

Professional Services

- + Roof consulting
- + Construction documentation and administration
- + Condition assessment reports
- + Leak investigations
- + Cost estimating
- + Hands-on surveys and test probes
- + Historic building restoration and rehabilitation
- + Facilities maintenance plans
- + Materials analysis and selection
- + Preservation planning

Steep-Slope Roofing

- + Slate
- + Wood shingles
- + Clay tile
- + Standing seam and batten seam copper
- + Asphalt shingles
- + Flashings
- + Rainwater conduction systems

Low-Slope Roofing

- + Flat seam copper
- + Built-up roofing
- + Modified bitumen systems
- + EPDM
- + Fluid-applied systems
- + Flashings

Building Envelope

- + Exterior masonry
- + Windows and doors
- + Stained and leaded glass
- + Architectural woodwork
- + Ornamental ironwork
- + Steeples, parapets, and cornices

Competence

- + Expertise in roofing technology and building pathology
- + Holistic approach to identifying and treating deterioration
- + Hands-on, up-close surveys from ladders and high reach equipment
- + Principal involvement in all projects
- + Attention to detail
- + Close client collaboration
- + Frequent site visits during construction to monitor quality
- + Continuously refining our understanding of building technologies

SOLUTIONS FOR THE ENTIRE BUILDING ENVELOPE

Up Close: Metal Roofing and Gutters

Deficiencies in existing metal roofing and gutters can be hard to see. That's why it is important to get down on your hands and knees to take a close look. As the following photos reveal, common problems, such as cracked seams, open rivet heads, cracked solder around rivet heads, and holidays in lapped, riveted, and soldered seams can be so severe as to let rainwater slip through. (We also think the photos are really interesting and wanted to share.) Typical causes of the pictured problems include improper seam selection and design, inadequate accommodation of thermal movement, and poor workmanship (in most cases, failure to sweat the solder all the way through the seam), or some combination of the above.



The two photos above show a cracked seam viewed from three or four feet up (top) and when viewed close-up. The close-up view shows that not only is the solder cracked, but the metal has fatigued and cracked, as well.

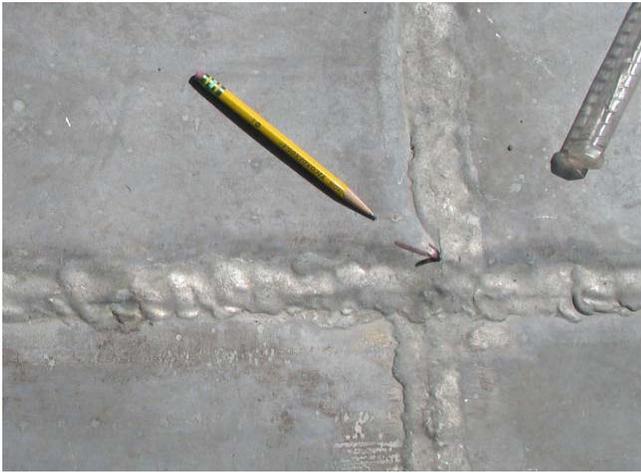


While surface tension might prevent this open rivet from leaking during a light rain, put a head of water in the gutter and this hole will allow water to pass.



Although the holiday in this lapped, riveted, and soldered seam is only about 1/16" wide, it offers a direct path for significant water entry, especially if the gutter outlet tube should clog and a head of water form.

UP CLOSE: METAL ROOFING AND GUTTERS CONT'D.



Contrary to industry standards, the locked and soldered seams in this flat seam, lead coated copper roof were soldered using a torch (rather than an iron). Many of the seams cracked. When cut open, it was found that the solder was not sweat through at all. All of the layers (four typically; six in the photo due to the presence of a cleat) should be completely filled with solder.

LEVINE & COMPANY PRESENTS...

In September, Julie Palmer of Levine & Company, Inc. presented a seminar on slate roofing at a Homeowner Workshop hosted by The Preservation Alliance for Greater Philadelphia. The workshop was held in the Overbrook neighborhood of West Philadelphia. Ms. Palmer's presentation covered different types of slate and their expected service lives, flashings and gutters, slate roof maintenance and proper repair methods, and selecting an experienced slate roof contractor.



Ridgewalker News



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