

Adjacent Regular Gutter and Downspout Inspection and Maintenance

Do your gutters overflow? Do your downspouts allow rainwater to wash away finish grade at the base of your building or does your basement leak?

Regular inspection of the gutters and downspouts around your facility should take place to assure rainwater is properly collected and directed away from your building. Over time, nearly every type of gutter system will tend to fail due to blockage by leaves, build-up of granular surfacing materials or they may even tend to “droop” because of the quantity and frequency of water flow. Heavy rainfall can over time make the support system loosen and/or begin to pull away from the building. Gutter movement is also affected by the regular seasonal freeze/thaw cycle which every building experiences. Obviously different locations and weather conditions around the country make this a bigger problem in some areas.

Gutters and downspouts are manufactured in a number of materials. Most commonly they are either aluminum, galvanized steel, or copper. They are usually held to the building with straps, or long spiked nails and ferrules attached to solid framing at between 32” (for aluminum) to 48” (for galvanized steel) o.c. maximum. Downspouts are usually held to the building face with straps to prevent sway, and include a bent section at the bottom to project water away from the building, dropping to splash blocks at grade. Positive drainage away from the building is always the goal. Sometimes downspouts drop straight down, and are connected to a below grade foundation drain pipe system which then carries water away from the base of the building. The goal is to keep moisture from saturating the perimeter of the basement, which in turn prevents water from entering any below-grade occupied spaces.

Solutions

- Regularly inspect gutters in the Spring and late Fall (after all the leaves have fallen), to make sure they are clear and clean of leaves or other blockages. Make sure that all joints are aligned and water tight, and that downspouts project water away from the foundation. Some gutters are continuous and the leaky joint problem is minimized. Seal leaky joints with appropriate silicone based product. A large variety of caulking/sealant materials are available from most local hardware stores.

- Make sure gutters are set with a slope – toward the downspouts. Local codes dictate the optimal spacing of downspouts, but a rule of thumb for commercial buildings would dictate a downspout every 25’-30’ maximum on center. In areas where aesthetic concern might prevent much of a slope, it may be necessary to provide additional downspouts, adequate to carry away the actual volume of rainwater. Again, the goal is to keep the weight and volume of water from overflowing (bending) the top of a drooped gutter, to downspouts and away from the building base. Secure the gutter to the face of the building properly and with adequate supports to prevent any bending or drooping.
- Downspouts should be securely attached to the building at top and bottom, and at equal spaced intervals between (not over 10’ o.c.). These should extend to splash blocks which project water preferably 4 feet to 6 feet away from the building exterior walls—or be direct piped to below grade foundation drainage piping. This below grade piping needs to extend well away from the building and hopefully either tie into a storm sewer system, or to daylight well beyond and below the finish grade at the building.
- A variety of gutter leaf guards, screens and filters are available to prevent gutters from filling with leaves, etc. You should investigate the advantages of each type of guard based upon your local conditions when making a decision to install this type of amenity. Like many other things in life, sometimes the available screens and guards are more trouble, or more costly than just cleaning the gutters and downspouts with your hands or a garden hose on a regular basis.

If your facility experiences continuous problems with an overflowing or inadequate gutter system, you may want to contact a local roofing company to acquire a professional recommendation for the proper solution.

Contact LCEF to find an Architectural Advisory Committee member near you for additional information.



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