaning	Daily	Maintenance Staff
Public Restrooms Cleaning	Daily	Maintenance Staff
Generator Test	Weekly	Maintenance Supervisor
Exterior Lights Check	Monthly	Maintenance Staff
Hall Lights Check	Monthly	Maintenance Staff
Building Doors/Locks	Monthly	Maintenance Staff
Large Exhaust Fans	Monthly	Maintenance Staff
Sump Pumps Test	Bi-Annual	Maintenance Staff
Gutter Cleaning	Annually	Certified Contractor
Playground Bolts Tightening	Bi-Annual	Maintenance Staff
A.C. Units – Replace Filters	Bi-Annual	Maintenance Staff
Unit Inspections	Annually	Inspection Team
Site Inspections	Annually	Inspection Team
Building Inspections	Annually	Inspection Team
Common Area Inspections	Annually	Inspection Team
Boilers Service	Annually	Licensed Contractor
Circulators Service	Annually	Licensed Contractor
Hot Water Tanks Service	Annually	Licensed Contractor
Generator Service	Annual	Licensed Contractor
Fire Extinguishers Inspection	Annual	Certified Technician
Sprinkler System Test/Service	Annual	Certified Firm
Fire Alarms Test	Annual	Certified Technician
Annual Elevator Test	Annual	MA Dept. of Public Safety
Catch Basins Cleaning	Annual	Maintenance Staff
Sanitary Drains Cleaning	Quarterly	Contractor
Vehicle Tune-Up/Sticker	Annual	Maintenance Supervisor
Roof Inspection	Annual	Maintenance Staff
Playground Safety Inspections	Monthly	Maintenance Staff
Weatherproofing Checks	Annual	Maintenance Staff
Cybersecurity Audits	Annual	IT Contractor
Resident Pest Education	Annual	Maintenance / Certified Firm

