



## **Replacement Windows Where No Historic Windows Remain**

Historic windows make a significant contribution to the character of most historic buildings, but many rehabilitation projects begin with a building that has no historic windows. Whether new windows will replace ones that have been previously replaced or will fill openings where windows are entirely missing, the new windows must be consistent with the historic character of the building. The existence of inappropriate replacement windows does not justify further replacements that are not compatible with the building.

The ideal basis for the design of a replacement window is the original historic window. Information on the appearance of the historic window can come from physical evidence that survives in the building or from historic photographs. However, evidence of missing historic windows can be misinterpreted and can lead to an inappropriate choice of replacement windows. Especially when working from information on a limited portion of the building, it is important to understand that all windows in a building may historically not have been the same.

Just as the quality and refinement of masonry may differ between the facade and the rear or side elevation, reflecting a hierarchy in the design of the building, the details of the windows may also vary, similarly reflecting issues of cost and appearance. It is obvious that refined face brick with tooled, tinted mortar is more costly masonry than common brick with coarse joints of plain mortar. It may be less obvious that until the 1920's a large-paned, 1/1 window was more costly than a 2/2 or 6/6 window. Prior to the mechanization of glass manufacturing, the added cost of a large piece of glass exceeded the cost of the wooden muntin structure that supported multiple smaller pieces of glass. Thus, a large, mid-19th century house might have 2/2 windows on major elevations yet have 6/6 windows on a rear wing; or a turn-of-the-century office block might have 1/1 plate glass windows on street facades, but 2/2 windows on an alley elevation.

Glass size is not the only aspect of windows that may differ from one part of the building to another. In urban areas where the spread of fire was a concern, windows in close proximity to other buildings such as those that faced a narrow alley were often metal, instead of wood as would be typical on the primary facade.

Though historic documentation and physical evidence can provide the basis for replacement windows that will be consistent with the historic character of a building, this information must be evaluated in the context of the design of the building itself. The more that is understood about the factors affecting the historic choice of windows, the more likely limited historical evidence can be correctly interpreted.

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