

**HISTORIC AND DESIGN REVIEW
COMMISSION
September 21, 2022**

HDRC CASE NO: 2020-465
CITY COUNCIL DIST.: Citywide
APPLICANT: Office of Historic Preservation
TYPE OF WORK: Policy / City Code Amendments
CASE MANAGER: Cory Edwards

REQUEST:

The applicant is requesting HDRC review and endorsement of policy guides intended to provide clarity and improve the predictability of interpretation of the Historic Design Guidelines.

FINDINGS:

- a) Since 2012, decisions to approve or disapprove a request for Certificate of Appropriateness have been guided by Historic Design Guidelines. The Guidelines are adopted by City Council and applied as regulatory design criteria for properties with a historic zoning overlay (H, HS, HE, or HL). The Guidelines are adapted from the Secretary of the Interior Standards for Rehabilitation and codified under UDC Section 35-608.
- b) As recommended in the 2010 Strategic Plan for Historic Preservation, the Office of Historic Preservation maintains a goal to maintain and improve predictability and clarity in the design review process. By monitoring the routine interpretation of Historic Design Guidelines by the HDRC for certain request types, OHP staff has drafted six policy guides which are intended to provide customers with additional guidance in the review process. The policy guides are intended to be consistent with the Historic Design Guidelines as adopted by City Council and provide customers with more illustrative examples of work that is eligible for either administrative approval or a positive recommendation to the HDRC. Approved policy guides will be made available on the Office of Historic Preservation website.

RECOMMENDATION:

Staff recommends approval.

FENCES IN HISTORIC DISTRICTS



CITY OF SAN ANTONIO
**OFFICE OF HISTORIC
PRESERVATION**

CITY OF SAN ANTONIO
HISTORIC DESIGN GUIDELINES
FENCES POLICY GUIDE

SEPTEMBER 2022



WHY ARE FENCES & WALLS IMPORTANT?

The historic use of fences and low retaining walls to identify front yard boundaries and provide privacy and security varies dramatically from district to district and from block to block within San Antonio's historic districts.

The types of fences and walls that are used are similarly eclectic. Where historic fences and walls do exist, they are important character-defining features that help reinforce the age and style of the principal building, and often times the block. Front yard fences and walls play a large role in defining rhythm and pattern along the street edge and block face. In some districts, non-historic fence materials, such as chain link, have been introduced over time.

This guide provides guidance for replacing or installing new fences and walls and provides standards for which styles and designs may be appropriate and consistent with the Historic Design Guidelines.



NEW FENCES

While front yard fences are common throughout many historic districts, the appropriateness of installing a new fence on a property that does not currently feature one is determined by the site-specific conditions in relationship to the immediate block and the individual historic district.

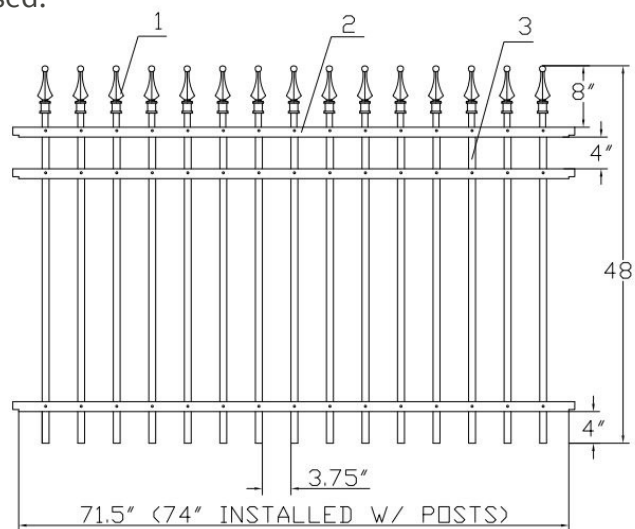
Conditions where installing a new fence is not appropriate include:

- Properties on blocks that do not feature any historic fences on the immediate block. Chain-link and other non-conforming fences should not be cited as precedent.
- Properties within an immediate block that predominantly features natural, open lawns and/or a drop in slope at the public right-of-way. This development pattern is found in some areas of Monticello Park, Monte Vista, and Greenlawn Estates Historic Districts.

SPECIFICATIONS & DOCUMENTATION

When new fences are appropriate to the site-specific conditions of the property, applicants must also ensure that the style, height, and configuration of the fence is also appropriate per the Historic Design Guidelines for Site Elements and the Unified Development Code 35-514.

- **REAR / PRIVACY FENCE** - Rear yard privacy fences should be no taller than 6 feet in height and feature wood construction. Historic evidence may support installing stone, masonry, or stucco walls. They should be set back from the front façade of the building, rather than aligning them with the front façade of the structure, to reduce their visual prominence.
- **FRONT FENCE** - Front yard fences should match the height of neighboring fences or be limited to 4 feet in height and be compatible with the heights of adjacent historic fences. Historic evidence may support installing stone, masonry, or stucco walls and fence bases.
- **FENCE STYLES** - While maintaining respect to individual architecture styles and historic districts, the most common appropriate fence type includes (a) black wrought iron, (b) painted wood picket, and (c) garden-loop.
- **NONCONFORMING FENCES** - Chain-link, barbed wire, corrugated metal, and make-shift fences should be avoided. Grandfathered items may be replaced with appropriate fencing, but should not be reconstructed or expanded upon.
- **PEDESTRIAN GATES** - Pedestrian gates should be located at the intersection the property's walkway and the public sidewalk. Pedestrian gates should relate to the design of the fence while maintaining a 4-foot height limit.
- **VEHICLE GATES** - Vehicle gates should be set behind the front facade plane of the house and not span across the front of the driveway. A front vehicle gate may be considered if the site features an atypical condition including: (a) a wraparound porch, (b) a narrow driveway less than 10 feet wide, and/or (c) front driveways abutting rear yards or commercial properties. Electrical, mechanical, or solar collector equipment should be concealed and minimally visible if used.



Application Tip: A detailed drawing is required to complete your application. Be sure to include all dimensions including overall height.

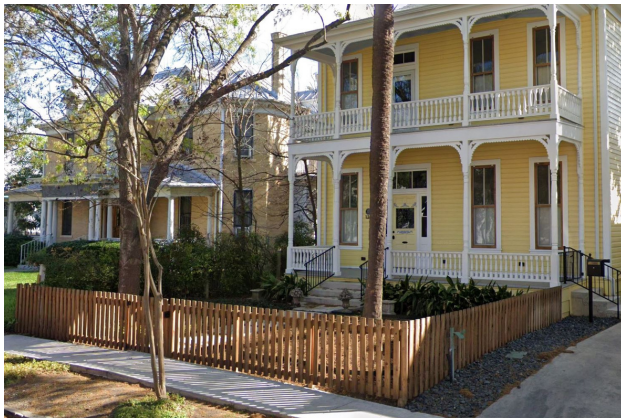
CHOOSING A DESIGN

The fence should relate to the architectural style of the house and the context of the historic district. A measured drawing or an example photo must be submitted for the proposed fence.

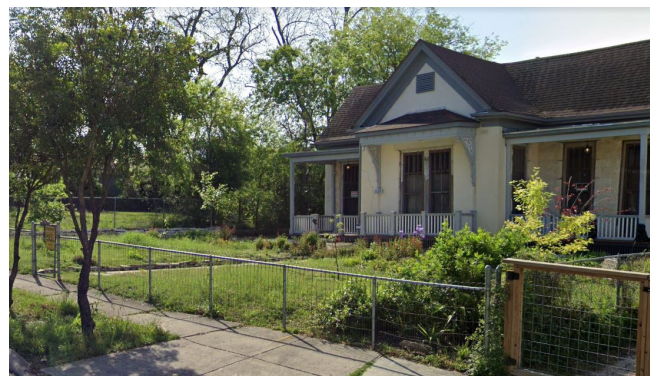
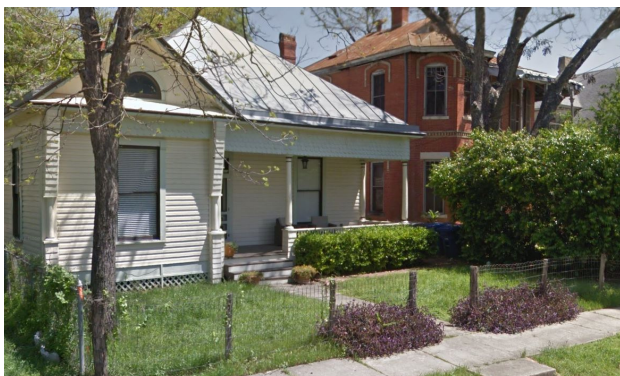
WROUGHT IRON - Most appropriate for Queen Anne, Folk Victorian, & German Vernacular houses.



WOOD PICKET - Most appropriate for Craftsman, Colonial, & Folk Victorian style houses.

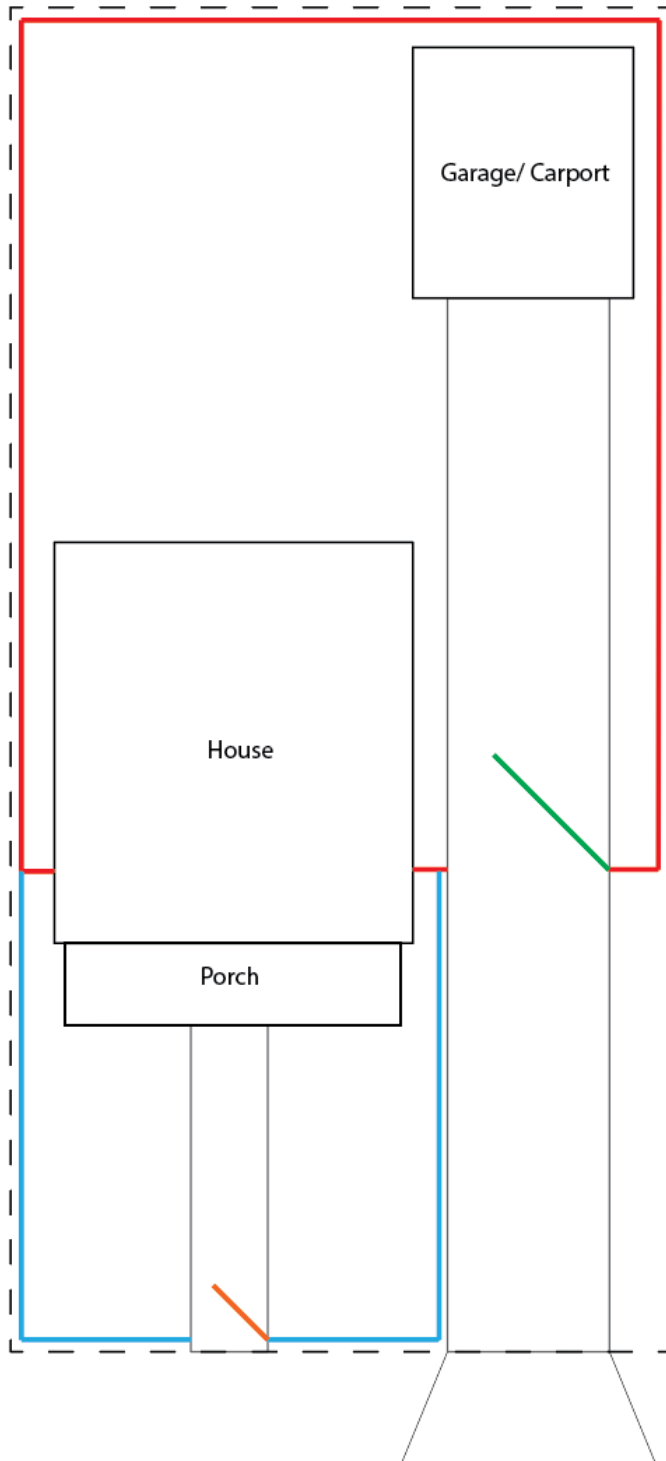


GARDEN LOOP - Most appropriate for Folk Victorian & Texas Vernacular houses.



DRAWING THE FENCE LINE

Applicants must also ensure that the style, height, and configuration of the fence line is also appropriate per the Historic Design Guidelines for Site Elements and the Unified Development Code 35-514. An accurate and labeled site plan depicting the proposed fence line must be submitted for each fence request.



EXAMPLE OF A SITE PLAN WITH AN APPROPRIATE FENCE LINE

- **REAR FENCE** - Rear yard privacy fences should be no taller than 6 feet in height and feature wood construction. This fence is set back from the primary facade by several feet and is appropriate.
- **FRONT FENCE** - Front yard fences should match the height of neighboring fences or be limited to 4 feet in height.
- **PEDESTRIAN GATES** - Pedestrian gates should be located at the intersection the property's walkway and the public sidewalk. Pedestrian gates should relate to the design of the fence while maintaining 4-foot height limit.
- **VEHICLE GATES** - Vehicle gates should be set behind the front facade plane of the house and not span across the front of the driveway. A front vehicle gate may be considered if the site features an atypical condition including: (a) a wraparound porch, (b) a narrow driveway less than 10 feet wide, and/or (c) front driveways abutting rear yards or commercial properties.



RESOURCES

Office of Historic Preservation Staff. Consult with a historic preservation specialist to receive property-specific guidance on fences and the Historic Design Guidelines.

www.sapreservation.com | (210) 207-0035 | info@sapreservation.com

Your neighborhood association. Your registered neighborhood association can provide guidance on landscape characteristics, assistance in design and contractor referrals, and more. To find your association, visit **the link below** or inquire with Office of Historic Preservation staff if you live in a historic district.

<https://www.sa.gov/Directory/Departments/CE/Community-Engagement/Neighborhood-Associations>

Iron Fence Shop® provides CAD (Computer Aided Drawing) renderings that are helpful for reviewing fence and gate profiles along with specs. **<https://www.ironfenceshop.com/knowledge-center/>**

PORCH REPAIR & RECONSTRUCTION



CITY OF SAN ANTONIO
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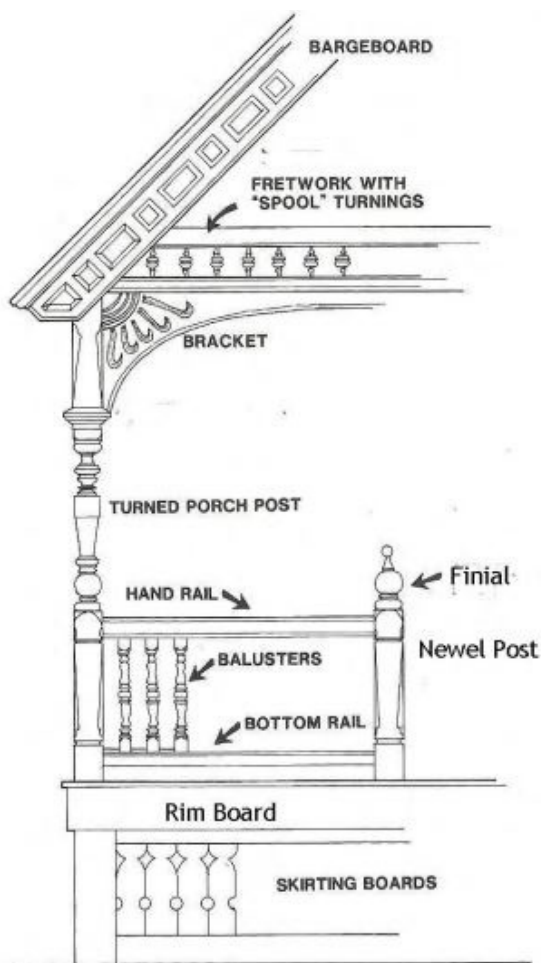
CITY OF SAN ANTONIO
HISTORIC DESIGN GUIDELINES
PORCHES POLICY GUIDE

SEPTEMBER 2022



WHY ARE PORCHES IMPORTANT?

Porches play a leading role in both the design and function of any historic house. Porches protect entrances from weather, often define the structure's architectural style, and establish a rhythm for not only the house to which they are attached, but often the entire block face. Therefore, porch repair and reconstruction should be undertaken in a manner that preserves or is respectful of a house's original architectural character.



Since porches are open to the elements, they are vulnerable to rot and deterioration. Neglect and deferred maintenance are leading reasons for the loss of historic porches and their original elements. Consistent with the [Historic Design Guidelines for Exterior Maintenance and Alterations](#), this guide provides best practices and recommendations for replacement of original, deteriorated porch elements and the introduction of new features where original porch elements have been lost over time.



Did you know?

Some porches may feature architectural elements that are not original but may still be considered historic. When identifying the porch's character defining features, keep in mind that elements from different decades may be contributing to the structure's historic integrity and character.

PORCH REPAIR

Due to exposure to the elements, porch elements are especially susceptible to rot and decay. The Guidelines for Exterior Maintenance and Alterations prioritize the preservation and repair of original porch elements such as columns, balustrades, and decking materials. However, when replacement due to substantial deterioration of original wood materials is not feasible, many homeowners may look to low-maintenance and long-lasting substitute materials for traditional wood elements.



Any new materials should match originals in terms of color, texture, dimensions, and finish. Composite or fiberglass materials *may* be appropriate when proven to be a true match in terms of appearance. Any replacement material should meet the following standards:

- **Color** - All materials should be paintable in order to match the appearance of painted wood.
- **Texture** - Faux wood grain or artificial textures are not appropriate. All new materials should be smooth in finish to match the appearance of wood when painted.
- **Dimensions** - Replacement elements, such as columns, should be identical in diameter and overall dimensions as the originals.
- **Finish** - Manufacturer's colors or factory finishes are not recommended.

The following pages will address porch decking, column repair, and porch railing installation.

PORCH COLUMNS

Original Columns in Place

Porch column replacement should only occur when original columns are deteriorated beyond repair (50% or more of materials determined to be beyond salvage). Columns that **match the original** in dimension and appearance should be installed when:

- The current columns are believed to be **original**
- There is historical **documentation** (historic photos or drawings)

Alternative materials such as composite materials for original porch columns will be considered on a case by case basis and may be appropriate when consistent in color, texture, dimensions, and finish with the original.



Columns for Use in Porch Reconstruction

Porch columns have often been previously-replaced with inappropriate materials such as metal posts or columns that are incompatible with the architectural style of the house. In these cases, homeowners may wish to restore or reconstruct their porches to an appearance that is more in keeping with the style of their home.

Where the original appearance of porch columns is unknown, homeowners are encouraged to look at local examples on similar homes or reference the **architectural style** of their home:



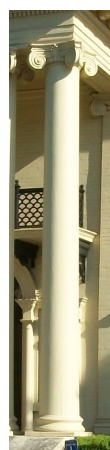
Victorian



Craftsman



Classical Revival



Colonial Revival



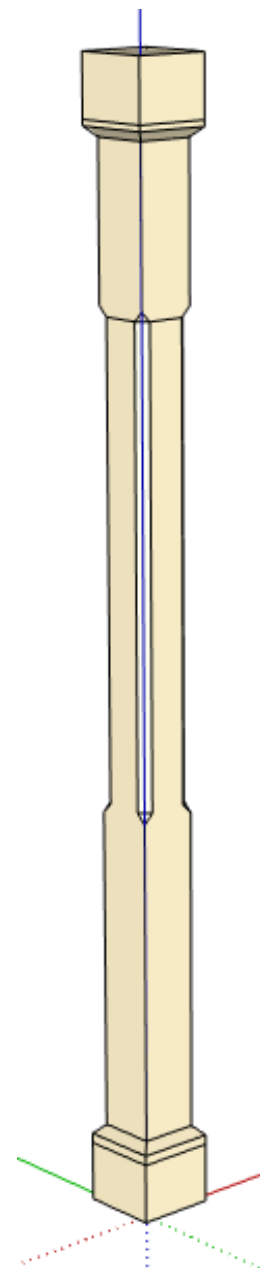
PORCH COLUMNS CONTINUED

Solid Wood Columns for Use in Replacements and New Construction

The Historic Design Guidelines do not require that front porches be fully restored to a historic condition and encourage design interventions that do not compete with or confuse the architectural character of a property. Many homeowners seek to replace non-original or metal posts with solid wood porch columns which may be appropriate in some situations. Consistent with the Guidelines, the following specifications for non-original column replacement as well as porch columns used in new construction are routinely specified by the Historic and Design Review Commission and staff:

New Solid Wood Columns Should:

1. Feature capital and base trim
2. Be no more than six inches square (rounded columns may be more appropriate for colonial revival or classical homes)
3. If square, feature chamfered corners as shown
4. Replicate the appearance of any existing columns or pilasters (if present)



Pictured above: non-original metal posts replaced with wood columns meeting specifications

PORCH DECKING

Due to its exposure to the elements, porch decking is especially susceptible to rot and decay. Even modern-day, treated wood decking requires a rigorous maintenance and re-painting regimen in order to last through the years. Many property owners look to composite decking products as a low-maintenance and long-lasting substitute for traditional wood decking.

*Certain product specifications and installation methods have proven to be **consistent** with the Historic Design Guidelines and are eligible for administrative approval:*

- **Do** utilize individual decking boards that are 3 inches in width and 7/8 of an inch in height.
- **Do** utilize products with a smooth finish and tongue-and-groove profile which mimic the appearance of wood decking when painted.
- **Do** install decking boards "back-to-front" and with a slight slope toward the front of the porch.



*Actions which **remove or detract** from the architectural character of your historic property are not recommended and may be subject to HDRC review with no guarantee of approval:*

- **Do not** fully-replace original decking materials where a majority of original wood decking is intact and determined to be repairable.
- **Do not** utilize dimensional lumber that is inconsistent in size and appearance with historic tongue-and-groove decking.
- **Do not** utilize composite decking products with integrated coloring or a faux wood grain.
- **Do not** install decking boards left-to-right or parallel to the front facade.



Consider This: When selecting a substitute material, consider the overall life-cycle and carbon footprint of the replacement product. Choose from materials containing recycled content or that feature an eco-friendly manufacturing process.

NEW RAILINGS

Porch railings are found commonly on historic houses in San Antonio; however, not every house featured railings originally. Railings may be **added** or **modified** if designed appropriately.

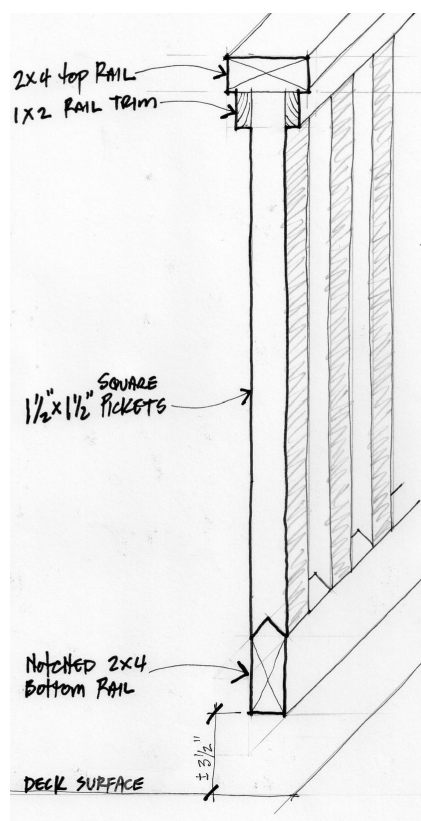
When proposing new porch railings, ensure that an appropriate design is used for the style of your historic house. For example, turned balusters would not be appropriate for a Craftsman house.

New Porch railings should:

- Feature both top and bottom rails.
- Feature simple designs that do not detract from that of the historic structure.
- Be raised off the deck surface.

New Porch railings should not:

- Feature historically-inaccurate or overly ornate designs unless based on photographic evidence of the original.
- Feature inappropriate materials, out-of-scale members, or non-traditional profiles.
- Remove or alter original railing designs.



Above: Illustration of appropriate porch railing design



Additional height added to railing without altering the original design



Reconstructed porch meeting specifications

RESOURCES

Office of Historic Preservation Staff. Consult with a historic preservation specialist to receive property-specific guidance for your porch or the Historic Design Guidelines.

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Your neighborhood association. Your registered neighborhood association can provide guidance, opinions, assistance in design and contractor referrals, and more. To find your association, visit <https://www.sa.gov/Directory/Departments/CE/Community-Engagement/Neighborhood-Associations> or inquire with Office of Historic Preservation staff if you live in a historic district.

Other Cities

https://www.historicbostonedison.org/resources/Documents/Newsletters/Porch_Guidelines.pdf

REPLACEMENT & SUBSTITUTE MATERIALS FOR HISTORIC STRUCTURES



CITY OF SAN ANTONIO
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PRESERVATION**

CITY OF SAN ANTONIO
HISTORIC DESIGN GUIDELINES
SUBSTITUTE MATERIALS POLICY GUIDE

JANUARY 2022



WHY IS MATERIAL SELECTION IMPORTANT?

Your historic property was designed to be repaired over time. Original wood features such as siding, trim, windows, and foundation piers are not immune to deterioration over time. As individual building components are replaced over time, choosing an appropriate replacement material is essential to preserving the architectural integrity of a structure.

In many instances, matching replacement materials may no longer be available. New technology may also provide viable and sustainable alternatives to wood products when appropriate. When original materials are missing or deteriorated beyond repair, the Historic Design Guidelines encourages the use of in-kind (or same) materials or substitute materials that are similar in size, scale, and character as the original.

This policy document provides owners guidance on when a substitute material may be appropriate and what types of products are found to be consistent with the Historic Design Guidelines.



At all times, the Historic Design Guidelines, Chapter 2, Guidelines for Exterior Maintenance and Alterations should be followed. The removal and replacement of an original material should always be a last resort, and should receive a Certificate of Appropriateness from the Office of Historic Preservation.



Did you know? Old growth lumber is more dense, stronger, burns slower, and is more insect resistant than new lumber. Before considering a replacement material, be sure to **consider the value** in your existing building components! Repair with selective replacement of original materials is both environmentally sustainable and cost effective.

PORCH DECKING

Due to its exposure to the elements, porch decking is especially susceptible to rot and decay. Even modern-day, treated wood decking requires a rigorous maintenance and re-painting regimen in order to last through the years. Many property owners look to composite decking products as a low-maintenance and long-lasting substitute for traditional wood decking.

*Certain product specifications and installation methods have proven to be **consistent** with the Historic Design Guidelines and are eligible for administrative approval:*

- **Do** utilize individual decking boards that are 3 inches in width and 7/8 of an inch in height.
- **Do** utilize products with a smooth finish and tongue-and-groove profile which mimic the appearance of wood decking when painted.
- **Do** install decking boards "back-to-front" and with a slight slope toward the front of the porch.



*Actions which **remove or detract** from the architectural character of your historic property are not recommended and may be subject to HDRC review with no guarantee of approval:*

- **Do not** fully-replace original decking materials where a majority of original wood decking is intact and determined to be repairable.
- **Do not** utilize dimensional lumber that is inconsistent in size and appearance with historic tongue-and-groove decking.
- **Do not** utilize composite decking products with integrated coloring or a faux wood grain.
- **Do not** install decking boards left-to-right or parallel to the front facade.



Consider This: When selecting a substitute material, consider the overall life-cycle and carbon footprint of the replacement product. Choose from materials containing recycled content or that feature an eco-friendly manufacturing process.

FOUNDATION SKIRTING

Foundation skirting, due to its proximity to the ground, is often severely deteriorated and in need of repair or replacement. In some cases, the original foundation skirting may have been modified or removed completely. Stucco or cement board products are desirable due to their resistance to rot and decay. However, any replacement skirting material should be consistent with the original known conditions or the architectural style of the house.

*Certain practices and installation methods have proven to be **consistent** with the Historic Design Guidelines and are eligible for administrative approval:*

- **Do** install skirting with a profile that matches either the original skirting or areas of extant original siding.
- **Do** utilize cement board products at grade to prevent rot and decay. Selected material should feature a smooth texture and be painted to match.
- **Do** preserve or replicate original functional or decorative features such as drip edges and crawlspace vents.



Pictured: Replacement wood skirting to match original siding with

*Materials that are **inappropriate or inconsistent** with the architectural style or construction period are not recommended and may be subject to HDRC review with no guarantee of approval:*

- **Do not** install skirting in large sheets or panels, such as cement board or plywood.
- **Do not** install corrugated metal or tin skirting unless there is historical documentation.
- **Do not** fully replace original wood skirting with non-original materials such as stucco.



WOOD SIDING

Historic wood siding serves an important function and contributes to the authenticity of your home. Milled from old-growth hardwood or longleaf pine, the fact that most original siding has lasted for more than 100 years is amazing! Routine maintenance such as caulking and painting arrests deterioration and ensures that siding will continue to last for generations.

As the primary component of your home's exterior, wood siding is susceptible to rot and decay over time. Lack of maintenance can accelerate deterioration, and many homeowners find themselves tempted to replace or encapsulate the original siding with new products.

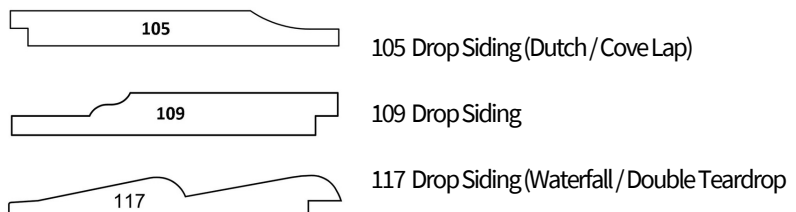


Repair or Replace? Repair refers to the "spot treatment" of your original siding. This might include introducing fillers to small areas of rot, cutting out and replacing small areas of siding with matching siding, and surface restoration through scraping, sanding, caulking, and painting. When more than 50% of an exterior wall plane is deteriorated beyond repair, then it's time to consider replacement siding.

Remember, wholesale replacement siding should not be considered until all measures to preserve the original siding in place have been taken. Preserving and **patching original siding** keeps durable, old-growth lumber on your house. This reduces the need to introduce new, non-sustainable materials which typically require more routine maintenance and future interventions.



Common Historic Siding Profiles in San Antonio:



Methods and materials that are inappropriate or inconsistent with the architectural style or construction period are not recommended:

- **Do not** fully replace historic siding unless the original siding is missing or deteriorated beyond repair as determined by OHP staff.
- **Do not** install new siding that does not match the original siding's profile.
- **Do not** install composite or artificial siding as a replacement to wood siding.
- **Do not** conceal or encapsulate original siding with new materials.



Repair and maintain original siding to the fullest extent possible. Wholesale replacement should be avoided.

WINDOWS & DOORS

Historic windows & doors are essential architectural elements which convey the character and craftsmanship of a historic property. The Historic Design Guidelines prioritize repair of original features over replacement.

For additional information on **windows**, refer to the Historic Design Guidelines, *Windows: Repair, Replacement, and New Construction* or click [here](#).



Once an original front entry door is removed, an important character-defining feature is lost forever. In most cases, solid wood entry doors can be repaired!

Checklist for door repair:

- Replace missing or broken **hardware**
- Reinforce or reconstruct **joints** and connection points
- Replace broken **glass** and / or muntins
- **Fill** small areas of rot with and **replace** deteriorated wood elements or panels as needed
- **Weatherize** with stain, paint, and weatherstripping



Where original doors are missing or damaged beyond repair, replacement doors that are appropriate for the architectural style or construction period of the house should be installed. Period-appropriate doors are also available at most local architectural **salvage stores**. When replacement is warranted, architecturally appropriate doors are eligible for administrative approval:



Folk Victorian/Queen Anne



Craftsman



Tudor/Mission/Spanish Rev.



Colonial Rev./Min. Traditional



Mid Century/Ranch

ORNAMENTAL ELEMENTS

Ornamental elements are one of the primary character defining features of historic structures. Folk Victorian, Craftsman, Tudor Revival and Spanish Eclectic are all commonly found throughout San Antonio and are each defined by unique ornamental elements, most commonly found under roof eaves, beneath gables, at cornice lines and on porches. Ornamental elements should be repaired in place and when deteriorated beyond repair should be replicated using like materials. Ornamental elements should never be removed or added to alter the look of the structure unless historic photographs noting the previous state are available.



Pictured: A folk Victorian structure that retains its original ornamental elements. These should be repaired and preserved to be installed during the rehabilitation process. **Also pictured:** Inappropriate replacement spindle work.

RESOURCES

Office of Historic Preservation Staff. Consult with a historic preservation specialist to receive property-specific guidance for your porch and the Historic Design Guidelines.

www.sapreservation.com | (210) 207-0035 | info@sapreservation.com

The Preservation and Repair of Historic Stucco: <https://www.nps.gov/tps/how-to-preserve/preservedocs/preservation-briefs/22Preserve-Brief-Stucco.pdf>

City of Ashland, Oregon, Historic District Development Standards, Historic Building Brief No. 3: <http://www.ashland.or.us/files/HistoricBrief3.pdf>

Old House Online, Repairing Stucco: <https://www.oldhouseonline.com/articles/repairing-stucco>

Old House Online, Horizontal Siding Guide: <https://www.oldhouseonline.com/articles/horizontal-siding-guide>

Old House Web, Whitewash: A Historic Cover-up: <http://www.oldhouseweb.com/blog/whitewash-an-historic-cover-up/>

US Heritage: Limewash: <http://usheritage.com/limewash/>

Stucco Scratch Coat Mix, A Simple Recipe: <https://thestuccoguy.com/stucco-scratch-coat-mix/>

Your neighborhood association. Your registered neighborhood association can provide guidance on landscape characteristics, assistance in design and contractor referrals, and more. To find your association, visit the link below or inquire with Office of Historic Preservation staff if you live in a historic district.

<https://www.sa.gov/Directory/Departments/CE/Community-Engagement/Neighborhood-Associations>

SUSTAINABILITY GUIDE FOR OLDER STRUCTURES



CITY OF SAN ANTONIO
**OFFICE OF HISTORIC
PRESERVATION**

CITY OF SAN ANTONIO
HISTORIC DESIGN GUIDELINES
SUSTAINABILITY POLICY DOCUMENT

SEPTEMBER 2022



Photo: Wood window repair workshop participants, June 2019.

PRESERVATION AS SUSTAINABILITY

The greenest building is the one that already exists.

It's (very often) true! Investing in the prolonged maintenance or rehabilitation of a historic home is a sustainable approach to housing because it facilitates the reuse of existing materials and infrastructure. Reusing and adapting historic buildings and neighborhoods reduces our consumption of raw land, new materials, and other finite resources.

Sustainability, or sustainable architecture, is a design practice that seeks to minimize negative impacts to the environment. The best sustainable or “green” homes are thoughtfully-designed, durable, and energy-efficient. Similarly, historic homes were constructed with permanence in mind and many have inherently sustainable features such as deep shaded porches lined with windows, deep roof eaves to shade and protect the house from moisture and integrated shutters and screens to deter solar heat gain. They were designed in response to their regional setting and constructed with high-quality, local materials by skilled tradesmen. Many homes in San Antonio have lasted for at least 100 years and can even outlast homes built today through routine maintenance and repair.

This guide will address several common sustainability questions and offer guidance on how to best integrate green practices with older properties. All recommendations are rooted in a whole-structure, long-term approach to sustainability.

Sustainability Guide Contents



The Importance of Existing Buildings



Whole-Structure Approach to Efficiency



Retrofit Strategies



When to Repair vs. Replace and Reusing Reclaimed Materials



Solar Panels and White Roofs

THE IMPORTANCE OF EXISTING BUILDINGS

It is estimated that cities consume more than 75% of the world's natural resources, produce more than 50% of global waste, and emit up to 80% of the world's greenhouse gases. The architecture, construction, and engineering (AEC) industry as a whole is moving towards practices and policies that prioritize reuse of existing structures and materials in order to minimize unnecessary waste, combat rampant consumerism, and reduce dependency on both renewable and non-renewable resources.



Embodied And Operational Energy

Embodied energy is the energy consumed by all of the processes associated with the production of a building, from the mining and processing of natural resources to manufacturing, transportation, and product delivery. By repairing, restoring, or reusing historic materials and buildings, you are utilizing the inherent embodied energy in existing structures and limiting new energy expended on the generation of more products.

Operational energy is the energy consumed by a building to meet heating, cooling, ventilation, lighting, and appliance demands.

This Sustainability Guide offers ways to reduce operational energy without compromising the embodied energy of your historic building.

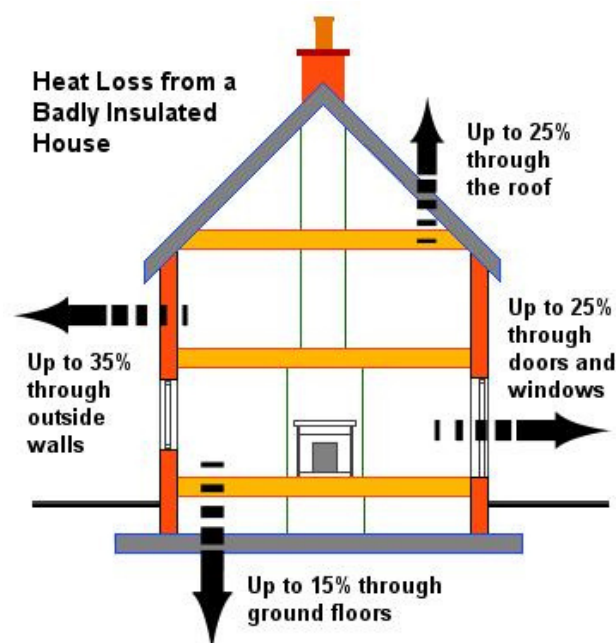
WHOLE-STRUCTURE APPROACH

Installing solar panels on a poorly-insulated house is like plugging one small hole in a sinking ship.

The existing materials in your building have a smaller carbon footprint than any new materials available on the market today. The introduction of new products and materials to improve the operational efficiency of a building should only occur after careful consideration of all of the impacts associated with the creation of those materials. For smaller buildings, such as single-family dwellings, the total environmental impact of retrofit products may be even greater than the impact of doing nothing at all!

The best way to ensure the efficacy of retrofits or upgrades -- and to maximize your return on investment -- is to minimize air infiltration and repair or restore existing elements of the structure first. **Energy audits** are a great way to begin the process of increasing your historic structure's efficiency. Pinpointing areas of heat gain and loss is vital.

- Employ a **blower test** or infrared sensor to identify points of air infiltration
- Utilize CPS Energy's free **Home Energy Assessment Program**
- Analyze a year's worth of energy bills to identify **usage patterns**
- Inspect crawl spaces, floors, openings, electrical and gas service entrances, and points where two different building materials meet to **identify and seal gaps**



Did you know? A gap of only 1/8 of an inch under a 36-inch wide door lets in as much air as having a 2 1/2 inch wide hole in your house's wall!

RETROFIT STRATEGIES



Roof

- Install **attic insulation**, such as batt insulation or blown cellulose, to limit impacts on historic framing or structural elements while increasing efficiency. For attics that utilize floor space, rigid board or a combination of insulation strategies is recommended.
- Install a **radiant barrier** on the underside of the roof. Radiant barrier is proven to be one of the most cost-efficient strategies for reducing solar heat gain in our climate.
- **Insulate and seal HVAC ducts** if they are located in the attic to limit operational energy.
- **Properly ventilate unoccupied attics** to reduce the likelihood of moisture problems or undetected decay of roof components. Historic gable vents should be kept operational.



Walls and Wall Openings

- **Install weatherstripping** around windows and doors to create an air-tight seal.
- **Repair historic windows.** Historic wood windows are constructed of old growth lumber, which is durable and more resistant to rot, decay, and insects. They can be repaired to be both operational and air tight which is by far the greenest strategy for windows.
- **Install interior storm windows.** Interior window products can be custom designed to fit your existing openings and create air-tight seals and a double-pane conditions that are commonly advertised with replacement products.
- **Install solar film** on the interior of the window panes to reduce heat gain and UV rays.
- **Install exterior window screens** where stylistically appropriate.



Operational

- **Install a smart or programmable thermostat** to monitor energy usage and limit overall energy consumption. CPS Energy offers a free smart thermostat program.
- **Utilize ceiling fans** in occupied rooms to generate air movement.
- **Replace incandescent light bulbs** with more efficient, cooler, and longer-lasting bulbs.
- **Utilize interior shading devices** to limit heat gain and reduce HVAC demands, including interior blinds, shades, or shutters. **Cellular shades** are proven to be very effective and allow for filtered light to enter your space.
- **Maintain and restore original interior historic features** that promoted air movement before the invention of HVAC, including interior transom windows and doors.



Not Recommended

- **Wall insulation** in our warm, humid climate offers limited financial benefit relative to installation costs and can create significant maintenance risks, including moisture accumulation and the rot and decay of framing.
- **Vapor barriers** are not recommended in our climate because the energy savings are often significantly overwhelmed by the installation costs.

REPAIR VS. REPLACE

Does It Need to Be New?

The very first question to ask for any project is whether a new product or new construction is absolutely necessary. Building and material reuse can greatly reduce embodied energy and, when elements are properly repaired and maintained, can reduce operational energy.

When assessing repair versus replacement, consider:

- The initial repair versus replacement costs
- Annual energy savings after conducting an energy audit (if applicable)
- The lifespan or warranty of the replacement product (does lifetime warranty actually mean *your* lifetime, or just the anticipated lifespan of the product?)
- The maintenance required for the replacement product
- Payback period or return on investment (ROI) relative to the lifespan of the product

Hidden Costs of Buying New

- ✗ **Resource Extraction & Manufacturing:** The creation of new building products is extremely resource-intensive. For example, vinyl is a petroleum-based product. Consider the environmental impact of mining, extraction, and manufacturing of virgin resources when evaluating the overall sustainability of your choice.
- ✗ **Transportation:** From factory to showroom to installation, the transportation costs can be significant. Older materials were often sourced locally and the repair of existing materials by local businesses limits the environmental impacts of transportation.
- ✗ **Limited Warranties:** Most replacement products offer limited warranties that can be voided in multiple ways. For example, several replacement window warranties can be voided through painting, improper maintenance or repair techniques, or even just by selling the property (non-transferable clauses). Evaluate warranties carefully.
- ✗ **Replacement Cycle:** Historic building elements were constructed with repair in mind and can often be disassembled, spot-repaired, and reassembled using readily available tools. Modern products are sold as standalone elements and can be difficult to repair, or may require specialty components that are contingent upon the original company remaining in business. Consider the lifespan of your product and whether your investment will have to be fully replaced in 15-20 years, creating a continuous cycle of replacement.
- ✗ **End-of-Life Waste:** Plastic and composite materials can take up to 1,000 years to decompose in a landfill, making repair and reuse of existing materials and products the most sustainable option overall.




RECLAIMED MATERIALS

If existing elements cannot be repaired, salvaged or reclaimed materials are the recommended second option.

- **Reclaimed wood is more durable and higher quality** than off-the-shelf lumber found at big box stores. By incorporating salvaged lumber of a similar age as your historic building, materials will continue to age consistently. New virgin lumber siding, for example, often ages at an accelerated pace and can cause separation, cracking, water infiltration, or other long-term issues when spliced with historic wood siding.
- **Mass-manufactured elements often come in stock sizes** that may differ from the dimensions of older building elements, like historic windows. This requires the siding, trim, and sometimes framing to be altered to accommodate dimensional differences, adding cost, time, and complexity to a project, in addition to issues mentioned above.



Reduce, Reuse, Restore

-  Identify reuse opportunities in your project with your designer or contractor.
-  Donate or sell your reclaimed materials on neighborhood email lists, on Facebook and/or Nextdoor groups, or to a local reuse center, like the City's Material Innovation Center.
-  Incorporate salvaged building materials into your project to give them new life.



Did you know? Our Deconstruction & Circular Economy Program website, www.SAReuse.com, is a resource hub for reusing salvaged materials.

SOLAR PANELS

It's sunny in San Antonio, which makes solar array a viable alternative to non-renewable energy sources. Remember, solar panels do not make your home more efficient. Going solar should be the next step after a full energy audit and assessment of available retrofit strategies has already occurred. Solar installations do not require approval by OHP.



Interested in solar for your historic property? Utilize the checklist below when developing an array plan with your solar service provider.

Solar Checklist for Historic Properties

- ☐ **Location:** Panels should be located on the side or rear roof lines of a primary structure; on any roof line of an accessory structure; or on a ground-mounted array in the rear yard; or a combination. If panels are **required** to be located on the front roof line of a primary structure for solar efficiency, the panels should maintain at least 18" distance from the roof eaves and be grouped in a rectangular or square configuration that responds to the existing roof forms.
- ☐ **Pitch:** Panels should be mounted flush with the roof pitch. If located on a flat roof with a parapet, panels should have the minimal pitch required for solar efficiency.
- ☐ **Mounting:** Panel mounting equipment features low-profile hardware that closely matches the color of the existing roofing material. Panels are not mounted in a manner that adversely affects or damages existing historic roofing materials.
- ☐ **Color:** Panels and hardware should closely match the existing roof color where possible.

SOLAR PANELS CONTINUED

A. Appropriate



Best Practices

- Panels located on the rear portion of the roof
- Panels set back from the eaves by at least 18"
- Panels are flush with the roof pitch
- Panels do not overwhelm the roof and are strategically placed
- Panels are evenly clustered

This approach should be prioritized in solar planning.

B. Acceptable



Best Practices

- Panels set back from the eaves, but placed closer to the front of the structure
- Panels are flush with the roof pitch
- Panels do not overwhelm the roof and are subordinate to the roof plane
- Panels are evenly clustered

This approach should be explored when there are site restrictions that limit solar access.

C. If Necessary



Best Practices

- Panels are more visible from the public right-of-way
- Panels become an integrated feature on the primary front and side facades
- Panels are evenly clustered

This approach should be considered only when there are extreme site restrictions or orientation factors that limit solar access.



Did you know? Big Sun Community Solar, a CPS Energy collaborative, offers the option to purchase off-site solar panels for energy savings in lieu of installing panels on your own property. Visit www.bigsunsolar.com for more information.

WHITE & HIGH REFLECTANCE ROOFS

In addition to solar panels, the installation of a white or high reflectance roof on a historic structure can lower the amount of energy used in cooling by better reflecting the sun's rays. Additionally, reflective roofing materials can be installed beneath a roof's surface material to aid in reducing heat gain. Considering the installation of white or reflective roof components for your property? Utilize the guidelines below!

- **Roll-on white coatings** for metal roofs are eligible for administrative approval. Roll-on coatings for existing asphalt shingles will be reviewed on a case-by-case basis and may be referred to the Historic and Design Review Commission (HDRC).
- **White asphalt shingle roofing** is eligible for administrative approval, provided that 1) the existing roofing is asphalt shingles; or, if the existing roof is a different material 2) asphalt shingles are compatible with the architectural style of the historic structure.
- **Roof underlayments** that require the removal and re-installation of existing exterior roofing materials (barrel tile, metal, shingles, etc.) are eligible for administrative approval.



Under 1 Roof Program

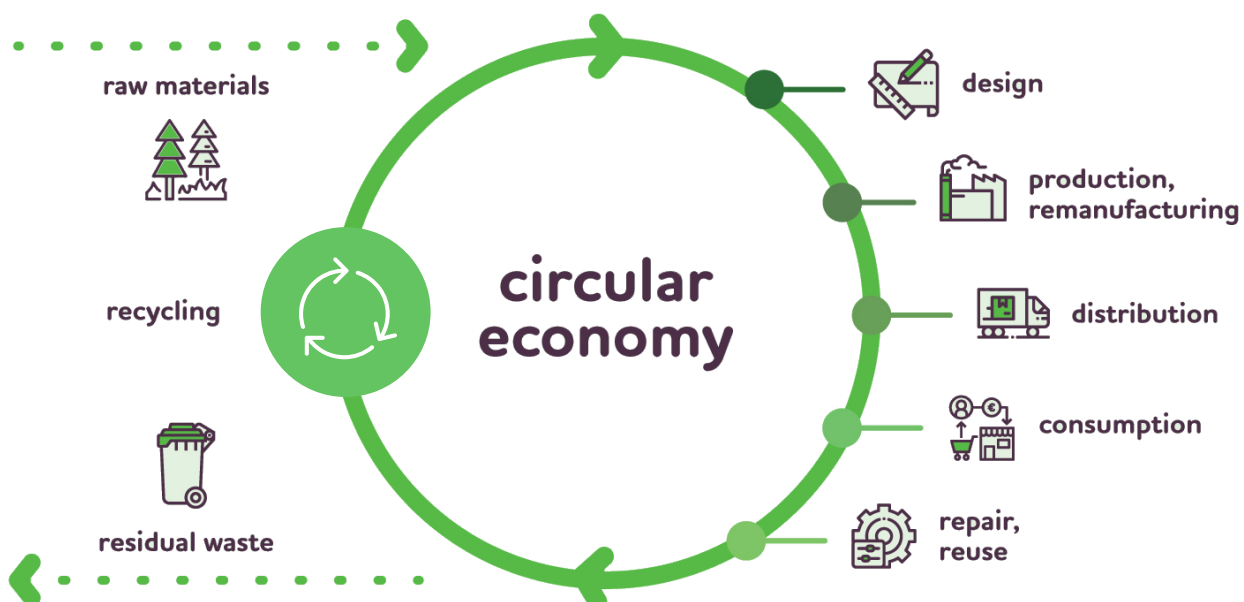
The Under 1 Roof Program, administered by the City's Neighborhood and Housing Services Department (NHSD), fully replaces worn and damaged roofs with new, energy-efficient white or high reflectance roofs for qualified homeowners. This program is one of many designed to assist homeowners with the preservation, maintenance, and efficiency of older structures. For more information, visit www.sanantonio.gov/nhsd/programs/repair.

SUMMARY

Owning or living in an older building is an inherent form of sustainability! By utilizing an existing structure, you are reducing demand on new raw materials, practicing reuse on a large scale, and acting as a steward of a San Antonio cultural resource for future generations to enjoy. To summarize, we encourage the following sustainable strategies for your older structure:

- **Repair existing elements** where feasible. If replacement is necessary, source compatible **salvaged or reclaimed materials**, or explore **reconstruction** with salvaged or reused materials. New replacement products should be considered as a last resort.
- Consider the **total life cycle costs** of new products, including their durability, repairability, and advertised lifespan. Consider their **end-of-life**, too: are they recyclable? Can they be dismantled and reused or upcycled in another way?
- Ensure that existing historic elements are repaired and air leaks fixed prior to exploring in the investment of additional sustainable infrastructure, such as **solar panels**, to maximize your return on investment.
- Consider innovative energy solutions like **Big Sun Community Solar** to obtain savings on your energy bill without making substantial alterations to your property.
- Utilize **community and organizational resources** at low to no cost, such as rebate programs from CPS or grant programs for repair from The Conservation Society of San Antonio.
- Incorporate retrofit strategies that are **suitable for our climate** to ensure the long-term efficacy of your investment.

Your stewardship is important. Thank you for living sustainably!



RESOURCES

Office of Historic Preservation Staff. Consult with a historic preservation specialist to receive property-specific guidance on retrofitting strategies or reducing operational energy.

www.sapreservation.com | (210) 207-0035 | info@sapreservation.com

Rehabber Club Website. The Rehabber Club is a FREE network of homeowners, do-it-yourselfers, contractors, and anyone interested in the preservation of older structures. The website offers a list of certified contractors, resource guides, and a list of upcoming workshops and events centered around repair, restoration, and reuse of materials and buildings. **www.sarehabberclub.com**

San Antonio Reuse Website. As the homepage of the City of San Antonio's Deconstruction & Circular Economy Program, San Antonio Reuse is a hub for information, resources, and inspiration for material reuse, including tips for reusing building materials in your own home or community. **www.sareuse.com**

CPS Energy. CPS offers several programs and rebates for energy savings for both residential and commercial customers, ranging from thermostats, insulation, water heaters, appliances, roofing, solar panels, and more.

www.cpsenergy.com | (210) 353-2728

Neighborhood and Housing Services Department (NHSD). This City department administers several programs designed to assist homeowners with the preservation, maintenance, and efficiency of older structures, including the Under 1 Roof Program.

www.sanantonio.gov/nhsd | (210) 207-6459

Build San Antonio Green. This local nonprofit works with builders and developers to certify green homes. They also offer educational resources for homeowners and buyers to provide guidance on energy reduction and water consumption, in addition to hosting several public events, including Solar Fest.

www.buildsagreen.org | (210) 224-7278

The Conservation Society of San Antonio. This local nonprofit advocates for the reuse of historic structures and offers grants for preservation projects to owners of older properties, both large and small.

www.saconservation.org | (210) 224-6163 | conserve@saconservation.org

Your neighborhood association. Your registered neighborhood association can provide guidance on retrofit strategies that your neighbors have implemented, assist in contractor referrals, and more.

<https://www.sa.gov/Directory/Departments/CE/Community-Engagement/Neighborhood-Associations>

WINDOWS: REPAIR, REPLACEMENT & NEW CONSTRUCTION



CITY OF SAN ANTONIO
**OFFICE OF HISTORIC
PRESERVATION**

CITY OF SAN ANTONIO
HISTORIC DESIGN GUIDELINES
SUBSTITUTE MATERIALS POLICY GUIDE

SEPTEMBER 2022



WHY ARE WINDOWS IMPORTANT?

A value of a historic home is equal to the sum of its parts. As original materials are removed from a historic property, it begins to lose its integrity and ultimately its historic value. Historic windows greatly contribute to a property in terms of character and craftsmanship. They were expertly designed and constructed from high-quality materials. Preserving historic windows in place keeps original, high quality materials with the property and out of the landfill.

In historic homes, the windows are an integral part of the design. They were designed to not only be aesthetically pleasing, but were necessary as a functioning component to the building by providing light and ventilation. The loss of original windows also has great potential to negatively impact the appearance of a historic home. Building facades lose proportionality and depth as modern replacements are introduced.



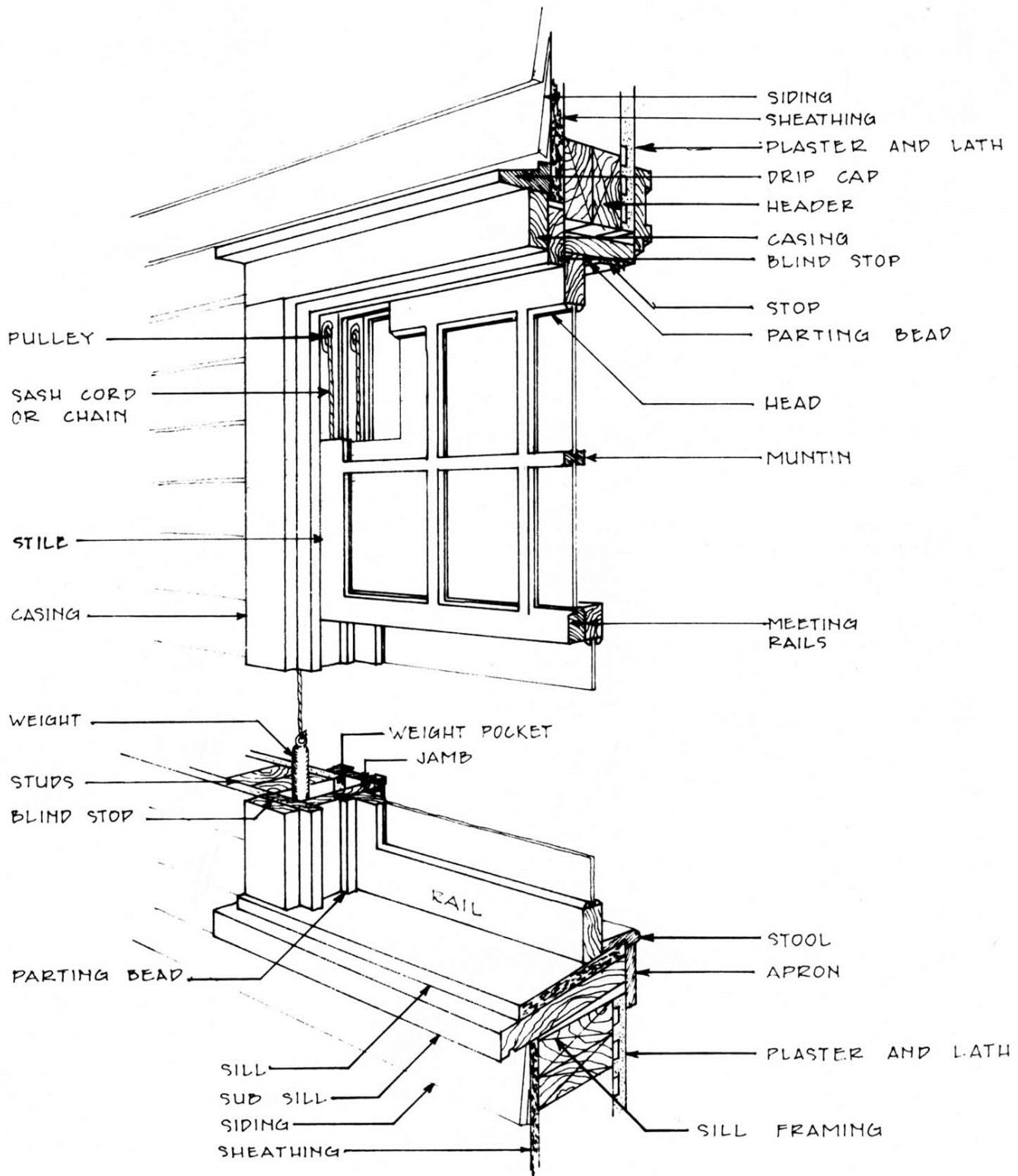
Historic wood windows can certainly be maintained or restored to working order. Preservation of original architectural features, including windows, is encouraged in the City of San Antonio Historic Design Guidelines. Nevertheless, there is an abundance of replacement window products that are too often used by historic home owners seeking to “upgrade” their aging properties.

Did you know?



Even windows in the best condition can be made more energy efficient. Heat gain/loss through windows occurs in three different ways: air infiltration, heat transfer (conduction) and solar gain (radiation). There are a number of low cost, reversible and historically appropriate strategies that can be used to reduce heat gain/loss.

WOOD WINDOW PARTS

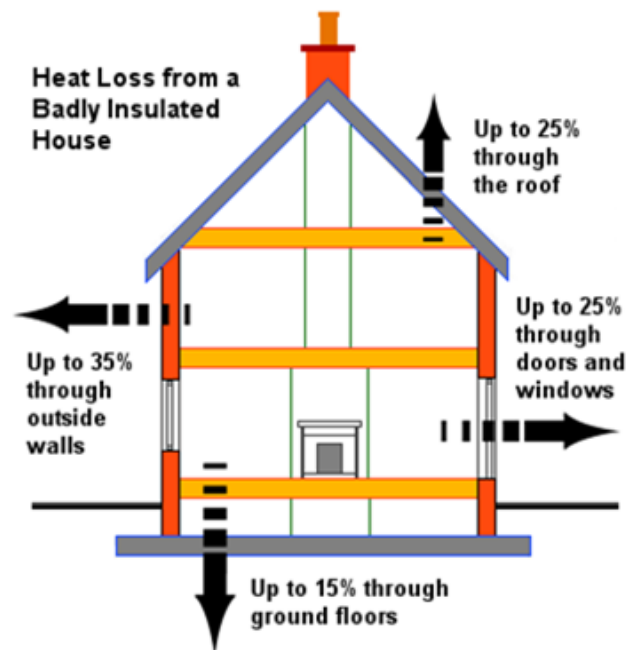


ENERGY EFFICIENCY & WOOD WINDOWS

In an age where energy reduction is at the forefront of every homeowner's mind, windows are often blamed as the leading culprit of heat gain/loss. The criminalization of "drafty old windows" is nothing new; window manufacturers have long been pointing out the faults of old windows while promoting attractive solutions (their products). New low-e, gas-filled and triple pane replacements may seem like an exciting solution for homeowners coping with their monthly energy bill. Walk into any home-improvement store, and you may be feeling the pressure to replace. Door-to-door window salesmen have also been reported in historic districts in San Antonio.

In reality, heat gain/loss occurs evenly throughout the home, with windows only accounting for 25% of waste. Poorly insulated walls and attics are the greater culprit, especially locally. The San Antonio climate offers many days of full sun. While we enjoy these sunny days in the winter, during the hot summer months that same sun bears down on rooftops, turning attics into ovens.

Trying to solve an energy problem by only addressing the windows is like trying to hold water in a leaky bucket and only patching a few of its holes!



Consider the use of the following to increase your historic structure's energy efficiency.

- Weather stripping
- Storm windows (interior and occasionally on the exterior provided they are thin framed and used with a decorative screen that does not obscure architectural elements)
- Shades, shutters and screens
- Interior window film

REPAIR OR REPLACE?

In most cases, window repair is not only the more affordable solution upfront, but offers a much greater return on investment than replacement. Repairing and maintaining an old wood window may seem like a daunting task, but remember that historic windows were intended to be taken apart. If one piece fails, then only that piece may be replaced. By educating themselves on these practices, repairs can become something that any homeowner can tackle one window at a time (although feel free to obtain the services of a professional!)

REPAIRABLE WINDOWS

- Glass missing or broken
- Meeting rails not aligning
- Cords broken or hardware missing
- Sill or frame rotted
- Partially rotted rails and stiles which require patching

BEYOND REPAIR

- Missing components or units such as sashes
- Extreme wood rot
- Where 50% or more of a window's components must be reconstructed



Historic wood frames are restored, and prepped for reglazing.

Did you know?



All windows, new or old, contribute to some level of heat gain or loss in your home. An important strategy in reducing heat gain for any part of your house is to shade your windows! Consider planting a shade tree or utilize solar screens on western exposures. National research also points to cellular shades as an inexpensive and effective strategy.

SELECTING AN APPROPRIATE REPLACEMENT



Wood replacement



Aluminum replacement
(to replace non-historic windows)



Vinyl replacement

Replacement windows standards:

MATERIALS: If full window replacement is approved, the new windows must feature primed and painted wood exterior finish. Clad, composition, or non-wood options are not allowed unless explicitly approved by the commission.

SASHES: Meeting rails must be no taller than 1.25". Stiles must be no wider than 2.25". Top and bottom sashes must be equal in size unless otherwise approved.

DEPTH: There should be a minimum of 2" in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness.

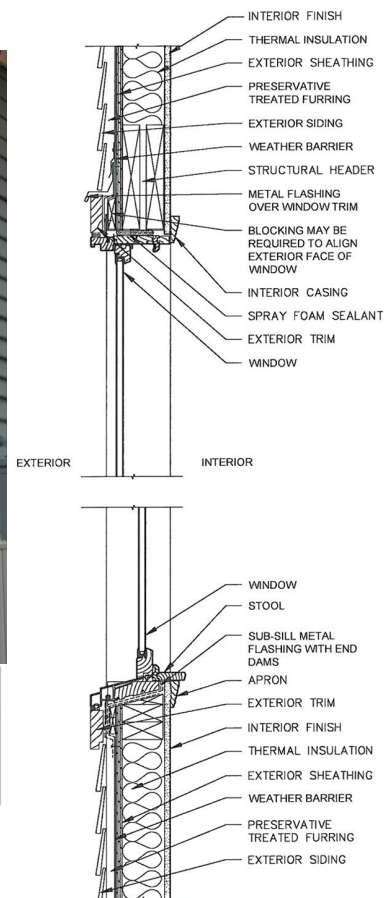
TRIM: Original trim details and sills should be retained or repaired in kind. If approved, new window trim must feature traditional dimensions and architecturally appropriate casing and sloped sill detail. Window track components such as jamb liners must be painted to match the window trim or concealed by a wood window screen set within the opening.

GLAZING: Replacement windows should feature clear glass. Low-e or reflective coatings are not recommended for replacements. The glazing should not feature faux divided lights with an interior grille. If approved to match a historic window configuration, the window should feature real exterior muntins.

COLOR: Replacement windows should feature a painted finished. If a clad product is approved, white or metallic manufacturer's color is not allowed, and color selection must be presented to staff.

INSTALLATION: Replacement windows should be supplied in a block frame and exclude nailing fins. Window opening sizes should not be altered to accommodate stock sizes prior to approval.

WINDOWS FOR NEW CONSTRUCTION & ADDITIONS



Window standards for new construction and additions:

GENERAL: New windows on additions should relate to the windows of the primary historic structure in terms of materiality and overall appearance. Windows used in new construction should be similar in appearance to those commonly found within the district in terms of size, profile, and configuration. While no material is expressly prohibited by the Historic Design Guidelines, a high quality wood or aluminum-clad wood window product often meets the Guidelines with the stipulations listed below. Whole window systems should match the size of historic windows on property unless otherwise approved.

SIZE: Windows should feature traditional dimensions and proportions as found within the district.

SASH: Meeting rails must be no taller than 1.25". Stiles must be no wider than 2.25". Top and bottom sashes must be equal in size unless otherwise approved.

DEPTH: There should be a minimum of 2" in depth between the front face of the window trim and the front face of the top window sash. This must be accomplished by recessing the window sufficiently within the opening or with the installation of additional window trim to add thickness.

TRIM: Window trim must feature traditional dimensions and architecturally appropriate casing and sloped sill detail. Window track components such as jamb liners must be painted to match the window trim or concealed by a wood window screen set within the opening.

GLAZING: Windows should feature clear glass. Low-e or reflective coatings are not recommended for replacements. The glazing should not feature faux divided lights with an interior grille. If approved to match a historic window configuration, the window should feature real exterior muntins.

COLOR: Wood windows should feature a painted finished. If a clad product is approved, white or metallic manufacturer's color is not allowed, and color selection must be presented to staff.

INSTALLATION: Wood windows should be supplied in a block frame and exclude nailing fins. Window opening sizes should not be altered to accommodate stock sizes prior to approval.

RESOURCES

Office of Historic Preservation Staff. Consult with a historic preservation specialist to receive property-specific guidance on windows and the Historic Design Guidelines.

www.sapreservation.com | (210) 207-0035 | info@sapreservation.com

Your neighborhood association. Your registered neighborhood association can provide guidance on landscape characteristics, assistance in design and contractor referrals, and more. To find your association, visit **the link below** or inquire with Office of Historic Preservation staff if you live in a historic district.

<https://www.sa.gov/Directory/Departments/CE/Community-Engagement/Neighborhood-Associations>

Find more on the web:

- <https://www.sarehabberclub.com/resource-guides/windows>
- [**Saving Windows, Saving Money: Evaluating the Energy Performance of Window Retrofit and Replacement**](#)
- [**Energy Retrofits for Hot-Humid Climates \(UTSA Study with Cost-Benefit Analyses\)**](#)
- [**Green Strategies for Historic Homes**](#)
- [**Craftsman Blog: Windows Archive**](#)

XERISCAPING & RESPONSIBLE LANDSCAPING



CITY OF SAN ANTONIO
**OFFICE OF HISTORIC
PRESERVATION**

CITY OF SAN ANTONIO
HISTORIC DESIGN GUIDELINES
LANDSCAPING POLICY DOCUMENT

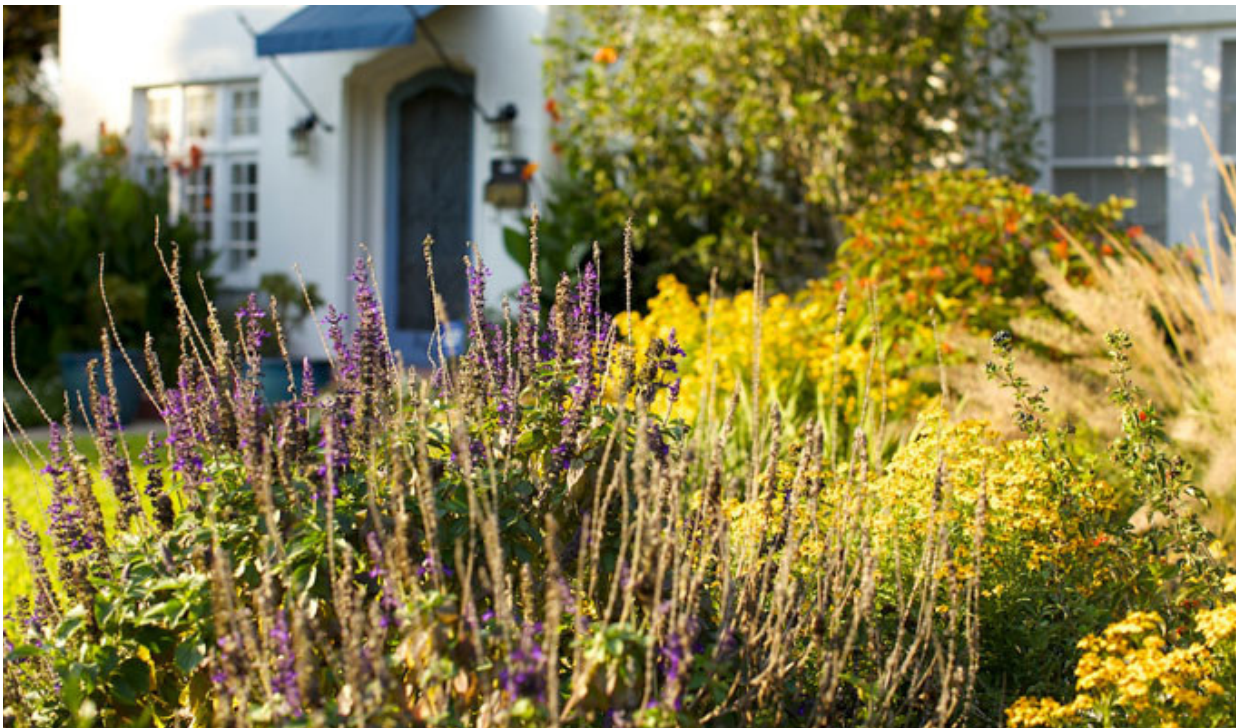
SEPTEMBER 2022



WHY IS LANDSCAPING IMPORTANT?

The City of San Antonio Office of Historic Preservation is dedicated to being a leader at the intersection of climate-sensitive policy and historic preservation. This policy document provides property owners guidance on how to effectively balance sustainable landscaping plans with the retention of historic integrity.

For most people, historic properties are viewed from the public domain, making the spaces immediately visible from streets and pedestrian walkways an important aspect in historic district preservation. Because of this, an emphasis is placed on front yard landscaping and hardscaping in the historic and design review process.



The primary guideline to follow is the **retention of at least 50% of green space**, which can replace traditional turf grass entirely and be comprised fully of drought-tolerant, native plantings. This requirement helps retain the many environmental benefits of plants in dense residential neighborhoods, including offsetting the heat island effect, supporting pollinators, improving water retention after heavy rains, and providing shade if taller trees and plantings are incorporated.



Did you know? Front yards can be kept low-maintenance by incorporating low-growing and spreading species versus traditional turf grass.

LOCAL SUSTAINABLE LANDSCAPING

San Antonio has a warm, temperate climate that supports a diverse palate of plant species and allows for almost year-round green. A densely-planted garden composed of native plants can provide interest throughout all four seasons. In many instances, low-growing or spreading native species are a suitable replacement for turf grass and are more resistant to seasonal extremes. As infrastructure demands of an ever-growing city continue to strain our finite water sources, water conservation is at the forefront of today's landscaping conversation.



Keep in mind that native xeriscaping, like all landscapes, takes time to establish. During the first few years, new plants sometimes require more water than mature plants with established and deep root systems. It is important to consider and evaluate the projected water use of your sustainable landscape proposal with a long-term view.

Benefits of Native, Drought-Tolerant Landscapes



Reduces the heat island effect: "Heat islands" are created by large impermeable surfaces, such as concrete and buildings. Plants help cool the environment and shade from intense sun, which reduces energy costs and mitigates greenhouse gas emissions.



Supports pollinators: Pollinators, including bees and birds, are vital to our local ecosystems. Landscapes with plant diversity can better weather changes in the environment. Native landscapes help foster and protect our local wildlife habitats.



Reduces water runoff: Native, drought-tolerant landscapes are more effective at absorbing water after heavy bursts of rainfall, which is common in San Antonio.

THE DO'S

Proposals that follow these guidelines are eligible for OHP staff approval.

- **Do** retain at least 50% of green space in your landscaping plan through turf grass, the integration of native, drought-tolerant, low-maintenance plantings, or a combination of both. **Exceeding 50% native green space is highly encouraged.**
- **Do** incorporate natural-colored (not black) gravel, decomposed granite, river rock, mulch, and other pervious ground cover to help facilitate rainwater absorption. These elements should be used as accents or for pathways versus primary coverage.
- **Do** incorporate rocks with a diameter of less than 2 inches.
- **Do** incorporate rock ground cover or low, native plantings near the foundation of your historic home to protect from water infiltration. Planting trees or shrubbery directly adjacent to your foundation is discouraged, as roots can cause damage to the structure as they grow.
- **Do** incorporate rain catchment systems in the side or rear yard in a manner that does not negatively impact the visibility of the historic structure from the public right-of-way.
- **Do** incorporate Texas Agricultural Extension's seven basic principles that lead to saving water:
 - ✔ Planning and design
 - ✔ Soil analysis
 - ✔ Practical turf (grass) areas
 - ✔ Strategic use of mulches
 - ✔ Appropriate plant selection for your area
 - ✔ Efficient irrigation
 - ✔ Effective maintenance



THE DO NOT'S

Proposals that incorporate one or more of the following elements may be subject to Historic & Design Review Commission (HDRC) review with no guarantee of approval.

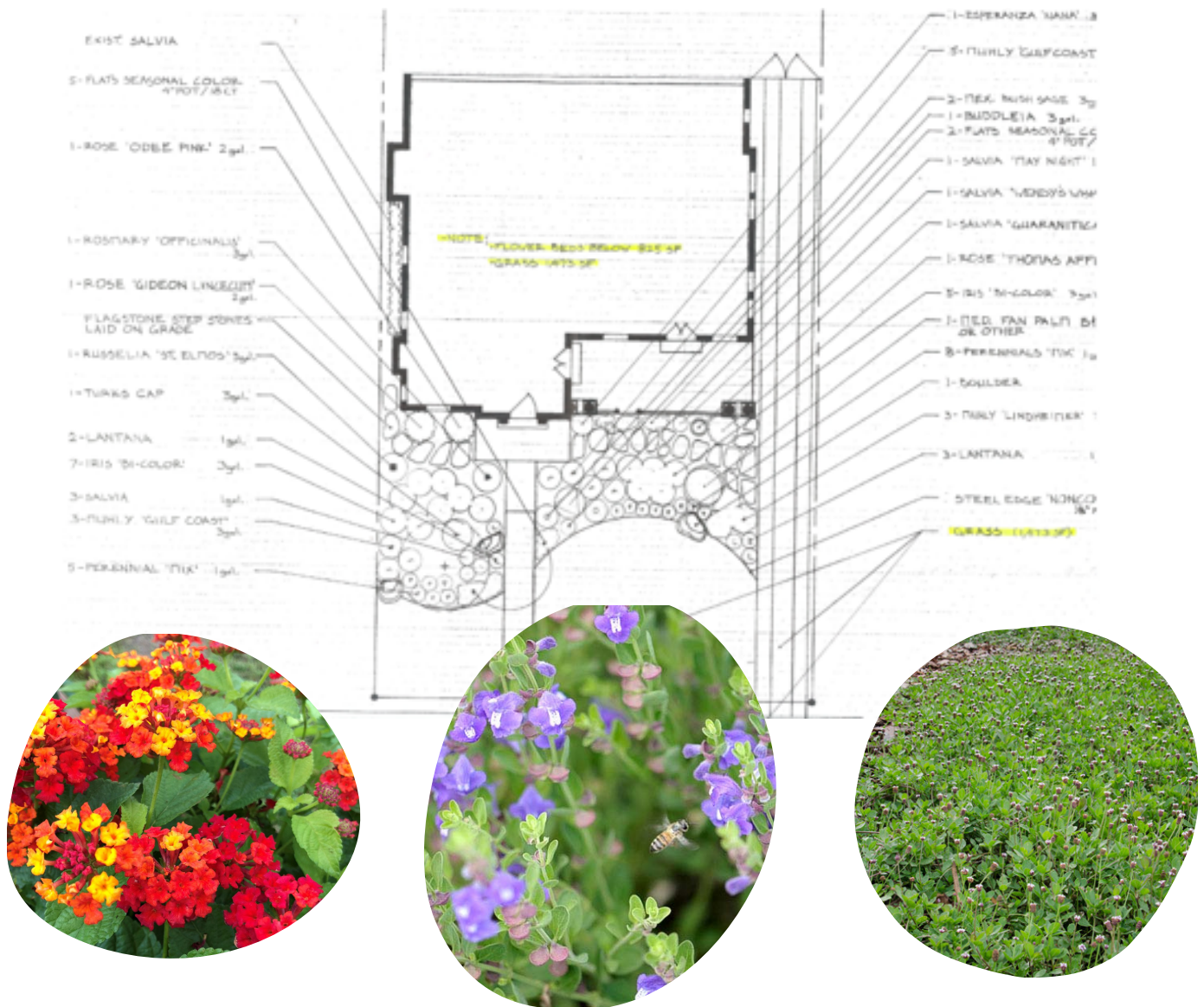
- **Do not** develop proposals that remove over 50% of the total green space in the front yard.
- **Do not** fully remove plants from the planting strip (the space between the sidewalk and street). Retaining at least 50% plantings in this area is highly encouraged to reduce the heat island, aid in rainwater absorption on streets, and create a lively pedestrian experience.
- **Do not** utilize gravel, decomposed granite, or other small rock ground cover as the primary element of your landscaping plan.
- **Do not** incorporate black, non-native, or artificially colored rocks.
- **Do not** incorporate rock ground cover with an overall diameter of greater than 2 inches.
- **Do not** incorporate large boulders or flagstone as accent pieces. Consider integrating drought-tolerant trees or low shrubbery instead to add visual diversity and interest.
- **Do not** incorporate excessive use of concrete or impervious (non-permeable) hardscaping. Hardscaping is best for functional purposes only: driveways, walkways, steps, and patios.

In summary, **avoid** plans that:





- | | |
|--|---|
| ✗ Prioritize hardscapes or rock features | ✗ Are overly complex or conceal historic features |
| ✗ Incorporate non-native plant species | ✗ Remove over 50% of green space |
| ✗ Feature non-native or artificial rocks | ✗ Are not pollinator-friendly |



GO GREEN

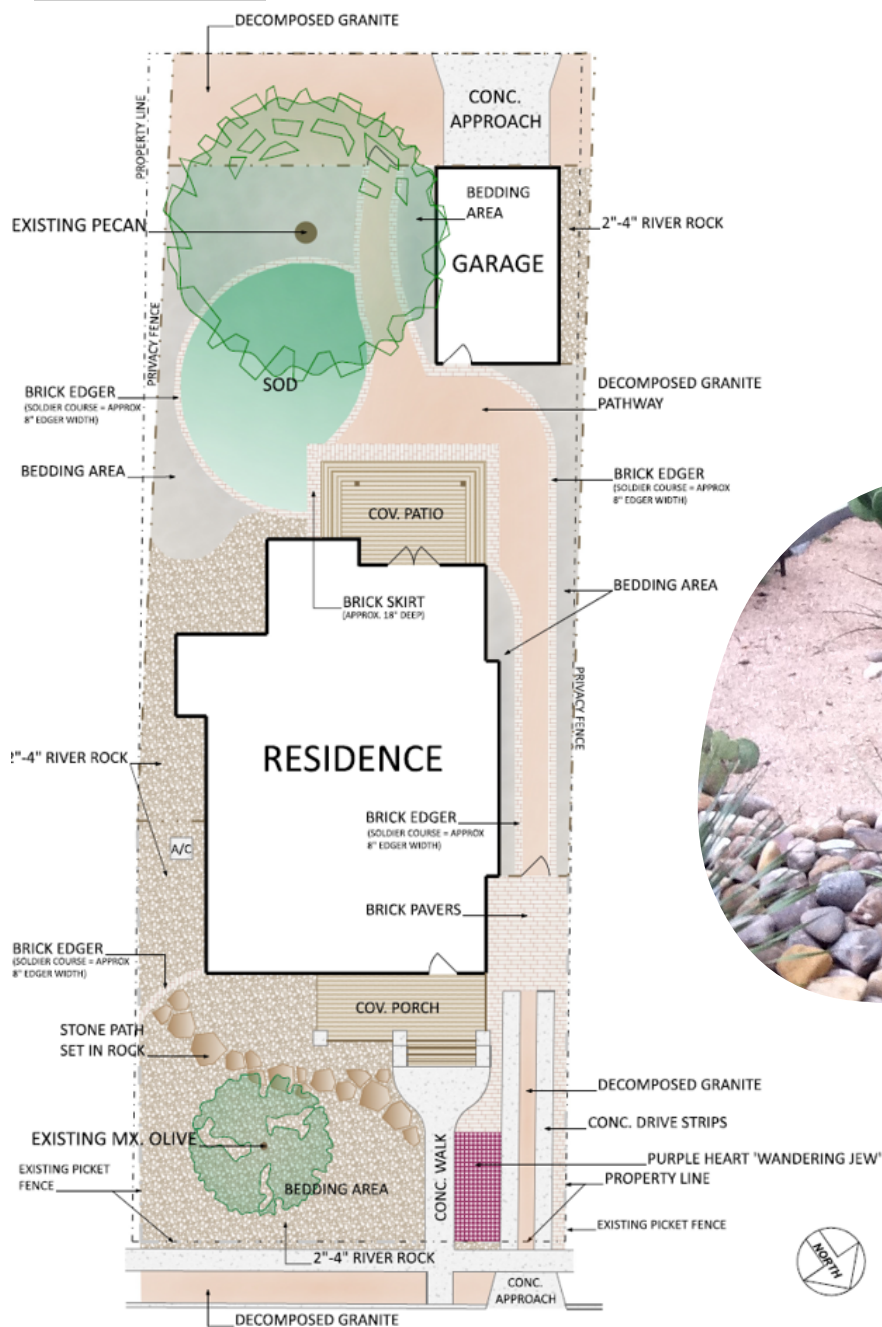


Diverse, Drought-Tolerant Xeriscape

-  **Over 50% green space:** A mix of shrubs, small and large trees, and native groundcover: this xeriscape provides shade, reduces water demands, and is pollinator-friendly.
-  **Native species:** Bluebonnet, scarlet sage, Texas sycamore, butterfly milkweed, red yucca: several plant species native to Central Texas require low to very low water to thrive.
-  **Rock and hardscape accents:** Flagstone and decomposed granite are used as functional pathways and decorative bedding, respectively, making the plants the star.
-  **Lawn Gone!** Replace turf grasses with low-maintenance, hardy groundcover such as silver ponyfoot, wooly stemodia, skullcap, frog fruit, trailing rosemary, or asiatic jasmine.

Pictured: Lantana (left) and Wright's Skullcap (middle) are two examples of pollinator-friendly perennials that are native to Central Texas. Frogfruit (right) is an excellent native, low-growing, drought-tolerant groundcover option to replace traditional turf grass. Find more options at www.gardenstylesanantonio.com.

"ZERO-SCAPING" ❌



Barren, Rocky "Zero-scape"

- ❌ **Less than 50% green space:** Large expanses of hardscaping or pervious rock can contribute to the heat island effect, providing little shade and increasing energy demands.
- ❌ **Focus on rocks and hardscapes:** This plan places strong visual and functional focus on rocks and solid surfaces versus pollinator-friendly plantings.
- ❌ **High-water species:** Includes palm trees, tropicals, and high-water grasses, which are not native to Central Texas and require additional care to thrive.

Pictured: Lava rock (top) derives from volcanic regions versus Central Texas. Native rock of a similar size is a recommended alternative. Expansive areas of rock with sparse plantings (middle) or large stones (bottom), or "zero-scapes," are not as effective as green xeriscapes in attracting pollinators and cooling the environment.

RESOURCES

Office of Historic Preservation Staff. Consult with a historic preservation specialist to receive property-specific guidance on landscaping plans and the Historic Design Guidelines.

www.sapreservation.com | (210) 207-0035 | info@sapreservation.com

San Antonio Water System (SAWS). SAWS is an excellent resource for native and drought-tolerant plant advice. Their programming includes WaterSaver Rebate and Coupon Programs, Garden Style San Antonio, a comprehensive plant directory, consultations, and more.

www.gardenstylesanantonio.com | (210) 704-SAVE | (210) 704-SAWS

San Antonio River Authority (SARA). River Authority staff is highly knowledgeable on water conservation and local plant ecosystems. Their headquarters at 100 E Guenther St in the King William Historic District features a native, drought-tolerant, pollinator-supporting landscape design.

www.sara-tx.org | (210) 207-1313 | Email inquiries via www.saratx-org/contact-us

Your neighborhood association. Your registered neighborhood association can provide guidance on landscape characteristics, assistance in design and contractor referrals, and more. To find your association, visit **www.sanantonio.gov/nhsd/neighborhoods** or inquire with Office of Historic Preservation staff if you live in a historic district.

