

Appendix B

Historic Treatment Guidelines

I. Introduction

The Federal Aviation Administration (FAA) has determined that residences within the 65+ decibel level contour map around San Diego International Airport are eligible for sound attenuation treatments to mitigate aircraft noise. The FAA has set a goal of reducing interior noise levels for San Diego residents by at least 5 decibels inside the home, providing a noticeable reduction in noise level. The San Diego County Regional Airport Authority's Quieter Home Program (Program) is the means to obtain that goal.

The purpose of the Historic Treatment Guidelines is to establish a balance between the needs and requirements of the Program while maintaining the architectural integrity of historic resources using *The Secretary of the Interior's Standards for the Treatment of Historic Properties*. The objective of these guidelines is to provide sound attenuation and avoid precluding future historic designation of the treated properties by utilizing sensitive design practices and reversibility.

A. Historic Resources Applicable Regulations Policies: Federal Compliance

1. Section 106 of the National Historic Preservation Act

Projects like the Program, which receive federal funds or other federal approvals, must be comply with Section 106 of the National Historic Preservation Act of 1966. This review process is administered by the Advisory Council on Historic Preservation (Advisory Council) under federal regulations 36 Code of Federal Regulations Part 800 and requires agencies to take into account the effects of their project on historic properties.

For Section 106 purposes, "historic properties" includes properties listed in or eligible for listing in the National Register of Historic Places (National Register). According to the regulations, an undertaking has an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the National Register.

The Advisory Council has identified seven criteria of adverse effects on proposed projects as it relates to historic properties. Of the seven, only 36 CFR 800.5(a)(2)(ii) applies to the Program: "Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines." As the criteria example states, the effect would not be adverse if it is consistent with *The Secretary's Standards for the Treatment of Historic Properties* and applicable guidelines.

2. National Register of Historic Places

The National Register of Historic Places is “an authoritative guide to be used by Federal, State, and Local governments, private groups, and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” However, the federal regulations explicitly provide that National Register listing of private property “does not prohibit under Federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property.”

The National Register of Historic Places is considered to be an advisory document with review by the National Park Service.

3. Secretary of the Interior’s Standards for the Treatment of Historic Properties

The Secretary of the Interior is responsible for establishing standards for all programs under Departmental authority and for advising Federal agencies on the preservation of historic properties listed in or eligible for listing in the National Register. In partial fulfillment of this responsibility, *The Secretary of the Interior’s Standards for the Treatment of Historic Properties* have been developed to guide work undertaken on historic buildings. There are separate standards for preservation, restoration, rehabilitation, and reconstruction. The *Standards for Rehabilitation (Standards)*, codified in 36 CFR 67, comprise that section of the overall preservation project standards and addresses the most prevalent treatment for the Program’s attenuation improvements.

Three levels of treatment for potentially historic buildings are outlined in section II Guidelines: 1) Protect and maintain, 2) Repair, and 3) Replace. The *Standards* describe these levels of treatment for rehabilitating historic buildings as follows:

1. “...**protecting and maintaining**...Protection generally involves the least degree of intervention and is preparatory to other work. For example, protection includes the maintenance of historic materials through treatments such as rust removal, caulking, limited paint removal, and reapplication of protective coatings; the cyclical cleaning of roof gutter systems; or installation of fencing, alarm systems and other temporary protective measures.”¹
2. “...When the physical condition of character-defining materials and features warrant additional work, **repairing** is recommended. Rehabilitation guidance for the repair of historic materials ...begins with the least degree of intervention possible such as patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading them according to recognized preservation methods. Repairing also includes the limited replacement like-for-like – or with compatible substitute material – of extensively deteriorated or missing parts of features when there are surviving prototypes Although using the same kind of material is always the preferred option, substitute

¹ Grimmer, Anne E., and Weeks, Kay D., *Secretary of the Interior’s Standards for the Treatment of Historic Properties*, (Washington, D.C.: U.S. Department of the Interior, 1995), 63.

material is acceptable if the form and design as well as the substitute material itself convey the visual appearance of the remaining parts of the feature and finish.”²

3. “...Rehabilitation guidance is provided for *replacing* an entire character-defining feature with new material because the level of deterioration or damage of materials precludes repair. ...Like the guidance for repair, the preferred option is always replacement of the entire feature like-for-like, that is, with the same material. Because this approach may not always be technically or economically feasible, provisions are made to consider the use of a compatible substitute material.”³

“Rehabilitation” is defined as “the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values.”

Rehabilitation assumes that at least some repair or alteration of the historic building will be needed in order to provide for an efficient contemporary use. The ten rehabilitation provisions of the *Standards* are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property shall be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, shall not be permitted.
4. Changes to a property that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and, where possible, materials. Replacement of missing features shall be substantiated by documentary and physical evidence.
7. Chemical or physical resources shall be protected and preserved in place. If such resources must be disturbed, mitigation measures shall be undertaken.

² Grimmer and Weeks, 63-64.

³ Grimmer and Weeks, 64.

8. Archaeological resources shall be protected and preserved in place. If such resources must be disturbed, mitigation measures shall be taken.
9. New additions, exterior alterations, or related new construction shall not destroy the historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and shall be compatible with the historic materials, features, size scale and proportion, and massing to protect the integrity of the property and its environment
10. New additions and adjacent or related new construction shall be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

II. GUIDELINES WITHIN THE CONTEXT OF THE QUIETER HOME PROGRAM

The following guidelines are based upon the *Standards* and provide direction for necessary modifications to properties that have been identified as historic or eligible for listing in the National Register. The owners of these properties have voluntarily agreed to participate in the Airport Authority's Program. A "waiver" of action can be made when the owner desires to retain an existing window or door only if it impacts the sound attenuation goal of the Program, described in the following paragraph.

When treating houses through the Program, it is important to recognize that the treatment must meet both the requirements of the Program, as outlined in the Programmatic Agreement (PA), as well as comply with the *Standards*. The goal of the Program is to reduce the noise level within a house by at least 5 decibels, or "a DNL [day-night average sound level] of 45 dB."⁴ Achieving this goal is challenging. Thoughtful treatments will fulfill the Program's goals and, at the same time, will comply with the *Standards*.

A. Window Treatments

Window replacement shall be a like-for-like approach. For example, a wood window shall be replaced with a wood window, and a casement window shall be replaced with a casement window. The window shape and muntin patterns will be replicated to match the original windows as closely as possible. When discussing the *Standards* as they apply to historic windows, the National Park Service (NPS) states:

"The windows of a historic building are central to defining its character. Identifying and preserving the functional and decorative components of a window is often crucial to maintaining the character of a property. The style of window is particularly essential to the character of the primary façade. Different shapes, frames, muntin profiles, numbers of panes and their configuration make a window distinctive. Where historic windows exist they should be retained and repaired. When no repairable historic fabric remains and functional replacement windows are in place, a number of options exist. Existing

⁴http://www.faa.gov/airports_airtraffic/airports/resources/publications/orders/media/aip_5100_38/aip_5100_38c_pa_rt2.pdf

windows may be retained, despite their lack of historic character. If replacement is chosen, the new windows must be based on existing fabric, on historic documentary or pictorial evidence or, they must be compatible with the historic character of the building. As explicitly stated in Standard 6⁵, when a historic feature is missing or is too deteriorated to repair, “the new feature shall match the old in design, color, texture and other visual qualities and, where possible, materials.”⁶

The following priorities, guidelines, and processes shall be used for window treatments to meet the Program requirements and comply with the *Standards*.

1. Window Treatment Priorities

When planning a rehabilitation project, it is critical to recognize that some treatment approaches are more important than others. The project should be organized around fulfilling the most importantly prioritized treatment approach first, and so on. Three priorities, in order of importance, are considered when determining window treatments for the Program.

a. Priority One: Maintain Existing Condition

Where windows must be replaced in order to meet acoustical requirements, to the extent feasible, all existing or known original fabric shall be replaced with compatible materials, sizes and design. Known original fabric can be established through old photos, remaining physical evidence, or historical architectural style. For example, original wood windows, or historic evidence of wood windows, shall be replaced by wood windows. Similarly, if replacement is necessary, casement windows shall replace original or existing casement windows. Window trim shall keep with the appearance of the original trim as closely as feasible. No glass with tinted or reflective qualities shall be used.

b. Priority Two: Maintain and Upgrade Existing or Known Original Window Fabric

Efforts shall be made to maintain and upgrade existing window fabric. If the effort does not produce the required noise attenuation, interior storm windows may be considered to provide additional noise attenuation and preserve original window fabric, provided the improvement is reversible.

True divided light windows shall be preserved to the extent feasible, and efforts shall be made to maintain existing window fabric and operation during retrofit. No glass with tinted or reflective qualities shall be used.

c. Priority Three: Meeting Sound Attenuation and Code Requirements

Where noise conditions require more than can be provided with the above treatments, additional sound insulation will be completed. The units shall maintain a compatible

⁵ Standard 6 is the repair/replacement of deteriorated or missing features based on evidence.

⁶ Technical Preservation Services, *Interpreting the Standards Number 23*, (Washington D.C.: National Park Service, 2001).

material that meets the acoustical requirements of the Program. No glass with tinted or reflective qualities shall be used.

Exterior or interior storm windows may be considered in cases where existing windows are unique, and if there are no other products available that provide the required noise attenuation, provided the improvement is reversible. Storm window design and colors shall match existing or original colors.

In addition to meeting the acoustical goals of the Program, the work must also comply with life-safety code requirements set forth by the State of California. The City of San Diego requires compliance with emergency egress requirements per the 2007 California Building Code and California Historical Building Code for the QHP properties. The 2007 California Historical Building Code (CHBC) states:

“Basements in dwelling units and every sleeping room below the fourth floor shall have at least one openable window or door approved for emergency escape which shall open directly into a public street, public way, yard or exit court. Escape or rescue windows or doors shall have a minimum clear area of 3.3 square feet (0.31 m²) and a minimum width or height dimension of 18 inches (457 mm) and be operable from the inside to provide a full, clear opening without the use of special tools.”⁷

In addition, the 2007 California Building Code (CBC) states:

“Emergency escape and rescue openings shall have the bottom of the clear openings not greater than 44 inches (1118 mm) measured from the floor.”

Some existing windows do not meet these requirements and will require modifications to the existing openings. There are two typical details used to upgrade the existing conditions to meet current code requirements. The first detail modifies the function of the window while maintaining the window opening size. This may include changing a sliding window to a casement window to allow for the required egress dimensions. The second detail will enlarge the existing window size to meet the egress size or sill height required to meet current code. This may include lowering the sill heights, but maintaining the existing windows style.

Enlarging openings for egress windows shall not occur on the front façade, or any facades visible from the public right-of-way, unless an alternative location does not exist. Any code requirements affecting windows shall comply with the California Historical Building Code (CHBC).

⁷ California Building Standards Commission, *2007 California Historical Building Code*, (Sacramento, California: State of California), 10.

	Existing Condition	Treatment
1	The window opening is less than 18 inches high and 18 inches wide.	Where possible, the opening size will remain while the window function changes, such as from double-hung to casement, to provide the required egress route. If this is not possible, the opening will be enlarged, but the window function will be retained if feasible.
2	The sill of the existing window is higher than 44 inches above the floor.	The sill will be lowered to provide the required egress route.

2. Wood Windows

The Program is a retrofit program. Generally, the wood sashes will be replaced with an acoustical window product. The wood sashes will be replaced in a like-for-like manner in order to maintain the existing conditions, including true divided lites. Except in certain circumstances, such as enlargement for egress requirements, wood window frames will remain.

a. Maintain and Upgrade

Original wood window conditions may be maintained and upgraded. For example, small windows, unique windows (such as stained or leaded glass), or character-defining fixed windows may receive non-invasive treatments, such as exterior or interior storm windows, to achieve the acoustical requirements while protecting the potentially historic material. Maintain and upgrade situations for wood windows include, but are not limited to, the conditions described in the table below:

	Existing Condition	Treatment
1	Small windows that cannot be replaced while retaining sufficient light and transparency.	For small windows, an exterior or interior storm window will be installed without disturbing the existing window unit.
2	Specialty windows, such as leaded or stained glass, which cannot be replaced in-kind within the QHP requirements.	Exterior or interior storm windows will be installed at specialty windows that will be retained in place.

b. Repair

In some cases, the window frame is damaged beyond normal wear and tear. Since wood frames generally remain in place, they will be repaired using Dutchman techniques or wood epoxy repair in order to retain as much of the existing material as is feasible.

	Existing Condition	Treatment
1	The window frame has minimal to moderate rot or damage.	The frame will be repaired using Dutchman techniques or wood epoxy repair to retain as much of the existing historic material as is feasible.

c. Replace

In some cases, a wood window frame is found to be damaged beyond repair. In this case, the window frame will be replaced like-for-like with a new wood frame that matches the existing. Unless identified as a special condition, all window sashes will be replaced with like-for-like units, including true divided lites that meet the acoustical requirements of the Program.

	Existing Condition	Treatment
1	The frame is damaged beyond repair and the sash does not meet acoustical requirements of the Program.	The frame will be replaced with a new wood frame in order to maintain the existing condition. The sash will be replaced to meet the acoustical requirements of the Program.
2	The frame is in good condition, but the sash does not meet acoustical requirements of the Program.	The sash will be replaced to maintain the existing condition with a compatible material while retaining and/or repairing the frame as needed. The new sash will meet the acoustical requirements of the Program.

3. Steel Windows

a. Maintain and Upgrade

Several steel window scenarios receive maintain and upgrade treatments. For example, small windows or character-defining fixed windows may receive non-invasive treatments, such as exterior or interior storm windows, to achieve the acoustical requirements of the Program while protecting the existing material. Maintain and upgrade situations for steel windows include, but are not limited to, the condition described in the table below.

	Existing Condition	Treatment
1	Fixed and operable steel windows with unique features and/or sizes.	An exterior or interior storm window will be installed without disturbing the existing window unit to meet the acoustical requirements of the Program.

b. Repair

Some steel windows may be left in place and repaired. A fixed steel window that is in good condition may be reglazed using laminated glass to meet the acoustical requirements of the QHP. Repair scenarios for fixed steel windows include, but are not limited to, the condition described in the table below.

	Existing Condition	Treatment
1	Fixed steel windows with simple shapes and sizes.	The existing glazing will be replaced with laminated glass preserving the steel frames and meeting the acoustical requirements of the Program.

c. Replace

If repair will not provide the sound attenuation requirement of the Program, which is to reduce the sound by 5 dB, the steel window will be replaced to maintain the existing condition. Due to the fiscal mandates of the Quieter Home Program and the lack of available acoustical steel products, replacing steel windows with new steel windows is not economically feasible. Steel windows will be replaced with a compatible substitute material (aluminum) that will follow the form and design of the existing windows. Replacement scenarios for steel windows include, but are not limited to, the condition described in the table below.

	Existing Condition	Treatment
1	Operable or fixed steel windows that cannot be modified to meet the acoustical requirements of the Program or are in poor condition.	New like-for-like operation aluminum windows will be inserted within the existing frames in a style similar to the existing steel window to meet the acoustical requirements of the Program.

4. Aluminum Windows

a. Maintain and Upgrade

Potential maintain and upgrade situations for aluminum windows include, but are not limited to, the condition described in the table below:

	Existing Condition	Treatment
1	Aluminum windows with unique features and/or sizes.	A new exterior or interior storm window will be installed to meet the acoustical requirements of the Program without disturbing the existing window unit.

b. Repair

Due to the nature of the material and the thin profiles of the frame and sash, aluminum windows will not be repaired. Damaged windows and frames will be replaced like-for-like with similar style aluminum windows to meet the acoustical requirements of the Program.

c. Replace

Since repair is not a feasible alternative for aluminum windows, non-acoustic aluminum windows will be replaced. Replacement scenarios for aluminum windows include, but are not limited to, the conditions described in the table below:

	Existing Condition	Treatment
1	Aluminum windows that do not meet the acoustical requirements of the Program.	New aluminum windows to meet the acoustical requirements of the Program will be inserted over the existing frame. The existing frame will remain in place.
2	Aluminum window frames that are damaged.	New aluminum frames and sashes will be installed to meet the acoustical requirements of the Program within the existing opening.

5. Replacement Windows

Occasionally, different types of windows are found in the same house. Some original windows may have been replaced due to damage or to improve the function or use of the window. In this situation, the replacement windows may receive the same treatment as determined for the whole of the house. For example, if there is evidence that two wood windows have been replaced with vinyl, but the rest of the wood windows remain, the vinyl units may be replaced with new wood windows.

6. Special Treatments

a. Pop-out Garden Windows

Acoustically rated replacements are not available for garden windows. To meet the acoustical requirements of the Program, interior operable storm windows will be installed inside the wall opening.

	Existing Condition	Treatment
1	Cantilevered aluminum or wood garden windows, usually found in a kitchen.	Cantilevered garden windows will remain and be treated with an interior operable storm set at the wall opening.

b. Jalousie Windows

Acoustically rated replacements are not available for louvered glass jalousie windows. To meet the acoustical requirements of the Program, jalousie windows will be replaced with a window style in keeping with other window styles in the house.

	Existing Condition	Treatment
1	Jalousie windows that do not meet the acoustical requirements of the Program.	Jalousie windows will be replaced with a window style most appropriate for the house and in keeping with the character and feeling of the property.

B. Door Treatments

Door treatment shall maintain the existing condition as closely as possible. When discussing the *Standards* as they apply to replacement doors, the NPS states:

“Selecting appropriate replacement doors as part of a rehabilitation project is important in retaining the character of a historic building regardless of whether it is a residential or a commercial structure. The front door to a house, a store, or an office is an integral feature of the entrance to the building, and it should reflect accurately the building’s style, period of architectural significance, and its use. If the historic door is still extant, it should be retained and repaired, or it must be replaced if too deteriorated to repair. Although the replacement may be a compatible new design, it is always preferable that the new door replicate as closely as possible the historic door, while meeting modern code or security requirements that may necessitate a stronger or more fire-resistant door. This includes reproducing the same glass size, pane configuration and profile of true muntins, and the same number, size, and shape of vertical or horizontal panels. A replacement door should also match the historic door in material as well as design, but in some instances, if the situation warrants, an appropriate substitute material may be used.”⁸

The following priorities, guidelines, and processes will be used for door treatments to meet the QHP requirements and comply with the *Standards*.

1. Door Treatment Priorities

The Program is a retrofit program. Generally, the existing doors are replaced with an acoustically rated product. When the existing doors are of sound construction and provide adequate sound attenuation, the doors and frames may remain. Three priorities are considered when determining door treatments for the Program.

⁸ Technical Preservation Services, *Interpreting the Standards Number 4*, (Washington D.C.: National Park Service, 1999).

a. Priority One: Maintain and Upgrade Existing or Known Original Doors

Original doors on primary and secondary facades shall be retained and weather-stripped whenever possible. True divided light glazing in doors shall be preserved to the extent feasible. Door colors shall reflect the historic period or existing colors. No glass with tinted or reflective qualities shall be used. If there is evidence that the existing door is not the original, a door with a compatible style to the original will be installed.

b. Priority Two: Code Compliance for Required Exit Width

The City of San Diego requires compliance with emergency egress requirements per the 2007 California Building Code and California Historical Building Code (CHBC) for the QHP properties. The CHBC states:

“Basements in dwelling units and every sleeping room below the fourth floor shall have at least one openable window or door approved for emergency escape which shall open directly into a public street, public way, yard or exit court. Escape or rescue windows or doors shall have a minimum clear area of 3.3 square feet (0.31 m²) and a minimum width or height dimension of 18 inches (457 mm) and be operable from the inside to provide a full, clear opening without the use of special tools.”⁹

In addition, the 2006 International Residential Code (IRC) requires a 36 inch wide door. The IRC states:

“Minimum one exit 3 ft. wide x 6 ft. 8 in. high side hinged door.”

Enlarging door openings for code compliance shall comply with the CHBC and IRC and shall not occur on the front façade, or any facades visible from the public right-of-way, unless an alternative location does not exist. Any enlargements required for code compliance where no other alternative exists may be acceptable on the rear and side facades if the alteration is not visually intrusive when viewed from the public right-of-way.

c. Priority Three: Meeting Sound Attenuation Requirements

Storm doors (secondary doors) shall be used if no other solution exists, provided they are reversible. No glass with tinted or reflective qualities shall be used.

2. Wood Doors

a. Protect and Maintain

If a door is in good condition and it appears to be acoustically sound, it will be retained. The front door of a house may be retained at the owner’s discretion, even if the design team has concluded that the door is not acoustically sound, by signing a waiver-of-action.

⁹ California Building Standards Commission, *2007 California Historical Building Code*, (Sacramento, California: State of California), 10.

	Existing Condition	Treatment
1	In addition to existing doors that meet the acoustical requirements of the Program, the front door may be retained at the homeowner's discretion.	Weather stripping will be added to the existing door frame.

b. Repair

Since wood doors and frames in good condition generally remain in place, damaged doors and frames will be repaired using Dutchman techniques or wood epoxy repair in order to retain as much of the existing material as is feasible.

	Existing Condition	Treatment
1	The door frame or door has minimal to moderate rot or damage.	The frame or door will be repaired using Dutchman techniques or wood epoxy repair to retain as much of the existing material as is feasible while meeting the acoustical requirements of the QHP.

c. Replace

Doors that do not meet the acoustical requirements of the Program will be replaced, but the frame will be retained if it is in good condition. In some cases, a wood door frame is damaged beyond repair, so the frame will be replaced and with a new wood frame while maintaining the existing condition. New door styles are selected by the design team to closely replicate the original door.

	Existing Condition	Treatment
1	The frame is in good to fair condition, but the door does not meet acoustical requirements of the Program.	The frame will be repaired using Dutchman techniques as needed and the door will be replaced with a compatible material while retaining and/or repairing the frame as needed. New door styles are selected by the design team to closely replicate the original door.
2	The door frame is not thick enough to accept a new acoustical door to meet the acoustical requirements of the Program.	The frame and door will be replaced with a compatible material. New door styles are selected by the design team to closely replicate the original door.
3	The frame and door are severely damaged and do not meet the acoustical requirements of the Program.	The frame and door will be replaced like-for-like with a compatible material. New door styles are selected by the design team to closely replicate the original door.

3. Aluminum Glass Sliding Doors

a. Maintain and Upgrade

If an existing door appears to be acoustically sound and is in good condition, it will be retained.

b. Repair

Due to the nature of the material and the thin profiles of the frame and door, it is not feasible to repair aluminum glass sliding doors. Damaged aluminum glass sliding doors will be replaced with a compatible material to meet the acoustical requirements of the Program.

c. Replace

Aluminum glass sliding doors that do not meet the acoustical requirements of the Program will be replaced. The typical replacement will include the aluminum glass sliding doors and frame. New door styles are selected by the design team to replicate the existing door style as closely as possible.

4. Special Treatments

a. Mail Slots (door and wall) and Milk Chutes

Mail slots are often found in existing doors or in the wall adjacent to the front door. Milk chutes are occasionally found in an exterior wall. These features are sound paths and must be treated in order to reduce the noise level by 5 dB, as required by the Program. The treatments outlined below are reversible.

	Existing Condition	Treatment
1	A door that will be retained has an integral mail slot.	The opening will be infilled in a reversible fashion to meet the acoustical requirements of the QHP. A new exterior wall-mounted USPS approved mailbox will be provided.

	Existing Condition	Treatment
2	An existing thru-wall mail slot is extant.	a) The opening will remain as existing. A hinged wood box will be mounted on the interior to meet the acoustical requirements of the Program. b) The opening will remain, but will be infilled in a reversible fashion to meet the acoustical requirements of the Program. A new exterior wall-mounted USPS approved mailbox will be provided.
3	A milk chute that will be retained, but is a sound path.	The opening will be infilled in a reversible fashion to meet the acoustical requirements of the Program.

b. Wickets

Wickets, small doors set within larger doors that functions as peepholes, are often found in older wood front doors. This feature is a sound path and must be treated in order to reduce the noise level, as required by the QHP. The wicket treatment outlined below is reversible.

	Existing Condition	Treatment
1	A door that will remain has an integral wicket that does not meet the acoustical requirements of the Program.	Laminated glass will be set within the existing opening.

c. HVAC

When discussing the *Standards* as they apply to heating, ventilation, and air-conditioning, the NPS states:

“Updating or introducing new systems in a historic building requires careful planning and some resourcefulness in order to avoid altering important interior spaces. Corridors are considered public areas within a building’s interior, and as such, are very important in conveying the qualities that give a particular historic building its individual character. Whether highly ornamented or simply detailed, unsympathetic installations of new mechanical, plumbing, or electrical systems negatively impact the character of these spaces.”¹⁰

New HVAC equipment will be in the same location as the existing wherever feasible. New ductwork will be located in tertiary spaces, such as closets, or will be enclosed with a soffit or

¹⁰ Technical Preservation Services, *Interpreting the Standards Number 24*, (Washington D.C.: National Park Service, 2001).

chase. Exterior equipment will be located so as not to be visible from the public right-of-way. Work will be completed using the following guidelines:

1. Furnace replacement is included in the scope of work for most single family residential properties. If new ducting must be installed, the ducting would be designed in as unobtrusive a manner as possible.
2. Air conditioning is included in the scope of work for most single family residential properties. The condensing units would be installed at the rear of the house, when possible. Condensing units may be installed on side elevations if visually unobtrusive when viewed from the public right-of-way.
3. Ductless air conditioning systems are installed at properties where furnaces are not practical. A ductless system is acceptable if refrigerant piping is not visible from the public right-of-way, and if an effort is made to minimize the visual impact from side facades, or public views. Other placements, such as roof placements shall be subject to review and consultation with the City of San Diego Historical Resources Board (HRB).
4. As part of the proposed HVAC system, new roof vents may be required. Low profile roof vents are preferred. Ideally, all roof vents will be installed on rear roof slopes that are not visible from the public right-of-way. New roof vents will be painted to match the roof color as closely as possible to reduce visibility from the public right-of-way.

D. Others

In order to ensure that each house meets the acoustical requirements of the Program, all openings for sound sources must be treated. For example, vents from kitchens are often a sound path, so they are treated with baffles. The range of possible scenarios is unknown and may require further coordination.

1. Roof and Wall-mount Baffles

	Existing Condition	Treatment
1	A vent that has been determined to be a sound path, or where light is visible upon vent inspection.	A wood roof baffle or wall-mounted baffle will be installed to meet the acoustical requirements of the Program. The roof baffle is reversible.

2. Skylights

	Existing Condition	Treatment
1	A skylight in good condition, but does not meet the acoustical requirements of the Program.	The existing skylight will remain and an interior storm will be installed to meet the acoustical requirements of the Program.

3. Chimney Top Mount Dampers

Existing chimneys are typically treated with a top mounted damper. This installation is reversible. If the chimney top is unique, or a historic feature, no damper will be installed on the exterior.

4. Other options for noise retrofits not included in this document will be submitted for review and comment from the HRB.

III. Glossary of Terms

Chase A continuous recess built into a wall or projection away from the wall to receive pipes, ducts, and other equipment.

Dutchman A fitted wood patch in a wood member that has only localized deterioration.

Hardware Metal products used in construction, such as door hinges, knobs, and knockers.

Laminated Glass Two or more plies of plate glass, float glass, or sheet glass, bonded to a transparent plastic sheet between them to form a shatter-resisting assembly.

Like-for-like Replacement matching the original material, design, and appearance as closely as feasible.

Milk Chute An opening in an exterior wall used for milk delivery that generally connects to the kitchen.

Period of Architectural Significance The length of time when a property was associated with important events, people, or style of building.

Sound Path An unobstructed opening or route of travel for noise.

Soffit A ceiling or exposed underside surface.

Wicket A small door set within a larger door.

Wood Epoxy A structural adhesive putty and wood replacement compound used to repair and replace wood.