



Casa Grande
Historic Preservation
Design Guidelines

Approved by the
Historic Preservation Commission
1/28/2008
Revised 3/11/2015

Table of Contents

1. INTRODUCTION	Page
1.1. Introduction.....	4
1.2. Preservation in Casa Grande.....	5
1.3. How to Use this Guide	6
1.4. Does the National Register Limit the Historic Property Owner's Freedom?.....	7
1.5. Rehabilitation Common Sense: The Secretary of the Interior's Standards.....	8
1.6. Professional Assistance for the Homeowner.....	10
1.7. How the Review Process Really Works.....	11
 2. DESIGN GUIDELINES FOR MAINTENANCE, REHABILITATION AND ADDITIONS	
2.1. Maintenance and Rehab Guidelines: DOs and DON'Ts.....	12
2.1.1. Foundations	
2.1.2. Exterior Walls	
2.1.3. Roofs/Roofing	
2.1.4. Chimneys	
2.1.5. Gutters and Downspouts	
2.1.6. Doors and Windows	
2.1.7. Awnings and Shades	
2.1.8. Porches and Stairs	
2.1.9. Ornamental Trim	
2.1.10. Entrances, Portes Cochere, Pergolas and Carports	
2.1.11. Colors	
2.1.12. Painting	
2.1.13. Paint and Soot Removal	
2.1.14. Landscaping	
2.2. New Addition Design Guidelines: DOs and DON'Ts.....	31
2.2.1. Placement of New Additions	
2.2.2. Exterior Forms	
2.2.3. Roofs and Dormers	
2.2.4. Attic Expansion	

2.2.5. Ornamental Trim	
2.2.6. Porches, Carports, and Attached Garages	
2.2.7. Windows and Doors	
2.2.8. Finishes and Colors	
2.2.9. Detached Garages	
2.2.10. Site Features	
2.2.11. Equipment Placement	
2.2.12. Energy Conservation	
2.2.13. Fences	
2.3. New In-fill and Edge-fill Construction Guidelines.....	39
3. APPENDICES	
3.1 Glossary of Architectural Terms.....	41

1.1. Introduction

These guidelines were created in an effort to assist the preservation of the Evergreen Historic District and other properties that have historic significance in Casa Grande.

During the development of these guidelines, questions have been raised about the immediate or potential impact on property usage, modification or new construction, especially concerning structures that are individually eligible or listed on the National Register.

These guidelines will be used in building permit applications for reviewing proposed additions or alterations to ensure that properties in the district will maintain their historic integrity through the proper use of size, massing, forms, materials and colors.

The purpose of the guidelines is to establish a base point to examine the potential impact of proposed property changes or new construction through the identification of the historic characteristics of the neighborhood. The following paragraphs describe more completely the intent of this document.

Effect on Zoning?

Neither the proposed design guidelines nor the Evergreen Historic District change the underlying zoning (i.e., the existing zoning for each property remains the same). For example, properties that are zoned R-1 remain R-1, and retain the rights to develop under that zoning. The same is true for other zoning designations regardless of where a historic property is located in Casa Grande.

In addition, requirements for building setbacks, fire access, landscaping, parking, etc., are established by underlying zoning designations. For example, R-1 zoning requires that 5' and 10' sideyard setbacks be maintained for any non-cantilevered addition. The historic design guidelines will **not** change these zoning requirements. The granting of a variance would be necessary to reduce the setback or other zoning-related requirements.

New Construction/Additions?

The guidelines would come into effect if an addition being proposed for a property would change its external character or if it could cause detrimental impact on adjoining properties.

Modifications to a property that require that a building permit be issued by the City of Casa Grande will trigger the use of the guidelines. The Planning Department can be consulted if an owner has questions about how and whether the guidelines apply.

Use of Property?

The actual use of a property is tied to both zoning and building code issues. Properties with residential or commercial zoning may be used for that purpose if building code issues can be resolved prior to occupancy.

Why Guidelines?

Guidelines serve as a mechanism to ensure that external alterations made to historic properties enhance and protect the historic integrity of those properties. For the homeowner, design guidelines in a residential area offer some expectation

that the neighborhood will retain a good portion of the character and style into which they bought. For the investor, design guidelines help protect their investment from less desirable alterations of surrounding properties that would otherwise negatively impact the value of their home.

Enforcing the Design Guidelines?

Design guidelines can work well if a neighborhood association acts as the first point of contact. Until such an association is established with design review powers a neighborhood must rely on the City to control development. Casa Grande's review process, currently mandated by city ordinance, begins with the Historic Preservation Officer in the Planning Department. The process that takes place from that point forward is described in 1.7. of this document.

1.2. Preservation in Casa Grande

Residential Architecture in Casa Grande, 1900-1967

Residential architectural styles in Casa Grande, as in most of Arizona, generally followed national trends in popularity responding to a wide variety of cultural influences. Architectural development in Casa Grande after 1900 and until 1967 can be divided into two major movements.

The first era is the Eclectic House Era, represented by Anglo-American, English, and French Period Homes, Mediterranean Period Houses and Modern Houses. Early Modern houses in the Evergreen Addition include Prairie,

Craftsman and International Style examples.

The second era is represented by housing types developed since 1940 as represented by Modern houses. Modern houses in the Evergreen Addition include Transitional Ranch (1935-1950), Ranch style (1950-1960) and Contemporary (1935- 1950).

The two eras are evident to varying degrees, as growth was slow in the early years of the Evergreen Addition, and then had sporadic booms in development in the late 1930s and again in the late 1940s and early 1950s. Therefore, in the Evergreen Addition, the number of houses that employs styles representative of certain eras exist in proportion to periods of growth in Casa Grande. There is also one example in the Evergreen Addition of a Romantic Era house, but the date of its construction is given as much later than the Romantic Era in which this type of house was typically built.

1.3. How to Use This Guide

This book has been created with several purposes in mind. It is primarily meant to assist owners of historic houses to preserve and rehabilitate their buildings or build additions in a sensitive manner which respects and enhances the architectural integrity of the house and its neighborhood. Also, it will help owners to determine the style of their house and to identify the character-defining elements which are significant and give their houses their own personality. The book will be used by the City of Casa Grande's Planning Department to determine the appropriateness of homeowners' proposed preservation and rehabilitation projects. This historic preservation design guideline book will become a working document tied to the city's historic preservation, planning and zoning ordinances and building safety code. Furthermore, it may serve as a design guideline for the City's public works and engineering departments in developing rights-of-way improvement projects which will enhance the unique character of each specific historic district.

The design guidelines presented in this book are based upon the Secretary of the

Interior's Standards for Rehabilitation. These design guidelines will apply to buildings (particularly houses) that are determined eligible or are listed individually or as a historic district contributor on the National Register of Historic Places, or the City of Casa Grande local register.

The guidelines shown in this book have been developed specifically for the construction methods and styles of houses typically found in historic neighborhoods in Casa Grande. The City of Casa Grande anticipates the addition of historic districts to its inventory of neighborhoods. Thus, the City has asked that this guide's format be open-ended, allowing revisions and additions to be made as new architectural styles, construction methods and neighborhood situations are encountered.

The body of the text is divided into several sections which give the reader background into the architectural history of Casa Grande, general design guidelines for rehabilitation and additions and illustrations demonstrating specific design guidelines for houses of particular styles.

1.4. Does the National Register Limit the Historic Property Owner's Freedom?

The most common misconception the public has of historic preservation is that listing a building on the National Register will limit the owner's freedom to change or even demolish his historic building. In general terms, this belief is not true.

No federal historic preservation law prevents an owner from doing what he pleases with his property. The National Register was created to identify and honor significant cultural resources and to protect them from destruction or insensitive alteration by federal agencies or by programs funded through federal programs. (Federal agencies and programs must comply with Section 106 of the Historic Preservation Act of 1966, as amended.) Thus, the only way an owner would be limited in his use of property by the federal government would be if his construction, rehabilitation or demolition project were funded in part by federal money, or if the owner participated in a program of tax relief for historic properties. This same limitation may be true of certain state-funded programs of financial aid for redevelopment or of state property tax relief. The City of Casa Grande can specifically limit the design, development or demolition of eligible or listed historic properties through its zoning ordinance. Also, a neighborhood

association could adopt these guidelines as part of its review and control development and repairs within its area.

Although compliance with the Secretary of the Interior's Standards for Rehabilitation may be mandated in certain situations, the guidelines are not necessarily difficult to follow if the rehabilitation project's concept is sensitive to conserving the character-defining elements of the historic building. The standards actually are based on a common sense approach to repair and rehabilitation. For proposed additions, the standards do not require exact replication of the historic features or materials, but rather encourage a simplified, contemporary design which complements the original and is readily discernable.

By following these design guidelines for the historic houses of Casa Grande, an owner can be confident that in most cases his project will meet the requirements of the Secretary of the Interior's standards. In situations where compliance with the federal standards is required, the property owner should consult with the state historic preservation officer in addition to the City of Casa Grande historic preservation officer.

1.5. Rehabilitation

Common Sense: The Secretary of the Interior's Standards

Presented below is a simplified version of the Secretary of the Interior's Standards for Rehabilitation of Historic Buildings. The standards are actually the "Ten Commandments of historic preservation." The principles which they represent assure that the integrity and the significance of the historic property is retained. The focus of all preservation work is on the identification and preservation of character-defining elements which give the building its architectural and historic significance. This book's design guidelines expand upon these ten (10) standards in light of specific local designs, styles and materials. The actual text of the standards is found in the appendix of this book and should be consulted as the actual authoritative basis for determining the compliance of any rehabilitation work.

In the past several years, the most frequent use of the standards has been to determine if a rehabilitation project qualifies as a "certified rehabilitation" pursuant to the Tax Reform Act of 1976, the Revenue Act of 1978 and the Economic Recovery Act of 1981, as amended. The standards are used to evaluate whether the historic character of a building is preserved in the process of rehabilitation.

"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 or cultural values.

A PARAPHRASED VERSION OF THE SECRETARY'S STANDARDS

1. Find a compatible use for a building that will cause minimal changes to its fabric.
2. Recognize the character-defining elements of a building. Don't destroy its original character by removing or changing significant features.
3. Let the building be itself. Don't try to make a building look older than it is. Don't change a building without historic evidence substantiating the change (old photos, etc.).
4. Respect additions and alterations to a building's original fabric if they date from the building's historic period and are significant to the building's history.
5. Treat the distinctive features of a building with sensitivity.
6. Repair rather than replace. When replacing, match. When matching, duplicate accurately. When duplicating, design from evidence. Don't attach to a building different features available from another building.
7. Use the gentlest methods possible when cleaning a building. Don't ever sandblast!
8. Protect archaeological resources.

9. It's OK to mix contemporary designs for alterations or additions with historic buildings if significant features are not destroyed and the changes are sensitive to the historic architecture.
10. Design and build additions and alterations to be removable without impairing historic architectural integrity

1.6. Professional Assistance for the Homeowner

When considering work on a historic home, the owner should first consult this design guide to develop an approach which respects the architectural integrity of the property. If additional help is needed, the homeowner should turn to the Casa Grande historic preservation officer for assistance or reference to the State Historic Preservation Office (SHPO) or a qualified preservation

architect or structural engineer. There are many reference books on preservation techniques. Of special value are the “Preservation Briefs” issued by the National Park Service, which explain in detail methods of preserving various archaic materials. These briefs are available without charge from the SHPO.

1.7. How the Review Process Really Works

Prior to beginning any work on a property within a historic district or on a property individually listed, whether it is for new construction, additions alterations, rehabilitations or demolition, the owner must receive approval by first completing a Certificate of No Effect/Certificate of Appropriateness form. The review process helps the owner, neighborhood and city to assure that the integrity of the historic property is maintained so that it will continue to contribute positively to the character of the community. This review also helps older neighborhoods maintain and even increase their property values by making them desirable places in which to live and work.

This review includes types of work which require building permits (such as structural stabilization, mechanical and electrical work, additions and demolition), and work which requires no building permit (such as reroofing, painting, window and door replacement, and landscaping.

Ideally, historic neighborhoods should form a non-profit neighborhood association for the purposes of education, socializing, political action and maintenance of quality of life. Until such an association with design review powers is established, a neighborhood can only rely upon city agencies to control development. Thus, projects not

needing permits could do serious damage to the architectural integrity of a historic neighborhood because such action is unregulated.

Casa Grande's review process, currently mandated by city ordinance, begins with the Planning Department.

For uncomplicated projects, the Planning Department has the option of administrative review (Certificate of No Effect) in order to hasten return of the application. If the project is determined to have a widespread effect on the district a Certificate of Appropriateness will be evaluated by the Historic Preservation Commission.

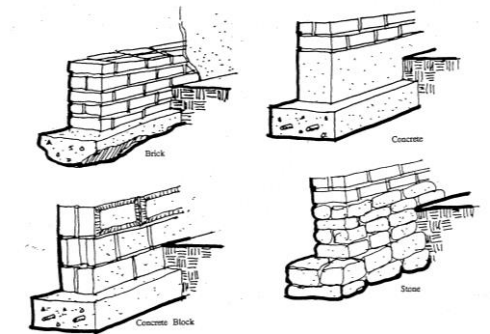
The Certificate of Appropriateness is evaluated at a public meeting by the Historic Preservation Commission where a determination of appropriateness is made and a decision is rendered.

An appeal process is available for non-favorable decisions rendered by the Historic Preservation Commission. The appeal will be heard by the Board of Adjustment. If denied by the Board of Adjustment an appeal may be rendered to the Superior Court.

The full details of the Certificate of No Effect/Certificate of Appropriateness requirements and its entire process is outlined in the Historic Preservation Ordinance.

2.1. Maintenance and Rehab Guidelines: DOs and DON'Ts

2.1.1. Foundations



Description

Foundations are made of two major parts, the footing and the stem wall. Residential foundations usually look like an upside-down T. The wide horizontal part underground is the footing. It is usually made of concrete. In very old houses the footings may be stone or brick. Sometimes footings may not even exist at all. The tall vertical part that emerges from the ground is the stem wall. It can be made of concrete, brick, concrete block, adobe, or stone. In many cases the stem wall is made of the same material as the exterior wall so you can not tell where the foundation stops and the wall starts. Generally, the stem wall extends no higher than the first floor level. Stem walls are usually quite tall in houses with wood floor structures in order to provide a crawl space. Later houses with concrete slab-on-grade floors have short stem walls.

Deficiency

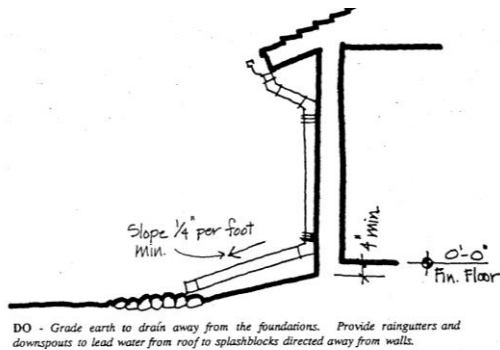
Foundation settlement and the cracking or tilting of stem walls are usually caused by movement of the earth under the footing. Water-saturated earth can compress or expand, moving the foundations down or up. This serious structural problem starts with the collection of water on the earth's surface next to the stem walls. Long standing ponds of water will saturate the soil and cause movement. The problem is made worse if the foundations are very shallow or are unreinforced with steel. Heaving of the foundations can also be caused by plant roots.

Deterioration of the foundation materials is almost always traced to water. Masonry and concrete are actually porous materials - like very hard, dense sponges. They can soak up water. Capillary action can actually draw water up inside a wall like lamp oil through a wick and cause a condition called "rising damp" or "creeping damp." The water rising inside the masonry dissolves salts in the wall material. When the moisture evaporates at the masonry surface, the salts crystallize and microscopically burst apart the masonry material. The powdery white "efflorescence" on the surface of masonry walls are those crystallized salts which signal the beginnings of deterioration. Often the softer mortar deteriorates before the bricks or concrete blocks.

Guidelines

DO's

- Water must not be allowed to collect at the base of the building. Fill in low spots and grade the earth's surface (at least 1/4 inch per foot) to drain away from the foundations.
- Install rain gutters and downspouts to lead water from the roof to splashblocks directed away from the walls.



- Direct sprinkler heads to spray away from the foundations.
- Determine if cracks occurred early in the building's history and if they have stopped moving. These old cracks can be filled to stabilize the foundation and prevent further water infiltration.
- If the cracks are new, correct the cause of deterioration and then fill with a concrete or mortar which is compatible in strength and finish to the historic materials.
- Refer to the Exterior Walls section for the treatment of masonry and stucco stem walls.
- Identify and correct the cause of deterioration before addressing the

symptoms of deterioration. Repair efforts will be wasted if the cause of the problem is not corrected.

DON'Ts

- Sealing the exposed stem walls with paint or impermeable sealers will do no good. In fact it will trap water and water vapor inside the foundations, making the situation worse. The materials must be allowed to "breathe" and transpire the moisture. Furthermore, painting or coating the foundations usually alter the feature's original architectural appearance.
- Do not place new plants against or near the foundations.

Appearance	Condition	Probable Cause	General Remedy
	Cracks between two different materials	Separation of elements due to stress, moisture, thermal contraction	Fill cracks; patch
	Vertical or zig-zag cracks in long wall, at corner or opening	Shrinkage after thermal expansion	Cracks may be filled and patched, but check for moisture in wall, as this probably relates to problem
	Symmetrical cracks sloping up and away from both sides of a wall opening	Wall rupture due to excessive load	Additional support needed, structural column may be helpful; see a professional
	Bulging in wall surface	Foundation settling	Address water problem, measure moisture; shore up; see a professional
	Vertical or sloping cracks with evidence of slippage	Foundation settling or stress of uneven loading	Spot patching, shoring of foundation, or regrading if condition is stable; otherwise, see a professional
	Tilting	Foundation settling	Push wall back into place with shoring, fill cracks; see a professional

2.1.2. Exterior Walls

Description

The exterior walls of a historic residence, because of their prominence to the facade, are important character-defining elements which should be retained and sensitively preserved in every rehabilitation or remodeling project.

Masonry

Historic homes which have survived to the present day were primarily built of masonry, usually brick, stone, adobe, concrete, concrete block, terra cotta, or hollow clay tiles.

In general, masonry walls of historic houses were not originally painted except in some examples of Period Revival and Ranch styles.

Stucco

Use of stucco on masonry and wood frame walls is very common, especially on bungalows and Period Revival houses. The terms “stucco” and “plaster” are used interchangeably in common usage. However, “stucco” actually refers to a trowel-applied, non-structural exterior plaster made primarily of cement. Early adobe buildings were often covered with a veneer of unreinforced mud. Later they were covered by a more durable material called “lime plaster,” a soft, vapor permeable material made without cement. In the twentieth century, portland cement plaster became available and was used almost

exclusively as the stucco finish.

The three major types of stucco — mud, lime plaster and portland cement — are vastly different in their chemical and physical properties. Because of these compositional differences the maintenance, repair and replacement of stucco should be accomplished only with materials which match the original in composition, color, texture and strength. Furthermore, the same method of application should be used. Portland cement stucco was usually applied in two or three layers — scratch coat, brown coat, and finish coat. Stucco was usually painted as the final finish, but in some cases it was integrally colored with a dye.

Wood

The Shingle Style and American Colonial Revival are characterized by wood shingles and siding on their exterior walls. What can be expected is to find a great deal of wood used on houses for trim, windows, doors, and porches. Also, detached garages and sheds may be constructed and sided with wood. The maintenance and preservation of wood features on historic houses is very important in retaining their architectural character.

Deficiency

Masonry

The first enemy of historic masonry is water. Although masonry may seem indestructible, it can be ruined by time and water. Proper maintenance is the key to avoiding major structural and cosmetic damage to masonry walls.

Damage to walls can be caused by several other situations involving heat/cold cycles, overloading, and foundation movement. The accompanying chart can guide you in diagnosing some of the more typical problems with masonry walls. Keep in mind that a deterioration problem can have more than one cause and one cure. In cases of severe deterioration or of symptoms which appear suddenly, it is advisable to consult a professional for building evaluation and recommendations.

Stucco

Stucco, as a thin veneer, does not share the same physical or chemical characteristics as the structural material to which it is applied. Except in the case of mud plaster on adobe, stucco does not naturally adhere to its base material. Thus the structure's face must be roughened by one of several methods in order for the stucco to "key in" to the surface. Masonry mortar joints may be struck (deepened); nails may be partially driven in; expanded metal lath or "chicken wire" may be attached. As a thin surface coating, stucco is susceptible to deterioration and cracking caused by structural movement, thermal expansion, poor adhesion, and water. Improper connection method of stucco to wall will cause cracking, delamination (separation), and buckling. When the stucco surface is broken, water can enter the wall to deteriorate the structure and the stucco. Although freezing and thawing of water and ice can be another enemy of walls, the climate here does not often present this cycle as a serious problem. Cracks in stucco may indicate not only a failure of the veneer, but also could signal a more serious problem

with the structure beneath.

Wood

Wood siding and ornamental features are very susceptible to deterioration in the Southwest's arid, sunny climate. Damage may be caused by heat and cold, exposure to ultraviolet rays, water, rot, fungus, insects, wind, and fire. To preserve a historic building properly, its wood must be protected from its two major causes of decay, sunlight and water. Luckily, because wood is a plentiful and workable material, damaged historic features can be repaired rather than replaced. To retain the building's historic integrity it is advisable to maintain and repair original woodwork whenever possible. Wood which is severely damaged beyond repair will require replacement using wood of matching or similar species and of a high quality grade.

Guidelines

DO's

- Repair leaking pipes, roofs, and rain gutters, if masonry units or mortar are disintegrating.
- Repoint joints using chemically compatible mortar of matching strength, texture, and color, if water is entering the wall through gaps in damaged joints. The width and profile of the mortar joints should match the original.
- Reinstall loose masonry units. Replace missing or severely damaged units with new matching units.
- Repaint masonry already painted (if this approach is determined appropriate

to the situation and architectural style). Hand scrape loose paint down to the next solid layer before coating.

- When planning to clean paint, dirt, or soot from the surface of masonry, first conduct a cleaning test on a small inconspicuous area to determine the gentlest, yet effective method. For dirt or soot removal, use steam or mild detergents applied with natural bristle brushes. For paint removal, use the mildest chemical that works; then follow with a low pressure water wash.

- Repaint stucco using elastomeric (rubber-based) coatings which will allow a degree of expansion and contraction of the surface without cracking and peeling.

- Assure that all wood features are firmly attached to the building. Wood should be screwed or nailed in place.

- Protect wood from sun and water by sealing the joints between wood and other materials to allow no infiltration of water. Bare wood should be primed and painted, varnished or stained.

- Protect wood vulnerable to deterioration with a wood preservative treatment.

- Apply wood fillers or consolidants to deteriorated wood members in place (such as rafter tails) before painting. Repair large structural members by injecting adhesives into cracks and clamping until cured.

- Use straight, dry high grade wood to replace severely damaged features. Prime before installation and paint with two coats of high quality paint, varnish, or stain.

- In locations exposed to water or the earth, use decay-resistant wood (redwood or cedar) and treat it with water repellent or preservative.

DON'Ts

- Do not paint masonry which was not originally painted as appropriate to its style.

- Do not paint masonry to hide a deteriorated surface without first correcting the cause of the problem.

- Do not paint terra cotta details and ornaments on a masonry building; they were never meant to be painted.

- Do not sandblast or high pressure waterblast masonry to clean the surface or to remove paint.

- Remember that high-pressure blasting, abrasive and caustic cleaning methods will erode the hard crust of the masonry units and mortar joints and actually accelerate their deterioration.

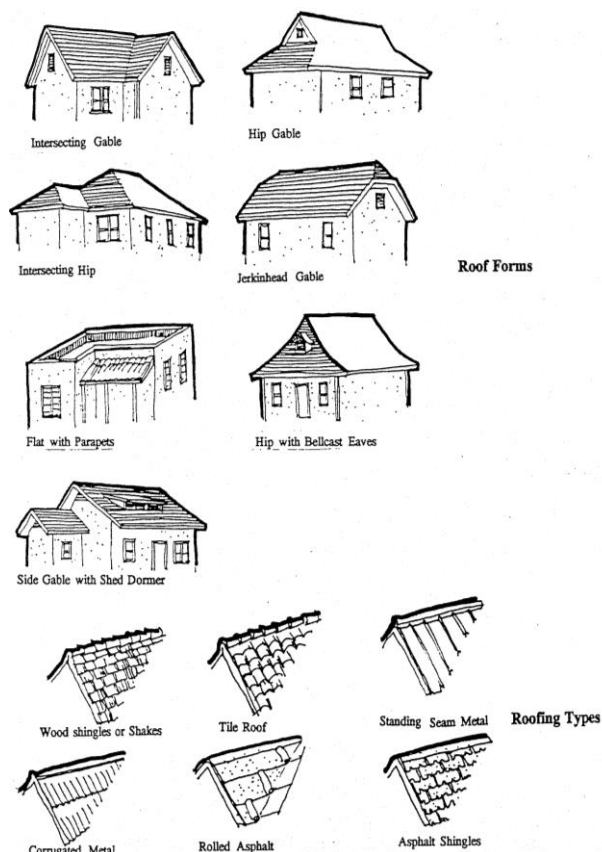
- Do not apply sealants (including anti-graffiti coatings) to vertical surfaces of masonry walls. Some sealants may cause discoloration, adverse chemical reaction with mortar and leave a glazed finish. Often these sealants will themselves deteriorate after a few years of exposure.

- Do not install exterior wood elements in a manner which creates flat, level surfaces (sills, railings, porch floors) which could catch and hold water.

2.1.3. Roofs/Roofing

Description

Roofs are important in defining the character of historic architectural styles. They are visually prominent elements of houses both in terms of massing and materials. The shape, texture and color of roofs must be retained through repair and rehabilitation projects in order to preserve the house's architectural integrity. The water-tightness of a roof also is essential in maintaining the house's physical condition. Roof types vary greatly depending on the historic styles. One may find materials such as wood shingles, clay tiles, metal, asphalt shingles and rolled-on built-up roofing. Each roof type and material requires individual care and maintenance.



Deficiency

A roof's performance is linked directly to the quality of its original design and construction. Sometimes the drainage pattern of a roof and its waterproofing details were not properly installed at the time of its construction, causing a chronic problem of leaking or material deterioration. Underdesigned or overloaded roof structures may show signs of bowing or sagging. Flat, or nearly flat, roofs which have sagged may have a continual problem of ponding. Clogged roof drains may cause several inches of rainwater to stand on a flat roof incurring roofing deterioration, leaks, and structural overloading or sudden failure.

Guidelines

DO's

- Conduct seasonal inspection of the roof for indication of damage or deterioration of roofing, wood trim, caulking, and metal flashing. Clean raingutters and downspouts of collected debris and leaves.
- Retain original shape and slope of roof and its associated features such as chimneys, dormers, ventilators, fascias, and ridge caps when repairing and maintaining.
- Repair or reinforce any sagging or broken structural framing members prior to installing roofing.
- Retain original roofing material, or when replacing use only materials which match or are similar to the original.

- Remove old roofing down to the roof sheathing (wood boards or panels) when replacing roof. Repair or replace damaged sheathing if necessary.
- Install appropriate metal flashing where roof changes slope or meets a chimney, vent, or wall surface. Install drip flashing at roof edges and rain gutters where appropriate.
- Follow roofing manufacturer's instructions for installation in order to meet warranty stipulations. Prepare roof sheathing for acceptance of roofing by installing roofing felt or nailers as is required by the particular roofing type. Always use high quality roofing materials and accessories to assure long life of the repairs or replacement.
- Treat wood shingles with fire retardant and slow their deterioration from drying by initially and regularly applying a mixture of linseed oil and graphite.
- If wood shingles must be replaced but new ones are not affordable, consider using thick, irregularly patterned asphalt shingles which are of a color and pattern which replicate wood shingles.
- Provide adequate roof ventilation to keep the structure as cool as possible and to prevent condensation of water vapor inside the attic.
- If new air conditioners, ventilators, or skylights must be introduced to a rooftop, place them in a location which will not be visible from the street. See section equipment placement for appropriate locations.

DON'Ts

- Do not install a new layer of roofing over existing roofing. This adds weight to the structural system which was never anticipated in its original design. The new roofing warranty may be voided if improperly installed or installed over an older roof.
- Do not install new roofing materials which are non-original or visually incompatible.
- Do not install wood shakes (thick, split units) in place of original wood shingles (thin, sawn units), because it will drastically and adversely affect the character of the building.
- Do not paint or coat roofing which was not originally treated in a like manner.
- Do not install new skylights, ventilators, air conditioners or evaporative coolers on a historic roof if it can be avoided. Roof-mounted mechanical equipment can be unsightly and diminish the historic character. Furthermore, without reinforcement the original roof structure may not be strong enough to support the equipment.

2.1.4. Chimneys

Description

Every historic architectural style has details or forms which are appropriate to the defining its character. Chimneys are features which help to characterize a style and to give each house its own personality. Victorian Era brick chimneys are tall and narrow with intricately corbelled tops. Bungalow chimneys, made of natural-finished

stone or bricks sometimes covered with stucco, tend to be stocky in form with simple one, or two course corbels at the top. Period Revival houses have a wide variety of chimney forms and details. Spanish Colonial Revival and Mediterranean Style chimneys often have hovelled (covered or sheltered) tops, Pueblo Revival chimneys may actually be mounted with ceramic chimney pots. Ranch Style houses are likely to have no fireplace or chimney at all.

Deficiency

Poorly maintained chimneys can deteriorate to such a degree as to have bricks fall from them. During the lifetime of a building, for various reasons, chimneys may have been shortened and modified. (Note that the Uniform Building Code requires that the top of a chimney must be two feet higher than any roof surface or feature within ten feet of the chimney.) Structural damage to entire chimney and fireplace systems caused by foundation movement or wind loads may have caused the unlined brick flue to crack, allowing noxious gases to enter the house. Many original fireplaces and chimneys did not have operable dampers.

Guidelines

DO's

- Conduct seasonal inspections of chimneys to determine changes of condition (cracked masonry, loose mortar or bricks) and to identify the need for maintenance,
- Restore modified chimneys to their original height and form based upon

archival documentation or, if that is not available, based upon details typical of the style and era.

- Repoint and repair masonry by removing all loose or deteriorated material down to solid structure and rebuild from there. Rebuild the chimney using the original or matching masonry and joint pattern. Introduce steel reinforcement where possible, especially around the chimney top. Where necessary, install a steel brace to anchor a tall, unreinforced chimney to the roof framing.

- As a supplement to repointing the joints of a gas-leaking chimney, consider installing a flue liner.

DON'Ts

Do not shorten or modify a chimney as a shortcut to proper repair and restoration.

2.1.5. Gutters and Downspouts

Description

Gutters and downspouts are meant to collect rainwater from sloped roofs and to distribute it far from the base of the building. Gutters protect walls which are subject to curtains of water falling from shallow overhangs. Downspouts or rainleaders protect the foundations from ponding water. Sometimes downspouts and gutters are character-defining elements of a particular style. Victorian Era downspouts may be very ornate while Period Revival downspouts are usually very simple.

Many homes do not have gutters, nor do

they necessarily need them. If overhangs are deep and the ground surface slopes swiftly away from the foundations, then gutters and downspouts are probably not needed.

Deficiency

Backsplash from water falling from shallow eaves may cause coving of adobe and sand brick walls. Ponding water at the fall line dug into the earth below the eaves may saturate the foundations and cause rising damp. Flat-roofed Spanish Colonial and Pueblo Style logged downspouts at flat roofs with parapets are often subject to roof leaks caused in part by clogged downspouts.

Guidelines

DO's

- Inspect rain gutters and downspouts seasonally for damage, rust and clogging. Repair existing systems before considering replacement.
- If it is necessary to replace gutters and downspouts, install new systems in original locations using materials, cross-sectional profiles and finishes which match or are compatible with the original design.
- If installing a new system, place downspouts in inconspicuous places which do not visually compete with other building features or windows. Install splashblock long rainleaders at the lower end of the downspout to direct and release water far from the foundations.
- Prime and paint the gutters and downspouts to blend with the color of

the building's fascias and walls.

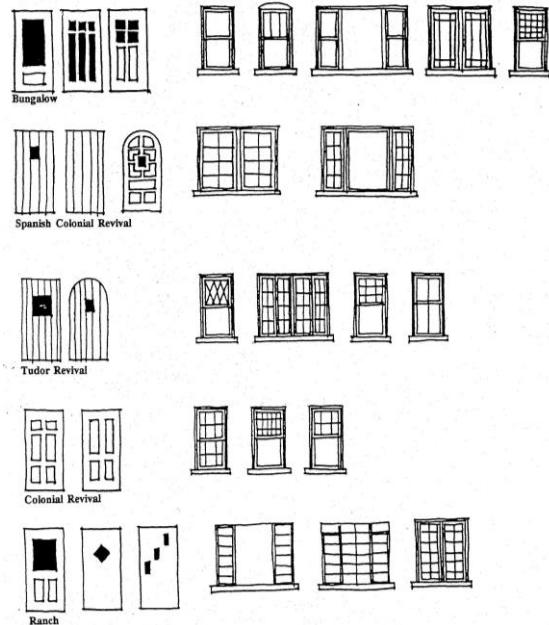
2.1.6. Doors and Windows

Description

Windows and doors are important features on the face of every building. The design of windows and doors helps to define the style and character of a historic house. Their sensitive repair or replacement is vital to the conservation of the building's architectural integrity. If inappropriate treatments are used in the rehabilitation of windows and doors, the character of the building can be severely and adversely affected.

Door and Window Configurations

Note: These door and window configurations are representative examples of the types found in the particular style and do not indicate the only configurations found in the style.



Deficiency

The most common maintenance problem with historic wood windows is deterioration caused by exposure to the sun and wind. Paint shrinks and cracks, revealing the wood to the weather,

which quickly takes its toll first on the smaller components like muntins and then on larger parts like sashes. The putty dries, cracks and falls from the sash, allowing the glass to loosen. Wind and water then enter the house. After half a century of continual use, and the effects of heat and water, the internal counterweight ropes snap. Without counterbalances the sashes are very heavy to lift and do not stay open without a prop. Of course, accidental breakage of glass is always a concern.

Guidelines

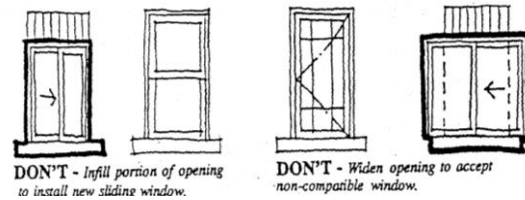
DO's

- Retain doors and windows in their original location, shape, size, function and material.
- Retain the components of windows and doors, including frames, casings, sashes, mullions, muntins, glazing, shutters, moldings and hardware. Match original materials, patterns and forms when repairing or replacing components.
- Retain the pattern and width of window muntins if replacing original glass with insulated, double-pane glass. Consider installing interior "storm windows" as a method of improving weatherproofing rather than modifying original window sashes or replacing glass.
- If replacement is necessary, but matching window systems are unaffordable, consider installation with vinyl or metal-clad units with enameled finishes.
- Maintain the caulking, weatherstripping hardware and glazing in good condition.

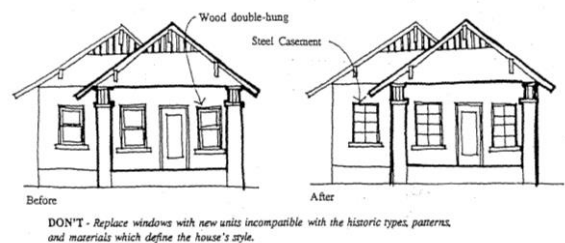
- If new or replacement screen doors are necessary, install new units which are compatible with the style of the house and the associated historic door.

DON'Ts

- Do not infill or modify the original window or door openings.

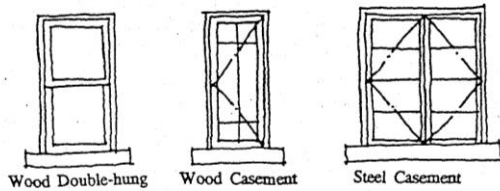


- Do not modify muntin pattern by removing, altering or adding components.
- Do not replace original glass with reflective, obscure or colored glass.
- Do not replace existing working or repairable windows with new units.
- Do not replace windows with new units incompatible with the historic types, patterns and materials which define the house's style.



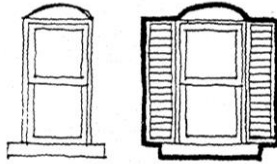
- Do not replace any historic window with mill-finish aluminum windows.

Window Types



Note: Aluminum Sliding windows are not historic.

- Do not replace doors or their hardware with types which are non-original design or of design not of the building period.



- Do not install modern aluminum, mill-finish screen doors over historic doors or use types which are from a different style or era than the house.

2.1.7. Awnings and Shades

Deficiency

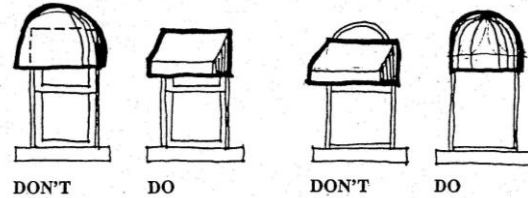
In the arid desert climate houses without protection from the harsh rays of the sun will quickly overheat, especially if they have windows on the south and west sides. Existing historic awnings of canvas fade and tear after only a few years in the sun.

Guidelines

DO's

- Reconstruct a missing historic porch to match the appearance and materials of the original.
- Where porches do not offer shade to windows, install awnings which are appropriate to the style of the house.

Although canvas is more authentic, synthetic fabrics which replicate canvas are acceptable substitutes which have a much longer lifespan and better color-fastness.



- Fasten awning-frames to the window frames within the window opening.

DON'Ts

- Do not attach awnings to the walls adjacent to the windows. Such a method of fastening can damage and scar masonry.
- Do not use plastic awning fabric or metal, plastic or wood shades permanently mounted over the exterior of windows.
- Do not install shades, blinds or covering which conceals the window or detracts from the historic character of the house.

2.1.8. Porches and Stairs

Description

Porches help to define the character of a house's historic style. As important elements of architectural design they should be retained and maintained. Porches are particularly significant to the facades of bungalows.

Deficiency

Standing water can decay a wood porch and the bottom of wood porch posts. Wood siding or lattice used as porch skirts can suffer deterioration if allowed to stay in contact with soil. Concrete porches may crack and partially collapse or heave from the compaction of wet earth below. Brick porch walls sometimes suffer from rising damp.

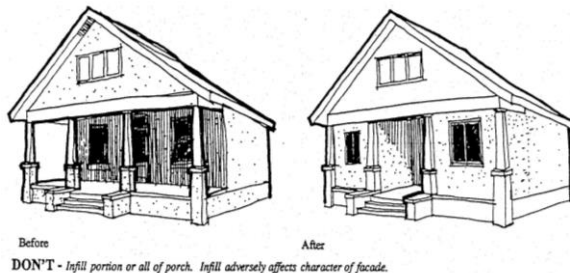
Guidelines

DO's

- Treat wood features in contact with the earth and water with wood preservatives.
- Clean, caulk, and seal concrete porches to prevent infiltration of water.
- Repair damaged and unsafe steps in a manner and with materials which match the original design.
- If it is necessary to provide handrails at stairs, install rails which are appropriate in design and materials to the historic character of the house.

DON'Ts

- Do not enclose a porch with solid walls or with any treatment which adversely affects the character of the historic house.



- Do not install "indoor-outdoor" carpet or other modern coverings on porch floors.

- Do not remove existing historic porches or replace damaged components which could be repaired.

2.1.9. Ornamental Trim

Description

Ornamental trim plays an important part in defining the character and style of a historic house. The trim can be made of various materials such as wood, masonry, plaster, or metal. The types of ornamental trim are virtually endless, including cornices, brackets, door and window casings, beams and columns, steps, railings, light fixtures, vigas, canales, decorative tile, precast terra cotta or concrete cartouches and medallions, keystones, ridge cresting and ventilators.

Deficiency

By the very nature of ornamental trim as decorative elements applied to the exterior surfaces of the building, it tends to be less sturdy and long-lived than the structural elements. Weathering takes its toll on ornamental trim and decorative details. Water, wind, dirt and sunshine will deteriorate exposed wood features very quickly in terms of the building's lifetime. Through time a building's ornamental trim may have been lost by deterioration, vandalism or removal. Occasionally, deteriorated trim will be removed without being replaced in kind, thus diminishing its architectural character and original integrity. Even worse is the situation where ornamental

trim is added to a building to make it look older than it is or of a different style.

The original character of surviving trim may have been changed by improper maintenance. Carved stone and terra cotta ornaments, whose natural finishes were meant to show, may have been painted. Delicate concrete or plaster castings and wood carvings may lose their definition of sharp detailing and craftsmanship due to painting and repainting without the careful removal of earlier, damaged coats.

Guidelines

DO's

- Retain, repair and preserve original ornamental trim in place wherever possible;
- Replace only missing or badly deteriorated components of the ornamental trim, retaining in place as much original material as possible.

DON'Ts

- Do not replace deteriorated trim with materials or designs which do not match the originals.
- Do not clean trim with harsh or abrasive methods.
- Do not continue to repaint delicately carved or cast details so that the fine detail of workmanship is obscured by many coats.
- Do not paint trim features which were not originally meant to be painted.

- Do not add trim to a house to make it fancier than it originally was or to change (or mix) its style.

- Do not remove original trim from a house without replacing it in kind.

2.1.10. Entrances, Portes Cochere, Pergolas and Carports

Description

Very often an entrance, porte cochere, pergola or carport are significant integral features of the facade of a Period Revival or Bungalow Style house. In addition to the ever present and prominent gables and porch, a bungalow also can have a distinctive entrance, porte cochere or pergola. Later Ranch Style houses may have an attached carport. These features are usually designed to match the details and ornamental trim of the house's porch.

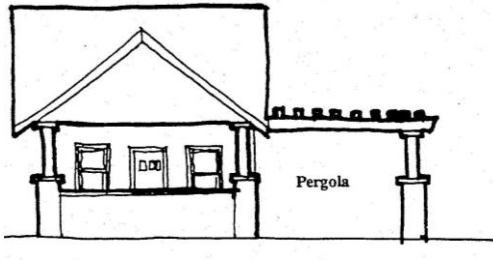
Porte cochere

A roofed structure extending from the main entrance of a building over an adjacent driveway and sheltering those getting in or out of vehicles.



Pergola

A structure consisting of posts supporting an open roof in the form of a trellis.



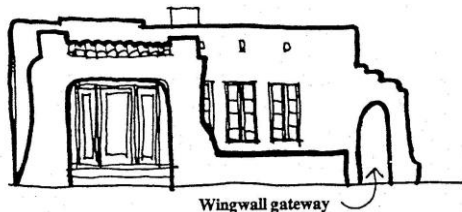
Carport

An open-sided automobile shelter usually attached to a house.



Wingwall gateway

A doorway or gate to the sideyard through an extension of the front wall of the house beyond the corner of the building.



Deficiency

Portes cochere, pergolas and carports can suffer from the same types of deterioration as found at porches, ornamental trim and roofs. Wood features can decay and masonry columns can sustain damage from rising damp, accidental impact and settling foundations. Inappropriate remodeling and in-filling can detract from the openness of the facade and the effects of shade and shadow.

Guidelines

DOs

- Maintain trim in good condition.
- Repair and replace damaged and missing features with matching materials and design based on physical or photographic evidence.
- If historic documentation of the house's original features is not available, then use designs which are appropriate to the style as modified to the specific house.

- Remove built-up layers of paint from delicately carved features using the gentlest means possible prior to repainting.

DON'Ts

- Do not remove or severely modify an original entrance, porte cochere, pergola or carport.
- Do not replace original features with stylistically incompatible elements and materials.
- Do not roof over pergola trellises.
- Do not fill in openings of recessed entries, gateways in wingwalls and courtyards.

2.1.11. Colors

Description/History

The color scheme of a building is important to defining its style and to enhance its architectural design and form. Each historic era and style had its own approach to color and a favored

palette of hues.

Victorian Era/Eastlake Style

Polychromatic scheme With up to eight different colors, usually one for each major material and several for wood trim and casings, window sashes, and doors. Color was as diverse as the ornamentation on a Victorian Era home.

Bungalow Style

The Arts and Crafts Movement at the turn of the twentieth century was at the heart of the Bungalow Style. Richness of color in earthtones was the hallmark of the era. Suggested color palettes for bungalows were available to the original home builders. Typical period color palettes are available from several major paint manufacturers today.

Mission Revival, Spanish Colonial Revival and Southwestern Style

Red tile roofs and white or light-colored walls typify these Hispanic-inspired styles. Colors tend to be pastel in nature but can also tend toward earthtones. Brightly colored decorative tiles or hand-painted decorations or stencil patterns on wood trim or plaster walls is also found.

Pueblo Revival

Muted earthtones characterize the usual color scheme of Pueblo Revival houses, although some were painted white.

Tudor Revival

High contrast in the color scheme of Tudor Revival houses helped to accentuate and delineate the dark half-timbering from the white or light stucco walls. Wood shingle roofs which replicated thatched roofs in English Cottage Revival houses sometimes were painted or stained a grey-green.

Ranch Style

Ranch houses tended to follow the color schemes of the period revival styles which may have influenced their specific detailing. Thus Ranch Style houses could have colors which were inspired by their Spanish or French predecessors. Vernacular Ranch Style houses were often painted with earthtones found in the earlier bungalows or Pueblo Revival houses. Ranch houses could have been painted originally in a two-tone pastel scheme as divided by the beltcourse at the window sills. Still other Ranch Style houses may not originally have had their red brick walls painted at all.

Deficiency

Often buildings have been repainted several times, in both the historic and modern periods, with different colors which were the then-current popular palette. Occasionally, materials which were originally meant to have natural finishes have been painted. Sometimes homeowners tend to repaint their historic houses to please their personal aesthetic sensibilities rather than to use original or historic color palettes.

Guidelines

DOs

- Conduct a careful investigation of the paint chronology of the various features of the building to determine the original and subsequent historic colors of the building. Document the layers of color from outside to base material. Try to relate correctly the various layers of the features to one another for some may have been repainted more often than others. The color of old paints may have changed or faded over time, thus look

for paint hidden in cracks or in places not exposed to direct sunlight.

- If the original color scheme is not appealing, then use other historically appropriate colors from a palette from the same style and era as the house.

DON'Ts

- When investigating the chronology of paint colors, do not assume that the first coat was the original color. It may have been the primer.
- Do not use colors from an era or style different from that of the house.
- Do not use too many or too few colors for the style or ornamentation of the historic house.
- Do not reverse the pattern of values of the paint scheme (i.e., original dark walls with light trim changed to light walls with dark trim).
- Do not use currently popular or trendy paint schemes, modern pastels, or luminescent colors.
- Do not paint features which were not originally meant to be painted and, conversely, do not remove paint from features originally painted.
- Do not paint roofs, front doors or masonry unless appropriate for that style or unless specific evidence proves the house was originally painted in such a manner.

2.1.12. Painting

Description

Virtually every historic house has features which were painted, stained, or varnished in order to protect them from deterioration from weathering. Occasional exterior stucco may have been colored integrally with pigment additives rather than having been painted. The stucco of some bungalows may have even been purposefully left a natural cement color as an aesthetic expression and as a low-maintenance surface needing no paint.

Deficiency

Surfaces are improperly or inadequately prepared and cleaned for painting. Homeowners may not realize that sandblasting, although quick and easy, can irreversibly damage the historic building material and actually accelerate deterioration. Materials meant to have a natural finish have been painted.

Guidelines

DOs

- Conduct regular seasonal inspection of the painted surfaces of the building and repaint when necessary.
- Properly prepare all surfaces prior to painting. Securely fasten architectural elements to the building. Repair damaged materials. Scrape and sand off loose paint to solid surfaces, leaving

paint which still adheres. Clean and dry surfaces before painting.

- Recoat previously painted surfaces using the same type of paint. If different paint type is used, verify the compatibility with the earlier paint to assure adherence.
- Use the compatible type primer and paint for each surface material, i.e., wood, metal, stucco, etc.

DON'Ts

- Do not sandblast or high-pressure waterblast paint from the surfaces of historic materials.
- Do not remove all paint from materials even though areas of paint may still hold fast to the surfaces.
- Do not paint materials which were not originally meant to be painted, particularly terra cotta, stone or perhaps stucco and concrete.

2.1.13. Paint and Soot Removal

Description

Throughout the lifetime of a building its exterior surfaces are subject to the effects of the atmosphere induced by weather, dirt, and smoke. Many coats of paint can build up on the surfaces as well.

Deficiency

Exterior surfaces of buildings become soiled with bird droppings, wind-blown dust, and soot from the smoke of chimneys and automobiles. These layers

of dirt can have a deteriorating effect on building materials. Also the build-up of many layers of paint will obscure the fine textures of the original materials. Sometimes features which were meant to retain their natural finish have been painted.

Guidelines

DOs

- Establish a regular maintenance program which includes the washing of the building's exterior walls and features.
- If removal of paint, soot, or dirt is desired, first conduct a test to determine the gentlest yet most effective method of cleaning. Choose a small test area in an inconspicuous location on the building.
- If the homeowner elects to clean his own building, closely follow manufacturer's instructions for use of gentle chemical solvents, Water and gentle detergents applied with natural bristle brushes or steam cleaning are methods which homeowners generally can use successfully.
- If the cleaning project is large or difficult, hire a professional building cleaner who can prove experience in the conservation of historic materials.
- Clean varnished surfaces with commercial wood cleaners following manufacturer's instructions.
- Remove varnish using fine grade steel wool and liquid varnish remover. Consult coating specialists for products and methods of paint and varnish removal.

DON'Ts

- Do not sandblast, water blast or use abrasive and high-pressure methods of cleaning which are harmful to the building materials.
- Do not use caustic or harsh chemical solvents to remove paint which could be corrosive to the building materials or harmful to workers and nearby plants.
- Do not paint over dirt.

2.1.14. Landscaping

Description

Many times new residents tried unsuccessfully to nurture their familiar hometown plants in the desert. Through a process of trial and error, residents and nurserymen discovered various non-native plant species which could survive the climate in Casa Grande. Most of these plants required far more water and care than did the native desert plants. In spite of the ineconomies and additional maintenance required by exotic plants, most of the historic residents rejected desert plants and low-water landscape principles for lush greenery. This lush landscaping defines the character of the older neighborhoods of Casa Grande. Today the mature landscaping of the historic neighborhoods is as important to the setting and feeling of these areas as is the buildings themselves.

Deficiency

A new-found sensitivity to the finite nature of our water resources has fostered a new, responsible attitude toward low-water landscaping in our

desert cities. New subdivisions often encourage the use of "xeroscaping." This approach to low-water desert landscaping is very appropriate for modern lifestyles, but when applied to historic neighborhoods it can virtually destroy the setting and feeling of the historic district. Particularly devastating to the oasis is the removal of lawns and the felling of mature trees. The introduction of cactus to irrigated yards is not good for the cactus or for the setting. Occasionally, the historic character of the public right-of-way landscaping is compromised by the removal of mature green trees and lawn, replacing them with different tree species or desert landscaping.

Guidelines

DO's

- Identify the original historic landscape plan through archival research or oral history interviews prior to developing new plans for site development.
- In designing a new landscape plan, use only those plants which were available locally during the historic period.
- When mature landscaping becomes too large, prune it back in a proper manner to ensure its continued healthy growth. If pruning is not feasible or if the plant is diseased, remove it and replace it with a plant of like kind. When replacing mature plants, introduce new plants of as large a size as possible and affordable in order to maintain the appearance of mature development of the yard.
- Care for the existing historic landscaping and irrigation system in order to maintain the character of the

property's setting and its contribution to the streetscape as a district.

- When making changes to the landscaped setting of the building, introduce new plants and architectural features which are appropriate to the style and era of the property. Care must be taken in the design of fences, sidewalks, driveways and raised planters to assure that they complement the historic character of the building.
- Maintain the visual character of split track ribbon driveways.

DON'Ts

- Do not remove historic plants without replacing them in kind and with large specimens.
- Do not remove character-defining historic site features or landscape elements (e.g., coach blocks, fountains and pools, sidewalks, planters, open irrigation ditches and headgates).
- Do not introduce desert landscaping into the green oasis character of the setting.

- Do not replace green lawns with gravel at yards, tree lawns and medians.

- Do not abandon the flood irrigation system and introduce mounds and berms within an irrigated terrace-type lawn.

- Do not introduce plants which were not locally available during the original or historic period of the property.

- Do not use aggregate base course (small rounded gray stones) as a driveway or groundcover material.

- Do not use concrete to infill the grass area between the split tracks of historic ribbon driveways.

- Do not install fences of chain link, panel and pier concrete block, exposed concrete block or other materials or designs which are inappropriate to the style and era of the historic property.

- Do not allow historic landscaping to grow so large as to obscure the primary facade of the building.

2.2. New Addition Design Standards: DOs and DON'Ts

2.2.1. Placement of New Additions

DOs

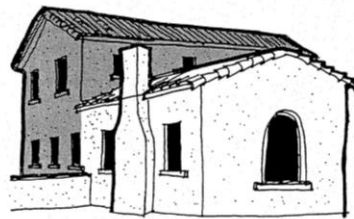
- Construct new exterior additions to the rear of a historic building to retain the streetscape facade and the setback to the street.
- Remove non-significant additions or nearby outbuildings to make room for a new exterior addition if removal does not effect the architectural integrity of the building.
- Design the new addition to complement and enhance the historic building in size, scale, materials and details.
- Verify zoning restrictions for heights, setbacks and building separation to define the buildable area within the property. Take into consideration overhang dimensions when determining the allowable building envelope. Setback and lot coverage variances may be difficult to obtain if zoning problems are self-imposed by the applicant's own design. Design site features and landscaping to blend with the details appropriate to the building's historic style.

DON'Ts

- Do not remove significant original

features of the building or its historic additions or site features for an addition if it will detract from the historic character.

- Do not place additions across or aside and flush to the front facade unless it is a carport, porte cochere, or garage which is in keeping with the character of a bungalow or Ranch Style house.



DO - Place additions (either one- or two-story) to rear of house.



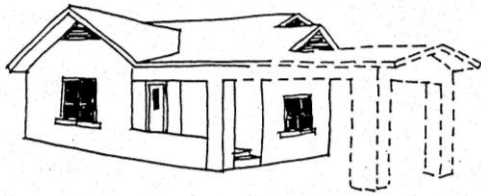
DON'T - Place additions on the front facade.
It will adversely affect the character of the house.

- Do not construct an addition which is larger in size or inappropriate in scale to the original building.

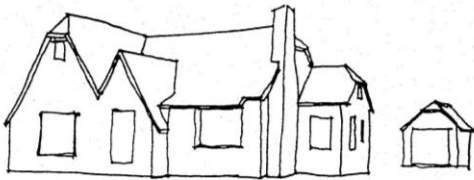
2.2.2. Exterior Forms

DOs

- Design the form of the addition to repeat existing shapes, proportions of height to width and masses of the historic building.

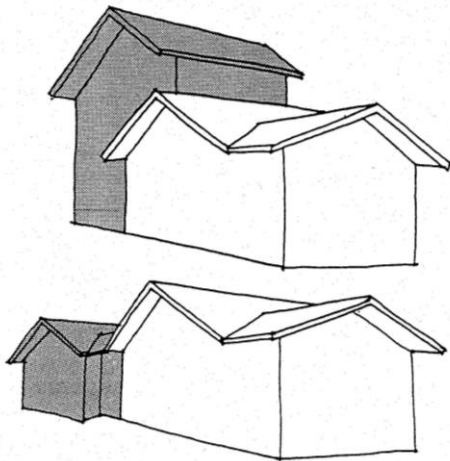


DO - Use details, materials and forms which reflect those of the original building.



DO - Use details, materials and forms which reflect those of the original building.

- Place second story additions at the rear of the house to maintain the historic height of the building at the streetscape facade.



DO - Design form of additions to match existing shapes, proportions, and masses of the historic building. Place second story additions to rear of the building to maintain the historic height of the building at the streetscape facade.

DON'Ts

- Do not place second story additions toward the front of the building in a manner which would detract from the facade and form of the building.
- Do not place exterior landings, stairs, decks or patios on the front of the house or on a side which is prominently seen from the street.

2.2.3. Roofs and Dormers

DO's

- Design dormers and roofs over new additions to be consistent with the pitch, type, proportion, shape and materials of the original roof. If the historic building uses a combination of roof types, then use the same combination of types or choose one of those types.
- Place skylights on roof slopes not visible from the street. Use skylights which have a surface parallel to the plane of the roof. Keep skylight profiles low to the roof plane.

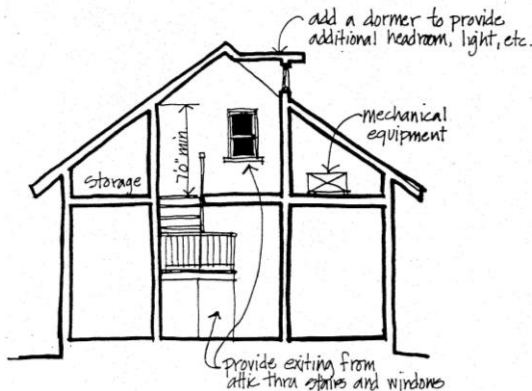
DON'Ts

- Do not introduce new roof types, features (i.e., dormers, chimneys), and materials which are not found in the original building. This approach would adversely effect the character of the building.
- Do not use skylights which have profiles which are domes, bubbles or pyramids on the roof slopes visible from the street.

2.2.4. Attic Expansion

DO's

- Make use of existing unfinished attic space to increase the useable area of the building. Be sensitive to the character of the building if external changes must be made. Houses with low-pitched roofs, such as Spanish Colonial Revival and Ranch Style, may not be appropriate for attic expansion as would some bungalows and Tudor Revival houses.



DO - Make use of the existing unfinished attic space to increase the useable area of the building.

- Verify that headroom is sufficient (minimum 7 feet) in the areas for passage and use in the proposed room. Use areas of lower clearance for storage or duct space.
- Provide proper exiting from the attic rooms. This may include additional stairs and windows of specific size.
- Supplement the existing ceiling joists with larger or additional members to support the additional loads of people and furniture for which the ceilings were not originally designed.
- Provide headroom, light or egress by

changing the roof profile with a dormer or cross-gable at the rear of the building in a manner which respects the form and massing of the original building.

- Seek the services of a team of design professionals to address all aspects of an attic expansion project including architecture, structure, air conditioning, electrical, and plumbing.

DON'Ts

- Do not undertake an attic expansion project without professional services for investigation of conditions, code review, structural calculations and design.
- Do not assume that the existing structure of the roof, ceiling, walls and foundations will support the added load of the attic expansion.
- Do not change the roof profile and massing by creating a dormer or cross-gable at the front of the building or at a location which is prominently seen from the street.

2.2.5. Ornamental Trim

DO's

- Install ornamental trim on new additions which is compatible with that found on the original building.
- Use the same or similar materials and simplify the trim design in order to distinguish the addition from the original.

DON'Ts

- Do not install trim extremely different from the original type, detail or material.

- Do not use trim which is from different style or period than that of the original or which makes the building appear fancier or older than it actually is.

2.2.6. Porches, Carports, and Attached Garages

DO's

- If necessary, install new elements to buildings only which are appropriate to the style and era of the building. For example, bungalows and Ranch Style houses often had portes cochere and carports attached to them, whereas Tudor Revival houses did not.
- Use details, materials, and forms which reflect those of the original building.

DON'Ts

- Do not install an attached garage to a historic house. Although a rarity, Pueblo Revival houses and Ranch Style houses may have an attached garage. Even then, consider providing a detached garage in the back yard.

2.2.7. Windows and Doors

DOs

- Install windows and doors which are compatible with the original features of the building and which reflect the original or period style and era.
- Repeat the placement, spacing, shape, proportions, orientation, materials and details of the original features.
- Follow the pattern of window size and

placement on a new addition as found on the original house.

DON'Ts

- Do not install aluminum-framed windows to an addition, when wood windows exist and are predominant in the original building~
- Do not install windows which have a mullion or muntin pattern which is different or more complex than that of the original windows.
- Do not install openings which are different in number and size for the pattern of the original doors and windows.

2.2.8. Finishes and Colors

DOs

- Attempt to match the colors, textures and finishes of the original exterior when building a new addition.

DON'Ts

- Do not accentuate an addition from the original building by using different colors, textures and finishes.
- Do not introduce a palette of modern colors to the addition rather than using period colors.
- Do not introduce more colors, textures, and finishes to the addition than there were on the original building.

2.2.9. Detached Garages

DOs

- Design a new detached garage which reflects the character of the house without exactly replicating it. Simplify the details of the garage and use the same roof type and building form as the house.
- In preparation of the garage design, verify the zoning requirements for setbacks of detached buildings from adjacent property lines and alley rights-of-way.
- If possible, install two single garage doors instead of one double garage door in order to diminish the scale of the facade. Use a simple, plain door if a period replication is not possible.
- Use the same guidelines for garage addition as for house rehabilitation or room addition.

DON'Ts

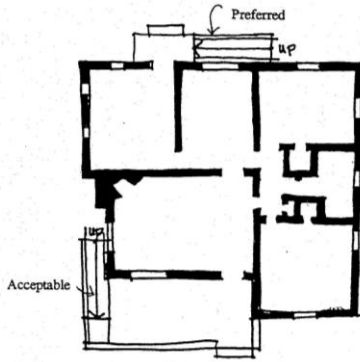
- Do not introduce materials, features and details which differ from those on the house. For example, don't use painted concrete block for the garage if the house exterior materials are common brick and stucco.
- Do not design a detached garage which is overscaled for the size of the house or the backyard.

2.2.10. Site Features

(including sidewalks, driveways, planters, fences, walls, patios, light fixtures, courtyards, pergolas, fountains, outbuildings, coachblocks, gazebos, etc.)

DOs

- Use greater sensitivity in designing features which will be seen from the public streetscape than those less visible.
- Match original materials and designs when repairing 'site features.
- Replace only the broken segments of original or historic period sidewalks, matching concrete color and scoring patterns. Retain segments of historic sidewalks which are embossed with the concrete contractor's name and the date of installation. Also retain in place curbstones which are embossed with the street name.
- If it is necessary to pave a long driveway or parking area with asphalt, use a concrete curb at its edges.
- If it is necessary to provide new, additional or replacement street lighting, install more low-scale standards rather than fewer large-scale standards. If exact replicas for the historic light standards are unavailable, provide simple, modern fixtures which reflect the character and era of the neighborhood. Streetlights are very significant character defining elements of a historic district.
- If it is necessary to provide handicapped access to the house, install a ramp or lift at a side or rear door. If a ramp is necessary at a front porch, install it at the side rather than the front.

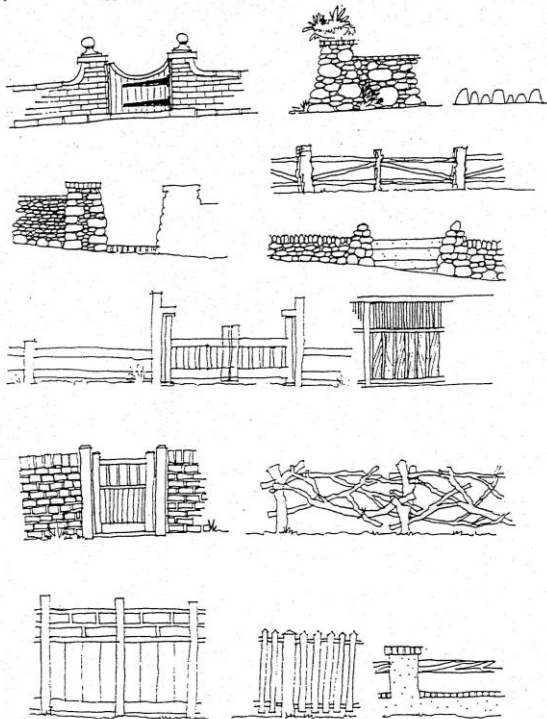


DO - Provide handicap access to the building by installing a ramp or lift at the side or rear door. If the ramp must be placed at the front door, place the ramp to the side rather than the front.

DON'Ts

- Do not change, obscure or remove significant site features.
- Do not install a fence in front of a house which obscures or detracts from the facade through size, height, material, finish or detail (or lack of detail) or which is not compatible with the style of the house.

Types of Fences (appropriate for Bungalow style buildings)

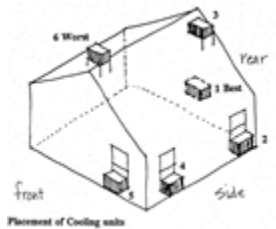


- Do not introduce new features or designs which are incompatible with historic features or styles, such as a Victorian gazebo in the yard of a bungalow.
- Do not introduce fence or wall materials which are not compatible with historic styles or eras, such as chain-link and exposed or painted concrete block.
- Do not infill the grass strip between the tracks of a historic ribbon driveway or use aggregate base course (small gray river rocks) as a driveway paving material.
- Do not introduce concrete finishes for sidewalks and driveways which were not commonly found during the historic period, such as salt finish or exposed aggregate.
- Do not install replicas of historic streetlights in yards which appear out of scale when placed near the house or which are inappropriate for the style or era of the house.
- Do not install driveway curb cuts and handicap access ramps in historic curbs and sidewalks with standardized modern engineering details which do not match the existing features.
- Do not replace historic high, square street curbs with modern low, rolled curbs.
- Do not remove or adversely alter significant historic streetscape features in the public right-of-way such as parkway lawns, sidewalks and curbs, medians, light fixtures, subdivision entry monuments, etc.

2.2.11. Equipment Placement

DOs

- Place evaporative coolers and air conditioners in locations which are not visible or only slightly visible from the street



- Consult with a professional in order to design an efficient, effective system for air conditioning and internal distribution through the historic house.
- Place other exterior equipment (antennae, satellite dishes, solar panels, electric service entrance sections, utility meters) in locations where they will be least visible. Consult with the proper city agency regarding certain permit requirements.

DON'Ts

- Do not place cooling equipment on a front facade, on the roof or on the side facade near the front.

2.2.12. Energy Conservation

DOs

- Install batt or blown-in insulation in attics.
- Install weatherstripping at door and window openings.

- Retain existing wood window assemblies because of the high insulative value of wood compared to metal. Reduce infiltration of air by weatherstripping, tightening, and caulking the elements of the window assembly.

- Install a glass "storm window" sash to the existing window assembly (preferably on the interior) if replacement of thin single glass with thick "thermopane" is not possible in a thin sash.

- If windows must be replaced to improve overall household energy efficiency, then consider installing appropriately designed replacement windows or retrofitting the windows on all sides but the front (or street-facing) facade.

- If it is absolutely necessary to use tinted glass, use a 30% tint or less or use a clear "Low E" type glass.

DON'Ts

- Do not introduce reflective and tinted films or glass (mirrored, bronze, gray, etc.) to existing windows. These finishes drastically alter the historic character of a historic building.
- Do not introduce large areas of glass on the east and west facades of the building or addition when remodeling or enlarging a historic house.

2.2.13. Fences

DOs

- Design and build new fences using primarily materials which are found on the main building.
- Design new fences using shapes, forms and details which are appropriate to the style of the main building and which will enhance the building's character.
- Design new fences to frame the view of a building from the street rather than to block the view.
- Design new fences to give an appropriate degree of security while maintaining a maximum degree of visibility at the public facades of the building.
- Verify the local zoning ordinance for heights and placement of fences. And verify property lines with a land survey prior to building a fence.
- Procure a building permit for constructing a fence.
- Design and build wooden fences using heavy-duty connections and long-lasting materials to decrease likelihood of sagging and deterioration.

- Maintain fences and their finishes to keep them in good repair and free from graffiti.

DON'Ts

- Do not design and build new fences which are more intricately detailed than the building, thus detracting from the building.
- Do not place or size a fence in such a manner as to obscure the primary facade of the building.
- Do not install fences whose materials are of modern era invention or image such as chain-link, prefabricated wrought iron panels or painted or natural concrete block.
- Do not install fence systems which consist of the 4-inch-thick concrete block panels with 8-inch-thick piers. (8-inch thick concrete block walls may be acceptable if stuccoed so that the character of the block is hidden.)
- Do not use decorative, pierced concrete blocks within other fence designs.
- Do not construct a fence which will interfere with visibility and safe operation of vehicles.

2.3. New In-fill and Edge-fill Construction Guidelines: DOs and DON'Ts

In-fill and Edge-fill Construction

Description

Very often there exist vacant lots within and adjacent to historic districts which have the potential for development. Also, the loss of buildings to fire or other misfortunes leaves a gap within the historic streetscape. Occasionally, a large property may be subdivided for development which increases the density of buildings in the area. New construction within and adjacent to historic districts has the potential of enhancing or destroying the setting and character of the streetscape. Sometimes threatened or doomed historic buildings may be moved onto vacant lots within historic neighborhoods in order to save them and to strengthen the host district.

In order to respect the architectural integrity of the historic district, great sensitivity must be used in the design or introduction of in-fill and "edge-fill" projects. Modern buildings should not imitate or literally copy their historic neighbors, but rather should complement them. By recognizing certain characteristic principles of design, respectful in-fill buildings can be designed.

While it is possible to guide the design of in-fill projects within an established historic overlay zone through a review process, it is difficult to influence

projects outside the zone which none the less have a visual impact upon the historic district. In such cases, the city agencies should use positive methods of education and influence to guide the development of projects within view of the historic areas. Developers should be made aware of the benefits of enhancing the greater contextual area buffering the historic districts. The principles of design presented here for in-fill projects can apply to edge-fill projects as well.

Deficiency

Too often, new in-fill projects do not complement the existing neighboring buildings in terms of placement, setting, size and scale, massing and form, style, materials, color and workmanship. In-fill buildings sometimes disrupt the visual character of a neighborhood for various reasons. They do not respect existing setbacks from the street or are not oriented in the same direction as neighboring buildings. They are much larger in area and height. The shape of the building may be too monolithic, not subdivided into elements which are the same size or form as historic buildings. The architectural detailing of new buildings may have no association or reference to that of the historic buildings. The use of colors and highly refined or reflective materials in a striking and contrasting manner can alienate an in-fill building from its surroundings. The spacing between buildings is often as important visually to the streetscape as is the massing of

each building. Packing new buildings too densely or introducing a single facade much wider than is locally seen can adversely effect the streetscape. The rhythm of solid and void along the street is very important in maintaining the feeling of the district.

Guidelines

DOs

- Locate buildings on the site to fall in line with the established setback from the street.
- Position buildings in the same orientation as the existing buildings.
- Respect the established rhythm of solid and voids along the streetscape in the size and placement of the new building on the property.
- Respect the height of adjacent buildings by maintaining the established massing and rooflines at the front facade. If additional height is required, use a "step-back" massing approach to place upper stories further back in the new building from the front facade.

- Complement the scale of the neighboring buildings by breaking up the overall mass of the new building into elements of similar size and shape.

- Use materials and colors which create the same feeling produced by those found in the neighborhood. Although visual contrast to historic buildings can be interesting, it should be used sparingly in the design of new buildings.

DON'Ts

- Do not use large-scaled monolithic shapes of uniform materials and broad plane surfaces.
- Do not use reflective glass for windows or shiny wall panel materials.
- Do not use long bands or large areas of glass for windows where the shape and character of historic windows are rectangular holes piercing wall planes.
- Do not imitate the existing architecture of the district so as to give the impression that the new building is older than it actually is.

3.1. Glossary of Architectural Terms

ADOBE - A large, unfired brick made of clay-based mud and straw binder, handpacked in a form and dried in the sun.

ARCADE - A range of arches supported by piers or columns. A passageway, one side of which is a range of arches supporting a roof.

ARCH - A structural element designed to support the weight above an opening. A true arch consists of wedge-shaped stones or bricks that make a curved bridge spanning an opening.

ASHLAR - Textured, rough-hewn stone; or the simulated appearance of rusticated stone in concrete blocks.

ASTRAGAL - A molding of half-round profile, especially the strip covering the joint between a pair of doors or casements.

BALUSTRADE - A railing consisting of a handrail supported on balusters often built on a base.

BALUSTERS - Lathe-turned or straight spindles that support a handrail as part of a balustrade.

BARGEBOARD - Ornamental trim board along the face of the incline of a roof gable.

BATTERED WALL/COLUMN – A wall or column which slopes inward as it rises; a tapering pier. Common on pueblo walls or Bungalow porches.

BAY WINDOW - A window that projects from the outer wall, extending the floor space and creating an alcove in the interior space.

BELCAST ROOF - A roof slope with a convex profile creating a distinctive curve upwards at the eaves, associated with some Victorian and Bungalow styles.

BELT COURSE - A slightly raised horizontal band marking a division in wall surfaces.

BOARD-AND-BATTEN – Vertical plank siding with the joints covered by narrow wood strips.

CANALE - A water spout extending beyond the plane of an exterior wall or parapet.

CANTILEVER - Construction in which a beam or structure extends beyond the face of a wall, being supported only at the one end.

CASEMENT - A window with the sashes opening outward on vertical hinges.

CASING - Decorative trim encasing a window or door opening.

COPING - The sloped capping or top course of a wall made of stone, metal, wood, or some other materials for the purpose of protecting the wall from weather.

CORBEL - A projection of successive levels of masonry beyond the wall surface producing a bracket form.

CORNICE - The projecting member at the top of a wall or roof trim.

COLUMN - A vertical round shaft that supports, or appears to support, a load.

CREEPING DAMP - (sometimes called rising damp) - The vertical movement of water through a substance by capillary action. Common on lower levels of masonry buildings.

CROWN MOULDING - A curved moulding used to terminate the trim on cornices, walls, casings, and cabinets.

DENTILS - A classical ornamental moulding consisting of a horizontal series of block-like projections, thought to have been based on the appearance of rows of teeth.

DORMER - A projecting gable in a pitched roof with a window or windows on its front vertical side.

DOUBLE-HUNG - A window in which both the upper and lower sash are independently operable in vertical movement within the same frame.

EAVE - The edge of a roof that projects over the outside wall.

ELEVATION - A head-on drawing of a face of a building or object, without any allowance for the effect of the laws of perspective.

FAÇADE - The front or principal face of a building; any side of a building that faces a street or other open space.

FANLIGHT - A semi-elliptical or semicircular window, usually over a door.

FASCIA - A flat board with a vertical face that forms the trim along the edge of a flat roof or along the eaves of a pitched roof.

FENESTRATION - The arrangement and design of windows in a building.

FINIAL - A terminal form at the top of spire, gate-post, pinnacle or other point of relative height.

FLASHING - Metal sheets at the junctions of roofs and walls or chimneys used to prevent leaks.

GABLE ROOF - A ridged roof forming a gable at each end. A roof with a single peak.

GABLE - The upper (usually triangular shaped) terminal part of a wall under the eave of a pitched roof.

GAMBREL ROOF - A roof with two slopes on each of two sides, the lower steeper than the upper.

GLAZING - Glass set in windows.

HALF-TIMBER - A form of Medieval construction using exposed framing with the intervening spaces filled with stucco or masonry. Ornamental trim that reflects the internal structure.

HIGH STYLE - Common terminology for the most elaborate and formal versions of major architectural styles.

HIP ROOF - A roof with sloping ends and sides, usually with four sides terminating in a ridge or point.

HOOD - A protective, often ornamental, cover over doors or windows.

HUE - Generally, color or a particular shade or tint of a given color.

IN-KIND - Matching the original material.

JERKINHEAD - A gable roof with the ends of the gables clipped off to form small hips.

LINTEL - A supporting beam placed over a door, window or other opening; usually visible and of a contrasting material from the wall surface.

MANSARD ROOF - A roof that slopes in two planes, the lower of which is usually steeper.

MILL FINISH - The raw, unfinished color and texture of an aluminum or other metal product, such as a window or door frame, as it comes directly from the mill or factory.

MUNTIN - A small piece of wood or metal in a window sash holding in place and separating one piece of glass from another.

ONE-OVER-ONE – (1/1) A double-hung window with one pane of glass in the top sash and one pane in the bottom.

OXIDATION - In rusting or burning, the chemical union of a substance with oxygen.

PARAPET - A low wall at the edge of roof, porch, or terrace.

PERGOLA - An arbor or colonnade with columns or posts supporting open roof timbers.

PILASTER - A pier or half-column of shallow depth applied to a wall.

PITCH - The degree of slope or inclination, as in the steepness of a roof.

PLASTER - A wall finish material usually made of lime gypsum or cement, sand and water, applied in a plastic state with or without a heavy texture, to exterior or interior surfaces

PLUMB - The degree to which a wall is perfectly vertical.

PORTE COCHERE - An open-walled but covered structure attached to the side of a building through which a carriage or automobile may pass or under which they may park. Also a roof and supporting projection over a driveway near the entrance to a house; later referred to as a carport.

PRESERVATION - The process of preserving an existing form, character and appearance of a structure through techniques designed to arrest or slow the deterioration of a structure, or to improve the structural conditions.

QUARREL - A small, diamond-shaped pane of glass, one of many in a window.

QUOINS - An ornamental element, usually of masonry, on the comers of a building which expresses the structural interlocking of the corner.

RAISED PANEL - In wood millwork a door, cabinet or furniture with beveled panels inset in flat wooden frames. Doors will usually have several raised panels, as opposed to slab or flat panel doors which may have only one panel per door.

RAFTER - A wooden framing member stretching from the ridge to the eave of the roof.

RENOVATION - The introduction of new elements to a building to replace old worn parts.

RESTORATION – To employ treatments aimed at returning a building to its original appearance and condition.

REHABITATION - To take corrective measures to make a building usable or livable again.

RIDGE - The horizontal top line formed by the meeting of two sloping roof planes.

RIDGE CAP - The wood, tile, or metal cap covering the ridge of a roof.

SASH - The movable frame holding glass in a window opening.

SCONCES - Decorative wall fixtures or lamps. Wrought iron sconces are common to the Spanish Colonial and Mediterranean Revival styles.

SCUPPER – An opening through a wall that allows for roof drainage. Term also refers to the metal funnel which catches runoff water and directs it into the downspout.

SEGMENTAL ARCH - A gently curving arch having the shape of the uppermost segment of a circle.

SHAKE - A thick, wavy, rough shingle made of wood, used in Ranch era architecture.

SHED ROOF - A single sloped roof.

SIDELIGHTS - Tall, narrow windows with small glass panes flanking a doorway or picture window.

SOLID CORE – With reference to doors, a slab door made of solid wood rather than several panels with a hollow interior.

SURROUND – Ornamental trim or casing surrounding a door or window opening.

TERRA COTTA – Cast and fire clay units, usually larger and more intricate in form and detail than brick.

TRANSOM - A window opening over a door.

TRUNCATED - Having the top of a hip roof cut off by a flat plane.

TUDOR ARCH - An English arch which slopes gently upward to a point. Associated with English Revival styles.

VESTIBULE – A small entrance room or enclosure situated at an exterior entry to a building.

VIGA - A horizontal roof beam, usually a wood log exposed and extending beyond the plane of a wall or parapet.

VERANDA - A long, roofed gallery-like arcade or porch that spans the width of a facade.

VERNACULAR - Indigenous architecture characteristic of a certain locale.

WAINSCOT - Wood paneling or some other decorative material that is applied to the lower part of wall.

WING WALL - A non-structural, ornamental wall extending out to the side of a building.