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## Balconies – A Silent Danger

**Proper maintenance is crucial in reducing risk of injury at multi-family structures**

By Michael Petrasek

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**O**wners and managers of apartment and condominium complexes have a myriad of concerns when it comes to the daily operation of their asset. Building management requires a multitude of vendors, contractors and staff who help in the successful maintenance and care of many critical aspects of both a buildings interior and exterior finishes.

With the ever-increasing need to wear many hats and become an expert at solving issues related to the care of a building, managers are often asked to assess some building concerns they may be completely unaware of.

One such area of concern: balconies. While balconies are typically favored and sought after by tenants for their relaxing effects, they can also be a ticking time bomb if neglected by management.

While balconies appear to be an increased source of revenue for the building owner, the silent dangers that lurk upon them due to disrepair and neglect can be catastrophic in the event of a failure.

There are many types of balcony construction, ranging from precast concrete, cast-in-place concrete or even wood and steel framing. Each requires close attention with respect to structural concerns.

It is well known that the weather in Northeast Ohio can undermine the structural integrity of a buildings exterior; balcony construction is not immune from such punishment. Freeze-thaw cycling is a common cause of concrete deterioration where water infiltrates cracks, freezes and expands, causing a multitude of problems.

Structural steel begins to exfoliate and weaken, causing concrete to de-bond and

small cracks can eventually turn into spalls or delaminating sections of a balcony.

It is not uncommon to see four feet of snow piled up on a cantilevered balcony during a harsh Cleveland winter. Recognizing the fact that balconies can and will deteriorate due to weather and without maintenance is an important start.

### Protecting tenants

Tenant safety should be the number one reason a balcony is maintained. Regrettably we read about balconies collapsing or a hand railing giving way, causing human injury or worse. Simple proactive repairs can make all the dif-



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ference and can provide peace of mind to owner, manager and resident.

Here is an overview of important areas to pay close attention to with respect to balconies – and which can be used as a check list:

*Concrete balconies (precast or cast-in-place)*

- Cracks in concrete
- Spalls – delaminating sections of concrete at top, face or underside
- Pitting or flaking concrete – a sign of moisture intrusion
- Failed sealants at building to balcony abutments
- Hand railings that are loose or not secure/pickets that are detached
- Rusting hand railings and/or anchors
- Hand railing pockets where water is sitting in
- Exposed bar joists or steel reinforcing

*Wood balconies*

- Warped supporting posts

- Separations of joists from box beam
- Deterioration of wood components
- Leaning or shifting structural issues
- Cantilevered joist deterioration
- Foundation deficiencies

It is important to remember that each balcony is different and can be experiencing unique symptoms. Balconies should be evaluated on their own merit and not assumed to be the same as the adjacent one. For instance, the elevation of a particular balcony can expose it to more inclement weather than one on another side of the building. It should also be noted that some balconies may require complete removal and replacement due to severe deterioration – and this is not an uncommon occurrence.

While not all balcony concerns are structural in nature, aesthetics can and do play a roll in the curb appeal of a building. With the advent of pedestrian membrane coating systems for top surfaces and breathable coatings for balcony faces and

undersides, tremendous architectural enhancements can be achieved. These state-of-the-art systems provide both preventive maintenance care and aesthetic improvements all in one. More importantly these products help increase the life expectancy of the balcony.

The balcony can be a tenant's favorite spot to relax and enjoy their surroundings or it can be a nightmare if concrete debris is falling down or if left unattended for too long. Pay attention, have your maintenance staff perform semi-annual balcony inspections and look for any of the silent dangers listed above. If you feel your staff is too busy and or not well versed in balcony concerns, then look to hire an outside balcony restoration firm or structural engineer to assess these conditions. This in effect will be a proactive and cost-effective means of combating the silent danger of balcony deterioration. **P**

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