



Roofing Preventative Maintenance

Roofing professionals generally agree that a good roofing system requires proper design, quality materials and quality installation to perform well. Following the installation of a new roof system, it is also critical to establish a preventative maintenance program in order to attain the expected service life of the roof components and system.

A preventative maintenance program consists of regular inspections and corrective repair of any observed defect. Inspections should be completed twice a year; in the spring and fall and also after any major weather events including heavy rains, high winds and ice storms. Additional inspections should be completed following installation or maintenance of any rooftop equipment.

Inspections should be undertaken by a qualified, trained, roofing contractor who can properly assess the condition of the roofing components, identify defects and perform the necessary repairs. A typical inspection should include a review of the interior walls and ceiling for signs of water staining, exterior walls for cracking and signs of moisture and a review of the membrane, flashings and penetrations.

Factors Affecting Roof Performance

There are many factors that affect the long-term performance of a roofing system and causes deterioration and aging of the roof components including the following:

- Exposure to environmental elements including ultraviolet radiation, wind, rain, snow, temperature, air pollution and industrial emissions.
- Structural movement such as settlement, seismic movement and thermal expansion and contraction.
- Biological growth such as vegetation, fungus and algae.
- Improper or inadequate design of the roof system including improper drainage, flashings, structural deficiencies, etc.
- Manufacturing defects, such as errors in formulation or fabrication.
- Lack of proper maintenance including use of incompatible materials and ongoing water infiltration or condensation infiltration.
- Changes to the use and occupancy of the building other than those for which it was designed such as increase in interior humidity.
- Roof top traffic, abuse or vandalism.

Regular inspections can identify deterioration or defects that may adversely affect the performance of the roofing system. If defects are left unattended they could lead to water or moisture infiltration and damage to the roofing components or interior of the building.

The Need for Preventative Maintenance

Regular maintenance proactively addresses conditions that could adversely affect the performance of the roofing components and lead to damage to the roofing or building components as a result of water or moisture infiltration.

Moisture within a roofing system can, over time, result in deterioration, or corrosion of decking, fasteners and other structural elements. Interior finishes, furnishings, fixtures, interior office equipment, inventory or finished goods and electrical/mechanical systems can also be damaged. Water infiltration through the roof can lead to poor air quality and promote the growth of mould. Needless to say this type of damage can cost tens of thousands of dollars to rectify. Regular maintenance and inspections can identify and correct defects before they adversely affect the roofing and building components and become very costly to repair.

Regular maintenance will also allow for the long term financial planning and budgeting for roof replacement. The timing of roof replacement can be scheduled it will have the least impact on building operations and occupants, during optimal weather conditions and when costs are the most competitive.

Roofs are subject to stress and deteriorating effects due to their exposure to environmental conditions. Thorough and timely preventative maintenance can address conditions that require remedial repair and maximize the long-term performance of a roofing system.

For further information, refer to CRCA's Roofing Preventative Maintenance Manual.

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