NYCHA MOLD TRAINING

Mold Inspector Refresher Video-Conference Trainin 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!



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



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.







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 lowincome parts of New York City, as many as one in four children have asthma.





- What is asthma

Irritant Effects

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





Degrees of Exposure

- "The dose makes the poison" (in <u>Latin</u>: 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.





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



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.



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.



How Mold Grows

- Finds suitable conditions
 - Water
 - $-\operatorname{Food}$
 - Temp (hot or cold)
- Grows
- Spreads



Public (Housing) Enemy #1





Localized Mold Contamination





Major Mold Infestation





NYCHA Facilities

- 2,413 buildings in 325 developments over five boroughs; 769 facilities; 177,666 apartments; 404,000 residents
- 70 percent of NYCHA buildings built before 1969.
- Building materials that can be affected by mold & moisture include:
 - Plaster
 - Sheetrock
 - Wood studs/framing
 - Cabinets
 - Caulking & grout



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





Mold Root Causes – Changes Overview

Twenty-nine (29) Root Causes are organized by <u>five (5) general</u> <u>categories</u> 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.



Shower Vapor Condensation







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



Toilet Condensation - In Apartment







Plumbing Leaks/Flooding







Toilet Condensation - From Above











Perimeter Wall Condensation





Roof Leaks













Resident Related

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



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.



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?



Preventing Mold Growth

Simple Steps

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



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.



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.



NYCHA MOLD TRAINING

Review & Updates to NYCHA Standard Procedure 040:14:1 5/21/20



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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.



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


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.



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



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



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.



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.



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.



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



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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NYCHA Standard Procedures – Staff Responsibilities

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Office of Mold Assessment & Remediation (OMAR)

- 1. Monitor key development-level mold-related indicators including, but not limited to, parent mold work order completion time frames, and mold reoccurrence and unfounded inspection rates.
- 2. Perform random inspections at developments with high rates of mold reoccurrence or unfounded inspections and report findings to the neighborhood administrator.
- 3. Monitor the efficiency of mold work order scheduling and provide follow up recommendations to the neighborhood administrator or skilled trades deputy director, as applicable.



Property management department director shall:

- a) Monitor key development-level mold-related indicators including, but not limited to, scheduled appointments, parent mold work order completion time frames, and mold reoccurrence and unfounded inspection rates.
- b) Assign supervisory staff to perform random inspections at developments, as needed.



Neighborhood Administrator shall:

- a) Monitor development property management operations and hold property managers and property maintenance supervisors accountable for monitoring all mold related work orders in Maximo and addressing conditions in compliance with protocols established for remediating mold and identifying and correcting root causes.
- b) Investigate and respond to inspection reports prepared by centralized performance management staff.



The Property Management Department skilled trades deputy director shall

- a. Monitor skilled trades administrators, borough schedulers, and skilled trades supervisors and hold them accountable for monitoring all mold-related work orders in Maximo and addressing conditions in compliance with protocols established for remediating mold and identifying and correcting root causes.
- b. Respond to recommendations from the Office of Mold Assessment & Remediation.
- Skilled trades administrators shall schedule skilled trades workers to complete complex repairs within 15 days.



Borough Scheduler

The Borough Scheduler shall:

- a. Review the Maximo scheduled appointments screen daily.
- b. Monitor Maximo daily for new parent mold and quality assurance inspection work orders.
- c. Monitor Maximo for the timely completion of parent and child mold work orders and immediately address delays



Borough Scheduler

The borough scheduler shall:

d. Ensure immediate scheduling of parent and child work orders to prevent delays.

- Initial inspections must be scheduled for a date no more than 4 calendar days after the date of the parent work order creation.
- 2) Schedule child work orders for simple repairs to be completed by Property Management within 7 days.
- Quality assurance inspections must be scheduled and completed between 30-45 days after the last child work order is closed



Borough Scheduler

The borough scheduler shall:

- a. Assign in Maximo the property maintenance supervisor, assistant property maintenance supervisor, or property manager to work orders to conduct initial and quality assurance inspections.
- b. Identify and schedule all work orders with the status of Waiting To Schedule and Failed to Schedule.
- c. Reschedule appointments for mold related work orders as needed.
- d. Coordinate the scheduling of skilled trades workers with the Property Management Department Planning Unit skilled trades administrator; the director of the Maintenance, Repair & Skilled Trades Department; and the Healthy Homes Lead Hazard Control Department Abatement and Clearance Unit.



Property manager shall:

- a) Closely monitor the customer service delivery aspects of this Standard Procedure to ensure NYCHA's commitments to residents are addressed.
- b) Work closely with the property maintenance supervisor to ensure that property management staff:
 - (1) Visit apartments for all mold work appointments as scheduled.
 (2) Decend resident systematic in the Tenant Data Cystem.
 - (2) Record resident outreach attempts in the Tenant Data System (TDS)



Property maintenance supervisor shall:

- a. Conduct mold initial inspections and quality assurance inspections using mold-related tools and equipment.
- b. Work closely with property maintenance staff to ensure that property maintenance staff:

(1) Accompany the property maintenance supervisor during initial inspections and quality assurance inspections, as required.

(2) Visit apartments for all mold work order appointments as scheduled.



The assistant property maintenance supervisor shall perform the tasks in Section 7.a-b directly above in addition to the property maintenance supervisor.



Maintenance Staff

- Accompanies inspectors 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.
- Must bring an anemometer, a borescope and tools appropriate for making wall-breaks, and a HEPA vacuum. 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.
- Completes child work orders for vent cleaning, roof fan repairs and other maintenance tasks.
- All simple repairs must be completed within 7 calendar days from the date the parent mold work order was created.



Skilled Trades Department

- Completes root cause repairs according to trade
- Utilizes Remediation Methods per SP 040:14:1 (Appendix A)
- Complex repairs must be completed within 15 calendar days from the date the parent mold work order was created.



Maintenance, Repair & Skilled Trades Department

The director shall

- a. Monitor MRST skilled trades administrators and MRST skilled trades supervisors and hold them accountable for monitoring all mold-related work orders in Maximo and addressing conditions in compliance with protocols established for remediating mold and identifying and correcting root causes.
- b. Respond to recommendations from the Office of Mold Assessment & Remediation.



Maintenance, Repair & Skilled Trades Department

The director shall

- a. Monitor MRST skilled trades administrators and MRST skilled trades supervisors and hold them accountable for monitoring all mold-related work orders in Maximo and addressing conditions in compliance with protocols established for remediating mold and identifying and correcting root causes.
- b. Respond to recommendations from the Office of Mold Assessment & Remediation.

MRST skilled trades administrators shall schedule skilled trades workers to complete complex repairs within 15 days.

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Lead Hazard Control Department

The supervisor of the Abatement and Clearance Unit shall oversee staff for large remediation jobs and coordinate scheduling work with Environmental Field Operations in MRST and the borough scheduler

NOTE: Once abatement work is complete, Property Management Department staff is responsible for coordinating and scheduling remaining repairs.



Employees Who Remediate or Correct the Root Causes of Mold

- Employees shall follow the protocols in Section VIII.C and D, as applicable, when remediating mold and related conditions or correcting probable root causes.
- Any employee performing work in a resident apartment who 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.



Maintenance & Skilled Trades

Employees must document the materials used in the Materials section of the mold-related child work order including, as applicable, the specific paint (mold resistant or standard) and sheetrock (mold resistant or standard).



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.



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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Initial Inspection Standard Procedure

Standard Procedure Update – Creating Mold Work Orders

- When a resident calls the Customer Contact Center (CCC) to make a service request involving mold or mildew, a parent mold work order is created in Maximo. The resident is required to select a scheduled date for the initial inspection within 4 calendar days of the date of the call.
- If the resident is unable to schedule a date within 4 calendar days of the date of the call, the resident is advised that NYCHA will visit the apartment the same day in an attempt to conduct the inspection; and that NYCHA will return to the apartment within 48 hours to reattempt to conduct the inspection and may use its Right of Entry to access the apartment for that purpose.



Standard Procedure Update – Creating Mold Work Orders

NOTE: When residents are advised in the morning of a business day, the same day means that NYCHA will visit the apartment to attempt to conduct the inspection by that afternoon. When residents are advised in the afternoon of a business day or on weekends or holidays, the same day means that NYCHA will visit the apartment to attempt to conduct the inspection by the morning of the next business day.



SP Update – Supervisory Review of all Mold Work Orders

The borough scheduler must review all mold work orders in Maximo at least daily.

 If an initial inspection generated through a call to the CCC or via the My NYCHA App is not scheduled, the borough scheduler must assign an inspector to visit the apartment that same day to conduct the initial inspection, or issue NYCHA Form 042.727, 48 Hour Notice of Health and Safety Repairs to the apartment.



Scheduling Appointments at the Development – Note!

Initial inspections will be scheduled for a date within 4 days of the creation of the parent mold work order by the Borough Mold Scheduler



Scheduling Appointments at the Development

Siebel compiles the list of residents to remind them through robocalls of their maintenance or inspection appointments. The day before scheduled maintenance or skilled trades appointments, Siebel makes these robocalls.



Scheduling Appointments at the Development

The property manager ensures that a housing assistant, receptionist, or other property management staff schedule the following appointments:

- > Appointments for quality assurance inspections.
- > Follow up appointments for any of the above.
- If the appointment is successfully scheduled, the property manager ensures that the appointment date is entered in Maximo.



Scheduling Appointments at the Development – Note!

All attempts to contact residents must be recorded in the Interview Details (Option 8) in the Tenant Data System (TDS).


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).



Inspection Procedures – NOTE!

Initial inspections are performed using the handheld device. If a handheld device is not operating during the initial inspection, the inspector must record the inspection results on a Maximo paper mold inspection work order and immediately enter the results into Maximo following the initial inspection.



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.



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.



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.



Discussing The Mold Condition With The Resident

Upon arriving at the apartment, the inspector:

- 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



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



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:

- 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.



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.





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.



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.



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.



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)



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.





Mold Root Causes – Changes Overview

Twenty-nine (29) Root Causes are organized by <u>five (5) general</u> <u>categories</u> 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.



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. <u>Maintenance and Plaster.</u>

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. <u>Bricklayer</u>.





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.



Mold Root Causes

Look Through Econdo

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Probable Causes and Remed... Bathroom 01

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No Probable Cause and Remediation has been selected for the following areas: Floor, Wall 1 (Near), Wall 2 (Left). Please select probable cause and remediation for all areas.

Image: Constitution DMI (Pointkinger) Leak Through Façade should be selected when mold, water damage, or wet condition is caused by water penetrating through a crack or damaged/missing mortar on an exterior wall. Image: Constitution DML Image: Constitution DML Image: Constitution DML

Leak - above/beside investigate

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



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 <u>active</u> 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.



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.





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.



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.





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.



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.



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.



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.



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.



- 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.



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.



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).



- 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.



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.



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.



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.


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.



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.



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.



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:

EDUCATION ASSOCIATES Working to make our communities healthy

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



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.



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.



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.



Controlling Mold Form

NEW YORK CITY HOUSING AUTHORITY

Controlling Mold in Your Apartment

What is Mold?

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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

2) CLEAN RECOMMENDED CONTENT - CONTROLLING MOLD

29

. 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. 所居公房管理處備有文件譯本可供索取。 所居公房管理处备有文件译本可供索取.



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.

	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.		
	所居公房管理處備有文件譯本可供索取。		
	Перевод этого документа находится в Вашем домоуправлении.		

Must Take Photo & Save as "Mold Receipt"



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	FloorTilesDML	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 molisture in your unit.

NYCHA is committed to completing all mold and excessive molsture 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 followup 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://ombnyc.com/. If OCC cannot resolve your concerns, they will contact Cesar De Castro, the Ombudsperson, to resolve the issue.

I	A translation of this document is available in your management office.		
I	La traducción de este documento está disponible en la Oficina de Administración de su residencial.		
I	所居公房管理處備有文件譯本可供索取。		
I	所居公房管理处备有文件译本可供索取。		
I	Перевод этого документа находится в офисе управления Вашего жилищного комплекса.		



NYCHA MOLD TRAINING



Measurement Equipment

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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



Inspection Equipment

- Moisture Meter
- Hygrometer
- Anemometer
- Boroscope







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.





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





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





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.



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.





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







Welcome to the Handheld Informer Work Management (iWM)

Training Course for Mold Inspection







December 2018

Handheld informer Work Management Training – Mold Inspection



MOLD/MILDEW WO Workflow - (Continued)

Mold is Found ... Doing the Work (Part 1)...





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MOLD/MILDEW WO Workflow

NO Mold was Found...







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MOLD/MILDEW WO Workflow - (Continued)

Mold is Found ... Doing the Work (Part 2)...





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Work Order Workflow

Doing the work...







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Work Order Workflow

Ending the work...





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View Work Order Details

The **WO** List screen shows a detailed summary about each WO.

Priority

Α

В

С

D

E

F

G

Η

- Development
- **WO Number**
- Address
- Room/Location
- Failure Class
- Problem Code
- **Location String**
- **Reported By Date**
- **Owner Group**
- WO Type

Craft







NYCHA Locations Explained

Examples of NYCHA Locations:

- Developments
- Buildings
- Stair Halls
- Floors
- Apartments

- Rooms (bedroom, bathroom, etc.)
- Heating Plumbing Line
- Grounds
- Elevators
- Community Centers

005.01.001.F02.02C.KIT01

Development #/ Building / Stair Hall / Floor / Apartment / Room 005. 01. 001. F02. 02C. KIT01



December 2018



Samsung Galaxy S8 Buttons







Handheld informer Work Management Training – Mold Inspection

Log in to the device









Handheld informer Work Management Training – Mold Inspection

Display Settings









Launch the iWM Application



Tap on the **Work Management** Application to access the Log In screen.







Handheld informer Work Management Training – Mold Inspection

Log In To iWM Application



Tap **LOGIN**

2

* It is the same User Name and Password as **Maximo**, and Your Computer.

NOTE: Make sure you are in an area that has good cell service.







Viewing Work Orders

All of the WOs that you'll always see are in the user's area/location (**Borough Wide Development** / Managed BY).



Tap ≡ the Menu Button to go to the Menu in order to sort the list of Unassigned Work Orders in a different way.









Menu

3

4

5

Show My Work Orders: Shows open WOs assigned to the user who is logged-in.

- Show Assigned Work Orders: Shows Open WOs that are assigned to other users in the user's area (Development or Borough)
- Show Unassigned Work Orders: Shows Open WOs that are not assigned to any person.
- Show Court Work Orders Today: Shows Open WOs where resident has an appointment for today.
- Show Reinspection Work Orders: Shows all automatically generated WOs as a result of the completed QA Mold Inspection.

	ବି ନ	୍କ≊⊿1 100% 🗎 8:40 AM
	← My Work Orders	©, [±
	Work Order Filtering:	56066681 4/05/18 PM
	Show My Work Orders	ETRUNNING Kitchen 01
2)	Show Assigned Work Orders	СМ
3	Show Unassigned Work Orders	MAINT
1	Show Court Work Orders Today	56063400 4/18/18 AM
5	Show Reinspection Work Orders	O2 GROU CM
ľ	WorkType Filtering:	MAINIT
	Show All Work Types	56631520
	Show CM / DM Work Orders	4/10/18 AM MILDEW
	Show Inspection Work Orders	Kitchen 01 CM / MOLD
	Sort By: Priority	SUPT
	Go To:	56623679 4/10/18 PM
	(i) About	OSPAINTING Kitchen 01





Handheld informer Work Management Training – Mold Inspection
Viewing Work Orders - Types

Work Orders can be filtered and sorted by Work Order type, there is no default.

- **Show All Work Types** displays all open Work Orders for the Development.
- 2 Show CM / DM Work Orders displays all Corrective Maintenance and Deferred Maintenance Work Orders.
 - Show Inspection Work Orders displays all the Inspection Work Orders.

	🖾 📉 🛔 📕 😡	📲 📲 📶 100% 🖬 11:31 AM		
	← Unassigned All	Q 🛨		
	Work Order Filtering:	55986908 Jnscheduled		
	Show My Work Orders	FRAMEDML Unit 01B		
	Show Assigned Work Orders	SSESSMENT		
	Show Unassigned Work Orders			
	Show Court Work Orders Today	56054327 Inscheduled		
	WorkType Filtering:	Unit 07C		
1	Show All Work Types	CM		
2	Show CM / DM Work Orders	56055204		
3	Show Inspection Work Orders	LNOTCLOSE		
Ī	Sort By: Priority	SESSMENT		
	Go To:	56056354		
	(i) About	Inscheduled ETRUNNING		
	🗘 Queue Management	Bathroom 01 CM		





Handheld informer Work Management Training – Mold Inspection

3

Mold Work Orders Process - Inspection

The first **Parent Work Order** appears in:

Show Unassigned Work Orders
Show CM /DM Work Orders

NOTE: If the Work Order is assigned to a worker it will appear in Show Assigned Work Orders or Show My Work Orders.

	ڡٛ	🕼 100% 🗋 11:48 AM
	← Unassigned CM / DM	• []
	Work Order Filtering:	59139474 Inscheduled
	Show My Work Orders	FOLLOWUP ng 04 ROOF
	Show Assigned Work Orders	CM / MOLD
7	Show Unassigned Work Orders	MAINT
	Show Court Work Orders Today	59139473 Inscheduled
4	Show Reinspection Work Orders	Sathroom 01 CM / MOLD
	WorkType Filtering:	MAINT
	Show All Work Types	50120472
	Show CM / DM Work Orders	Inscheduled SCLEANING
	Show Inspection Work Orders	tathroom 01 CM / MOLD
	Sort By: Work Order Number	MAINT
	Go To:	59139471 Inscheduled
	(i) About	NOTSTAYUP Sathroom 01



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1

Mold Work Orders Process - QA

The first **QA Work Order** appears in:

Show Unassigned Work OrdersShow Inspection Work Orders

1

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NOTE: The QA Work Order is automatically generated in Maximo 25-days, and the new Target Start Date will be set to 30 days after the last Child Work Order is closed (or 25-days after the mold inspection gets closed if no children are created).

The Target Finish Date is set to 15 days after the Target Start Date.

If either **Target Start Date** or **Target Finish Date** fall on a weekend or a holiday, then <u>next business day</u>.

	■ ?}	ୱ≌.⊿ 100% 🗎 12:11 PM
	← Unassigned Inspections	Q 🕂
	Work Order Filtering:	59139480
	Show My Work Orders	NOTSTAYUP Kitchen 01
	Show Assigned Work Orders	IN / MOLD
7	Show Unassigned Work Orders	SUPT
	Show Court Work Orders Today	56961507
	Show Reinspection Work Orders	SCLEANING Bathroom 01
	WorkType Filtering:	SUPT
	Show All Work Types	58958997
	Show CM / DM Work Orders	CAULKBASE
Z	Show Inspection Work Orders	Kitchen 01 IN / MOLD
	Sort By: Work Order Number	SUPT
	Go To:	58958441
	(i) About	athroom 01





Handheld informer Work Management Training – Mold Inspection

1

Mold Re-Inspection Work Orders Process

The first **Re-Inspection Work Order** appears in:



NOTE: Maximo creates the Re-Inspection Work Order immediately and the person who submits the QA Work Order, should see the Reinspection Work Order on his device and right there and then complete and submit Re-Inspection results.

	■ 🗟 ⁴ 6°		
	← Reinspection CM / DM	© 🛨	
	Work Order Filtering:	58985772 Inscheduled	
	Show My Work Orders	(REINSPECT ng Room 01	
	Show Assigned Work Orders	CM / MOLD	
	Show Unassigned Work Orders	SUPT	
	Show Court Work Orders Today	58959152 Jnscheduled	
7	Show Reinspection Work Orders	REINSPECT Bathroom 01	
	WorkType Filtering:	SUPT	
	Show All Work Types	58958582	
/	Show CM / DM Work Orders	6/27/18 PM /REINSPECT	
	Show Inspection Work Orders	athroom 01 CM / MOLD	
	Sort By: Work Order Number	SUPT	
	Go To:	58957787 6/27/18 PM	
	(i) About	REINSPECT ng Room 01	





View Work Order Details

The user can review the **Work Order Details** by scrolling up and down on the **Details** tab.

The fields below are unique for the Mold Inspection Work Order:



1

Work Type = CM Job Plan# = INSMOLDCM Sub-work Type = MOLD Failure Class = MILDEWCONDITION Problem Code = MILDEW

⊑ ବି × ^୳ ଜଣା 10		떅 100% 🗎 9	00% 🗎 9:03 AM	
≡ v	VO# 589562	270		0
DETAILS	WORK LOGS	COMM LO	GS MATERIA	ALS A'
Address	159TH STRE	ET		
Work Typ CM	be Job I INSMO	Plan# DLDCM	Sub-Work	Type MOLD
Failure C MILDEW	lass CONDITION		Problem MIL	Code _DEW
Craft SUPT		Respo	onsible Sche MA	eduler XIMO
Priority 4			S	Status APPR
Schedule Jun 22, 2	ed Start 2018 10:01 A	М	Owner (DE	Group V008
Actual R Jun 22, 2	eported Date 2018 9:47 AM	1	Message	Code
Resider	nce Info			
	VIEW	WORK ORDE	R	





(1)

2)



View and Select Labor - Start the Timer







Handheld informer Work Management Training – Mold Inspection

Inspection Status

On **Perform Inspection** screen you can see the **WO Inspection State.** This is the current **State** of the Inspection.

COMPLETE – All required results have been entered.

- PARTIAL Some results have been entered, but not <u>All</u> required results.
- 3 NONE No results have been entered.
- 4 NOTE: WO Inspection State of the whole WO will appear on this screen and on the Work Order List screen.







1

2

Perform Inspection













Handheld informer Work Management Training – Mold Inspection





1

2

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Once the user completes the mold growth inspection, the **View Details** appear below the **Yes** button.



Tap on the **View Details** to see the summary of the **Inspection** that was performed.











1

2



Evaluation of Water Damage

The second Mandatory question on the Evaluation of Conditions screen is: "is there Water Damage?"



Tap NONE next to is there Water Damage?













Handheld informer Work Management Training – Mold Inspection

1

2







The **Evaluation of Conditions** screen has now two mandatory questions answered.



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Tap on the View Details to see the summary of the Inspection that was performed.







Review the entered Result in the **FollowUp Info** Screen.



Tap the **back arrow**

to return to the **Evaluation of**
 Conditions screen.







Evaluate Moisture Measurement Level





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Evaluate Moisture Measurement Level – (Continued)





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Evaluate Moisture Measurement Level – (Continued)





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Evaluate Moisture Measurement Level – (Continued)





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Complete Evaluation of Conditions

1

The Evaluation of Conditions status is now COMPLETE, and WO Inspection State is PARTIAL.

NOTE: If the Evaluation of Conditions (Task 1) has all the answers as NO for Mold Growth, Water Damage and Wet Reading questions, then <u>do not</u> answer the rest of the inspection questions.

Inspection is complete.

The inspector can then take a **photo** and **submit** the inspection results to **Maximo**.







Perform General Evaluation Inspection













1

Handheld informer Work Management Training – Mold Inspection









AFE, CLEAN, AND CONNECTED CON

Handheld informer Work Management Training – Mold Inspection

General Evaluation 4 The process is the same for the Bathroom 01 following items: * Interior Wall Finish Framing Type • Framing Type: Steel or Wood * Ceiling Type • Ceiling Type: Concrete or Sheetrock • Floor Type: Ceramic, Vinyl or Wood * Floor Finish • Cockroaches: No or Yes * Cockroaches • Rodent Droppings: No or Yes * Rodent Droppings Tap NONE next to Framing Type * Relative Humidity * Is there an exhaust fan? Is Window Operable? (None)





1



The answers to the questions below determines the remediation methods used.

- Interior Wall Finish: Sheetrock
- Framing Type: Wood
- Ceiling Type: Sheetrock
- Floor Type: Ceramic
- Cockroaches: Yes
- Rodent Droppings: Yes

NOTE: Maximo will automatically generate ONE open Child Work Order for Exterminator for <u>every</u> <u>single Organism</u> found in the apartment. For example in the above, there would be 2 WOs 1 for Cockroaches and 1 for Mice.







1

🖬 🗟 👗 냭뚜. 100% 🗎 10:30 AM **General Evaluation** 4 DONE The Supervisor shall input the Bathroom 01 **Relative Humidity** of the room. * Framing Type Upon tapping the **Relative** * Ceiling Type Sheetrock Humidity field, the device. keyboard appears. * Floor Finish * Cockroaches Type **58** View Details > Tap **DONE** on the device to remove * Rodent Droppings the keyboard. View Details > * Relative Humidity 58 1 2 3 X 5 4 6 2 Done← 7 8 9 .-\$ 0





Handheld informer Work Management Training – Mold Inspection

1

2

If the location is a bathroom or a kitchen, the Supervisor shall answer **"Is there an exhaust fan?"** question as **YES** or **NO**.

If there is an **Exhaust Fan**, **Maximo** <u>will automatically generate</u> a Work Order <u>to clean the vent</u> upon submission of the inspection results.

Tap **YES**

1







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December 2018


Perform General Evaluation Inspection – (Continued)





Handheld informer Work Management Training – Mold Inspection



Perform General Evaluation Inspection – (Continued)

If the location is a bathroom, the Supervisor must answer the question, "Is sealant/caulking present around toilet bowl base?" as YES or NO.

Tap **NONE** and select **NO** from the **Select Response** window.

NOTE: Maximo will auto-generate a Work Order, if the answer is **NO**, to fix the **caulking/sealant** with <u>mold resistant caulking</u>, upon submission of the inspection results.

2 Tap DONE







Handheld informer Work Management Training – Mold Inspection

1

Probable Causes And Remediation





Handheld informer Work Management Training – Mold Inspection



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On the top of the screen, **iWM** is reminding the user to select a **Probable Cause and Remediation method** for the Walls 1, Walls 2, and the Floor. 2 Those were the Affected Areas selected in Task 1: Evaluation of Conditions. Selecting **Remediation** for all these walls is mandatory. The Wall-break is a Mandatory question.





2

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Ч[⊊] ⊿ 100% **В** 3:01 PM 🖬 🖄 🐔 Probable Causes and Reme... 4 Bathroom 01 The **Wall-break** is the only No Probable Cause and Remediation has been Mandatory question on the selected for the following areas: Floor, Wall 1 (Near), Wall 2 (Left). Please select probable cause screen. and remediation for all areas. You must select at least ONE * Is Wall-break required? 1 other Probable Cause on the Probable Causes And Bathtub/Shower **Remediation** screen. Caulking The Supervisor will answer **YES** Exterior Wall (Winter) for whichever causes are Façade applicable. Only select what's needed. Grouting Pipe Insulation Tap **NONE** next **Wall-break** question. Leak – above/beside investigate Plumbing – In unit Resident - Cause



1

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(None)







All the Areas Affected by the Wall Break.

Only the **"Areas Affected**" that were selected from **Task 1: Evaluation of Conditions** will show on the list.



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Tap on each area **<u>separately</u>** and enter the remediation method.

🖬 🛎 🖓		'뚜 📶 100% 🗎	ୱ루 📶 100% 🗎 3:38 PM	
÷	Select Areas A	ffected	DONE	
Areas cause	with an asterisk (*) ha / remediation	ve not yet been sele	ected for	
F* F	Floor			
W1*	Wall 1 (Near)			
W2*	Wall 2 (Left)			





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1









If the Supervisor answered **YES** for the **Probable Root Cause**, select the **Areas Affected** by the specific cause.

NOTE: Only "Areas Affected" that were selected from Task 1 will show in list. And EACH surface Area Selected from Task 1 must be accounted for against a Probable Cause.

Multiple surface areas can be selected per **Probable Cause**.

Tap NONE next to Bathtub/ Shower

	🖬 🛎 🕱 🛛 🦉 🖓 🖬 🖓 🖷 🖓			
	← Probable Causes and F Bathroom 01	Reme DONE		
	No Probable Cause and Remediation has beer selected for the following areas: Floor, Wall 1 (Near), Wall 2 (Left). Please select probable ca and remediation for all areas.			
	* Is Wall-break required?	Yes		
->	Bathtub/Shower	(None)		
	Caulking	(None)		
	Exterior Wall (Winter)	(None)		
	Façade	(None)		
	Grouting	(None)		
	Pipe Insulation	(None)		
	Leak – above/beside investigate	(None)		
	Plumbing – In unit	(None)		
	Resident – Cause	(None)		





December 2018

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🖬 🗟 🗙 Ч∰ "100% 🖬 10:14 AM The Select Response window appears, the available answers No Probable Cause and Remediation has been selected for the following areas: Floor, Wall 1 YES or NO. (Near), Wall 2 (Left). Please select probable cause and remediation for all areas. Tap **YES** * Is Wall-break required? Select Response: Notes (Optional) No Pipe Insulation (None) Leak – above/beside investigate Plumbing – In unit (None)





































The **Default Location** is where the inspection is happening.



1

Search for the other **Location** where it is the suspect of the problem.













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Handheld informer Work Management Training – Mold Inspection







Handheld informer Work Management Training – Mold Inspection

December 2018





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Ч⊊ .⊿ 100% 🗋 11:06 AM 🖬 🔊 Followup Info \leftarrow 1 There are two **Remediation** methods for the same issue. Yes Result Problem Code **SHOWERHEADDMLOOO** Selected Areas F **NOTE:** to change the answers Remediation: 10 entered, tap on the **Garbage** Notes plumbing problems Pail icon 👕 , to erase the 1 Yes Result 2 information entered. Problem Code WALLDAMAGED Selected Areas W1 Remediation: 13 shared wall Notes Confirm the message in the Pop-up Window, "Are you sure you want to delete this result?" tap Yes. Tap the **back arrow** 🗲 to return to the Evaluation of Conditions screen.







Handheld informer Work Management Training – Mold Inspection





1



• 🗟 ^ч. 100% ■ 2:59 PM Select Remediation \leftarrow DONE Depending on the wall type the **Remediation** methods can 11B Bathroom Vanities (significant mold) vary. Remove and dispose of cabinetry.Replace cabinetry. Bathtub and shower grout/caulking 12A (Bricklayer) Choose what's the appropriate Where grout/caulking displays heavy and remedy by tapping on the widespread levels of mold growth, dig out existing grout/caulking and replace with approved mold different Remediation resistant product. method. 12B Bathtub and shower grout/caulking (Plasterer) Where grout/caulking displays heavy and widespread levels of mold growth, dig out existing grout/caulking and replace with approved mold resistant product. Minor mold growth (on painted surfaces, 13 shower grout, cabinets, etc.) Clean surfaces thoroughly using a low-toxicity household cleaner with slightly abrasive properties. 8 WALLS: Sheetrock with wood framing Remove and dispose of sheetrock displaying visible water damage, mold growth, and/or that measure wet. Continue removal to a point of at least 6 inches beyond any visible water damage or mold growth on the front or back sides of the sheetrock and/or areas that measure wet or to next available framing member. In areas where significant water damage, mold growth, or moisture is present on sheetrock,





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Tap on 1 or 2 **Remediation** Method. **iWM** will highlight them in Green.

Tap **DONE**

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2

The **Probable Causes and Remediation** screen redisplays.

Tap on View Details





1









The remainder of the fields of **Probable Causes and Remediation** screen are the same.

Upon tapping on a field, the user <u>must</u> select a response, and follow the same process as before.



Tap **Resident – Cause**, there are different questions based upon whether an action is required by the **Resident**.







1



The remainder of the fields of **Probable Causes and Remediation** screen are the same.

Upon tapping on a field, the user must select a response, and follow the same process as before.

Tap on **NONE** next to the **Resident – Cause** field.







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1

The **Select Response** screen displays all the possible causes that resulted from the Resident's actions.

You can select **One Action** at a time.



1

NOTE: if the user selected **Other** for the **Resident Cause**, the user must enter notes to explain this.







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On the Probable Causes and Remediation screen, tap on View Details next to the Resident - Cause.

NOTE: Maximo <u>Will Not</u> generate any Child Work Orders for any **Resident Cause** instructions.





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1	Scroll down and select Toilet . Tap NONE next to Toilet .	
		1












DONE

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Handheld informer Work Management Training – Mold Inspection







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2

The **Probable Causes and Remediation** screen reappears.

Tap Toilet Bowl/Tank Needs Barrier

Tap Tub Surround

Repeat the same process for every Affected Area for Toilet Bowl/Tank Needs Barrier and Tub Surround, by selecting the Failure class, Problem Code, Location, and Notes when needed.







1

2









Inspection Status







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Enter Work Log

The **Work Log** entries are displayed.

2

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Tap the **pencil icon** to enter a summary of your work.







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Enter a **Summary** for the work completed in the **Work Order**.

Tap the **Summary** field, the keyboard will display.







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1

- Using the keyboard, type a brief **Summary**.
- Tap in the **Details** field notice the system will duplicate what you've typed in the Summary field to save you some typing.
- Tap on the "microdevice" by "holding down the little gear ☆" on the bottom left of the keyboard and select the microphone icon and speak to dictate what will be typed.

NOTE: Once it is used the system will remember the last time icon used and keep it selected.

4 Tap NEXT







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3

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When you are done reviewing your **Summary** and the **Details** fields, tap **DONE.**







Review the entered information. If you need to add information tap the **pencil** icon and repeat the process.

Work Log is completed, tap NEXT.





1

2

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Taking Photos for Work Orders

NYCHA has made it very easy to add photos to Work Orders. Photos can be taken anytime during the work flow and automatically attached to the Work Order.

NOTE: Photos are required for **Mold and Mildew Work Orders** as evidence for supervisors and courts to evaluate.











Taking Photos for Work Orders - (Continued)



Tap the image on the preview screen to focus the camera.



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Then, tap the **Circle** icon at the bottom of the screen to take the photo.

NOTE: Once you save a picture you can not delete it.







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Taking Photos for Work Orders - (Continued)

1 You can then type a **Description** to the photo taken.

Тар **ОК**

2

NOTE: All photos taken are automatically saved and stamped with date and time when taken and appear under the **"Attachments"** page of the work flow for evaluation.







Handheld informer Work Management Training – Mold Inspection

Taking Photos for Work Orders - (Continued)





Tap on the **back arrow** ← to return to the Work Order.







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3

Capture Signatures

The **Signatures** screen will display three selections **RESIDENT**, **WORKER** and **SUPERINTENDENT**.

Worker Signature is Optional.

.	ឝ 🗟 ^୳ ଙ୍କ_₁∥ 100% 🗎 3:40 PM				
	mplete Work Order #59139694	0 🖸			
5 Work L	.og — 6 Comm Log Optional	7 Signatures			
LATEST RESID	ENT SIGNATURE				
	Tap Here to Sign				
LATEST WORK	KER SIGNATURE	<			
	Tap Here to Sign				
LATEST SUPE	RINTENDENT/SUPERVISOR SI	GNATURE			
	Tap Here to Sign				
< PREVIOUS	STOP TIME	NEXT >			





Handheld informer Work Management Training – Mold Inspection

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1

Capture Signatures – (Continued)





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Resident Satisfied?

The resident can fill out additional information. The next screen asks if the **Resident is Satisfied YES/NO**.

The resident can select **YES** or **NO** by tapping on the radio button.

NOTE: This information is optional for the **Resident**.

Once the user answers the question, the **RESIDENT: WORK DATE** screen appears.







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Review Resident Signature

Review the resident Name, Comments, and Signature.

Tap **FINISH**.

1





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Worker Signature - Optional





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2

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Supervisor Signature



This signature should be added in the <u>same</u> way as the **Resident Signature** was added.









2

Review Captured Signatures







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Labor

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2

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IN PROGRESS Labor Record (in green) in the Labor tab, indicates the Labor Timer is running.

An IN PROGRESS Labor Record cannot be edited.







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Additional Labor

This is your **Labor Log:** To add a helper or assistant that started work with you, you <u>must</u> add your helper's labor time.



Tap the **Plus icon** + .







Reviewing and Adding Additional Labor





1

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Select the name of an Additional Laborer to add as a contributor to this Work Order.

Search for your helper either by typing his badge ID or by first and last name.



Tap on the **selected name** to add the laborer name to the Work Order.









Notice the **Labor** Record for you, and your partner are both colored green, and have an identical time duration.

To add an additional helper, that has a different work time, and contributed some labor to this Work Order, tap the **Plus icon** and tap **Add Labor.**







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At the top of screen you will see the Employee Number and the Name.



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Tap on the **> symbol** to select the Name from the additional Labor screen.

_	4 6 ≊⊿∎ 10	00% 🗋 3:27 PM
← Enter T	īme	DONE
Labor ►NICEQ0034	Testing ID151	>
Start Date 12/11/18		>
Start Time 3:27 PM		>
End Date		>
End Time		>
Туре	.	
Hours		





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Additional Labor

1

Select the name of the Additional Laborer to add as a contributor to this Work Order.

Search for your helper, either by typing your helper's badge ID, or by first and last name.

Tap on the **selected name**, to add the laborer name to the Work Order.





1



Tap **End Date and End Time** and adjust them accordingly to when the work ended for the additional Laborer.



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Tap on the **Type** field to select the **Labor** Type.

□	^ч ^с ₄ 100% ∎ 3:42 PM	
← Enter	Time	DONE
Labor 001985	William Santiago	>
Start Date 12/11/18		>
Start Time 2:00 PM		>
End Date 12/11/18		>
End Time 3:00 PM		>
Туре	Ţ	7
Hours 1:00	P	





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The **Type** field window selection appears, select the appropriate **Labor** Type.

For <u>all</u> Work Orders, the Labor record **Type** is required to match the primary laborer's type of labor performed, i.e., **INSPECTION**, or **UNSAFE CONDITION.**

Tap **INSPECTION**

a ?	2:26 PM	
← Enter Time		DONE
Labor 001985 Williar	>	
Start Date 7/12/18		>
-→INSPECTION	Inspection	>
RESNOTHOME NOBLDGACCESS	Resident Not Home	>
NOADULT UNSAFECOND RESREFUSED	No Adult Unsafe Condition Resident Refused	>
NOFLRACCESS NORMACCESS	No Floor Access No Room Access	
Hours		
0:38		





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The Edit Labor Time screen reappears, review the Start Time and Date, End Date and Time, and Labor Type.









Submit The Inspection Work Order





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Submit The Inspection Work Order – (Continued)







Handheld informer Work Management Training – Mold Inspection

Practical Exercises

Initial Inspection #1



Practical Exercises

Initial Inspection #2


NYCHA MOLD TRAINING

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Quality Assurance

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- 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.



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.



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.
- 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.



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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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.



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.



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.



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.



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.



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.



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.



Quality Assurance Inspections – Note!

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



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.



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.



Practical Exercise

QA & Re-inspection



QA and Re-Inspection Workflow Process



July 2018



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QA and Re-Inspection Work Order Workflow

Mold was Found...







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QA: MOLD/MILDEW WO Workflow

NO Mold was Found...







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Different Paths for QA ...





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Mold Work Orders Process - QA

The first **QA Work Order** appears in:

Show Unassigned Work OrdersShow Inspection Work Orders

1

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NOTE: The QA Work Order is automatically generated in Maximo 25-days, and the new Target Start Date will be set to 30 days after the last Child Work Order is closed (or 25-days after the mold inspection gets closed if no children are created).

The Target Finish Date is set to 15 days after the Target Start Date.

If either **Target Start Date** or **Target Finish Date** fall on a weekend or a holiday, then <u>next business day</u>.

	a ?	୳ଙ୍କ.₄I 100% 🗎 12:11 PM		
	← Unassigned Inspections	⊕		
	Work Order Filtering:	59139480		
	Show My Work Orders	NOTSTAYUP Kitchen 01		
	Show Assigned Work Orders	IN / MOLD		
7	Show Unassigned Work Orders	SUPT		
	Show Court Work Orders Today	56961507		
	Show Reinspection Work Orders	SCLEANING athroom 01		
	WorkType Filtering:	SUPT		
	Show All Work Types	58958997		
	Show CM / DM Work Orders	CAULKBASE		
Z	Show Inspection Work Orders	Kitchen 01 IN / MOLD		
	Sort By: Work Order Number	SUPT		
	Go To:	58958441		
	(i) About	athroom 01		





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View QA Work Order Details

The start of the QA Process assumes Mold Growth, Water Damage or the Moisture Measurement question was answered YES in the Mold Inspection. If any were YES, this means a condition was found, and therefore, a QA Inspection must be done.

If all were **NO**, this means no issue was found on the inspection, and no QA gets generated.

Remember the QA Work Orders are auto-generated **25 days** after the <u>last</u> Child Work Order is closed.



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Description – Mold QA Inspection

.	🖬 🗟 🔍 ♥ എ∰⊿∎ 100% 🖹 1:57 PM				
≡ WO# 59139480 ○					
DETAILS	WORK LOGS	COMM LOGS	MATERIALS		
Work Orc 5913948	der 80		ASSIGN		
Descripti Mold QA →Location	on Inspection				
008.03.007.F03.03A.KIT01 Kitchen 01 Related Work Orders There are no related Work Orders					
Parent W None	/ork Order				
Assigned Nobody	d To				
Address 107-04	159TH STRE	ET			
	STAR	T WORK TIME			





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View QA Work Order Details – (Continued)





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View and Select Labor

After reviewing the **WO Details** the user is now ready to begin the work. **START TIME** is displayed at the bottom of the screen.



Select Inspection

Tap **NEXT**







1



QA: Evaluation of Conditions







If the user answers **YES** to any of these questions, this triggers the process for **Re-inspection** as the **QA has failed.** The remaining questions on the QA do not have to be answered.

Maximo will generate a Reinspection Work Order once user submits their results on the QA.

On the QA Work Order, the user shall be asked: Mold Growth? Water Damage? Moisture Measurement >= 599





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When a QA is generated, it brings over any of the **NO** answers from the **first 3 questions** from the initial inspection. So the user knows what the previous answers were.

So in this scenario, the question "Is there Mold Growth?" The answer was YES, and the other 2 answers were NO. That's why the answer to the first question is blank. This way the user can quickly answer the question or address a new issue.

Tap NONE next to Is there mold growth?







1

Answer **NO** for **"Is there Mold Growth"** question.

If NO Mold Growth, Water Damage or Moisture Measurement was found on the QA Work Order, then the remaining questions on the QA <u>must be answered</u>.



Maximo checks if the location of the QA Work Order was a bathroom or kitchen, as this drives logic for **Exhaust Fan** question to show.







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Handheld informer Work Management Training – Mold Inspection



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Damage or Moisture Measurement was found on the QA Work Order, the user must answer the question verifying if "All children Work Orders from the original inspection were completed properly."

If **YES**, the QA Work Order has passed and the process is complete.

If **NO**, the QA Work Order fails because the children Work Orders were not completed properly.







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1

All Children Work Orders from the original inspection were completed properly:

If the answer is **NO**, the user shall be mandated to create a Child Work Order off the **QA Work Order**.

This is to ensure the remaining underlying issue is fixed. Users can create multiple Children Work Orders.

The Child Work Order(s) are completed by the responsible party. The process returns to step 1 as this triggers a new **QA Work Order** to get generated.







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1

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♀ Ч₱ 📶 100% 🗎 2:26 PM 🖬 🛳 🚳 **Complete Work Order** 4 O 0 1 **QA: Evaluation of Conditions** WO #59139480 status is now **COMPLETE**, and Ad hoc Perform Materials Inspection WO Inspection State is **COMP/UNSUBMITTED.** Inspecting Location: 008.03.007.F03.03A.KIT01 107-04 159TH STREET Tap **NEXT** 2 COMP / UNSUBMITTED WO Inspection State: 1 **QA: Evaluation of Conditions** Kitchen 01 State: COMPLETE NEXT 🏅 < PREVIOUS</pre> START TIME





2

QA: Work Log

Work Log now contains all the different Child Work Orders that were created and completed for this Mold Inspection.

The Supervisor can check what was done, check the quality of work, and what was reported as an issue.

If the Supervisor finds that the reported issues were not resolved correctly that meets NYCHA standards then, then Super can create another Child Work to fix the problem.

In this case, the process starts again.







Handheld informer Work Management Training – Mold Inspection

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QA: Work Log – (Continued)

Swipe sideways ←→ to the right and left to see a summary of each Child Work Order that was created and completed for this QA.

Each Child Work Order Number has the Location, Failure Class, Problem Codes, Responsible Craft, and the Repairs and resolution.

The user can view the details for each closed and completed Work Order in **Maximo** desktop.

Tap the **pencil** icon to add more information of your findings.

) Tap NEXT







Handheld informer Work Management Training – Mold Inspection

2

3

QA: Submitting The Work Order – (Continued)

Complete the process as before in the Mold Inspection for Comm Log, Signatures, and Labor screens.



Remember if you answered **NO** for the question **"Are all Child Work Order from the Original Inspection completed properly?"** You must create a Child Work Order before submitting the **QA Inspection** results.



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In this case, tap **CREATE CHILD WO** gray bar and follow the instruction for creating a Child or Parent Work Order.







QA: Submit The Work Order







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QA: Different Paths

There are **3 paths** for a QA Work Order:

- **FIRST** QA can pass. This will close the original inspection WO
- SECOND QA can fail immediately if mold growth, water damage or moisture measurement is answered YES (I.e., big issues still exist). This would immediately AUTO-generate a REINSPECTION WO (parent WO) upon submission.

When **Re-Inspection WO** and its children are done, it will generate another **QA**.

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← Unassigned Inspections	• [
Work Order Filtering:	59139480
Show My Work Orders	NOTSTAYUP Kitchen 01
Show Assigned Work Orders	IN / MOLD
Show Unassigned Work Orders	SUPT
Show Court Work Orders Today	36961307
Show Reinspection Work Orders	SCLEANING Bathroom 01
WorkType Filtering:	SUPT
Show All Work Types	58958997
Show CM / DM Work Orders	CAULKBASE
Show Inspection Work Orders	Kitchen 01 IN / MOLD
Sort By: Work Order Number	SUPT
Go To:	58958441
(i) About	athroom 01





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QA: Different Paths – (Continued)

There are **3 paths** for a QA Work Order:

 THIRD QA can fail because a child Work Order to fix the issues from the <u>first</u> inspection wasn't done properly.

So no mold/water damage/ moisture was found (all **NO**), but child WO question indicates a failure. In this case they must <u>manually</u> create a child WO to fix the improperly done one.

No **Re-Inspection WO** gets generated here. Once the child they created gets done, then it will **generate** another QA.

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← Unassigned Inspections	• []
Work Order Filtering:	59139480
Show My Work Orders	NOTSTAYUP Kitchen 01
Show Assigned Work Orders	IN / MOLD
Show Unassigned Work Orders	SUPT
Show Court Work Orders Today	30901307
Show Reinspection Work Orders	SCLEANING Bathroom 01
WorkType Filtering:	SUPT
Show All Work Types	58958997
Show CM / DM Work Orders	CAULKBASE
Show Inspection Work Orders	Kitchen 01 IN / MOLD
Sort By: Work Order Number	SUPT
Go To:	58958441
(i) About	athroom 01





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Re-Inspection





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Re-Inspection Work Order Cycle Workflow

Mold was Found...







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Re-Inspection Work Order

The Re-Inspection Work Order is <u>autogenerated</u> if you answer YES to one of the first 3 questions on the QA (Evaluation of Conditions).

It's a new parent WO that is autorelated to the QA (and the first original inspection).

The Re-Inspection Work Order appears in Show Reinspection Work Orders and Show CM/DM Work Orders.

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	← Reinspection All	Q []
	Work Order Filtering:	58985772 Inscheduled
	Show My Work Orders	REINSPECT
	Show Assigned Work Orders	CM / MOLD
	Show Unassigned Work Orders	SUPT
	Show Court Work Orders Today	58959152 Inscheduled
	Show My Recently Created Child WOs	REINSPECT
	Show Reinspection Work Orders	CM / MOLD
	WorkType Filtering:	SUPT
	Show All Work Types	58958582 5/27/18 PM (REINSPECT
<u></u>	Show CM / DM Work Orders	athroom 01 CM / MOLD
_	Show Inspection Work Orders	SUPT
	Sort By: Work Order Number	58957787
	Go To:	REINSPECT ng Room 01
	_	





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Re-Inspection Work Order Details









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Re-Inspection Work Order

After reviewing the **WO Details** the user is now ready to begin the work. **START TIME** is displayed at the bottom of the screen.







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Re-Inspection: Evaluation of Conditions

Re-Inspection: Evaluation of Conditions status is now NONE, and WO Inspection State is NONE.

Tap INSPECT

1

2









Re-Inspection: Evaluation of Conditions

The **Re-Inspection** will follow the same logic/rules as the original inspection. If an issue is found, another **QA** will be generated after the **Re-Inspection** and its children are completed.

A **Re-Inspection** that is generated based on results from a **QA Work** Order shall not be considered a reoccurrence, as it just means the original issue/incident was not properly resolved.





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Re-Inspection: Completing The Work Order

The **Re-Inspection** will follow the same logic/rules as the original inspection. If an issue is found, another **QA** will be generated after the **Re-Inspection** and its children are completed.

A **Re-Inspection** that is generated based on results from a **QA** Work Order <u>shall not be</u> considered a reoccurrence, as it just means the original issue/incident was not properly resolved.







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Re-Inspection: Completing The Work Order – (Continued)

If as a result of the **Re-Inspection** there was a new issue, then **Maximo** <u>auto-generates</u> new Child Work Orders.

The work has to be completed on **all** the new Child Work Orders.

Maximo will <u>auto-generate</u> a new QA Work Order 5-days after closing all the new Child Work Orders.

Refer to the information at the beginning of this **Reference Guide**.







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NYCHA MOLD TRAINING

Outputs, Reports, and Record Keeping

. 8

EEA ENVIRONMENTAL EDUCATION ASSOCIATES

Working to make our communities healthy

Outputs

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



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.



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.



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

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



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?



Knowledge Assessment

• See what you've learned!

