

Affordable Multifamily Housing Management Industry White Paper:

Risk Mitigation Strategy by Region, Exterior & Interior

Over the past several years, members of the National Affordable Housing Management Association (NAHMA) began discussing the affordable multifamily housing insurance market and the challenges all were facing. In early 2024, a task force, the Insurance Working Group, was formed to discuss alternative insurance markets and risk mitigation strategies to reduce incidents of claims. The task force was made up of NAHMA members, affiliate members (insurance brokers), member executives and/or team members handling insurance for their company, and other experts, stakeholders and practitioners from the affordable housing industry outside of NAHMA.

Through the efforts of the Insurance Working Group, a risk mitigation strategy was developed by region. The objective was to assess the exterior and interior construction/retrofit opportunities and products that would mitigate environmental and living unit claim risks.

The outline below first assesses the exterior environmental risks by region, then by potential risks. The interior risks are covered broadly below exteriors, assuming that fire, floods and personal security were common, regardless of the region. The Insurance Working Group is pleased to share its collaborative results that may provide others with strategies to reduce insurance claim risk.

Recommendation

The Insurance Working Group recommends that a standard of risk management practice should emerge that may be recognized by insurance carriers in the future, leading to stabilized premiums or potential discounts.

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Northeast Risks & Mitigation

Exterior

1. Potential Risks

- a. Winter Storms
 - i. Heavy snow, ice and blizzards
- b. Flooding
 - i. Coastal flooding and heavy rainfall
- c. Wind
 - i. High winds
- d. Heat
 - i. Excessive heat risk to families

2. Mitigation Strategies

- a. Roofing
 - i. Metal roofs or reinforced shingles (high impact/wind) to withstand heavy snow, ice and winds. *Standard; new construction & replacement
 - ii. Heated roofs or heated roof edge to prevent heavy snow and ice damming that create hazards
 - iii. Flashing, rain diverters, ice shield
 - iv. Gutters & downspouts appropriately sized for anticipated rainfall
 - v. Downspout extensions to direct water away from the building
 - vi. Roof strapped to house/nailing patterns
- b. Construction & Siding
 - i. Brick, block, fiber cement or metal
 - 1. At least lower wainscot assembly to protect against snow damage
 - 2. Structural reinforcement in high -wind areas
 - ii. Adequate flashing
 - iii. Appropriate ground clearance
 - iv. Maintain caulking annually
 - v. Establish flood level elevations and build the foundation high enough that the first floor is above the 100-year floodplain
 - vi. Fill basement and replace lost storage with a main floor addition, if the first-floor elevation is already above the design depth
 - vii. Wet Floodproofing or Dry Floodproofing (generally only effective up to 3'). A structural analysis of the wall strength would be required if it was
 - 1. desired to achieve higher protection. A sump pump and perhaps a French drain system should be installed as part of the measure. Closure panels are
 - 2. used at openings. This concept does not work with basements nor does it work with crawl spaces. For buildings with basements and/or crawlspaces,
 - 3. the only way that dry floodproofing could be considered to work is for the first floor to be made impermeable to the passage of floodwater.
 - 4. Steel frame versus wood frame for wind resistance
- c. Insulation

- i. Increased R-value beyond region recommendations to prevent freezing of pipes or systems.
 - ii. Aid in the prevention of ice dams.
 - iii. Maintain sustained temperatures during excessive heat/cold conditions
 - d. Landscaping
 - i. Landscaping should slope down from the building
 - ii. Adequate drainage
 - 1. Drainage to sewer
 - 2. Drain fields, French drain, creek beds, stormwater channeling,
 - iii. Flood Barriers
 - 1. Berms & floodwalls – no higher than 5' for safety.

South & Southeast Risk & Mitigation Exterior

- 1. Potential Risks
 - a. Hurricanes/Tropical Storms
 - i. Water & Wind
 - b. Flooding
 - i. Heavy rain and flood plains
 - c. Tornados
 - i. Hail, Rain & Wind
- 2. Mitigation Strategies
 - a. Roofing
 - i. Reinforced shingles (high impact/wind) to withstand heavy wind/hail
 - ii. Rain diverters
 - iii. Gutters & downspouts appropriately sized for anticipated rainfall (7")
 - iv. Downspout extension to direct water away from the building
 - b. Construction & Siding
 - i. New Construction –
 - 1. Insulated Concrete Form Walls
 - 2. Steel Support structures
 - 3. Structurally reinforcement of roof to wall and roof decks
 - 4. Elevated structures – above the 100-year flood plain
 - ii. Retrofit
 - 1. Fiber-Cement siding offers both water and wind resistance
 - 2. Fill basement and replace lost storage with a main floor addition, if the first floor elevation is already above the design depth
 - 3. Wet Floodproofing or Dry Floodproofing (generally only effective up to 3'). A structural analysis of the wall strength would be required if it was
 - a. desired to achieve higher protection. A sump pump and perhaps French drain system should be installed as part of the measure. Closure panels are
 - b. used at openings. This concept does not work with basements nor does it work with crawl spaces. For buildings with basements and/or crawlspaces,

- c. the only way that dry floodproofing could be considered to work is for the first floor to be made impermeable to the passage of floodwater.
 - iii. Hurricane shutters
 - iv. Impact -resistant windows
- c. Insulation
 - i. Increase R-value beyond region recommendations to combat heat
- d. Landscaping
 - i. Landscape should slope down from the building
 - ii. Adequate drainage
 - 1. Drainage to sewer
 - 2. Drain fields, French drain, creek beds, stormwater channeling,
 - iii. Flood Barriers
 - 1. Berms & floodwalls – no higher than 5' for safety

Midwest Risk & Mitigation

Exterior

1. Potential Risks
 - a. Flooding
 - i. Heavy rain and flood plains
 - b. Tornadoes
 - i. Hail, rain and wind
 - c. Winter Storms
 - i. Blizzards, heavy snow and ice storm
2. Mitigation Strategies
 - a. Roofing
 - i. Reinforced shingles (high impact/wind) to withstand heavy wind/hail
 - ii. Rain diverters
 - iii. Gutters & downspouts appropriately sized for anticipated rainfall (7")
 - iv. Downspout extension to direct water away from the building
 - b. Construction & Siding
 - i. New Construction –
 1. Insulated Concrete Form Walls
 2. Steel Support structures
 3. Structurally reinforcement of roof -to -wall and roof decks
 4. See mitigation strategies above
 - ii. Retrofit
 1. Fiber-cement siding offers both water and wind resistance
 - iii. Impact resistant windows
 - c. Insulation
 - i. Increased R-value beyond region recommendations to prevent freezing of pipes or systems.
 - ii. Aid in the prevention of ice dams.
 - iii. Maintain sustained temperatures during excessive heat/cold conditions
 - d. Landscaping

- i. Landscape should slope down from the building
- ii. Adequate drainage
 - 1. Drainage to sewer
 - 2. Drain fields, French drain, creek beds, stormwater channeling,
- iii. Flood Barriers
 - 1. Berms & floodwalls – no higher than 5’ for safety

Southwest Risk & Mitigation Exterior

- 1. Potential Risks
 - a. Earthquakes
 - i. Physical failure of a structure or substantial structural and/or damage to walls, windows, door and floors
 - b. Flash Floods
 - i. Monsoons with heavy rains
 - c. Heat
 - d. Wildfires
 - i. Exterior fire hazard destruction to buildings
- 2. Mitigation Strategies
 - a. Construction & Siding
 - i. New construction
 - 1. Foundation Reinforcement & additional foundation and frame attachments
 - 2. Structural steel connections and shear walls
 - 3. Reinforce window frames
 - 4. Safety film or laminated glass
 - 5. Siding; for wildfire areas; aluminum or any metal is fire proof but additionally brick or masonry construction is also fire proof.
 - 6. Enclosed eaves and metal fascia reduces fire risk
 - 7. Wire mesh vent covering
 - 8. See Flood mitigation strategies mentioned above
 - ii. Retrofit
 - 1. Adding or strengthening shear walls with bracing or additional framing.
 - 2. Installation of base isolation/energy dissipation devices
 - b. Roofing
 - i. Use fire-resistant materials such as clay tiles or metal roofing
 - c. Insulation
 - i. Increased insulation above the regional recommendation to help mitigate heat and manage temperatures inside during potential periods of low energy requirements or blackouts.
 - d. Landscaping
 - i. Create defensible barriers 15’ ground, 30’ trees
 - ii. Trim tree limbs up 6’ to 10’ to reduce fire hazard
 - iii. Xeriscape; using indigenous plants

West Risk & Mitigation Exterior

1. Potential Risks
 - a. Earthquakes
 - i. Physical failure of a structure or substantial structural and/or damage to walls, windows, door and floors
 - b. Flooding
 - i. Heavy rain and flood plains
 - c. Wildfires
 - i. Exterior fire hazard destruction to buildings
2. Mitigation Strategies
 - a. Construction & Siding
 - i. New construction
 1. Foundation Reinforcement & additional foundation and frame attachments
 2. Structural steel connections and shear walls
 3. Reinforce window frames
 4. Safety film or laminated glass
 5. Siding; for wildfire areas; aluminum or any metal is fireproof but additionally brick or masonry construction is also fireproof
 - ii. Retrofit
 1. Adding or strengthening shear walls with bracing or additional framing.
 2. Installation of base isolation/energy dissipation devices
 3. Roofing Use fire-resistant materials such as clay tiles or metal roofing
 4. Northwest Region – High impact/wind resistant shingles
 5. Cover all vents with wire mesh
 - b. Roofing
 - i. Use fire-resistant materials such as clay tiles or metal roofing
 - ii. Northwest Region – High impact/wind resistant shingles
 - c. Insulation
 - i. West - Increased insulation above the regional recommendation to help mitigate heat and manage temperatures inside during potential periods of low energy requirements or blackouts.
 - ii. Northwest
 1. Increased R-value beyond region recommendations to prevent freezing of pipes or systems.
 2. Aid in the prevention of ice dams.
 3. Maintain sustained temperatures during excessive heat/cold conditions
 - d. Landscaping
 1. Create defensible barriers 15' ground, 30' trees
 2. Xeriscape; using indigenous plants

Exterior General Mitigation Strategies

1. Solar Panels; implement Rapid Shutdown System (RSS)
 - a. Allows firefighters to shutdown the entire system with one switch
2. Drives/Sidewalks
 - a. Inspect for tripping hazards, uneven surfaces, holes or any potential risks
2. Fencing
 - a. Maintain and keep in good repair
3. Playgrounds
 - a. Inspect and repair annually, maintain records
4. Snow & Ice
 - a. Clear snow and ice as quickly as possible, maintain records of work performed and post notices of risk during these conditions.
5. Personal Injury Risk
 - a. Check lighting frequently
 - b. Maintain security systems if installed
 - c. Work with local authorities for crime, install security monitoring if possible
 - d. Install handrails/guardrails at all stairs
6. BBQ
 - a. Best practice; community BBQ away from buildings, no personal BBQ's
7. Smoking Areas
 - a. 25' from any building and provide adequate receptacles
8. Equipment, Systems and Security
 - a. Playground maintenance annually
 - i. Fencing maintenance annually
 - b. Equipment
 - i. Service annually (Maintain Records)
 - c. Security Systems
 - i. Service annually (Maintain Records)
 - d. Stair Treads (Potential Tripping Hazard)
 - i. Inspect quarterly and replace at first signs of detachment (Maintain Records)
 1. Best practice may be to avoid use.

Interior Risks & Mitigation

1. Fires
 - a. Check common area smoke detectors monthly
 - b. Check unit smoke detectors during regular unit inspections
 - c. Provide fire extinguishers that meet city codes
 - i. Service annually
 - d. Adopt Non-Smoking policies
 - e. Adopt No Open Flame Policies (no candles)
 - f. Install range fire suppression system
 - g. Senior properties (consider induction stove tops)
 - h. Fire safety and prevention material
 - i. Post evacuation plans on every floor
 - j. Hard surface flooring (Likely to be salvaged if limited to smoke damage)

- k. For new construction or substantial rehabs, consider fully sprinkled buildings versus common areas and hallways.
 - i. There is no sprinkler credit on insurance for partially sprinklered buildings
 - l. Replace knob/tube wiring
 - m. Replace Zinsco or Federal Pacific (Stab Lok) electrical panels
 - n. Aluminum wiring pigtailed with copper before reaching receptacle/switch
2. Water
- a. New Construction Considerations
 - i. Dry Fire Building Suppression System
 - ii. Recessed fire sprinkler heads
 - iii. Central Floor Drains in the bathroom and kitchen
 - iv. All sinks to include overflow,
 - b. New or Retrofit Considerations
 - i. Water detection system
 - ii. Automated water shutoff (works with detection system)
 - c. Inspect drains during regular unit inspections
 - d. Inspect for any leaks at faucets and toilets during regular unit inspections
3. Personal Security/Injury
- a. Adequate HVAC, sized appropriately for the square footage to protect against heat and cold temperatures that may lead to personal injury.
 - i. Insulation addressed above will help reduce the demand on the HVAC system
 - b. Carbon Monoxide detectors in every unit and building that has any gas to the community
 - c. Inspect flooring during regular unit inspections for trip hazards
 - d. No master key systems
 - e. Units Rekeyed at time of unit turn
 - f. Entry door double lock system
 - g. Peepholes/Door
 - h. Windows/Sliding Door security locks
 - i. Emergency lighting in all common areas
 - j. Self-closing fire doors over 3 stories
 - k. Secondary egress on every floor
 - l. Self-locking gates on pools, controlled hours of operations, rules & rescue equipment
 - m. Wet floor signage when mopping, cleaning or wet surface
 - n. Pull chords/panic buttons monitored 24/7 by a contracted third party
 - o. Background check on all employees
 - p. Written procedure for notifying residents of criminal activity
 - q. Written procedure for responding to tenant complaints regarding maintenance or service
 - r. Extend house rules to include premises of a temporarily dislocated resident
 - s. Daycare onsite; owner & agent listed as additional insured
 - t. Pest control; document service and timing

Environmental

- 1. Radon

- a. It is recommended that multifamily dwellings should be tested every 5 years by a radon professional.
 - i. EPA recommends all units below the third floor, especially basement level units.
 - ii. Testing in the winter is recommended because Radon levels are typically higher.
- 2. Lead Based Paint (LBP), Lead Pipes and Lead in Soil
 - a. It is recommended that you know when the original construction period was and that you determine the potential for lead pipes and lead based paint used in your asset. A phase I Environmental Survey can also confirm the presence of lead products.
 - i. Lead Based Paint, should be either be removed or encapsulated. Follow EPA regulations.
 - 1. If encapsulated, regular inspection of LBP areas should be conducted. If disturbed, engage a professional for guidance and protection of residents. Follow EPA regulations.
 - 2. Lead Based Paint soil contamination may be encapsulated by ground cover. Follow EPA regulations.
 - ii. If lead pipes are active in your asset, it is recommended that regular ongoing testing of the water occurs.
 - 1. Follow EPA regulations.

Crime Risk Mitigation

- 1. Crime
 - a. Acts that damage the property or harm others
 - b. Mitigation Strategies
 - ii. Security cameras or monitoring systems
 - iii. Security barriers; fencing, security gates, locked access
 - iv. Security Plan
 - v. Law Enforcement engagement, patrols
 - vi. Neighborhood Watch Program
 - vii. Security service or hired staff
 - viii. Auxiliary Lighting
 - ix. Keep trees and shrubs trimmed
 - x. Multifactor authentication on any wire transfers, with verbal confirmation
 - xi. Cyber Awareness Training program
 - xii. Incident Response Plan – Cyber Attacks; test annually

Other Insurance Mitigation Strategies

- 1. Agreement/Contracts
 - a. All contracts or agreements should have adequate indemnification language to protect your insurance policy.
 - b. Listed as additional insured on the third party cert.
- 2. New Construction Site Selection
 - a. The factors identified above on environmental and exterior conditions should be taken into consideration during site selection for new construction.

Tort Claims

Tort claims are quickly emerging as one of the largest contributors to the cost of liability insurance. We are very aware and not ignoring this aspect of our insurance crisis; however, mitigation would require tort reform at the state level. Some states such as Texas, have worked to cap or mitigate the effects of tort claims.