



Subject: Slate Roof Treatments

- Applicable Standards:**
- 2. Retention of Historic Character
 - 6. Repair/Replacement of Deteriorated or Missing Features Based on Evidence

Issue: The roof of a historic building is often its most character-defining feature and a roof covered in slate only adds to this character. Slate as a roofing material continues to be one of the most durable materials available, with a life-span as long as 150 years. It is also weatherproof, aesthetically appealing, and readily obtainable. Although the recommended treatment is to repair a slate roof or replace it in kind if necessary, with rising costs and a variety of alternative roofing products on the market, property owners may prefer to replace slate with alternative roofing materials. These include asphalt-based fiberglass shingles, polymer-based shingles (often containing recycled materials such as rubber), and less successfully, concrete and metal shingles. Replacing a deteriorated historic roof may fail to meet the Secretary's Standards if it is replaced with a material that does not have the same visual qualities as the original. Slate roofs can often be repaired and some roofers specialize in this practice by removing and replacing only the most damaged tiles and keeping as much of the original as possible. This is the recommended approach. It may be accomplished on an as-needed basis and is generally cost effective. Most importantly, it preserves the roofing material, and thus, preserves the building's historic character.

At times, however, slate may be damaged beyond repair or missing entirely. What, then, is the most appropriate treatment? Replacement of the slate in kind to match the existing is always the preferred treatment. However each project must be evaluated on a case-by-case basis, taking into account the existing condition of the roof, its profile and visibility, the availability of materials, and the overall design of the building.

Application 1 (Compatible Treatment): After surveying approximately fifty buildings in this Colonial Revival-Style apartment complex, it was determined that the 80-year old slate roofing was in poor condition. As a result, the owner proposed that all the slate be removed and replaced with a polymer-based substitute. The most distinctive features of these simple 2-1/2 story brick garden apartments are their hipped and gabled slate roofs, which are very visible within the complex. Therefore, replacement with a substitute material was deemed incompatible and the owner agreed to use new slate from the original quarry. The new slate roofs, which require only seasonal maintenance, are a sound investment and historically appropriate.



Typical view of Colonial-Revival apartment building in complex before rehabilitation. Note the mottled appearance of original slate due to numerous past repairs.



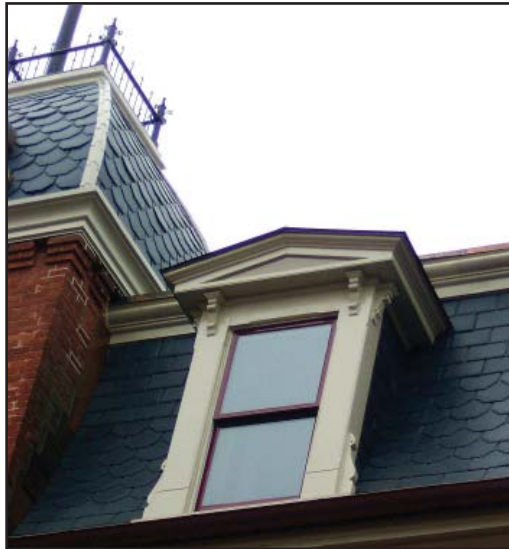
Close up of damaged and previously repaired slate.



Right: New rubber slate (center; left) next to historic slate (right).

Application 2 (Compatible Treatment): This 1894 example of Second Empire architecture is “high style” with pedimented dormers, balconies, corbelled cornices, a dominant central tower, and a small mansard roof covered in slate. Prior to rehabilitation the property was in extremely deteriorated condition and although some of the slate on the mansard was still there, it was delaminating, fractured, and partially painted. Since the roof is only one of many decorative elements making up the primary façade and not the sole defining feature of the building, replacing the slate with a polymer-based substitute slate was an acceptable alternative. Although the replacement slate is visible,

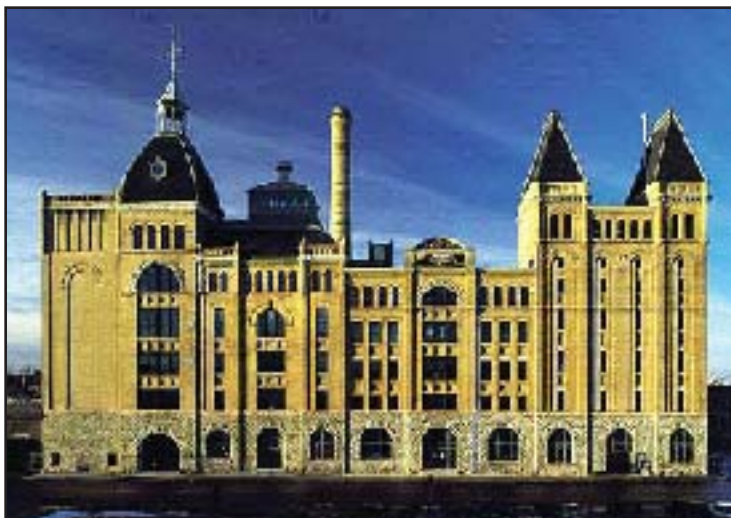
it replicates the decorative fish-scale pattern of the historic slate and, thus, has the same appearance as the original roof. Because the building is on a narrow street and is generally viewed at an angle rather than head on, the mansard roof is not the major focal point.



Left: Second Empire former hotel, built in 1894.

Right: Close-up of substitute slate after installation.

Application 3: (Compatible Treatment): After careful inspection, the slate roof of this circa 1895 former brewery was determined to be beyond repair and during rehabilitation was replaced with high quality asphalt-based fiberglass shingles. The new asphalt shingles are the same size and color as the original slate and have similar shadow lines. The roof, with its many towers, turrets and monitors, is clearly a distinctive and prominent feature, but because of the massive scale and height of the building, it can only be viewed at a considerable distance. For this reason, a substitute roofing material was acceptable in this instance.



Above: Close up of the replacement roof after installation.

Left: View of the historic brewery taken from a distance after rehabilitation.