

Docket Item # 3  
BAR CASE #2010-0373

BAR Meeting  
March 16, 2011

**ISSUE:** Alterations—Roof Replacement

**APPLICANT:** Mark Stevenson and John Schmidt by Alexandria Roofing Co., Inc.

**LOCATION:** 917 Prince Street

**ZONE:** CL/Commercial

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**STAFF RECOMMENDATION:** Staff recommends denial of the application in accordance with the BAR Roof Materials Policy (adopted 10/20/2010). However, if the Board finds that a substitute material is appropriate, that it be a shingle matching the form, color, design, texture and other visual qualities of the existing tile roof as closely as possible.

**BOARD ACTION: January 5, 2011:** Deferred for further study, 7-0.

#### **SPEAKERS**

Pat Cavanagh, with Alexandria Roofing, described the work they had done to locate new or salvage replacement specialty clay tiles for the turret shingles. He estimated that only 10% to 12% of the existing roofing could be salvaged for reuse and that many tiles were broken but, because the roof had been painted 3 to 5 times, this was not readily evident from the ground. He said that the only company they had located who would make replacement tiles wanted \$800 each for the four different size tile molds necessary, plus the cost of the tile, requiring a total of approximately \$15,000 in material alone for this small roof. He explained that the original shingles lack the side lap required by modern code and that a single ply membrane roof underlayment would leak again within 8 to 10 years.

Mr. Stevenson, owner, described the roof leaks and the number of times it had been repaired unsuccessfully.

Mr. John Hynan, representing the HAF, believed the tiles must be replaced if it were possible to make them, which it appeared to be.

#### **BOARD DISCUSSION**

Mr. von Senden did not believe that the shingles needed to be 100% waterproof. He suggested the underlayment could be the waterproof membrane.

Mr. Fitzgerald framed the issue as one of locating a cost effective replacement material. He suggested that an artisan potter might be more appropriate to make the specialty tiles than a large roofing company. If the material cannot be replicated, then he wanted to see a historically appropriate alternative that had been used on historic buildings. He did not like the standing seam

copper proposal because it changed the visual character of the roof.

Mr. Cavanagh responded that he could not warrant roofing made by an artist with no experience making clay roof tiles but that he had investigated copper shingles. He repeated that the original clay tile design does not prevent water infiltration and that he believed the underlayment would only protect the framing below for 8 to 10 years.

Mr. Smeallie is not ready to approve or deny this application. If the historic clay tiles cannot be replicated, then he preferred the color and texture of the slate shingle sample.

Mr. Keleher said that, except for the absence of the bumps in the historic clay tile, the slate looked ok.

Mr. Neale asked whether the exterior finish on the bay window below the turret was copper. The owner replied that it was but that it had been painted many years ago. Mr. Neale suggested there was a logical design relationship between the two and urged the applicant to continue to explore copper shingles and possibly strip the paint from the bay.

Mr. Carlin made a distinction between a simple vernacular side gable roof and a large Mansard roof and turret on a building such as this highly visible semi-detached pair of townhouses, which he described as an exemplary example of a full force pair of Romanesque style buildings. He agreed with Mr. Hynan that the roof is a fundamental part of the design of this structure and encouraged the applicant to spend the money to replicate the historic clay tile.

Mr. von Senden made a motion to defer and restudy based on the comments above. Mr. Fitzgerald seconded the motion, which passed unanimously, 7-0.

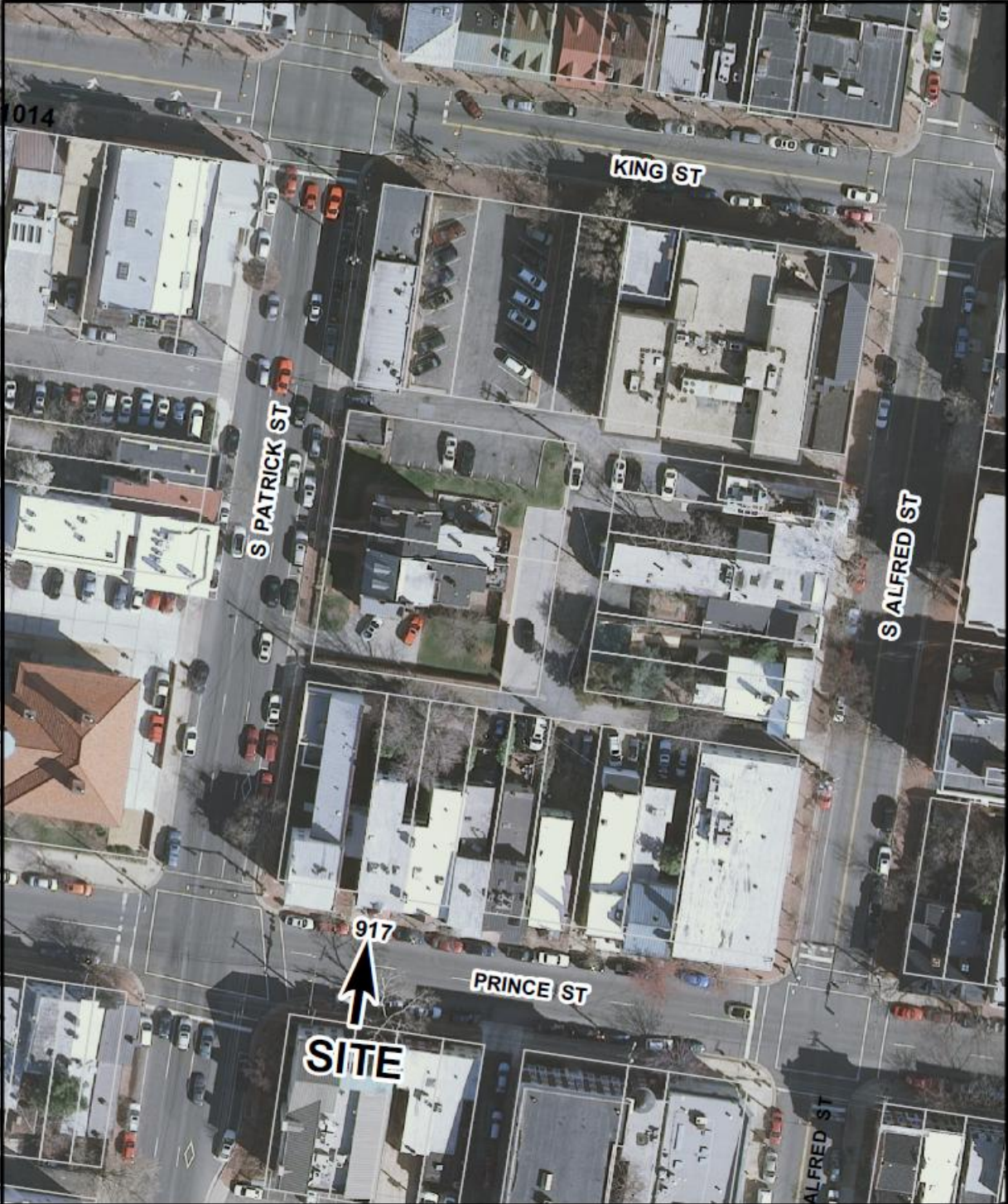
## **REASON**

The Board was not comfortable approving a substitute roofing material on this highly visible high-style building without first exploring all alternatives.

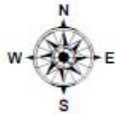
**STAFF RECOMMENDATION, January 5, 2011:** Staff recommends denial of the application in accordance with the BAR Roof Materials Policy (adopted 10/20/2010). However, if the Board finds that a substitute material is appropriate, that it be a shingle matching the form, color, design, texture and other visual qualities of the existing tile roof as closely as possible.

**\*\*EXPIRATION OF APPROVALS NOTE:** In accordance with Sections 10-106(B) and 10-206(B) of the Zoning Ordinance, any official Board of Architectural Review approval will expire 12 months from the date of final approval if the work is not commenced and diligently and substantially pursued by the end of that 12-month period.

**\*\*BUILDING PERMIT NOTE:** Most projects approved by the Board of Architectural Review require the issuance of one or more construction permits by Building and Fire Code Administration (including signs, windows, roofing and siding). The applicant is responsible for obtaining all necessary construction permits after receiving Board of Architectural Review approval. Contact Code Administration, Room 4200, City Hall, 703-746-4200 for further information.



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**Update:**

When the Board first reviewed this application at the January 5, 2011 hearing, several Board members commented that the roof on this building was a character-defining feature and also that they needed additional information in order to make a decision. At the hearing, the applicant explained that he was concerned about installing a roof (with appropriate underlayment) that would begin to leak over time. After that meeting, the applicant provided Staff with a sample of a prefabricated copper shingle and a diagram showing that it could not be installed on the conical shape of the turret. The applicant's current request is to use the slate "Red Diamond Cut Tile" on the turret. **New information and analysis is provided below in italics.** While Staff appreciates the applicant's additional research and patience during this review, Staff maintains the previous recommendation.

**I. ISSUE**

The applicant is requesting approval of a Certificate of Appropriateness for replacing the roof material on the top of the turret form bay window at 917 Prince Street with a different material. The existing roof, both the mansard portion and turret, are made of red clay tile. The mansard roof has barrel mission clay tiles and will remain. The turret roof is made of graduated sizes of tapered, curved tiles with a decorative knob, a number of which are broken or damaged. *The previous request was to replace the existing clay tiles on the turret with tapered standing seam copper panels. The applicant now proposes to use a tapered red slate tile for the replacement.*

**II. HISTORY**

The three-story Richardsonian Romanesque townhouse is one of two semi-detached townhouses constructed **between 1891 and 1896**, according to Sanborn Fire Insurance Maps. While the two townhouses have different architectural features, they are both in the same Richardsonian Romanesque vocabulary and share a common mansard roof clad in barrel shaped Mission style clay tiles.

The Richardsonian Romanesque is a late 19<sup>th</sup> century architectural style characterized by squat columns, semicircular arches and walls constructed of heavily rusticated and multicolored brick and stone. "Towers occur in about 75% of Richardsonian Romanesque houses." (*A Field Guide to American Houses*. McAlester, p. 301.) This architectural style was popularized in Alexandria by native son Glenn Brown, FAIA, who was clerk of the works on Richardson's Cheney Building in Hartford, CT, before returning to practice in Alexandria, though there is no evidence that Brown designed this specific dwelling.

Staff did not locate any previous BAR approvals for this address.

**III. ANALYSIS**

The proposed alterations are in compliance with Zoning Ordinance requirements.

The *Design Guidelines* state that "Roofs of historic buildings are one of the dominant visual elements in the historic districts" and "an informed and careful analysis of the existing condition should be made before any decision to replace historic materials is made." The *Roof Materials Policy* adopted by the Board in October 2010 states that "original roofing...should be preserved and repaired whenever possible," and that "When staff concurs that it is not possible to repair or salvage and reuse original historic roofing material, replacement materials should match the original in design, color, texture and other visual qualities...to the maximum extent possible."

In this case, the applicant proposed replacing the turret tile roof with a field tapered and custom fit red slate shingle, which staff initially discouraged, and then with a standing seam copper. Although these are high quality, durable and natural materials which were used on houses of this period, Staff advised the applicant that such a proposal would require Board approval and a convincing argument would have to be made for why the existing tiles could not be retained and why the existing tiles could not be matched for replacement of the missing pieces. Staff provided the owner with the National Park Service's Preservation Brief on *The Preservation and Repair of Historic Clay Tile Roofs* and recommendations of tile roof companies that salvage and/or match historic roof tile, including Ludowici, a company that has continuously manufactured similar tile roofs in the US since 1888. Following significant research, the applicant determined that historic salvaged tile were not available in the specialized sizes and shapes used on this turret.

The applicant then contacted Ludowici and was told that duplicate tiles (in the four different graduated sizes required for the tapered turret roof) could be fabricated but would not match the existing tiles exactly in color since these had been painted 3-5 times in the past. Staff reminds the Board that their purview in the Zoning Ordinance is limited to matters of architectural appropriateness and compatibility, not cost. Highly textured façade materials are a character-defining feature of the Richardsonian Romanesque style. As such, and because replacement tiles can be fabricated, Staff is unable to support replacement of the turret roof with a substitute material under the *Design Guidelines* and the *Roof Materials Policy*.

*Staff since contacted staff at two H.H. Richardson-designed buildings with turrets—Trinity Church in Boston and the Ames Free Library in North Easton, Massachusetts, both of which have turrets and character-defining roofs. At the Ames Free Library, the tower was recently renovated and restored. While the roof material on the tower was originally designed with a different material (a brownstone tile) than the main roof body, it has a horizontal emphasis characteristic of this architectural style. The restoration architect for the tower at the Ames Free Library noted that they reconstructed the internal roof structure and therefore did not use a self-healing membrane underlayment, however he noted that using one with the tiles would certainly ensure the roof would be watertight.*

Should the Board find that replacement with an alternate roof material is appropriate, Staff advises that the replacement material be a shingle form so that the visual appearance and texture is more closely approximated. As stated above, clay tiles, on various roof forms including turrets and towers, are a key identifying feature of the Richardsonian Romanesque style that adds decoration and texture to this visually prominent architectural feature. In this instance, the use of barrel tiles on the mansard portion creates a vertical emphasis that contrasts with the heavily textured, horizontal focus of the tiles on the turret. The use of a standing seam metal would simplify the surface texture and result in the loss of this intentional contrast and depth on this curved form. However, a shingle in an alternate material, could more closely match the original “design...texture and other visual qualities and...utilize the same materials and installation method.” The *Roof Materials Policy* also recommends matching the color—therefore, a red slate shingle, painted to match the existing tiles, is preferred to a metal standing seam or a metal shingle. *However, a red slate tile would not have the distinctive decorative knob that results in a fluted edge that the existing tiles possess.*

*At the January 5, 2011 hearing, Pat Cavanaugh of Alexandria Roofing, representing the applicant,*

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*expressed concern that an ice dam type membrane roof would harden and would not seal around the nails after 10 to 20 years in the Virginia sun and that he could not warrant this roof system. Staff notes that Jefferson's metal shingle roofs at Monticello and UVa, which leaked from the day they were installed, were restored in the early 1990s using a self-healing EPDM membrane beneath the shingles to act as the actual waterproofing membrane. Staff contacted an architectural conservator at Monticello, Bob Self, who spoke about the roof restoration at Monticello and confirmed that there have been no roof leaks since the restoration work was completed.*

One of the challenges in the historic district is finding suitable replacement materials. The Boards of Architectural Review, the Modern and Sustainable Ad Hoc Work Group, and BAR Staff have been working diligently over the past year to review alternatives and to determine what materials are appropriate for replacement of roofs, windows, doors and the like. While the applicant has shown that replacing in-kind would be challenging, it is evident that an in-kind match could be made and, therefore, Staff cannot support a substitute material. *While cost is not a criteria the Board may use for consideration, Staff readily acknowledges that the cost of reproducing the clay tiles is expensive. That said, the difference in cost between the hand formed slate and clay tile seems small in relation to the overall value of the house, the number of decades that this roof material will last, and the visual character that the roof turret adds to this facade. Staff, therefore, maintains its position that the only acceptable solution is to replicate the existing decorative red clay tiles.*

However, if the Board finds that a replacement material is appropriate, Staff recommends that the replacement material match the original as closely as possible in “design, color, texture and other visual qualities” and believes that the field fabricated red slate is the best alternative to the custom fabricated red clay tile for this small area *though Staff continues to have reservations about the visual qualities of this substitute material.*

#### **STAFF**

Catherine Miliaras, Historic Preservation Planner, Planning & Zoning

Al Cox, FAIA, Historic Preservation Manager, Planning & Zoning

#### **IV. CITY DEPARTMENT COMMENTS**

Legend: C - code requirement R - recommendation S - suggestion F- finding

##### Code Enforcement:

C-1 A building permit is required to be issued prior to start of any work.

C-2 Roof drainage systems must be installed so as neither to impact upon, nor cause erosion/damage to adjacent property.

Zoning: C-1 Proposed roof replacement complies with zoning.

#### **V. IMAGES**



**Figure 1. Front elevation of 917 Prince Street (on left) with turret with existing clay tile roof.**



**Figure 2. Detail of existing roof material on turret and mansard.**



Figure 3. Piece of existing clay tile with decorative knob (left) and sample of red slate (right).