

## CHAPTER 8: WINDOWS

2 Jul 2020 Draft Design Guidelines

The type, size, framing, and dividing lights of windows, as well as their location and rhythm, help establish the historic character of a building. Although windows are inherently functional by nature, they possess a vast range of decorative potential and are valuable tools in architectural design.

Original window components should be retained to the extent possible. The character-defining features of a window should be preserved. Historic windows can be repaired through reglazing, patching, and splicing wood elements such as muntins, frame sill, and casing. Repair and weatherization are generally more energy-efficient and less expensive than replacement. Windows should be in character with the historic building.

**W.1 Preserve the functional and decorative features of a historic window, as well as the original window material.**

## CHAPTER 8: WINDOWS

17 Aug 2021 Proposed Revised Draft Design Guidelines

The type, size, framing, and dividing lights of windows, as well as ~~their~~ the location and rhythm of openings, help establish the historic character of a building. ~~Although windows~~ are inherently functional by nature, they possess a vast range of ~~but are also~~ decorative potential and are valuable expressive tools in ~~of~~ architectural design and craftsmanship.

Original window components should be retained ~~to the extent where~~ possible. The character-defining features of a window should be preserved. Historic windows can be repaired through reglazing, patching and splicing wood elements such as muntins, frames, sills and casings. Repair and weatherization are generally more energy-efficient and less expensive than replacement. Windows should be in character with the historic building.

These guidelines are categorized according to types of façades (e.g., primary façades; visible secondary façades; and minimally visible and non-visible façades) and building types (e.g., individual landmarks; small residential and commercial buildings; large residential and commercial buildings).

»» A primary façade is (1) a façade fronting a street or public thoroughfare that is not a street, such as a court; (2) a facade having a primary entrance to the building; or (3) a façade facing (but not fronting) a street, such as a setback façade, or a façade that is part of a dominant massing element, such as a tower, where at least one façade is street-fronting or street-facing and possesses a level of design or significant architectural features commensurate with the building's street-fronting façade(s).

»» A secondary façade is a façade that does not front on a street or public thoroughfare and that does not possess significant architectural features that are commensurate with the street-fronting façade(s).

**W.1a Preserve the functional and decorative features as well as the original material details, materials, operation, configuration and finish of a-original or historic windows on any façade of individual landmarks and on primary façades of small residential and commercial buildings, and**

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| <p>»» Where a historic window is intact and in repairable condition, retain and repair it to match the existing as per location, light configuration, detail, and material.</p> <p>»» Preserve a historic window feature including a frame, sash, muntin, mullion, glazing, sill, head, jamb, or molding.</p> <p>»» Preserve an original transom. A transom can be opened to let cool air in and warm air out of the structure.</p> <p>»» Preserve the original material of a window. If this is not possible, alternative materials may be considered if they convey the character, detail, and finish of the original material.</p> <p>»» Maintain the functionality of an original double-hung window in a historic structure. A double-hung window functions like a transom, and allows cool and in and warm air out, facilitating air circulation.</p> <p>»» Repair, rather than replace, a frame and sash.</p> <p>»» Consider weather-stripping a window to reduce air flow in and out of a structure, creating a more energy-efficient building.</p> | <p><b><u>of any special windows on any façade regardless of building type. <del>as well as the original window material.</del> Replace original or historic windows of individual landmarks and on primary façades of small residential and commercial buildings or special windows only if they are deteriorated beyond reasonable repair as described in a condition assessment and if the new windows match them in terms of details, materials, operation, configuration and finish.</u></b></p> <p>»» <u>A small residential or commercial building is a building which is six stories or less in height and has a street frontage of 40 feet or less, and includes rowhouses, detached and semi-detached houses and carriage houses, small apartment buildings and hotels, and small utilitarian commercial and loft buildings, including cast-iron fronted buildings, department stores, banks and office buildings.</u></p> <p>»» <u>A special window is a window possessing rare or distinctive traits reflective of a building’s style and age.</u></p> <p>»» Where a historic window is intact and in repairable condition, retain and repair it to <u>closely match the existing as per location, light configuration, detail, and material dimensional details and contours, materials, operation, configuration and finish.</u></p> <p>»» <u>Repair, rather than replace, a frame and sash.</u> Preserve a historic window feature including a-frame, sash, muntin, mullion, glazing, sill, head, jamb <del>or</del> <u>and</u> molding.</p> <p>»» Preserve an original transom. A transom can be opened to let cool air in and warm air out of the structure.</p> <p>»» Preserve the original material of a window. If this is not possible, alternative materials may be considered if they convey the character, detail, and finish of the original material. <u>Historic wood window features can be replaced with wood of any species.</u></p> <p>»» Maintain the <u>functionality operation</u> of an original double-hung window in a historic structure. A double-hung window functions like a transom, and allows cool and in and warm air out, facilitating air circulation.</p> <p>»» <u>Repair, rather than replace, a frame and sash.</u></p> <p>»» Consider weather-stripping a window to reduce air flow in and out of a structure, creating a more energy-efficient building.</p> <p><b><u>W.1b Replacement windows installed in existing original or historic openings on primary façades in large residential and commercial buildings will</u></b></p> |
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| <p><b>W.2 Avoid alterations to a historic window that would negatively affect the historic appearance of the window and structure.</b></p> <p>»» Do not apply reflective or insulating film to window glass.</p> <p>»» Do not use smoked, tinted, low-E, or reflective glass on building facades that can be seen from a public way.</p> <p>»» Do not block in or back-paint a transom or sidelight.</p> <p>»» Do not alter the number, size, location, or shape of an original window if seen from a public way by making new window openings or permanently blocking existing openings.</p> <p>»» Do not remove or obscure historic window trim with metal or siding materials.</p> | <p><b><u>be approved if they closely match the historic windows in terms of details, operation, configuration and finish without submittal of a condition assessment.</u></b></p> <p>»» <u>A large residential or commercial building is a building which is seven stories or more in height and has a street frontage of more than 40 feet, and includes large apartment buildings and hotels and large commercial and loft buildings, including cast-iron fronted buildings, department stores, banks and office buildings.</u></p> <p>»» <u>In large buildings, other alternative materials, including wood of any species, metal, or fiberglass (but not vinyl), may be used for replacement windows and brick molds.</u></p> <p>»» <u>When a proposal involves repetitive alteration or replacement of windows in large buildings, and when those alterations or replacements are not planned to occur all at once but rather in increments through time, a master plan that sets a standard for future window changes can be approved by a Certificate of Appropriateness.</u></p> <p><b><u>W.1c Replacement windows installed in existing original historic openings on visible secondary facades and minimally visible or non-visible facades in all building types, except individual landmarks, will be approved if they closely match the configuration and finish of the historic windows without submittal of a condition assessment.</u></b></p> <p><b>W.2 Avoid alterations to a historic window that would negatively affect the historic appearance of the window and structure.</b></p> <p>»» Do not apply reflective or <del>insulating tinted</del> film to window glass. <u>Clear low-e films may be applied on the interior face of window glass on primary facades and visible portions of secondary facades, provided the application is reversible.</u></p> <p>»» Do not use smoked, tinted, <del>low-E</del>, or reflective glass on building <u>primary facades and visible secondary facades that can be seen from a public way.</u></p> <p>»» Do not block in or back-paint a transom or sidelight.</p> <p>»» Do not alter the number, size, location or shape of <del>an</del> <u>original windows on primary facades and visible secondary facades</u> by making new window openings or permanently blocking existing openings.</p> <p>»» Do not remove or obscure historic window trim with metal or siding materials.</p> |
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| <p>»» Do not install new floors or dropped ceilings that block the glazed area of historic windows. A design should incorporate a setback that allows the full height of the historic window to be seen unobstructed if a dropped ceiling is necessary.</p> <p><b>W.3 Reconstruct a missing window element.</b></p> <p>»» Use a surviving prototype to reconstruct a missing window element, such as architraves, hoodmolds, sash, sills and interior or exterior shutters or blinds.</p> <p>»» Use a material for which there is a historic precedent or a compatible substitute material if necessary.</p> <p><b>W.4 Match a replacement window design to the original.</b></p> <p>»» Replace a severely deteriorated historic window with a new window that conveys the same visual appearance. For more information on what classifies a window as “severely deteriorated” and, therefore eligible to be completely replaced, see the final page of this chapter.</p> <p>»» Use historical, pictorial and physical documentation to select a new window that is compatible with the historic character of the building and the district.</p> <p>»» Select a window that matches the historic sash dimension, muntin configuration, reveal depths, glass-to-frame ratios, glazing patterns, frame dimensions, trim profiles, and decorative features when the repair of original windows is impossible.</p> <p>»» Evaluate the option of using appropriate salvage materials when replacing windows that are deteriorated beyond repair.</p> <p>»» Install a replacement window that operates in the same way as the original window. Double-hung windows are replaced with double-hung, and casement windows are replaced with casements.</p> <p>»» Use a large sheet of clear glass when replacing a storefront display window.</p> <p>»» Do not install a replacement sash that does not fit historic window openings. Original openings should never be blocked-in to accommodate a stock window.</p> | <p>»» Do not install new floors or dropped ceilings that block the glazed area of historic windows. A design should incorporate a setback that allows the full height of the historic window to be seen unobstructed if a dropped ceiling is necessary.</p> <p><b>W.3 Reconstruct a missing window element.</b></p> <p>»» Use a surviving prototype to reconstruct a missing window element, such as architraves, hoodmolds, sash, sills and interior or exterior shutters or blinds.</p> <p>»» Use a material for which there is a historic precedent or a compatible substitute material if necessary.</p> <p><b>W.4 <u>Closely match</u> a replacement window design to the original.</b></p> <p>»» Replace <u>an severely deteriorated original or historic window, where approved under these guidelines,</u> with a new window that conveys the same visual appearance. <u>For more information on what classifies a window as “severely deteriorated” and, therefore eligible to be completely replaced, see the final page of this chapter.</u></p> <p>»» Use historical, <u>and pictorial and physical</u> documentation <u>and physical evidence</u> to select a new window that is compatible with the historic character of the building and the district.</p> <p>»» Select a <u>replacement</u> window that <u>closely matches</u> the historic sash dimension, muntin configuration, reveal depths, glass-to-frame ratios, glazing patterns, frame dimensions, trim profiles, and decorative features <u>when the repair of original windows is impossible.</u></p> <p>»» Evaluate the option of using appropriate salvage materials when replacing windows that are deteriorated beyond <u>reasonable</u> repair.</p> <p>»» Install a replacement window that operates in the same way as the original window. Double-hung windows are replaced with double-hung, and casement windows are replaced with casements. <u>The upper sash of a double-hung replacement window or transom window may be fixed or inoperable, even if it was historically operable. The direction of the swing of a casement, awning, or hopper window may be changed.</u></p> <p>»» Use a large sheet of clear glass when replacing a storefront display window.</p> <p>»» Do not install <u>a replacement sash windows that does do</u> not fit historic window openings. Original openings should never be blocked-in to accommodate a stock</p> |
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| <p>»» Do not install a synthetic replacement window on a primary façade that does not appear similar in finish, texture and depth to the historic window materials.</p> <p>»» Do not replace a multi-pane window that has true divided lights with thermal glazing windows that have false “snap-in” or applied muntins on a primary facade elevation.</p> <p>»» Do not install contemporary picture, glass block or jalousie window in an exterior window opening.</p> <p><b>Historic Window Condition Determination</b><br/>The Architectural Review Committees (ARC) and Landmarks Commission (LC) classify windows into four classes to determine their condition and what treatment is recommended. These condition determinations provide guidance for ARC and LC decision-making regarding Certificate of Appropriateness (COA) applications for projects involving historic windows. Metro Staff, the ARC, and the LC recommend that project applicants and property owners review the classification definitions prior to submitting a COA application.</p> | <p>window. <u>New windows must be installed in approximately the same plane as historic windows.</u></p> <p>»» Do not install a synthetic replacement window on a primary façade that does not appear similar <u>to the historic window</u> in finish, texture and depth <del>to the historic window materials</del>. <u>A historic metal window can be replaced in a different metal, including a metal-clad window with a non-metal substrate. For small buildings, other materials including wood, metal, or fiberglass (but not vinyl) may be used for replacement windows and brick molds if original windows had a one-over-one configuration.</u></p> <p>»» Do not replace a multi-pane window that has true divided lights with thermal glazing windows that have false “snap-in” or applied muntins on a primary façade elevation. <u>Simulated divided light muntins may be used in a replacement window on a primary façade as long as exterior muntins match materials and are permanently secured to the frame and spacers exist between multiple layers of glass and interior muntins. Large residential and commercial buildings in historic districts require only exterior muntins permanently secured to the frame.</u></p> <p>»» Do not install <u>a contemporary picture window</u>, glass block or jalousie window in an exterior window opening.</p> <p><b>Historic Window Condition Determination</b><br/>The Architectural Review Committees (ARC) and Landmarks Commission (LC) classify windows <u>on any façade of individual landmarks, on primary façades of small residential and commercial buildings and special windows on any façade</u> into four classes to determine their condition and what treatment is recommended. These condition determinations provide guidance for <u>staff, ARC and LC</u> decision-making regarding Certificate of Appropriateness (COA) applications for projects involving historic windows. <del>Metro Staff, the ARC, and the LC recommend that</del> <u>Project applicants and property owners should review the classification definitions prior to submitting a COA application and may wish to consult a contractor or other professional with preservation experience to evaluate window conditions.</u></p> <p><u>Where original or historic windows on any façade of individual landmarks, on primary façades of small residential and commercial buildings and special windows on any façade are deteriorated beyond reasonable repair, a COA application must be accompanied by a condition assessment or report that documents the deterioration. The report must include:</u></p> <ul style="list-style-type: none"> <li>• <u>High-quality color photographs showing the façade and locations of proposed work, close-ups of windows assessed, and details of deterioration.</u></li> </ul> |
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| <p><b>Classification Definitions</b></p> <p>»» <b>Class One:</b> "Routine Maintenance" - with small repairs including paint removal, reglazing and weather-stripping, caulking and repainting.</p> <p>»» <b>Class Two:</b> "Stabilization" - shows a small degree of physical deterioration, but can be repaired in place by patching, water proofing, consolidating and regluing the existing material.</p> <p>»» <b>Class Three:</b> "Partial Replacement" - has localized deterioration in specific areas. These members are totally removed and new ones are spliced into the existing fabric.</p> <p>»» <b>Class Four:</b> "Total Replacement" - if the entire fabric of the window has deteriorated, then the only feasible alternative is total replacement.</p> <p>The four categories described above present potential scenarios that a property owner may encounter with the condition of their historic windows. Windows that meet the class four standards are the only candidates that shall be considered for window replacement.</p> | <ul style="list-style-type: none"> <li>• <u>Identification of types of materials.</u></li> <li>• <u>Annotated descriptions of deteriorated conditions.</u></li> <li>• <u>A written narrative explaining reasons for replacement rather than repair.</u></li> </ul> <p><b>Classification Definitions</b></p> <p>»» <b>Class One: Routine Maintenance</b> - with small repairs including paint removal, reglazing and weather-stripping, caulking and repainting.</p> <p>»» <b>Class Two: Stabilization</b> - shows a small degree of physical deterioration, but can be repaired in place by patching, water proofing, consolidating and regluing the existing material.</p> <p>»» <b>Class Three: Partial Replacement</b> - has localized deterioration in specific areas. These members are totally removed and new ones are spliced into the existing fabric.</p> <p>»» <b>Class Four: Total Replacement</b> - if the entire fabric of the window has deteriorated <u>beyond reasonable repair</u>, then the only feasible alternative is total replacement.</p> <p>The four categories described above present potential scenarios that a property owner may encounter with the condition of their historic windows. Windows that meet the Class Four standard are the only candidates that <del>shall</del> <u>will</u> be considered for window replacement <u>on any façade of individual landmarks and on primary façades of small residential and commercial buildings and of special windows.</u></p> <p><b>Approval of Master Plans</b></p> <p><u>When a proposal involves repetitive alteration or replacement of windows and when those alterations or replacements are not planned to occur all at once, but rather in increments through time, a master plan can be approved by a COA.</u></p> <p><u>The master plan sets a standard for future window changes and specifically identifies drawings and other documents which contain the approved design in detail. Once a master plan is approved and the owner wishes to move forward with a portion of the work covered by the master plan, a completed application form is filed with the LC describing the scope of work (for example: 8 front windows on the 12th floor) and stating that the work will conform to the approved master plan drawings and other documents on file with the Commission. The staff will review the application to ascertain that all proposed work is covered by a master plan and will send the owner an "Authorization to Proceed" letter allowing the work to proceed. The Authorization to Proceed is sent prior to the commencement of the work and is contingent on adherence to the approved master plan drawings.</u></p> |
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