



City of Alexandria, Virginia

MEMORANDUM

DATE: DECEMBER 27, 2010

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

THROUGH: JAMES K. HARTMANN, CITY MANAGER 

FROM: FAROLL HAMER, DIRECTOR 
DEPARTMENT OF PLANNING AND ZONING

SUBJECT: STATUS OF BAR POLICIES FOR THE APPROPRIATE USE OF MODERN
AND SUSTAINABLE MATERIALS IN THE HISTORIC DISTRICTS

The issue of historically appropriate replacement materials was raised by the slate roofing appeal at 211 North Patrick Street in March 2010. As a result, Council asked Staff to work with the Boards of Architectural Review (BARs) to develop clear and consistent BAR policies for the use of modern and sustainable replacement materials. Significant progress has been made since Staff's last update in June, and this memo provides a status report on this broad, multiphase study.

At their respective October meetings, the Old & Historic Board and the Parker-Gray Board both unanimously adopted the attached *Roof Materials Policy* and *Window Policy*. Staff believes that these two new policies fully respond to Council's original request by simplifying and significantly increasing the transparency of both the Certificate of Appropriateness and the administrative approval process. The policies are written to clarify and supplement the existing *Design Guidelines*. One final policy, to address replacement siding, fencing and other small features, is currently underway and will complete the Modern Materials work program.

BAR Staff continues to meet with the Modern Materials Ad Hoc Work Group – which was formed in early 2010 to provide a broader preservation perspective of the use of modern materials in the historic districts. The Work Group is composed of representatives of the local preservation organizations, the Old Town Civic Association, contractors and design professionals. See Attachment 1 for the members of the Work Group, as well as a list of additional meetings and presentations given by Staff.

Administrative Approvals

Zoning Ordinance Section 10-109 and 10-209, adopted in 1992, gave Staff the authority to administratively approve repair or replacement materials, if the replacement is considered to be appropriate and compatible with the historic surroundings by Board of Architectural Review policy. In the past, these Staff level approvals were done as part of a building permit review or as a verbal approval when a building permit was not required. Staff has now developed a process to formally document these administrative cases and the administrative approvals have

been publicized by listing them on the Boards' dockets since February 2010. Over 180 administrative approvals have been processed this calendar year. The most common approvals are for signs, and roof and window replacements. Staff expects this number to increase with the adoption of the new policies.

Signs

The administrative approval process approved by City Council and by the Boards in 2009 has been highly successful. Additional amendments by both Boards in June 2010 have allowed for additional flexibility and modern sign materials: High Density Urethane and PVC signs that have the appearance of wood but are more durable and commercially available.

Policies for Replacement Roofing and Windows

The full Roofing and Windows Policies, as approved by both Boards, are attached as Attachments #2 and 3. These policies have been in place for only a few months and Staff has already seen an increase in administrative applications taking advantage of the direction the policies contain. In addition, the Boards have considered a number of cases that might in the past have proved troublesome; with the new Policies in place, the cases have been uncontroversial, typically processed as consent agenda items.

The essence of the policies provides that where original historic fabric is identified by Staff in the field, it must be preserved whenever possible. The appropriateness of a replacement material is tied to both the age of the structure and when the proposed material became commercially available.

For instance, Staff has determined from Real Estate and GIS data that approximately half of the 4,000 properties in the Old and Historic Alexandria District were constructed after the district was created in 1946. The ability of the majority of the property owners in the district to now choose replacement materials from a clearly defined list of modern and readily available, but historically compatible, replacement materials – and to have them approved more quickly at less expense -- is a significant improvement over the past practice of the BAR.

The roofing policy contains a section on the environmental sustainability of roof materials, addressing such things as repairing rather than replacing historic roofing, the installation of green (living) roofs, and the retention of rainwater for irrigation purposes. Having originally been constructed prior to the availability of electricity or air conditioning, the design of most historic buildings is inherently sustainable. Many of the most cost effective energy upgrades are related to thermal insulation, air infiltration and mechanical systems which are not within the BAR's purview. Therefore, Staff will address additional sustainability issues for historic buildings early next year as part of the Green Building Phase II work program.

Next Steps

Staff is now working on the final phase of the replacement policies which will incorporate a number of other small but common alterations seen by the Boards, such as siding replacement and installation of fences or porch light fixtures. Staff is hopeful that this phase can be adopted by the Boards in early 2011.

Although the two currently adopted policies are a significant step toward clarifying the process, the present policy documents are not particularly user friendly to the general public. Upon completion of the third phase, Staff will retain a graphic designer to add photographs and organize the policy so that it is visually clear and easy to understand. The document will be available on-line and as a hand out at the counter in the Department of Planning & Zoning.

STAFF:

Stephanie Sample, Urban Planner
Al Cox, FAIA, Historic Preservation Manager

ATTACHMENTS:

1. Modern Materials Ad Hoc Work Group
2. BAR Adopted Roof Materials Policy
3. BAR Adopted Window Policy

Modern & Sustainable Materials Ad Hoc Work Group and BAR Staff meetings

MEMBERS

Old and Historic Alexandria District BAR

Arthur Keleher
John von Senden

Parker-Gray BAR

Christina Kelly

Historic Alexandria Resources Commission

John Sprinkle
Bill Hendrickson

Alexandria Historical Restoration & Preservation Commission

Charles Trozzo

Historic Alexandria Foundation

Gail Rothrock
Laura Trieschmann

Old Town Civic Association

Poul Hertel

Industry

Master Roofing
Old Town Windows and Doors
Smoot Lumber

P&Z Staff

Al Cox
Stephanie Sample

MEETINGS

Modern Materials Ad Hoc Work Group	5/10/10
Modern Materials Ad Hoc Work Group	8/17/10
Modern Materials Ad Hoc Work Group	10/5/10

ADDITIONAL MEETINGS ATTENDED BY STAFF

OTCA Preservation Committee	3/19/10
HAF Advocacy Committee	4/5/10, 5/17/10
Presentation to the OHAD BAR	4/7/10
Presentation to the PG BAR	4/28/10, update 5/26/10
Restoration & Preservation Commission	5/12/10
OTCA Membership Meeting	6/9/10
HARC meeting	9/21/10

Boards of Architectural Review
Roof Materials Policy
10/27/2010

A. General

1. Replacement of more than 25 square feet of any roofing material requires an administrative finding of appropriateness from the Board of Architectural Review (BAR) Staff, under sec. 10-109 and 10-209 of the Alexandria Zoning Ordinance. A building permit from Code Administration is also required for replacement of more than 100 square feet of roof material per the exception to 2006 USBC sec. 108.2(10) and a City Code amendment, effective June 1, 2010.
2. BAR Staff may administratively approve the direct replacement of roofing which complies with all of the policies stated in section B, below. Prior to any approval, BAR Staff must first confirm the age and style of the structure and, where possible, the original roofing material.
3. Where BAR Staff makes a written finding that all or a portion of the roof surface is not visible from a public right-of-way, the roofing material is not regulated by the BAR and may be replaced with any suitable material allowed by the Uniform Statewide Building Code (USBC). Historically appropriate, compatible and environmentally sustainable materials and practices are, nevertheless, encouraged. Whether visible or not, a building permit is required from Code Administration to replace over 100 square feet of roofing in the historic districts.
4. Proposed replacement roofing not in compliance with the Board's adopted policies, or found by Staff to be architecturally incompatible or historically inappropriate, requires review and approval of a Certificate of Appropriateness by the BAR. The BAR will evaluate such cases as to the appropriateness of the roofing product on that particular building using the criteria in the *Design Guidelines*.
5. Any appropriate and compatible modern roof material may be used on new buildings and additions approved by the Board as part of the overall building's Certificate of Appropriateness approval. Refer to the chapter on Roofing Materials in the BAR's *Design Guidelines* for additional information.
6. These policies may be amended by the Boards as new materials become available but will be reviewed by the Board and updated at least every five years.

B. Staff Administrative Approval of Replacement Roofing

Staff may administratively approve the replacement of roofing if the proposed material complies with all of the policies stated below.

1. Original roofing, or existing roofing which has acquired historic importance over time (such as metal roofing which replaced original wood shingles during the 19th century), should be preserved and repaired whenever possible.
2. 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 and should utilize the same materials and installation method to the maximum extent possible.
 - a. Original slate or tile roofing must be replaced with the same style slate or tile roofing (color and shape);

- b. Metal roofing must be replaced with the same style metal roofing (standing seam, flat seam or stamped shingle). Standing seam metal roofing is not appropriate for a Second Empire Mansard style roof, unless documentary, physical or pictorial evidence demonstrate it was the original roof material; and
- c. Original composition roofing may be replaced with architectural grade composition roofing or any other stylistically appropriate roofing material.

However, by past Board practice:

- d. Preformed and prefinished standing seam metal may replace field installed standing seam if the seams and metal pan are the same sizes.
 - e. Solid copper may replace painted standing seam metal roofing.
 - f. Synthetic slate may not replace genuine slate shingles.
3. Where the original roof material is missing and cannot be determined from documentary, physical, or pictorial evidence, roofing historically appropriate to the period of significance of the structure must be utilized. Appropriate material will generally include painted or unpainted sawn wood shingles, genuine slate, standing seam metal or stamped metal shingles. Three tab composition shingles are not appropriate except where evidence confirms it was the original roofing material.
 4. Roofing colors should reflect those available during the period the historical roof material would have been used on that portion of the building.

C. Board Review of New Structures and Additions

1. Roof materials should be visually subdued, compatible with nearby historic structures of historic merit, high quality, durable and environmentally sustainable with an emphasis on life cycle cost.
2. High quality synthetic slate may be appropriate for new structures and additions.
3. Composition shingle roofing is generally discouraged but architectural grade composition shingles may be appropriate in weathered wood or slate blend colors. Ornamental and decorative cut composition shingles may also be appropriate.

D. Environmental Sustainability

1. Roof material for flat roofs or low slope roofs not visible from a public way should be light in color to reduce air conditioning loads on the building and to minimize the urban heat island effect. Living (vegetative) roofs are also encouraged on later buildings or where minimally visible. (no Board review required)
2. Solar collectors should be located on secondary roof exposures where they are minimally visible. Thin film photovoltaic collectors may be appropriate on primary facades only if they are transparent or match the color of the historically appropriate roof material. (Board review required if visible)
3. Existing roof materials should be preserved and repaired wherever possible. Replacement roofing should be made from salvaged, recycled, or natural materials, which should themselves be recyclable.
4. To the extent possible, roof materials should be extracted, processed and manufactured regionally.
5. Roofing systems should capture rainwater for landscape irrigation and to reduce storm water runoff.

Boards of Architectural Review
Window Policy
Adopted 10/20/2010 (OHAD) & 10/27/2010 (PG)

A. General

1. Direct replacement of any window requires an administrative finding of appropriateness from the Board of Architectural Review (BAR) staff, under sec. 10-109 and 10-209 of the Alexandria Zoning Ordinance. A building permit from Code Administration is also required per a City Code amendment, effective June 1, 2010.
2. BAR staff may administratively approve the direct replacement of windows in the existing openings which comply with all of the policies stated in section B, below, and with the Alexandria Replacement Window Performance Specifications listed in section C, below. Prior to any approval, qualified BAR staff must first survey and confirm the existing window's age, architectural style and condition in the field.
3. Where staff makes a written finding that a window is not visible from a public right-of-way, the window is not regulated by the BAR and may be replaced with any suitable window allowed by the Uniform Statewide Building Code. However, whether visible or not, a building permit is required from Code Administration to replace a window in the historic districts.
4. Proposed replacement windows not in compliance with the Board's adopted policies, or not architecturally compatible or historically appropriate in the opinion of staff, require review and approval of a Certificate of Appropriateness by the BAR. The BAR will evaluate such cases on the merits of that particular building and the window product proposed.
5. Vinyl or vinyl clad windows, and windows with removable muntins ("grilles") or muntins sandwiched between the glass, are not considered appropriate or compatible by the Boards and may not be approved administratively as replacement windows.
6. The use of storm windows is encouraged to protect historic windows and to conserve energy. According to the BAR's adopted *Design Guidelines*, storm windows are not regulated by the BAR and do not require a building permit but they should be installed so as not to damage historic material and to be visually minimally obtrusive. Energy panels may be used on single glazed replacement window sash.
7. Any appropriate and compatible modern windows may be used on new buildings and additions approved by the Board as part of the overall building's Certificate of Appropriateness approval. Refer to the chapter on Windows in the BAR's *Design Guidelines* for additional information.
8. These policies may be amended by the Boards as new materials become available but will be reviewed by the Board and updated at least every five years.

B. Staff Administrative Approval of Replacement Windows

Staff may administratively approve direct replacement of windows if the proposed windows comply with the Alexandria Replacement Window Performance Specifications and all of the policies stated below:

1. Original Windows

All original or previously replaced windows with either mortise and tenon (“pegged”) sash joinery, or with cylinder (“wavy”) glass must be repaired and retained. This generally applies to all 18th or 19th century buildings. Where staff confirms in the field that these elements are too deteriorated to repair, they may be replicated to match exactly on a case by case basis. Original window frames from the 18th and 19th centuries must also be preserved and repaired or replicated.

2. Previously Replaced Windows

Windows, or window sash, previously replaced with modern frames and smooth (sheet, plate or float) glass may be replaced with one of the following in the historically appropriate style:

- a. Single glazed painted wood sash must be used on the street facades of 18th and 19th century buildings with multi-light windows. Painted wood simulated divided light insulated glass windows may be used on the secondary elevations of these buildings. Energy panels may be used on single glazed replacement windows.
- b. 1-over-1, or 2-over-2 sash windows with modern float glass may be replaced with double glazed painted wood windows on any façade
- c. Appropriate sash replacement kits must be used in buildings whose sash was previously replaced but which retain the historic frame.

3. Double Glazing

Double glazed (insulated) and simulated divided light painted wood windows may be used throughout on buildings or additions constructed after 1930, when Thermopane insulated glass windows were invented.

4. Aluminum Clad Wood

High quality, appropriately detailed aluminum clad wood replacement windows may be used on buildings constructed after 1969, when these windows became commercially available. Aluminum clad wood windows may also be used on any 20th century commercial building more than four stories in height and on multifamily projects with greater than four units. Aluminum clad wood windows may generally replace steel sash windows on any building when using the same light configuration, color and operation, except where staff believes an architecturally significant building has intact and restorable existing steel sash.

C. Alexandria Replacement Window Performance Specifications

Windows may be provided by any manufacturer but their construction materials and form must comply with the specifications below in order to be approved administratively by BAR staff.

1. The applicant must use full frame replacement windows or sash replacement kits in the existing frame rather than insert or pocket replacements;
2. The dimensions and proportions of the window rails, stiles, muntins, frame, sill and exterior trim must match historically appropriate window proportions;
3. Corners of wood or aluminum clad wood sash must be constructed with mortise and tenon style, butt joinery rather than mitered, picture frame joinery;

4. Multi-light insulated glass windows must have permanently fixed muntins on the interior and exterior, with spacer bars between the glass that are a non-reflective, medium value color;
5. Low-E (low emissivity) glazing is encouraged for energy conservation but the glass must be clear, non-reflective and have a minimum 66% visible light transmission (VLT) through the glass;
6. Muntins must be paintable and have a putty glaze profile on the exterior;
7. The vinyl portion of the wood window jambs should be minimally visible;
8. The frame for insect screens must match the color of the window frame and the screen mesh must be a neutral color with sufficient light transmittance that the window sash remains visible behind; and,
9. The applicant must submit complete window manufacturer specification sheets and a contractor order form to BAR staff for final approval with the building permit application.