

The Commercial Inspector

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ask the inspector

Q. What does a commercial building roof inspection entail?

A. The roof of a building is a critical component and often is out of sight, out of mind — until it leaks.

Commercial roof materials vary depending on the roof design. Low-slope roof coverings can be a single-ply membrane made of vinyl (TPO), EPDM or a reflective roof covering that reflects sunlight. Bitumen and built-up roof (BUR) are asphalt products installed on low-slope roof decks. Metal roof coverings include standing seam metal and corrugated metal panels.



Roofs coverings for sloped roofs may be asphalt or fiberglass shingles, man-made slate, concrete, tile, or wood shakes and shingles.

Regardless of the type of roof covering, the roof must be installed properly with proper flashing to keep water out of the building. Furthermore, all types of roof covering require a certain amount of maintenance to help ensure that the interior of the building remains dry.

According to current inspection standards, your commercial property inspector should do the following during a roof inspection:

- » Identify and observe the material roof systems, including the exposed roof covering/membrane and the flashings.
- » Observe and document the condition of the parapet walls, the slope, and whether the slope allows for proper drainage and minimizes water ponding.
- » Observe and document evidence of material repairs.
- » Observe and document the need for material repairs.
- » Observe and document ponding.

snapshots from the field

Is Anything Wrong in This Photo?



- A) No, the roof membrane is installed properly and in good shape.
- B) Yes, the drain is plugged and not allowing water to pond.

- C) Yes, the roof is not sloped properly to allow water to drain.
- D) Yes. The roof membrane is installed properly, but the fiberglass reinforcement matt is exposed.

(answer on the back)

- » Observe and document leaks or damage that could potentially cause a leak.



- » Inquire about and/or estimate the age of the roof covering.
- » Inquire about and document whether a roof warranty is reported to be in effect.

maintenance matters

Have You Checked Your Rooftop Unit's Condensate Drainage?

Summer is a good time for HVAC inspection and cleaning, and if you have rooftop units (RTUs), you should also check to see where each unit's condensate is draining. One of the most common problems with RTUs is improperly piped condensate drains.

According to the [International Code Council](#) (ICC) rooftop units should drain according to the following standards:

- » Larger than six tons: Discharge to a sanitary sewer drain, storm sewer drain or a French drain
- » Six tons and smaller: May discharge to the above or to a gutter, roof drain or other approved location
- » May not discharge into a street, alley or area where it would be a nuisance

Snapshots from the field

The correct answer is D. Yes. The roof membrane is installed properly, but the fiberglass reinforcement mat is exposed. The roof should be evaluated by a roofing contractor to determine whether repair or replacement is needed.

You also want to be sure that your RTUs are not draining onto the roof, as this could cause leaks, result in mold, water damage and other issues. Don't put off your HVAC inspection. Call your local NPI inspector today. [Click here](#) to find your local NPI inspector.

did you know?

What Is a Standing Seam Metal Roof?

Standing seam metal roofs have been popular for centuries. They are prevalent in mountainous regions where the need to shed snow is important. The term "standing seam" describes any type of joinery that uses an upturned portion of the metal to connect adjacent metal sections. The joinery raises the seam above the drainage plane of the panel, creating distinctive vertical lines.

Standing seam roofs represent the state of the art when it comes to durable, sustainable, ecofriendly roofing alternatives, and they provide a service life of three or four decades.

Roofing consultants and professionals agree that the best way to prevent rooftop problems with standing seam metal roofs is to clear the rooftop of everything possible and have no penetrations. This is nearly impossible, so the best alternative is to limit the amount of penetrations and mount equipment to the roof without penetrating the roof membrane whenever possible.



Standing seam metal actually offers clear advantages to other roof types when mounting equipment becomes necessary. Unlike other types of roofing, metal is a rigid, high tensile material. The seam area creates a beam-like structure that can provide convenient anchorage for things like walkways, solar panels, condensing units, gas piping, and the like without damaging the roof membrane.