

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

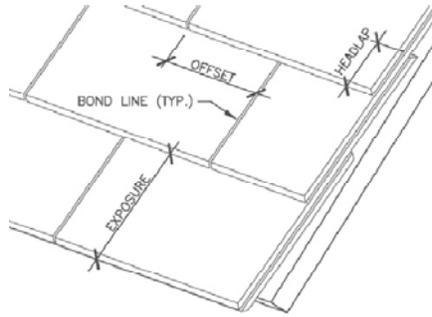
Competence

- + 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: Slate Headlap and Offset

Slate headlap and offset are depicted in the graphic below. Headlap is dependent on roof slope. For roof slopes between 8:12 and 20:12, a 3-inch headlap is standard.



SCHEMATIC SLATE LAYOUT
N.T.E.

After repair work to underlying flashings and gutters, some contractors don't pay attention to these critical dimensions. The result is a slate roof that is more susceptible to water infiltration. Knowing what to look for is critical, as headlap and offset problems can be easy to overlook, especially if observations are made from a distance. Check out the following examples.

The roof below leaked for years after replacement of its built-in gutter liner with a new EPDM (never a good idea) liner. Everybody suspected the EPDM liner. Nobody bothered to check the slate above, which had been removed, salvaged, and reinstalled to permit the gutter replacement work.



A test opening revealed that slate in the second course had been trimmed, or replaced with shorter, reclaimed replacements, the result of which was no headlap (see photo below)! Rainwater was free to enter the roof system at each and every side joint between slates in the course above.



That's no optical illusion; the exposures of the slates in the fourth course above the copper gusset in the photo below taper from left to right. They should not taper. The result is minimal to no headlap at the far left end.



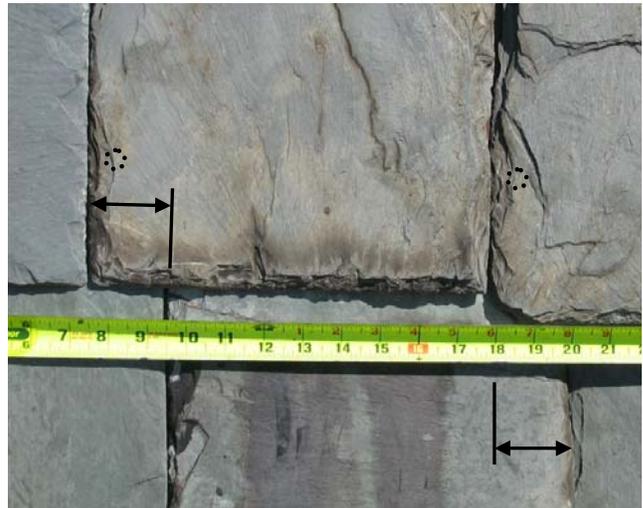
In addition to enlarged exposure, look for butt-line ghost-lines (arrow below) that are too low in reinstalled slate, as these can indicate inadequate headlap.



(Continued on reverse)

UP CLOSE: SLATE HEADLAP AND OFFSET CONT'D.

These slates were reinstalled with a 2" offset. This places the nail holes in the slates below too close to the bond lines (joint between slate shingles). The nail holes, thus, become susceptible to water infiltration during heavy or wind-blown rains.



LEVINE & COMPANY PRESENTS...

Dodging snow storms in late January, Julie Palmer of Levine & Company traveled to Kentucky to visit the facilities of Campbellsville Industries, Inc., the self-professed "Steeple People"®. The purpose of Julie's visit was to observe the progress on a new, 30-foot tall, lead coated copper spire being fabricated for Bryn Mawr Presbyterian Church. Maintaining the church's historic appearance was a critical aspect of this project. To that end, L&Co. comprehensively documented the original lead clad spire prior to its disassembly, reviewed shop drawings prepared by Campbellsville, and observed the new spire during fabrication in order to ensure that the appearance of the new spire will closely match the original. As shown in the photo at the right, the new spire is being constructed on its side and is rotated, as necessary, to permit work on all 8 sides.



Ridgewalker News



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