



MONTANA MUNICIPAL INTERLOCAL AUTHORITY

PO Box 6669
Helena, MT 59604-6669

RISK MANAGEMENT BULLETIN

Please distribute to all appropriate personnel and post in a conspicuous place.

Date: November 19, 2024

RM Bulletin #04-25

To: MMIA Member-Owners

From: MMIA

RE: Proactive Protection Against Water Intrusion

Damage to buildings and their contents from water intrusion is one of the costliest incidents a municipality can face. Taking proactive steps to protect property and the valuable contents inside can be a challenging task as water can enter a building through multiple avenues. Managing these issues can change on a day-to-day basis. Being prepared with a plan to handle these issues when they arise can keep you one step ahead. This risk management bulletin will cover basic ways you can protect your facilities against water intrusion and the ensuing property damage.

Maintenance

The most preventable water damage comes from inadequate maintenance measures. Develop a maintenance program or plan that identifies water entry points throughout your facilities and develop mitigation measures that can be implemented in those areas. Areas to focus on include roof systems, water drainage and drain locations, as well as plumbing and plumbing fixtures throughout all your facilities.

- **Roof Systems:**

- Conduct inspections of roofs and roofing systems including gutters, downspouts, and all water drainage locations, at least annually.
- Inspect roofs and roofing systems after any severe weather event.
- Maintain gutters, downspouts, and all water drainage systems. Fall leaves, freeze/thaw conditions, and nesting critters can restrict flow in these locations.
- Inspect skylights, dome lights, and natural lighting systems to ensure deterioration from weathering has not occurred and all seals are watertight.
- Ensure all HVAC and ventilation systems, if located on the roof, are properly sealed, maintained, and protected against leaks.
- Maintain roof vents, including the outer screen, to ensure proper ventilation.

- **Water Drainage:**

- Ensure that drainage systems are operating at their highest level. Grates, sewer drains, floor drains and catch basins may need increased maintenance during inclement weather events.
- Ensure water is drained into designated drainage locations that are away from doorways, walkways, lower-level entryways, and public parking locations.
- Ensure water is not accumulating or pooling near the foundation of your facilities.



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- **Plumbing and Fixtures**

- Inspect and maintain plumbing systems and fixtures at least annually. Increase maintenance and inspection efforts in heavy use areas.
- Ensure all leaks are reported in a timely manner, small leaks and drips can turn into serious issues if not handled promptly or repaired correctly.
- Know and familiarize yourself with your plumbing system and the materials that make up the parts and pieces of that system. Some materials and parts are at a greater risk to fail under certain conditions or have shorter lifespans than others.
- Implement water/moisture detection systems and devices in areas prone to overflow, leaking, or freezing.
- Maintain heat in problem locations during freezing weather conditions. It's also important to take extra steps to ensure protection of plumbing systems during construction or repair including ensuring adequate heat.
- Schedule component replacements per manufacturers recommendations and prior to failure due to lifespan of equipment and materials.
- Implement procedures for emergency shut-off and train staff to recognize and mitigate issues when they arise.

Construction

Poor or questionable construction and design is another common source for water intrusion to occur in your facilities. Under normal weather conditions and circumstances a well designed and constructed building will keep water out. While it may be difficult to detect if a building was designed and constructed properly there are some simple ways to identify potential issues that don't require extensive technical knowledge.

- Assess the quality, design, and integrity of roofing systems, skylights, and entry/exit ways. There are natural entry points that may deteriorate over time due to weathering.
- Observe the adequacy of your roofs and drainage systems for the anticipated loads posed by rainfall and snow buildup.
- Ensure roof and drainage design addresses ice damming. Damming can cause water backup into buildings and create slip/fall hazards on adjacent walkways and access/egress points.
- Ensure that land adjacent to your facilities is sloped correctly to channel runoff to the designated location. Poorly graded land can channel water intrusion and cause foundation damage and erosion.