City of Crystal Lake
Community Development Department

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COMMERCIAL ROOFING/REROOFING

Please provide the following information when applying for a permit:

- Apply online using **City of Crystal Lake ez APP**
  OR submit a Building Permit Application
  Applications are available at City Hall or online at the City's website, **www.crystallake.org**.
- Copy of the roofer's current Illinois Commercial / Industrial Roofing License.
- A copy of the contract, proposal or written scope of work
- Submit a materials list and a copy of the manufacturer's specifications.
- Plan Documents appropriately addressing any change/alteration of any structural material, roof pitch, drain pipes, downspouts or any other equipment that may affect the building structure or roof drainage.

Inspections:
Please schedule all inspections by 4:00 P.M. the day before the inspection.

The following inspections are needed for a commercial roof (Please note: it is the contractor's responsibility to provide roof access for inspections):

- Roof drainage piping inspection (if applicable)
- In-progress insulation (prior to work being covered)
- In-progress roofing
- Final inspection (after all work has been completed)

Please provide the following when requesting an inspection:

- Inspection type
- Address
- Date and time frame (am or pm)
- Permit number
- Name and telephone number of homeowner/contractor requesting an inspection

General:

- All roofing materials must be installed according to manufacturer's specifications.
- Roof decks and roof coverings shall be designed for wind loads Risk Category II: 107mph; Risk Category III: 114mph.
- Roof coverings installed on low-slope roofs shall resist impact damage in accordance with ASTM D 3746, or "Resistance to Foot Traffic Test" in accordance with Section 5.5 of FM Global 4470.
- Design and installation of roof drainage systems shall comply with the current Illinois Plumbing Code.
- Ice and water barrier shall be a minimum of 72 inches wide or extend from the lowest edges of all roof surfaces to a point not less than 24 inches inside the exterior wall line of the building whichever is greater.

***Exception*:** Ice and water protection is not required on detached accessory structures which are not heated.

- Asphalt shingles may not be installed on roof surfaces with a slope of less than 2:12.
- Double underlayment is required where the roof pitch is between a 2:12 and a 4:12 pitch.
- All flashings shall be corrosion-resistant metal with a minimum thickness of .019 inches.
- Aluminum, copper, zinc, zinc coated, or other approved corrosion-resistant nails shall be used in accordance with the recommended nailing schedule or manufacturer's written instructions.
- Roof ventilation must be in full compliance.

Insulation:

- Where the roof insulation or roof sheathing is exposed during a reroofing project and the existing insulation is deficient, roof insulation shall be installed above or below the sheathing to meet the minimum R-Value required in the most current International Energy Conservation Code adopted by the State of Illinois and the City of Crystal Lake.

- Insulation Compliance methods:
  - For insulation above the deck, a minimum R-30 Continuous (rigid) Insulation.
  - For wood buildings with insulation below the sheathing, a minimum R-38 insulation. Note: insulation shall not block required attic/roof venting.
  - For metal buildings with insulation below the deck, R-5 Thermal Spacer Block, a minimum R-19 between purlins, plus an R-11 continuous Liner System located below purlins.
  - U-Factor compliance method is permitted as an alternative to the R-Value as specified in the most current International Energy Conservation Code.

Recovering vs. Replacement:

- New roof coverings must not be installed without first removing existing roof coverings where any of the following conditions occur:
  - Existing roof covering is water-soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
  - Where the existing roof covering is a wood shake, slate, clay, cement or asbestos-cement tile. Asbestos must be removed according to EPA/IEPA specifications.
  - Where the existing roof has two or more applications of any type of roof covering.

Reinstallation of Materials:

- Existing slate, clay, or cement tile is permitted for reinstallation, except that damaged, cracked, or broken slate or tile shall not be reinstalled. Existing vent flashing, metal edgings, drain outlets, collars, and metal counter flashings shall not be reinstalled where rusted, damaged, or deteriorated. Aggregate surfacing materials may not be reinstalled.

Flashings:

- Flashings and valley linings shall be applied in accordance with the manufacturer's installations instructions.
- Drip edge flashing shall be installed at the eaves and rake edges of shingle roofs.

Please note that the information provided in this handout is general in nature. If you have specific questions or need additional information, please contact a Community Development Department representative at (815) 356-3605 or building@crystallake.org.