NYCHA MOLD TRAINING

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Mold Inspector Refresher Video–Conference Training Presentation

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Welcome NYCHA Staff

- Registration & sign-in/out
- Training materials
- Training Agenda
- Training Goals
  - Understand importance of controlling mold & moisture
  - Be able to use the tools, practices & procedures
  - Be ready to get this done!

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Welcome back NYCHA Staff

- This training is presented by EEA under contract to NYCHA
- EEA is an accredited asbestos, lead & mold training provider
- We look forward to working with you to provide this very important training
- It's critical to public housing in NYC
- NYCHA succeeds when YOU succeed!
- General Manager's Intro

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Why Are We Here Today?

- Exposures from residential excessive moisture and mold have been associated with increased risks for respiratory symptoms, asthma, hypersensitivity pneumonitis, rhinosinusitis, bronchitis, and respiratory infections.
- NYCHA staff must take action to detect and correct leaks, condensation problems, and floods as soon as they are discovered. The potential for building structural damage, mold growth, and increased adverse health effects can and must be reduced by limiting the build-up of indoor moisture.

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Allergic Responses

Asthma

- Molds can trigger asthma attacks in persons allergic (sensitized) to molds.
- Asthma is a major problem in New York City. In some low-income parts of New York City, as many as one in four children have asthma.
- What is asthma

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Irritant Effects

Mold exposure can irritate the eyes, skin, nose, throat, and lungs of both mold-allergic and non-allergic people.

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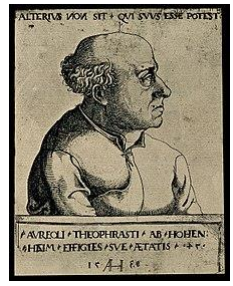
Degrees of Exposure

- **"The dose makes the poison"** (in Latin: ***sola dosis facit venenum***) – Paracelsus (1538 AD)
- a substance can produce the harmful effect associated with its toxic properties only if it reaches a susceptible biological system within the body in a high enough concentration
- Occupants or remediation workers disturbing large areas of mold growth face greater exposure potential, and thus, greater potential for adverse health effects.



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Golden Rule for Mold Exposure Safety

Minimizing mold-related exposures will reduce the possibility of health impacts on occupants and workers.

- As the potential for exposure increases, the need for protective measures increases.
- Workers can reduce exposure potential by proper use of personal protective equipment (PPE).
  - Respirators (Minimum N-95)
  - Gloves
  - Protective clothing
  - Goggles

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Health Issues for Workers

- Mold assessment and remediation employees with persistent health problems that appear related to mold should see a physician.
- Referrals to physicians trained in occupational, environmental or allergy medicine may be needed.

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Common-Sense Approach

- **Small amounts of mold growth in homes and buildings are common occurrences, that for the majority of people present minimal health risks.**
  - The solution is to fix the moisture problem and clean up the mold quickly.
- **Large areas of mold growth present a more likely risk of exposure and adverse health effects for some people.**
  - Large areas of mold growth indicate more extensive water damage/moisture intrusion in the building.
  - Additional and more extensive measures should be used during remediation to protect both workers and occupants of the building.

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How Mold Grows

- Finds suitable conditions
  - Water
  - Food
  - Temp (hot or cold)
- Grows
- Spreads

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Public (Housing) Enemy #1

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Localized Mold Contamination

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Major Mold Infestation

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NYCHA Facilities

- 1, 882 (PH residential) buildings in 243 developments over five boroughs; 769 facilities; 152,926 apartments; 298,206 residents
- 77 percent (based on all 243 PH Devs) of NYCHA buildings built before 1969.
- Building materials that can be affected by mold & moisture include:
  - Plaster
  - Sheetrock
  - Wood studs/framing
  - Cabinets
  - Caulking & grout

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Where Does Mold Grow in NYCHA?

- The paint on plaster, concrete, and sheetrock walls/ceilings
- The paper covering of sheetrock walls/ceilings (front/back and top/bottom sides)
- The covering of pipe-wrap insulation in wall cavities
- Bathroom tile grout and caulking
- Kitchen and bathroom cabinetry
- Wood framing materials in wall cavities

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Mold Root Causes – Changes Overview

Twenty-nine (29) Root Causes are organized by five (5) general categories how the problem was caused.

I. Sealant Related Issues – Issues that can be resolved by removing and replacing old caulking.
Example: Caulking around a bathtub.

II. Leak Issues – Issues caused by a leak other than an sealant issue.
Example: Crack in exterior (façade) is causing a water enter the unit.

III. Resident-Caused – Issues that can be prevented due to adjustments to resident education and behavior.
Example: Resident is not opening a window after a shower.

IV. Ventilation – Issues that are a result of inoperable roof fans and/or lateral duct issues.
Example: A clog in the lateral duct is preventing air from flowing into the apartment.

V. Other – Issue(s) are being caused due to reasons outside of the four categories previously listed.
Example: Condensation (sweating on the pipes) due to the damaged or missing insulation.

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Shower Vapor Condensation

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Condensation on Cold Water Pipes In Wall Cavities

Missing insulation on cold water riser

Damaged insulation on cold water riser

Missing insulation on cold water supply t

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Toilet Condensation - In Apartment

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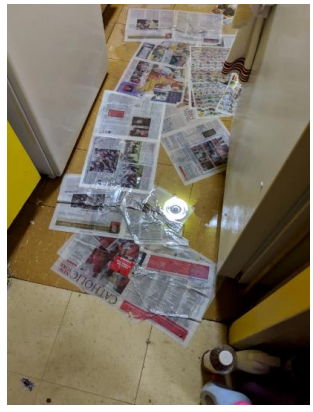
Plumbing Leaks/Flooding



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Toilet Condensation - From Above

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Perimeter Wall Condensation

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Roof Leaks

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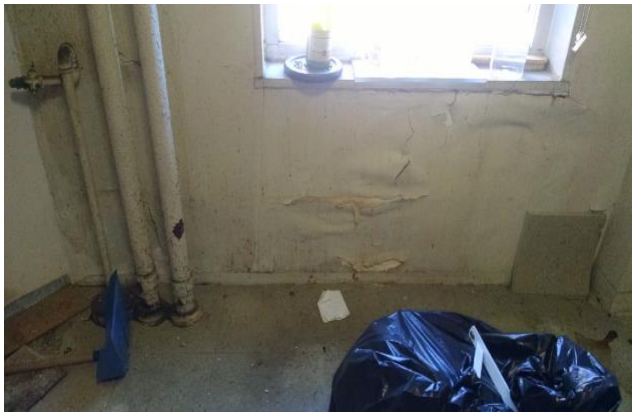
Façade Leaks



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Resident Related

- Boiling water or humidifier
- Not opening windows during/after shower
- Broken dishwasher
- Broken washing machine
- Blocked vent
- Other

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Efflorescence

- Efflorescence is the residue that's left behind when water seeps through concrete, stone, or brick.
- Salt deposits leave a white residue that resembles mold.
- Won't grow or spread, and isn't a fungus.

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NYCHA Mold Inspector

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Preventing Mold In NYCHA

- Mold growth is always associated with excessive moisture problems.
- How do we **prevent** or **control** excessive moisture and what are the **Root-Causes** of excessive moisture?

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Preventing Mold Growth

Simple Steps

- keep exterior moisture out of the building
- control moisture from internal sources

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Preventing Mold Growth

- It's important to establish a cooperative partnership between NYCHA staff and residents so that conditions that require attention are identified and dealt with promptly.
- NYCHA staff and residents should take action to detect and correct leaks, condensation problems, and floods as soon as they are discovered.
- The potential for building structural damage, mold growth, and increased adverse health effects can and should be reduced by limiting the buildup of indoor moisture.

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UPDATED - Top Ten Things NYCHA Staff Should Know About Mold & Moisture

1. Potential health effects and symptoms associated with exposures to mold and excessive moisture include allergic reactions, asthma, and other respiratory complaints.
2. Mold can be found almost anywhere; it can grow on virtually any substance if moisture is present. For example, there are molds that can grow on sheetrock, painted plaster and concrete, wood, paper, carpet, foods, and even dusty inorganic building materials
3. There is no practical way to eliminate all mold and mold spores in the indoor environment; the way to control indoor mold growth is to control moisture.
4. If mold is a problem in an apartment or building, we must clean up the mold and eliminate sources of moisture.
5. Fix the source of the water problem or leak to prevent mold growth, including repairing leaky roofs.

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Top Ten Things NYCHA Staff Should Know About Mold & Moisture

6. Reduce indoor humidity (to 30-60%) to decrease mold growth by: venting bathrooms and kitchens; using air conditioners and de-humidifiers; and increasing ventilation. Staff shall ensure that mechanical ventilation is functioning (clear lateral ductwork and operable roof fans). Further, staff can use a hygrometer to check the relative humidity in a resident's apartment
7. Clean and dry any damp or wet building materials and furnishings within 24-48 hours to prevent mold growth.
8. Clean minor levels off of hard surfaces with water and detergent, and dry completely. Absorbent materials, such as sheetrock, that are moldy will need to be replaced.

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Top Ten Things NYCHA Staff Should Know About Mold & Moisture

9. **Prevent condensation: reduce the potential for condensation on cold surfaces by assuring that cold water pipes in wall cavities are properly insulated.**
10. If needed as a result of asthma, individuals with mold and/or excessive moisture in their apartments are entitled to reasonable accommodations from NYCHA.

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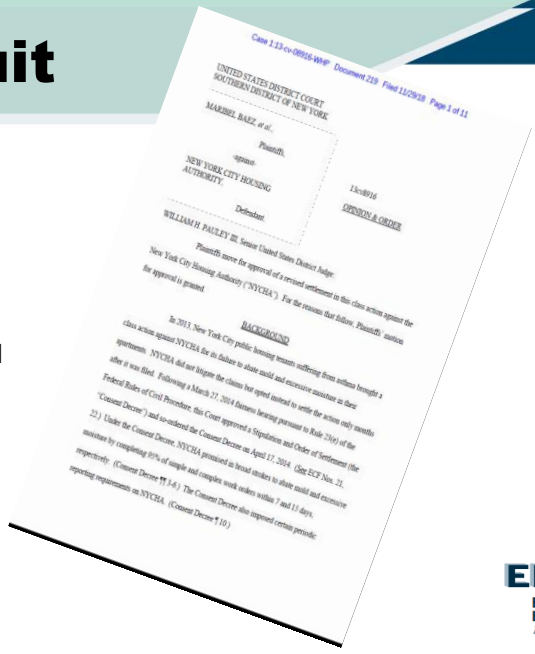
Baez Lawsuit

Maribel Baez vs NYCHA ("Baez") is a class action lawsuit filed December 2013, as a violation the Americans with Disabilities Act for the conditions of mold and excessive moisture for residents suffering from asthma.



UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

MARIBEL BAEZ, et al.,

Plaintiffs,

-against-

NEW YORK CITY HOUSING AUTHORITY,

Defendant.

13cv8916

OPINION & ORDER

WILLIAM H. PAULEY III, Senior United States District Judge:

Plaintiffs move for approval of a revised settlement in this class action against the New York City Housing Authority ("NYCHA"). For the reasons that follow, Plaintiffs' motion for approval is granted.

BACKGROUND

In 2013, New York City public housing tenants suffering from asthma brought a class action against NYCHA for its failure to abate mold and excessive moisture in their apartments. NYCHA did not litigate the claims but opted instead to settle the action only months after it was filed. Following a March 27, 2014 fairness hearing pursuant to Rule 23(e) of the Federal Rules of Civil Procedure, this Court approved a Stipulation and Order of Settlement (the "Consent Decree") and so-ordered the Consent Decree on April 17, 2014. (See ECF Nos. 21, 22.) Under the Consent Decree, NYCHA promised in broad strokes to abate mold and excessive moisture by completing 95% of simple and complex work orders within 7 and 11 days, respectively. (Consent Decree ¶¶ 3-4.) The Consent Decree also imposed certain periodic reporting requirements on NYCHA. (Consent Decree ¶ 10.)

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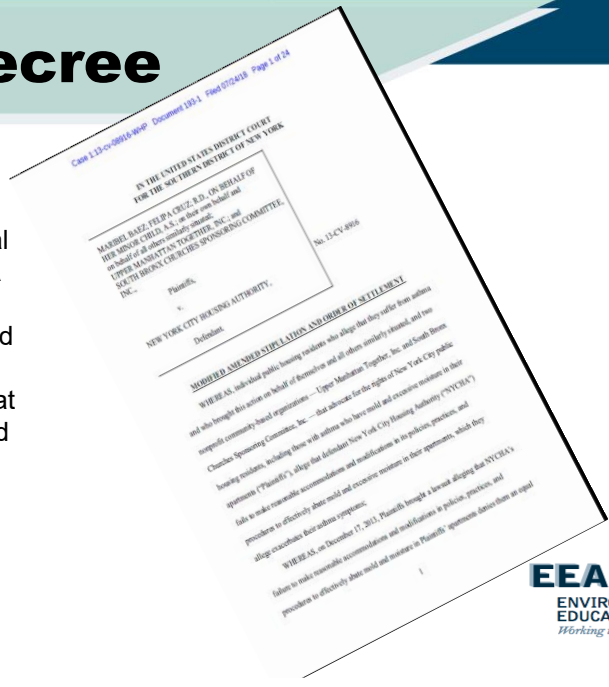
Consent Decree

- In partnership with the Special Master and Plaintiffs, NYCHA has revised its standard procedure for addressing mold complaints.
- These changes were piloted at 38 developments in 2017, and will be launching citywide in January 2019



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IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF NEW YORK

MARIBEL BAEZ, FELIPA CRUZ, R.D., ON BEHALF OF HER MINOR CHILD, A.S., on their own behalf and on behalf of all others similarly situated, and UPPER MANHATTAN TOGETHER, INC., and SOUTH BRONX CHURCHES SPONSORING COMMITTEE, INC.,

Plaintiffs,

v.

NEW YORK CITY HOUSING AUTHORITY,

Defendant.

No. 13-CV-8916

MODIFIED AMENDED STIPULATION AND ORDER OF SETTLEMENT

WHEREAS, individual public housing residents who allege that they suffer from asthma and who brought this action on behalf of themselves and all others similarly situated, and two nonprofit community-based organizations — Upper Manhattan Together, Inc. and South Bronx Churches Sponsoring Committee, Inc. — that advocate for the rights of New York City public housing residents, including those with asthma who have mold and excessive moisture in their apartments ("Plaintiffs"), allege that defendant New York City Housing Authority ("NYCHA") fails to make reasonable accommodations and modifications in its policies, practices, and procedures to effectively abate mold and excessive moisture in their apartments, which they allege exacerbates their asthma symptoms;

WHEREAS, on December 17, 2013, Plaintiffs brought a lawsuit alleging that NYCHA's failure to make reasonable accommodations and modifications in policies, practices, and procedures to effectively abate mold and moisture in Plaintiffs' apartments denies them an equal

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NYCHA Purpose

- Standard Procedures establish responsive measures to mold and its root causes in NYCHA public housing locations, and creates protocols to protect the health of residents and staff when remediating mold and identifying and correcting its root causes.

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Standard Procedures - Inspections

All inspection work must conform to the protocols in the following documents:

- GM 040:14:1, Mold/Mildew Control in NYCHA Residential Buildings
- NextGeneration NYCHA Informer Work Management (iWM) handheld application

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Standard Procedures - Remediation

All remediation & related maintenance work must conform to the protocols in the following documents:

- GM 040:14:1, Mold/Mildew Control in NYCHA Residential Buildings, including Appendix A – Remediation Methods
- SP 040:18:2 Revised, Maintenance Tasks – Dust Control and Clean Up in Apartments, which establishes Work Area Preparation/Performance Levels
- Interim Guidance on Wall Breaks
- Interim Guidance on Pipe Insulation

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Performance Metrics

- Average number of days to complete repairs and close mold work orders.
- Average number of days to complete initial inspections.
- Percent of mold work orders for reoccurring mold.

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Non-compliance

- If unsatisfactory work is identified during a quality assurance inspection in Section VIII.H, or at any other time, supervisory staff must take one or more of the following actions:
  - Identify areas for follow up training for the employee and ensure training is scheduled and provided.
  - Reinforce with the employee(s) the job expectations, accountabilities, and the progressive discipline process.
- Failure to comply with the requirements of this Standard Procedure may result in disciplinary actions.

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Quality Assurance Deficiencies

- As a result of a quality assurance review, NYCHA has found a small group of staff performance shortfall when it comes to mold inspections and remediation.

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Inspectors Performance Shortfalls

- failure to use/properly use each of the Mold Busters tools during the inspection process (particularly Testo kit and app)
- failure to conduct a complete mold inspection (meaning accounting for all 3 indicators: signs of visible mold, water damage, moisture reading)
- failure to make accurate entries (square footage of mold)
- failure to use/properly use borescope to inspect wall cavities

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Remediators Performance Shortfalls

- failure to use/properly use the anemometer and Testo app to measure exhaust vent output (bathrooms and kitchens)
- failure to use mold resistant paint as required based on the remediation methods and development construction
- failure to check/confirm that pipes are properly insulated when checking for excessive moisture/leaks in wall cavities
- failure to use/properly use the borescope to inspect wall cavities
- failure to ensure mold impacted surfaces are
  - 1. cleaned with the appropriate detergent solution/fungicide cleaner
  - 2. completely dry prior to moving forward in the mold remediation process.

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Employees Who Remediate or Correct the Root Causes of Mold

- Employees shall follow the protocols in Mold & Mildew Standard Procedure, as applicable, when remediating mold and related conditions or correcting probable root causes.

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All NYCHA Employees Performing Work in Apartments

Any employee performing work in a resident apartment that observes a mold condition shall create a parent mold work order either on the handheld device or submit a paper mold work order to the property management office.

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Employees Who Remediate or Correct the Root Causes of Mold

Lead-safe work practices and RRP certified workers must be used if

- Maximo identifies that RRP work is required (the apartment is presumed or known to contain lead-based paint) & any work would disturb more than 2 square feet of a painted surface per room, or
- more than 10 percent of the total surface area on an interior or exterior type of component with a small surface area.

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Lead Safe Work Practices

- Maximo automatically creates a work order and on that work order is a
- banner to alert staff if they are required to follow the Renovation, Repair,
- and Painting (RRP) rules. For more information, see NYCHA Standard
- Procedure, 050:20:1, Lead Safe Housing Procedure.

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SP-Update – Reasonable Accommodations

- If needed as a result of a medical disability or a breathing or respiratory disorder including asthma, residents in apartments with mold and/or excessive and/or uncontrolled moisture conditions are entitled to reasonable accommodations from NYCHA. Such accommodations may include, but are not limited to, the following:
  a. The right to install and operate an additional air conditioning unit in their apartment if the electrical system permits an additional unit;
  b. Temporary relocation during mold and moisture remediation;
  c. Permanent relocation to other NYCHA housing if the apartment is uninhabitable and another apartment is available;
  d. The use of enhanced dust suppression methods during mold remediation.

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SP-Update – Reasonable Accommodations

- Property management staff or CCC customer information representatives must check the “reasonable accommodation” flag on the Maximo mold work order or Siebel service request if a resident asks for a reasonable accommodation.
- See Standard Procedure 040:12:1, Reasonable Accommodations in Housing for Applicants, Public Housing Residents, and Section 8 Voucher Holders, to learn more about the responsibilities of NYCHA staff to review reasonable accommodation requests, and the applicable terms, forms, and policies for reasonable accommodations.

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Inspection Procedures

On the scheduled date provided on the parent mold work order, the inspector visits the resident's apartment to:

- inspect the mold condition
- identify the probable root cause(s)
- determine appropriate next steps to remediate the mold, any related conditions, and correct the root cause(s).

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Preparing For The Mold Initial Inspection

Prior to visiting the apartment on the day of the initial inspection appointment, the inspector:

- Reviews the Maximo work order history for the apartment to determine if there is a history of mold or moisture complaints.
- Checks the mold inspection tool kit to ensure that the following instruments are in working order: anemometer, hygrometer, and moisture meter.

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Preparing For The Mold Initial Inspection

- Assigns a maintenance worker to accompany them on the initial inspection, or to be on call, to immediately remediate mold and related conditions or to identify and correct root causes, when possible. The maintenance worker must bring a borescope and tools appropriate for making wall-breaks.
- Must make a courtesy call to the resident via the handheld device on the way to the initial inspection to remind them of the inspection. If the resident does not answer the call, the inspector must still go to the apartment at the scheduled time.

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Preparing For The Mold Initial Inspection – NOTE!

If the resident or other adult is not home to allow access to the apartment for a scheduled mold related appointment, see Section VIII.F, Tenant Not Home Policy.

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Discussing The Mold Condition With The Resident

Upon arriving at the apartment, the inspector:

1. Makes best efforts to interview an adult listed on the household composition about any history of mold and moisture in the apartment
2. Adds the information to the handheld device if there is a history

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Conducting The Initial Inspection

The inspector conducts the initial inspection using the handheld device. The inspector:

1. Visually inspects the room identified in the mold work order for mold growth and records the estimated square footage of mold on each wall (1-4), floor, ceiling, and any components.
2. Visually inspects the room for water damage and records the location of the water damage (e.g. the specific wall(s), floor, ceiling, or component).
3. Must use the moisture meter to measure the walls, floor, ceiling, and components in the room for subsurface moisture and records the measurement.
4. **NEW – Must take multiple measurements of each surface or component and record if a measurement is equal to greater than 599**

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General Evaluation Of Room Conditions

If a mold, water damage, or moisture (i.e., a wet measurement) condition is found, the inspector must conduct a general evaluation of the room:

1. Records the surface structure (e.g. concrete, plaster, sheetrock) and framing structure (e.g. wood, steel) of the room's walls, floor, ceiling, and component(s).
2. Uses the hygrometer to take a humidity reading of the room and records the humidity level.

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Standard Procedures – Update - Inspections

While the inspector is evaluating the opposing side of common walls in adjoining rooms and common areas, if mold conditions are identified in an adjoining room that are not likely from the same root cause, the inspector shall create a parent mold work order on the handheld device. The inspector should complete this mold work order for the adjoining room at the time of the initial inspection.

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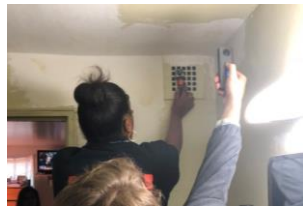
General Evaluation Of Room Conditions



If the room is a kitchen or bathroom:

Indicates if there is mechanical ventilation

- If there is mechanical ventilation:
  - The inspector checks the ventilation by using the anemometer to take an air flow measurement in cubic feet per minute (CFM) and records the result in the handheld device.
  - Maximo automatically generates child work orders:
    - To clean the horizontal vent ductwork.
    - To check the roof fan if the CFM is less than 25.

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General Evaluation Of Room Conditions

If the room is a kitchen or bathroom: (Cont.)

If there is a window:

- The inspector checks that the window is operating properly and records the result in the handheld device.
- Maximo automatically generates a child work order to repair the window if it is not operating properly.

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General Evaluation Of Room Conditions

If the room is a bathroom:

- Checks if the toilet base is caulked and records the result in the handheld device.

  (a) Maximo automatically generates a child work order to caulk the toilet base if it is not caulked.

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General Evaluation Of Room Conditions

Visually inspects the room for signs of pest infestation and records the results in the handheld device.

- Maximo automatically generates a child work order for an exterminator when there is evidence of pests.

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Wall Breaks

Create a one-square foot opening behind the medicine cabinet to provide the best access to visibly inspect the wall cavity. If temporary repairs are needed, they must be performed. If a larger wall break is needed to identify the root cause, it must be performed.

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Identifying The Probable Root Causes & Remediation Methods

The inspector determines the probable root cause(s) for any wall, floor, ceiling, or component identified in Section VIII.B.3.a above as having mold, water damage, or moisture (i.e. a wet measurement).

- The inspector selects on the handheld device a probable root cause from the following options: (see next slide)

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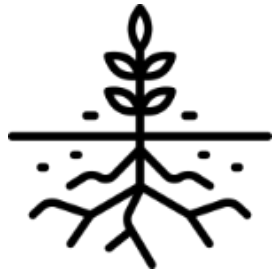
Mold Root Causes

The fundamental reason(s) for the occurrence of mold, water damage or moisture.

- Identify and select the most correct root cause(s) to ensure the condition does not reoccur – up to four (4) can be selected.
- Root cause(s) might often be not visible at first and require a comprehensive investigation to identify.



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Mold Root Causes – Changes Overview

Twenty-nine (29) Root Causes are organized by five (5) general categories how the problem was caused.

I. Sealant Related Issues – Issues that can be resolved by removing and replacing old caulking.
Example: Caulking around a bathtub.

II. Leak Issues – Issues caused by a leak other than an sealant issue.
Example: Crack in exterior (façade) is causing a water enter the unit.

III. Resident-Caused – Issues that can be prevented due to adjustments to resident education and behavior.
Example: Resident is not opening a window after a shower.

IV. Ventilation – Issues that are a result of inoperable roof fans and/or lateral duct issues.
Example: A clog in the lateral duct is preventing air from flowing into the apartment.

V. Other – Issue(s) are being caused due to reasons outside of the four categories previously listed.
Example: Condensation (sweating on the pipes) due to the damaged or missing insulation.

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I. Mold Root Causes – Sealant Related Issues

Issues that can be resolved by removing and replacing old caulking or grouting.

Example: Caulking around a bathtub.

Caulking - Is a material used to seal joints or seams against leakage in various structures and piping. Maintenance and Plaster.

Grouting – A dense fluid which is used to fill gaps or used as reinforcement in existing structures. Grout is generally a mixture of water, cement, and sand. Grout is thin so it flows readily into gaps. Bricklayer.

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I. Mold Root Causes – Sealant Related Issues

- Caulking DML (Maintenance)
  The maintenance worker will follow-up on this work order and do the caulking.
- Grouting DML (Bricklayer)
  A bricklayer, craft, will follow-up on this work order and do the grouting.
- Grouting DML (Plasterer)
  A plasterer, craft, will follow-up on this work order and do the grouting.
- Grouting/ Caulking DML (Plasterer)
  A plasterer, craft, will follow-up on this work order and do the grouting / caulking work.
- Grouting/ Caulking DML (Bricklayer)
  A bricklayer, craft, will follow-up on this work order and do the grouting/ caulking.

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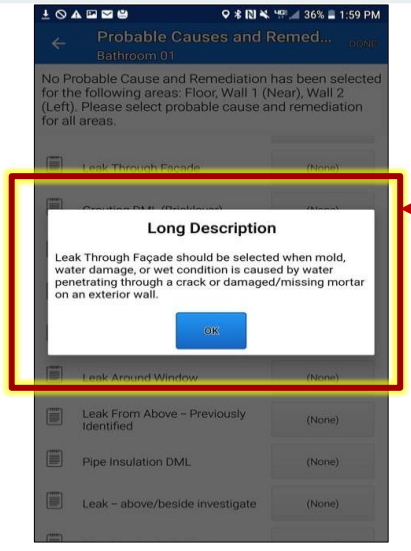
Mold Root Causes



iWM App will have a pop-up option to view a definition of each Root Cause to help you made an informed decision.

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II. Mold Root Causes – Leak Issues

Issues caused by a leak other than a sealant issue.

- Leak Around Window
  Lack of sealant around the window that causes water to penetrate.
- Leak Through Façade
  A crack or damaged/missing mortar affecting the exterior wall.
- Leak From Above/Beside - Investigate
  There is an active leak from a unit above or beside the unit with a mold condition.
- Leak From Above * – Previously Identified
  There was a leak that was abated but mold/ water damage remain present.
- Plumbing Leak - In Unit
  A pipe leaking within the wall cavity requiring a wall break.

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II. Mold Root Causes – Leak Issues (*continued*)

- Roof Leak - Non Capital
  Roof replacement or repair is required.
- Sink Supply Line Leak
  Caused by a leak(s) in the supply line.
- Sink Waste Line Leak
  Caused by a leak(s) in the waste line.
- Toilet Leak
  Active leak coming from the toilet.

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II. Mold Root Causes – Leak Issues (*continued*)

Leak From Above - Previously Identified

Previously Identified should be selected when the root cause or remediation work for the mold, water damage, or wet condition had been identified or abated by Property Maintenance staff or Skilled Trades on a prior work order.

A note and pictures are required for this root cause.

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II. Mold Root Causes – Leak Issues (*continued*)

Leak From Above - Previously Identified *

1) Pre-inspection to look-up leak history for the specific unit.
2) Does not cancel or duplicate previous generated tickets.
3) Escalates the matter if root cause is being caused by something else if it keeps reoccurring.

Reoccurrences are signs that the root cause has not been found.

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III. Mold Root Causes – Resident-Caused

Issues that can be prevented due to adjustments to resident education and behavior.

Examples:

- Not opening the window for ventilation during, or after, a shower.
- Covering the roof fan vent.
- Improper installation of a dishwasher or washing machine.
- Improper installation of a clothing dryer in the apartment.

Select this ONLY when there is proof that the resident's direct behavior is the cause.

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III. Mold Root Causes – Resident-Caused

- Resident-Caused (Code 1)
  Resident doesn't open the window or door after taking a shower
- Resident-Caused (Code 2)
  Dishwasher was installed improperly.
- Resident-Caused(Code 3)
  Washing machine was installed improperly.
- Resident-Caused (Code 4)
  Vent is blocked or covered.

- Resident-Caused (Code 5)
  Clothing dryer was installed improperly.
- Resident-Caused (Code 6) *
  Other – the option was not listed.

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III. Mold Root Causes – Resident-Caused. (*continued*)

Resident-Caused by Other Actions (Code 6) *

Mold Busters Education will be needed for the resident(s) for future prevention of mold. A mandatory inspection will be needed to find the exact reason(s).

A note and pictures are required for this root cause.

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III. Mold Root Causes – Resident-Caused. (*continued*)

Resident-Caused by Other Actions (Code 6) *

Examples:

- Excessive boiling of pots.
- Unbalanced hot/cold temperatures in the unit and/or units above, below, or adjunct.

A picture and an explanation is needed for the reader to understand the reasoning for selecting this root cause.

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V. Mold Root Causes – Other

- **Toilet Bowl/ Tank Needs Barrier**
  Toilet tank is in direct contact with the surface of the wall, allowing condensation to transfer across surfaces.
- **Tub Surround DML**
  Water is penetrating through missing or damaged areas of the tub surround.
- **Bathtub Shower Issues**
  Bathtub is missing, faucet is leaking, faucet is running, and/or faucet is dripping.
- **Pipe Insulation DML**
  Damaged or missing pipe insulation resulting in condensation (or sweating) on pipe surfaces. A wall-break is required to diagnose this problem.
- **Other** * This option should be selected if the root cause is not listed or not evident through the standard assessment practices.

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SP-Update

Lead-safe work practices and RRP certified workers must be used if (i) Maximo identifies that RRP work is required (the apartment is presumed or known to contain lead-based paint) and (ii) any work would disturb more than 2 square feet of a painted surface per room, or more than 10 percent of the total surface area on an interior or exterior type of component with a small surface area.

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Identifying the Probable Root Causes & Remediation Methods

- Selects the ceiling, wall(s), floor, or component(s) identified in Section VIII.B.3.a above that have the same probable root cause (e.g., both the mold on the ceiling and water damage on the wall have a probable root cause of Shower Moisture.)
- Indicates if a wall break is required to inspect or correct the probable root cause.
  - If a wall break is required, the inspector must conduct the wall break with the assistance of a maintenance worker as part of the initial inspection.

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Identifying the Probable Root Causes & Remediation Methods

If the probable root cause ***is not*** Resident – Cause:

- Selects one or more Failure Class/Problem Codes, as applicable, from the limited set of options in the dropdown menu for that probable root cause.
- Selects the appropriate craft required to make the repair for each Failure Class/Problem Code selected.

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Identifying the Probable Root Causes & Remediation Methods

If the probable root cause ***is*** Resident – Cause

- Selects on the handheld device the specific instruction provided to the resident in Section VIII.B.5 below for each probable root cause that is Resident – Cause.
- Selects the remediation method and craft from a dropdown menu of limited options for the selected wall(s), floor, ceiling, or component(s).

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Identifying the Probable Root Causes & Remediation Methods

- Maximo automatically generates child work orders for the Failure Class/Problem Codes (except when the probable root cause is Resident – Cause) and the remediation methods selected.
- If there are any additional probable root causes, the inspector repeats the steps in Section VIII.B.3.c(1) above for each probable root cause.

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Identifying the Probable Root Causes & Remediation Methods

If the inspector is unable to determine the probable root cause of a mold, water damage, or moisture (i.e. wet measurement) condition they must:

- First request trouble shooting assistance from the other inspectors at the development; and then
- Escalate the work order to the Property Management Department skilled trades deputy director if the probable root cause still cannot be determined.

The skilled trades deputy director assigns appropriate staff to assist the inspector.

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Completing the Initial Inspection

To complete the initial inspection:

- The inspector must take multiple photo(s) of the condition(s) identified, including at least one close-up photo of the condition(s) and at least one photo of the larger area, using the handheld device and upload the photo(s) into Maximo.
- If the condition is unfounded (i.e., there was no mold, water damage, or wet measurement condition identified):

The inspector must take and upload photo(s) of the condition reported by the resident as mold or mildew.

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SP-Update

- *For clarity, the inspector should record key information obtained during the inspection in the notes field of the iWM app on an unfounded work order.*

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Reviewing the Work Plan

Upon completion of the initial inspection, the inspector:

- Reviews the child work orders (i.e. the work plan) in the handheld device to confirm the work plan is correct and complete.
- Identifies the outcomes of the inspection on *NYCHA Form 060.845, Mold Inspection Receipt.*

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Reviewing the Initial Inspection Results with the Resident

When Mold, Water Damage, or a Moisture Condition is identified the inspector:

- Gives NYCHA Form 060.303, Controlling Mold in Your Apartment to the resident and reviews with the resident the general recommendations on the form for preventing and cleaning mold and the importance of identifying and correcting the root cause(s) of mold to avoid reoccurrence.

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SP-Update - Reviewing the Initial Inspection Results with the Resident

When Mold, Water Damage, or a Moisture Condition is identified the inspector:

- Gives NYCHA Form 060.845, Mold Inspection Receipt to the resident and reviews the following with the resident
  - (a) The initial inspection outcome (founded or unfounded).
  - (b) The requirement that NYCHA conduct a quality assurance inspection between 30-45 days after all work is completed.
  - (c) The required timeframe for the completion of all work.
  - (d) the name and contact information of the ombudsperson.

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SP-Update - Reviewing the Initial Inspection Results with the Resident

When Mold, Water Damage, or a Moisture Condition is identified the inspector:

- Indicates in the handheld device that both NYCHA Form 060.303, Controlling Mold in Your Apartment and NYCHA Form 060.845, Mold Inspection Receipt were provided to and discussed with the resident.
- Advises the resident that the property management office will contact them to schedule any additional appointments needed
- Advises the resident that NYCHA will mail them NYCHA Form 060.846, Mold Inspection Review which details the following information:

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SP-Update - Reviewing the Initial Inspection Results with the Resident

Advises the resident that NYCHA will mail them NYCHA Form 060.846, Mold Inspection Review which details the following information:

a) The initial inspection and probable root cause findings.
b) The next step(s) to remediate the mold, excessive moisture, or related condition and correct the root cause.
c) The specific instruction(s) on how to correct the probable root cause if the probable root cause is Resident – Cause
d) The requirement that NYCHA conduct a quality assurance inspection between 30-45 days after all work is completed.
e) The required timeframe for the completion of all work.
f) The name and contact information of the ombudsperson

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Reviewing the Initial Inspection Results with the Resident– NOTE!

See Management Manual, Chapter II, Rent and Rent Collection, Section XV.A and Appendix 8 for details on when and how to make a social service referral to the Family Partnerships Department if there are housekeeping or safety hazards in an apartment.

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When Mold Condition is Unfounded

The inspector:

(1) Discusses the initial inspection findings with the resident.
(2) Gives NYCHA Form 060.303, Controlling Mold in Your Apartment to the resident and reviews with the resident the general recommendations on the form for preventing and cleaning mold and the importance of identifying and correcting the root cause(s) of mold to avoid reoccurrence.
(3) Requests that the resident sign the unfounded work order on the handheld device.
(4) Indicates in the handheld device if the resident refused to sign or if the resident disagrees that the mold condition is unfounded.
(5) Provides the resident with NYCHA Form 060.845, Mold Inspection Receipt including the name and contact information of the ombudsperson.
(6) Closes the mold work order as Unfounded.
(7) Provides the name and contact information of the ombudsperson.

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Records for Residents

- Mold Receipt – all projects (photo required)
- Controlling Mold in Your Apartment – projects where mold was found
- **Mold Inspection Review (Mold Remediation Plan)** – projects where mold was found. Must include:
  - The initial inspection and probable root cause findings.
  - The next step(s) to remediate the mold, excessive moisture, or related condition and correct the root cause.
  - The specific instruction(s) on how to correct the probable root cause if the probable root cause is Resident – Cause.
  - The requirement that NYCHA conduct a quality assurance inspection between 30-45 days after all work is completed.
  - The required timeframe for the completion of all work.
  - The name and contact information of the ombudsperson.

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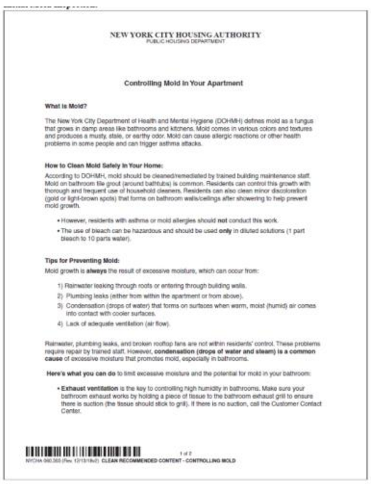
Controlling Mold Form



NEW YORK CITY HOUSING AUTHORITY
PUBLIC HOUSING DEPARTMENT

Controlling Mold In Your Apartment

What is Mold?

The New York City Department of Health and Mental Hygiene (DOHMH) defines mold as a fungus that grows in damp areas like bathrooms and kitchens. Mold comes in various colors and textures and produces a musty, stale, or earthy odor. Mold can cause allergic reactions or other health problems in some people and can trigger asthma attacks.

How to Clean Mold Safely in Your Home:

According to DOHMH, mold should be cleaned/remediated by trained building maintenance staff. Mold on bathroom tile grout (around bathtubs) is common. Residents can control this growth with thorough and frequent use of household cleaners. Residents can also clean minor discoloration (gold or light-brown spots) that forms on bathroom walls/ceilings after showering to help prevent mold growth.

- However, residents with asthma or mold allergies should **not** conduct this work.
- The use of bleach can be hazardous and should be used **only** in diluted solutions (1 part bleach to 10 parts water).

Tips for Preventing Mold:

Mold growth is **always** the result of excessive moisture, which can occur from:

1) Rainwater leaking through roofs or entering through building walls.
2) Plumbing leaks (either from within the apartment or from above).
3) Condensation (drops of water) that forms on surfaces when warm, moist (humid) air comes into contact with cooler surfaces.
4) Lack of adequate ventilation (air flow).

Rainwater, plumbing leaks, and broken rooftop fans are not within residents' control. These problems require repair by trained staff. However, **condensation (drops of water and steam) is a common cause** of excessive moisture that promotes mold, especially in bathrooms.

Here's what you can do to limit excessive moisture and the potential for mold in your bathroom:

- **Exhaust ventilation** is the key to controlling high humidity in bathrooms. Make sure your bathroom exhaust works by holding a piece of tissue to the bathroom exhaust grill to ensure there is suction (the tissue should stick to grill). If there is no suction, call the Customer Contact Center.

1 of 2

NYCHA 060.360 (Rev. 12/13/18v2) **CLEAN RECOMMENDED CONTENT - CONTROLLING MOLD**

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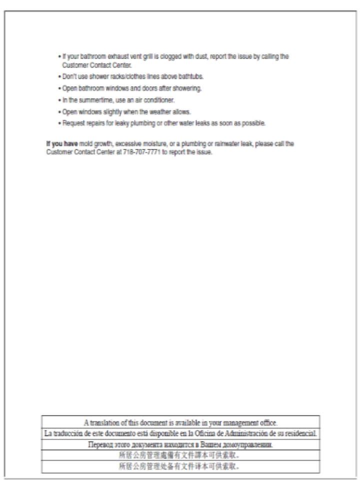

- If your bathroom exhaust vent grill is clogged with dust, report the issue by calling the Customer Contact Center.
- Don't use shower racks/clothes lines above bathtubs.
- Open bathroom windows and doors after showering.
- In the summertime, use an air conditioner.
- Open windows slightly when the weather allows.
- Request repairs for leaky plumbing or other water leaks as soon as possible.

If you have mold growth, excessive moisture, or a plumbing or rainwater leak, please call the Customer Contact Center at 718-707-7771 to report the issue.

A translation of this document is available in your management office.
La traducción de este documento está disponible en la Oficina de Administración de su residencial.
Перевод этого документа находится в Вашем домоуправлении.
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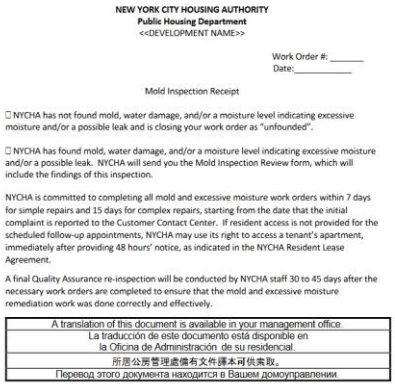
Mold Inspection Receipt



NEW YORK CITY HOUSING AUTHORITY
Public Housing Department
<<DEVELOPMENT NAME>>

Work Order #: _____
Date:_____

Mold Inspection Receipt

☐ NYCHA has not found mold, water damage, and/or a moisture level indicating excessive moisture and/or a possible leak and is closing your work order as "unfounded".

☐ NYCHA has found mold, water damage, and/or a moisture level indicating excessive moisture and/or a possible leak. NYCHA will send you the Mold Inspection Review form, which will include the findings of this inspection.

NYCHA is committed to completing all mold and excessive moisture work orders within 7 days for simple repairs and 15 days for complex repairs, starting from the date that the initial complaint is reported to the Customer Contact Center. If resident access is not provided for the scheduled follow-up appointments, NYCHA may use its right to access a tenant's apartment, immediately after providing 48 hours' notice, as indicated in the NYCHA Resident Lease Agreement.

A final Quality Assurance re-inspection will be conducted by NYCHA staff 30 to 45 days after the necessary work orders are completed to ensure that the mold and excessive moisture remediation work was done correctly and effectively.

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Must Take Photo & Save as "Mold Receipt"

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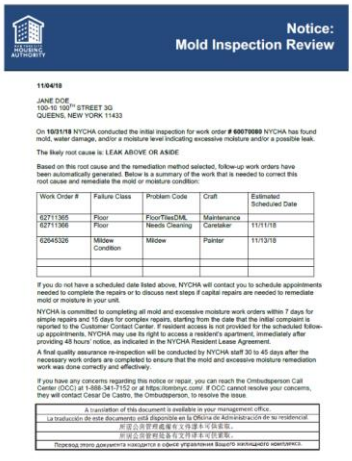
Mold Inspection Review



Notice: Mold Inspection Review

11/04/18

JANE DOE
100-10 100TH STREET 3G
QUEENS, NEW YORK 11433

On **10/31/18** NYCHA conducted the initial inspection for work order **# 60070080** NYCHA has found mold, water damage, and/or a moisture level indicating excessive moisture and/or a possible leak.

The likely root cause is: **LEAK ABOVE OR ASIDE**

Based on this root cause and the remediation method selected, follow-up work orders have been automatically generated. Below is a summary of the work that is needed to correct this root cause and remediate the mold or moisture condition:

Work Order #	Failure Class	Problem Code	Craft	Estimated Scheduled Date
62711365	Floor	Floor/Tiles/DML	Maintenance	
62711366	Floor	Needs Cleaning	Caretaker	11/11/18
62645326	Mildew Condition	Mildew	Painter	11/13/18

If you do not have a scheduled date listed above, NYCHA will contact you to schedule appointments needed to complete the repairs or to discuss next steps if capital repairs are needed to remediate mold or moisture in your unit.

NYCHA is committed to completing all mold and excessive moisture work orders within 7 days for simple repairs and 15 days for complex repairs, starting from the date that the initial complaint is reported to the Customer Contact Center. If resident access is not provided for the scheduled follow-up appointments, NYCHA may use its right to access a resident's apartment, immediately after providing 48 hours' notice, as indicated in the NYCHA Resident Lease Agreement.

A final quality assurance re-inspection will be conducted by NYCHA staff 30 to 45 days after the necessary work orders are completed to ensure that the mold and excessive moisture remediation work was done correctly and effectively.

If you have any concerns regarding this notice or repair, you can reach the Ombudsperson Call Center (OCC) at 1-888-341-7152 or at https://cmtnyc.com/ If OCC cannot resolve your concerns, they will contact Cesar De Castro, the Ombudsperson, to resolve the issue.

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NYCHA MOLD TRAINING

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Measurement Equipment

- On-site testing equipment that indicates if moisture or ventilation problems may be present
- Used to help identify root causes
- Provides immediate information
- Inspector must be able to operate and understand data

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Inspection Equipment

- Moisture Meter
- Hygrometer
- Anemometer
- Boroscope

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Moisture Meters

- Moisture meters measure/monitor moisture levels in building materials, and may be helpful for measuring the moisture content in a variety of building materials following water damage.
- They also can be used to monitor the progress of drying damaged materials. These direct reading devices have a thin probe that is inserted into the material to be tested or pressed directly against the surface of the material.
- Pin-probe readings can provide additional information, but are not used during the root-cause assessment.

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Hygrometer

- A hygrometer is used to measure moisture content in the atmosphere.
- Humidity measurement instruments usually rely on measurements of some other quantity such as temperature, pressure, mass or a mechanical or electrical change in a substance as moisture is absorbed.
- Results are reported in the App

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Anemometers

- NYCHA uses Testo Vane instrument
- Must be set to Cubic Feet per Minute (CFM) - unit for Air Volume measurements.
- **NEW - Must be calibrated to 55% free air**

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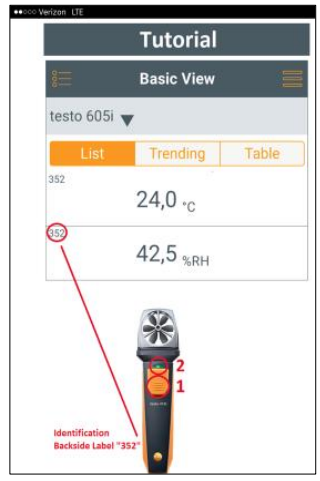
Instructions for Using the Anemometer

A. Switching On and Off

1. Open the Testo App on your NYCHA issued handheld device.
2. Once the Testo App is open, turn on your Anemometer using the instructions below:
    1. Press the large button shown as number 1 in the image below.
    2. The LED light should start blinking yellow.
3. The Testo device should automatically pair with your NYCHA issued handheld device.
4. You will know the Anemometer has successfully paired when the LED light turns green.

(Note: For best results, do not operate more than one Testo device at a time.)



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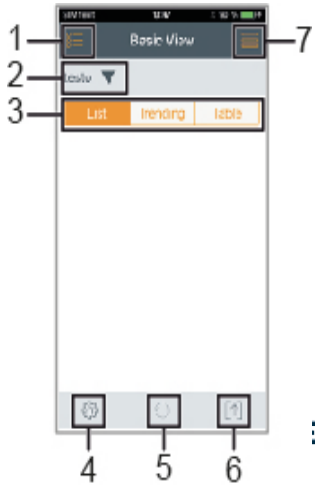
Instructions for Using the Anemometer

B. Overview of the Operating Controls

1. Choice of applications
2. Display of connected Smart Probes
3. 3-panel switch between the 3 informational views (list, graphic diagram, table)
4. Measurement settings. (The menu changes depending on which Smart Probe is connected and which particular device is selected)
5. Restarts the measuring value recordings in graph and table format. Allows you to freeze and unfreeze the reading
6. Export the reading
7. Options menu



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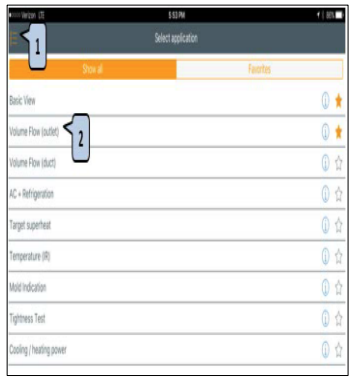
Instructions for Using the Anemometer

C. Configuring the Testo App to Take an Airflow Reading

1. From the Start up Screen, select Measurement Settings
2. On the next selection screen, select Volume Flow (Outlet)
    1. Select settings. This selection screen will let you choose your configuration for Measurement



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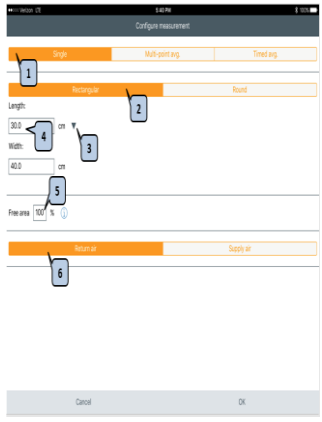
Instructions for Using the Anemometer

C. Configuring the Testo App to Take an Airflow Reading - Continued

1. On the Configure Measurement screen (Pictured Below), choose Single measurement
2. Below that setting, there is a setting for either a rectangular or round air duct measurement
    1. Choose the Rectangular measurement
3. Ensure that the length and width in your App is set to inches
    1. If the unit of measure is not in inches, use the drop-down triangle symbol to change your unit of measure to inches.
4. Input the length and width of the air duct you are measuring
5. Change Free Area to 55%
6. Ensure the setting for return air is selected
7. Hit OK to save your settings.



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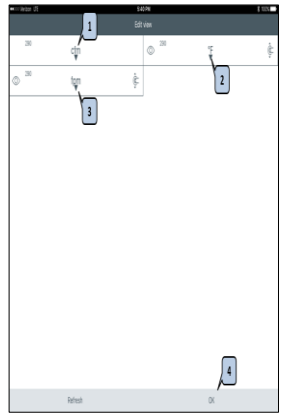
Instructions for Using the Anemometer

D. In the following screen adjust your units to the following:

1. Change unit of measure to Cubic Feet per minute (CFM)
2. Change temperature units to Fahrenheit (° F)
3. Change unit of measure to Feet Per Minute (FPM)
4. Select OK at the bottom of the screen to save your unit selections



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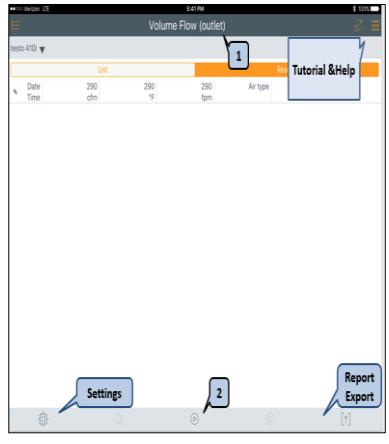
Instructions for Using the Anemometer

E. Taking a Flow Measurement

To take a measurement, place the anemometer so it is flush with the face of the air duct grill.

1. Your results will be displayed on the Volume Flow (outlet) screen (Pictured Below)
2. To freeze a flow measurement, hit the Start and Stop button at the bottom of your screen

Hitting the Start and Stop button multiple times will allow you to save multiple readings.



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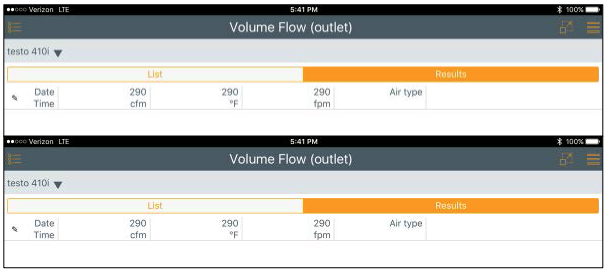
Instructions for Using the Anemometer

E. Output Results

To view a table of results:

1. Return to the Main Menu screen
2. Select the Volume Flow (outlet)



This is the Volume Flow (outlet) screen:

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General Evaluation Of Room Conditions– NEW NOTE!

The user must ensure the anemometer is properly calibrated by:

- *Entering the correct size of the exhaust duct (i.e. the height and width in inches) in the IWM App.*
- ***NEW - Ensuring that the Free Air Percentage is set to 55% in the IWM App**.*

See Appendix C for instructions on how to use the anemometer. Users must follow the manufacturer's instructions when using inspection tools.

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Boroscope

- A boroscope is a hand-held tool that allows users to see potential mold problems inside walls, ceiling plenums, crawl spaces, and other tight areas.
- It consists of a video camera on the end of a flexible "snake."
- No major drilling or cutting of dry wall is required.

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NYCHA MOLD TRAINING

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IWM App

- Designed by & for NYCHA Housing
- Mold inspection procedures
- Used to determine remediation work orders
- Integrated into Maximo to create child work orders
- Provides Quality Assurance & Reinspection procedures

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IWM App

- Work Order Practical
  - Initial Inspection
  - Quality Assurance Inspection
  - Re-inspection

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Practical Exercises

- Initial Inspection

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Welcome to the Handheld Informer Work Management (iWM)

Training Course for Mold Inspection

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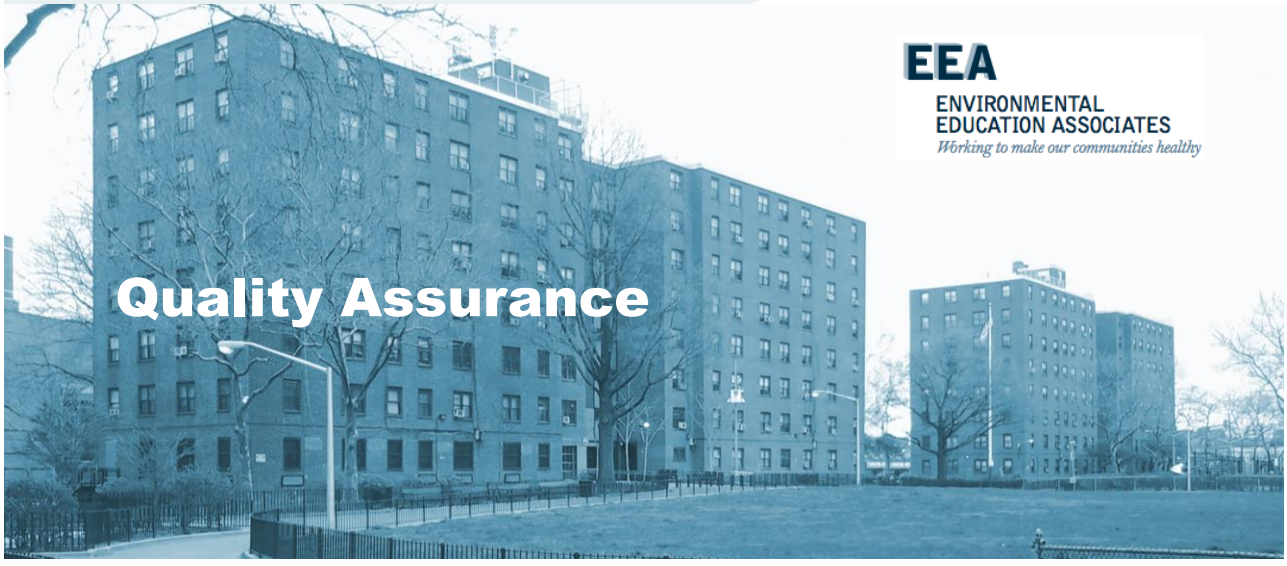
NYCHA MOLD TRAINING



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Quality Assurance Inspections

- Maximo automatically generates a quality assurance inspection work order twenty-five (25) days after the last child work order is closed for all apartments where a mold, water damage, or moisture (i.e. a wet measurement) condition was identified during the inspection.
- The target start date is automatically populated as 30 days after the last child work order closed and the target end date is populated as 45 days after the last child work order closed.
- Once the quality assurance inspection work order is generated, property management staff contacts the resident and schedules the quality assurance inspection to take place between 30-45 days after the last child work order is closed. See Section VIII.A.3 for the process to schedule appointments.

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Quality Assurance Inspections – Note!

- For quality assurance purposes, whenever possible the inspector conducting the quality assurance inspection should be different than the inspector who performed the initial inspection.
- Quality assurance inspections are performed using the handheld device. If a handheld device is not operating during the quality assurance inspection, the inspector must record the results on a paper quality assurance inspection work order and enter the results into Maximo immediately following the quality assurance inspection.

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Quality Assurance Inspections

Prior to visiting the apartment on the day of the quality assurance inspection appointment, the inspector:

1) Checks the mold inspection tool kit, to ensure that the following instruments are in working order: anemometer, hygrometer, and moisture meter. Brings all the tools on the quality assurance inspection in case a full new initial inspection is needed.
2) Assigns a caretaker and maintenance worker to accompany them on the quality assurance inspection or be on call in case there is follow up work or a full new initial inspection is required. The maintenance worker must bring a borescope and tools appropriate for making wall-breaks.
3) Must make a courtesy call to the resident via the handheld device on the way to the quality assurance inspection to remind them of the appointment. If the resident does not answer the call, the inspector must still go to the apartment at the scheduled time.

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Quality Assurance Inspections

Inspecting for Mold, Water Damage, and Moisture

The Inspector:

- Visually inspects for mold any wall, floor, ceiling, or component identified in the initial inspection as having mold and records the results in the handheld device.
- Visually inspects for water damage any wall, floor, ceiling, or component identified in the initial inspection as having water damage and records the results in the handheld device.
- Uses the moisture meter to measure for subsurface moisture any, wall, floor, ceiling, or component that measured wet during the initial inspection and records the results in the handheld device.

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Quality Assurance Inspections

If mold, water damage, or moisture (i.e. a wet measurement) is found during the quality assurance inspection:

- The inspector immediately stops the quality assurance inspection and completes and closes the quality assurance inspection work order.
- Maximo automatically generates a new parent mold work order.
- The inspector immediately conducts a full inspection following the steps in Section VIII.B.3-5.

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Quality Assurance Inspections

Inspecting for Mold, Water Damage, and Moisture: (Cont.)

- If no mold, water damage, or moisture (i.e. a wet measurement) is found, the inspector continues with the quality assurance inspection.

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Quality Assurance Inspections

If an air flow measurement was taken during the initial inspection:

- The inspector uses an anemometer to take an air flow measurement in cubic feet per minute (CFM) of the kitchen or bathroom exhaust vent.

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Quality Assurance Inspection – Note!

The user must ensure the anemometer is properly calibrated by:

- Entering the correct size of the exhaust duct (i.e. the height and width in inches);
- Ensuring that the Free Air Percentage is set to 15%.

See Appendix C for instructions on how to use the anemometer. Users must follow the manufacturer's instructions when using inspection tools.

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Quality Assurance Inspections

Confirms that all work (i.e. child work orders) to remediate mold and correct root causes and related conditions was satisfactorily completed.

The inspector:

- Reviews the work actuals of the child work orders using the handheld device.
- Visually inspects all completed work in the apartment related to the child work orders.

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Quality Assurance Inspections

If all work was satisfactorily completed:

- The inspector completes the quality assurance inspection by taking photo(s) of the inspection area free of mold, water damage, and/or moisture and uploading the photo(s) into Maximo.

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Quality Assurance Inspections

If any work was not satisfactorily completed:

The inspector:

- Immediately creates a child work order in Maximo.
- Takes and uploads a photograph of the unsatisfactory work into Maximo if the work is visible in the apartment.
- Closes the existing quality assurance inspection work order.
- Follows up with supervisor of the staff person(s) who performed the work to report the unsatisfactory work and ensure the work is completed.

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Quality Assurance Inspections – Note!

See Section XII, Non-Compliance, for steps to address work that is not performed to standard.

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Quality Assurance Inspections

Quality Assurance Inspection Complete – All Work Satisfactorily Completed

The inspector:

- Reviews the quality assurance inspection findings with the resident.
- Requests that the resident sign the quality assurance inspection work order on the handheld device confirming that mold and any related conditions are not present and that all work was completed satisfactorily.
- Indicates on the handheld device if the resident refuses to sign or is dissatisfied with the work.
- Provides the resident with the name and contact information of the ombudsperson.
- Closes the quality assurance inspection work order.

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Quality Assurance Inspections

If additional work is needed, the inspector advises the resident of:

- The next steps to complete the work and the required timeframe for completion of all work.
- The requirement for a new quality assurance inspection once the work is completed.

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Practical Exercise

QA & Re-inspection

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NYCHA MOLD TRAINING

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Outputs

- Mold in NYCHA apartments is remediated and the root causes are identified and corrected within the allowable timeframes.
- Mold recurrence is reduced

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Performance Reporting

OMAR shall centrally assign staff to review reports to identify developments with:

- High parent mold work order completion time frames.
- High rates of unfounded mold work orders.
- High reoccurrence rates for mold work orders.

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Performance Reporting

OMAR shall centrally assign staff to review reports to identify developments with:

- Visit developments and inspect randomly selected apartments with high rates of unfounded or reoccurring (as applicable) mold work orders.
- Report findings on the underlying issue, i.e. a building system and/or mold inspection and remediation process issue.
- Provide follow up recommendations to the regional asset manager.

  For building system issues, the supervisory staff may, for example, recommend additional repairs.

  For process issues, the regional asset manager follows up with the property manager and property maintenance supervisor to address the process issue which could include providing additional training, reviewing key accountabilities, or providing progressive discipline.

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Performance Reporting

OMAR shall centrally assign staff trained in scheduling mold work orders to:

- Provide follow up recommendations to the Property Management Department skilled trades deputy director or regional asset manager; or the director of MRST.
- For process issues, recommendations could include providing additional training, reviewing key accountabilities, and/or providing progressive discipline

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Performance management: EOP Program

- In June 2022, OMAR launched EOP to turn around struggling consolidations by building joint strategies to improve mold and leak compliance, assisting with select backlogs, and assisting with overcoming Procurement roadblocks:
  - Improving mold inspection timelines and quality of inspections
  - Providing assistance to address priority mold and leak work orders (inspections, mold cleaning, mold-resistant paint)
  - Providing field training, when needed
  - Focusing on work order verification and addressing aging backlog
  - Identifying any scheduling gaps and assisting with expediating repairs requiring immediate attention
  - Flagging high-priority OCC cases

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Reports

- Operations reports to be developed with the independent data analyst
- The IT Business Solutions Technology Department's Maximo Team retains electronically created and stored completed work orders for at least seven (7) years

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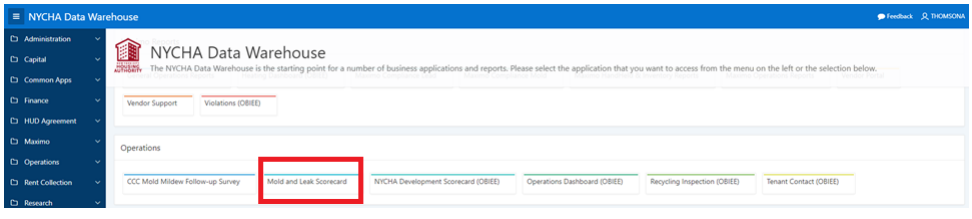
Mold and Leak Scorecard

A ranking tool that evaluates NYCHA's performance on key metrics at the consolidation, neighborhood, borough, and NYCHA-wide level.



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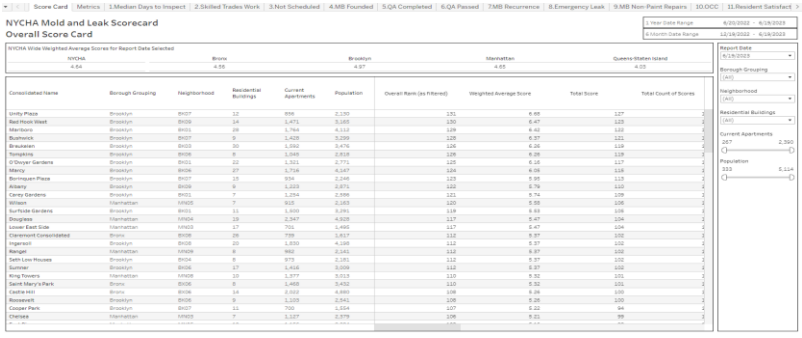
Mold and Leak Scorecard Views

This view allows PMs and Supers to monitor consolidation ranking on the Mold and Leak Scorecard and compare against other consolidations in neighborhood or across the authority.



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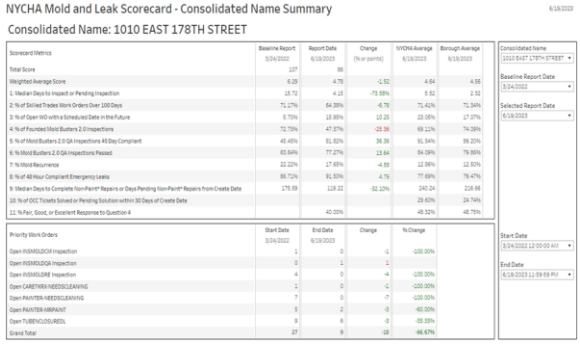
Mold and Leak Scorecard Views

- Monitor the number of open mold inspections per consolidation.
- Ensure that initial mold inspection work orders are addressed in a timely manner.
- Ensure that mold QA inspections are addressed in a timely manner.
- Monitor the quality of the work
  - Flag high unfounded rates
  - Flag high recurrence rates
  - Flag high percent of failing mold QAs
- Ensure that emergency leaks are promptly addressed



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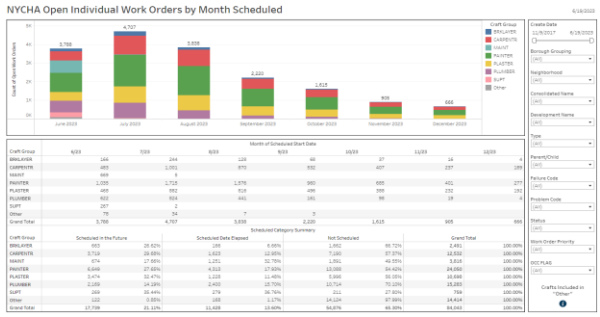
Mold and Leak Scorecard Views

NYCHA Mold and Leak Scorecard Views to utilize to assist with performance management:

- This view allows PMs and Supers to monitor craft scheduling and take proactive action to escalate repair needs



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Course Review

- Mold growth is always associated with excessive moisture problems.
- How do we identify excessive moisture and what are the **Root-Causes** of excessive moisture?
- How do we eliminate or reduce the **Root Causes**?
- How do we **remediate** mold contamination?

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Knowledge Assessment

- See what you've learned!

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