

SEASONAL TOPICS

Decks and Balconies

Decks and balconies are popular features of condominium units. For apartment unit owners, a balcony provides an easy escape from the indoor environment, and decks are synonymous with relaxation and socializing. Units with decks and/or balconies provide increased value over similar units without these features. The appeal of decks and/or balconies can result in increased sale proceeds.

There is a potential downside for owners of units with decks and/or balconies. Balconies and raised decks are structural platforms which project from the building. Because they are exposed structures, they are subject to attack from environmental agents such as moisture, temperature, and biological agents. Inside the building walls the structure is better protected from environmental stresses. If these structures are not adequately protected then damaging and costly consequences may follow.

The majority of decks and balconies are made from either wood or reinforced concrete. Wood structures typically have plywood or 2 x 6 decks that are placed on wood joists. Rot is an issue with those structures, and the plywood can degrade from the presence of moisture. Handrails fastened to the wood framing can loosen if damage is extensive. Repair costs depend on a number of factors such as size, access, and extent of damage, and costs of \$1,500 to \$2,000 per unit are common. The timing of repairs can vary from 5 to 20 years. The repair of these structures needs to be accounted for in the reserves.

Certain factors may increase the deterioration process. Ponding water, carpets, poor dryer vent location, and worn protection systems are some of the factors that promote deterioration. Providing adequate drainage is beneficial and can extend life. On structures with 2 x 6 decking, provide space between boards to allow water to drain. On plywood decks, provide positive drainage.

Carpeting and certain other floor coverings can increase the rate of deterioration of the balcony deck as moisture can be trapped between the covering and decking. Make sure that coverings installed on balconies are waterproof or that a waterproof layer underlies them.

Dryer vents are a source of both moisture and heat, and if located improperly damage can result. Damage can occur from the bottom up when vents exhaust below the deck or balcony. In this case, deterioration may be extensive by the time it is noticed on the top surface. Maintaining adequate paint or stain coverage can extend life.

Check for damage by probing the deck area with a screwdriver. Soft areas may indicate damage and point to a need to define the cause and extent of damage. Prior to completing repairs, determine the cause of deterioration and try to remove it.

Concrete deck and balcony construction is typical: conventionally reinforced or post-tensioned. Conventionally reinforced buildings in Calgary 25 years old and greater are showing signs of damage

on the exposed balconies. This is becoming a wide spread and serious problem in the United States where the building stock tends to be older than ours. The problems arise because atmospheric carbon dioxide renders the concrete structure vulnerable to reinforcing corrosion and corrosion of the reinforcing has many consequences, all of which are negative. Providing a barrier on the concrete balcony surface reduces the potential for this problem to arise.

Post-tensioned concrete poses another issue, that of keeping water out of the post-tensioning system. On balconies, the post-tensioning system is vulnerable to moisture ingress through its anchoring systems which can be located around the outside edge of the balcony. In addition, cracks in the balcony allow water to penetrate through the concrete and potentially into the post-tensioning system. Repairs to the post-tensioning system can be expensive. Again, the provision of a barrier to water access is beneficial in reducing the potential for water ingress.

Although balconies and decks can provide many benefits to the owner, they are subject to damage. Consider a review of the balconies and decks to ensure safe and long-term performance. Early detection of problems can reduce the long-term cost to owners.

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