

Downtown Historic District Design Guidelines City of Freeport, Texas

Prepared by Post Oak Preservation Solutions & University of Texas at San Antonio Center for Urban and Regional Planning Research October 17, 2024





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Date

October 17, 2024

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Preface

Preface

A. Purpose & Intent

These guidelines are to be used when considering improvements to historic properties in Freeport, and for new construction within the city's Downtown Historic District.

The historic core of Freeport has served as the cultural center of the community for more than a century and retains many buildings that convey its early character. Historic preservation and economic development are partners in the success of downtown.

The guidelines in this document primarily address the design character of development in Downtown Freeport but are rooted in the community's broader values regarding city development. These key values include:

- Memorial Park and the buildings that surround it are essential to the identity of Freeport.
- Preserving the character of Freeport while facilitating new, compatible development is a critical priority as the city grows.
- Downtown is safe and inviting for visitors, residents, and workers.
- Downtown attracts and supports users who are diverse in terms of their economic status, cultural background, and age.
- The community maintains a high quality of life and small-town appeal.
- Downtown supports a wide range of activities.
- Downtown sustains its economic vitality, serving as a hub for work, business, tourism, and entertainment.
- A vibrant downtown should include arts and cultural elements.

B. Why have guidelines?

The design guidelines provide a basis for deciding the appropriate treatment of historic resources and compatible new construction. They also serve as a planning tool for property owners and design professionals who seek to make improvements that affect historic resources.

While the design guidelines are written so that they can be used by laypeople to plan improvements, property owners are encouraged to enlist the assistance of qualified design and planning professionals, including architects and preservation consultants.

C. Organization and use of guidelines.

The guidelines are intended for property owners who

Terminology

A number of specific terms are used throughout the design review process:

Design Guidelines: Guidelines of appropriateness or compatibility of building design within a community or historic district. Often in the form of a handbook, design guidelines contain drawings accompanying "do's and don't's" for the property owner. The Historical Commission will administer the design guidelines.

Must: Where the term "must" is used, compliance is specifically required if applicable to the proposed action.

Shall: Where the term "shall" is used, compliance is specifically required if applicable to the proposed action.

Should: For the purposes of these Design Guidelines should means shall.

Encourage: The term "encourage" means that the standard as it relates to an action is suggested and preferred but not required.

May: The term "may" indicates that the Historical Commission has the discretion to determine if the action being discussed is appropriate. This decision is made on a case-bycase basis, using the information specifically related to the project and its context.

Appropriate denotes something typical of the historic architectural style, compatible with the character of this property or district, and consistent with these design guidelines.

Inappropriate denotes something that is incompatible or not in character with the historic architectural style of the property or district, and inconsistent with these design guidelines.

are planning exterior alterations, building additions, or the rehabilitation of existing structures. They also apply to the design of new buildings within the Downtown Historic District. The guidelines will help property owners to understand the historic character of the buildings and environment in which they are located and assist owners when they are faced with decisions about repair, maintenance, rehabilitation, and new construction. The guidelines are not a rigid set of rules. They do not require that buildings be restored to a historical period or style. Instead, their purpose is to provide the following:

- Guidance to property owners and tenants about buildings, their distinctive characteristics, and how t maintain them;
- Various appropriate ways to address design, repair, rehabilitation issues;
- Good maintenance practices; and,
- Appropriate ways to design new, compatible addition infill buildings, and site layouts.

D. Who uses the guidelines?

Property Owners & Professionals. Property owners, real estate agents, developers, tenants, and architects should use the guidelines contained in this document when considering a project. This will help establish an appropriate direction for its design. For any project sub to review, the applicant should refer to the guidelines a the outset, to avoid planning efforts that later may prov be inappropriate.

Freeport Historical Commission. The Freeport Historical Commission will also use the design guidelines for the review of proposed projects within the Downtown Herit. District to determine if the design policies presented herein have been followed. It is important to recognize to in each case a unique combination of design variables is at play and, as a result, the degree to which each relevan guideline must be met may vary. When determining the appropriateness of a project, the Freeport Historical Commission is primarily concerned with the following:

- The proposed work complies with the criteria set fort its ordinance.
- The integrity of an individual historic structure is preserved.
- New buildings or additions are designed to be compatible with surrounding historic properties.
- The overall character of the Downtown Historic Distri is protected.

E. When to use the guidelines.

The design review process is "reactive," in that it only applies to proposed actions initiated by a property own. While it guides an approach to certain design problems offering alternative solutions, it does not dictate a spec outcome and it does not require a property owner to instigate improvements that are not contemplated.

Ordinary repair and maintenance do not require approv

Non-Contributing

е.	Contributing Buildings	Buildings			
and ons,	 Add to historic associations, architectural qualities, or archeological values that make the district significant; and Retain integrity, or enough historical features to convey their significance 	 Less than 50 years old; or Significantly altered, no longer convey historic integrity; or Not associated with a historic theme or time period 			
s t	How will contributing vs. n be reviewed?	on-Contributing buildings			
bject	Both contributing and non-c	ontributing buildings within			
at ove to	the local historic district are some scope of work items n	subject to review; however, nay be reviewed differently			
cal	depending on the status of t Building Inventory in Append	he building. Use the Historic dix 6 to confirm contributing			
e ritage	vs. non-contributing building	gs.			
e that s is vant ie	 City staff and, if applicable, the Historic Review Board, will review all changes to the exterior of a contributing building with strong adherence to the design guidelines, considering appropriate replacement materials or alterations and additions to the historic building. 				
<u>;</u> :		terior of a non-contributing o review, with the exception			
rth in	building are not subject to review, with the exception of additions and demolitions. Alterations to non- contributing buildings that are compatible with the guidelines, especially ground-level alterations such as				
	storefronts, are encourage Additions to non-contrib e				
	guidelines.				
trict	 In the case of demolition, a property owner will have to provide sufficient evidence of the necessity of demolition of a contributing building which must be reviewed by both City Staff and the Historic Review 				
ner. hs by ecific oval.	structure where that non-				

Contributing Buildings

However, seemingly unimportant changes, like adding a driveway, fence, or enclosing a porch, can dramatically affect the visual character of a historic resource and are, therefore, of concern to the City. Therefore, approval is necessary for any changes to the exterior of a building in the Downtown Historic District.

F. Which guidelines apply to my project?

Please refer to the table below.

G. The Design Review Process

Applying for a Certificate of Appropriateness.

Step 1. Consider professional design assistance.

Property owners are encouraged to engage licensed architects and other design and planning professionals to assist them in developing their concepts. Doing so may facilitate a smoother review process. If a project proposal is not clear, the review may be delayed for 30 days or longer while clarifications are made. The Freeport Historical Commission is available for consultation on a conceptual review prior to making a formal application.

Step 2. Check other City regulations. The guidelines supplement other adopted City ordinances. The City of Freeport can provide information about these regulations, which could affect the design character of a project. Examples include:

Planning and Development Regulations

- Signage
- Lighting
- Federal income tax credits & texas historic tax credits
- Recorded texas historic landmark
- State antiquities landmarks

Step 3. Become familiar with the design guidelines.

Please review the basic organization of this document and determine which chapter(s) will apply to a project. If you have any questions, contact the City of Freeport Planning and Zoning Department.

Step 4. Review the site context. Consider immediately adjacent properties and also the character of an entire block. In many cases, the character of the district is an important consideration.

Step 5. Develop a design concept using the guidelines.

The guidelines form the basis for the Freeport Historical Commission's design review decisions.

Step 6. Prepare and submit a complete application packet for formal review. An application packet should be prepared and submitted to the Freeport Historical Commission for staff and the board to review. Adequate documentation is essential to provide a complete understanding of the work proposed. The City requires that sufficient information be provided to facilitate an informed

Chapter Guide	1	2	3	4	5	6	7	Appendix
Rehabilitate/Restore a contributing property	Х	Х	X			X		X
Construct an addition on a contributing or non-contributing property	Х	Х		X		Х		
Repair a non-contributing property	Х	Х						X
Construct a new primary building	Х	Х		Х		Х		
Replace windows or storefronts in a contributing building	Х	Х	X					X
Demolish a building	Х	Х			Х			
Improve a public space	Х	Х		Х		Х		Х
Add a new fence	Х	Х		Х				
Signage	Х	Х					Х	

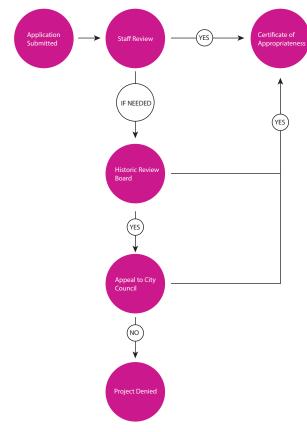


Figure 0.1 | The Design Review Process

review and to document conditions of approval for effective enforcement. Minimum submittal requirements are described in the Certificate of Appropriateness application, which is available on the web page at www. freeporttx.gov. Applicants are required to submit the following documentation, based on application type:

- Name, address, telephone number of applicant, detailed description of proposed work and legal description of the site;
- Location and photograph of the property and adjacent properties;
- Elevation drawings of the proposed changes, if available;
- Samples of materials to be used;
- If the proposal includes signs or lettering, a scale drawing showing the type of lettering to be used, all dimensions and colors, a description of materials to be used, method of illumination (if any), and a plan showing the sign's location on the property;
- Any other information which the Historical Commission

may deem necessary in order to visualize the proposed work.

If a drawing is to be included in the submittal package, it should be drafted to scale and executed in a manner that clearly depicts the character of the proposed work. A professionally produced drawing is encouraged.

Step 7. Present your application before the Freeport Historical Commission.

- The Historical Commission shall review the application at a regularly scheduled meeting within 60 days from the date the application is received. At this time, an opportunity will be provided for the applicant to be heard. The Historical Commission shall approve, deny, or approve with modifications the permit within 45 days after the review meeting. In the event the Historical Commission does not approve, deny, or approve with modification within 90 days of the receipt of the application, a permit may be granted.
- Each project proposal will have a formal presentation by the applicant or agent familiar with the project, so attendance at the public meeting by the applicant is strongly encouraged. The presentation should focus on how the proposed project complies with the design guidelines. After the project presentation and the staff's recommendation on the application, the public will have a chance to offer comments. The Freeport Historical Commission will then discuss the matter and make a decision.
- The Freeport Historical Commission may suggest revisions to the project design and require the applicant to revise and resubmit the application.
 - An applicant for a certificate of appropriateness dissatisfied with the action of the Historical Commission relating to the issuance or denial of a certificate of appropriateness shall have the right to appeal to the City Council or any other appropriate board within 30 days after receipt of notification of such action. The City Council shall give notice, follow publication procedure, hold hearings and make its decision in the same manner as provided in the general zoning ordinance of the city.

Chapter 01: Introduction

Chapter 01: Introduction

1.1 History of Freeport & Original Development Patterns

The City of Freeport is located near the mouth of the Brazos River where it meets the Gulf of Mexico in southern Brazoria County, Texas. Before Anglo-American settlement, the area was populated by Karankawa Native Americans, a nomadic tribe that lived along the Gulf Coast of what is now Texas. Anglo-American settlement in the area began in 1821 when colonists who had received land grants from Stephen F. Austin arrived and founded Velasco, east of present-day Freeport. Nearly a century later, the City of Freeport was established by the Freeport Sulphur Company, an enterprise created for the extraction of the large underground sulfur deposits near the mouth of the Brazos River. In 1912, the company formed the Freeport Townsite Company to develop the forested land south of the Brazos River, with lots for sale by November of 1912.



Figure 1.1 | Aerial view of downtown in 1960 | Nat Hickey

Freeport's original downtown commercial core consisted of a central, linear park flanked by W. Park Ave. and E. Park Ave. and lined with commercial lots. Serving as the focal point of downtown Freeport, The Tarpon Inn was constructed by the Freeport Sulphur Company on a large waterfront lot at the north end of the park. The Houston and Brazos Valley Railway was completed to Freeport less than a year after the town's founding, and the train depot and railroad office were constructed at the south end of the park at W. 4th St. Freeport was incorporated in 1917, and the commercial district developed steadily during the town's first two decades. Businesses were concentrated along the north end of downtown near the Tarpon Inn along W. and E. Park Ave., W. 2nd St., and Broad St. Many of the

earliest commercial buildings in Freeport were of woodframe construction, though a handful of buildings, such as the Freeport National Bank (1913) were constructed of brick. The Freeport Sulphur Company remained the town's primary economic driver for several decades, and the local population grew steadily.

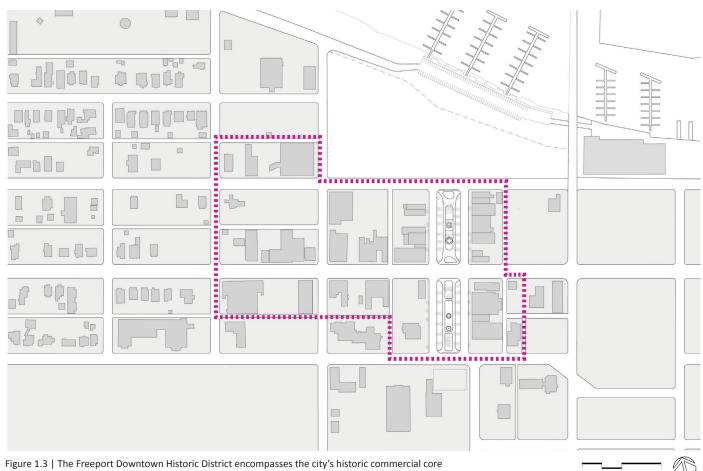
Several projects in the 19th century sought to deepen the harbor at the juncture of the Brazos River and Gulf of Mexico, where sandbars made the harbor shallow and challenging to navigate. In the late 1920s, a new river channel was dredged and the "old" Brazos River closed off with a dam, enabling the safe passage of ships and allowing for the later successful development of the Port of Freeport. By 1939 Freeport had a population of 4,100 residents and was home to 75 businesses (Kleiner, 1952).

Dow Chemical arrived in Freeport in 1940, purchasing 800 acres of land from the Freeport Sulphur Company and additional acreage from private property owners. The new Dow Chemical plant used electrolysis to extract magnesium from seawater, a structural metal that produced lightweight materials, including aircraft and automotive parts. The arrival of Dow Chemical set off a short but significant pre-war building boom in Freeport, and at least thirteen extant downtown commercial buildings date to the period immediately following Dow's arrival (1940-1942). The Dow Chemical plant expanded rapidly in subsequent years and had a tremendous impact on the local economy and growth of the town. Downtown Freeport developed considerably in subsequent decades.

By 1943, most of the wood-frame commercial buildings had been replaced with brick or stone structures (in part due to a major 1932 hurricane that damaged many buildings), and new development began to extend further to the west and south (Sanborn Map Company, 1943).



Figure 1.2 | View from E Park Avenue looking north with Tarpon Inn in the background in 1915 | "Remember in Freeport, Texas When..."



In the postwar era, Freeport's economy was further bolstered by the growth of the local shrimping, fishing, and recreational industries. A significant change to downtown Freeport occurred in 1956 when the Tarpon Inn was demolished to make way for a shopping center along the waterfront parcel, known as Tarpon Inn Village (Brazosport Facts 956).

The following year, Freeport and the neighboring town o Velasco merged to become the City of Freeport. By 197 Freeport's commercial district had expanded outward to consist of six blocks of densely packed commercial buildings, roughly bound by W. 2nd St. to the north, Pin-St. to the east, Broad St. to the south, and Oak St. to the west, with additional commercial and civic buildings along the periphery. The First Freeport National Bank, which later became city hall, is one of the district's most recent historic structures, completed in 1970.

Freeport businesses began to face increasing competit from the nearby Lake Jackson community during the lat 20th century. Initially created as a planned residential

r ge of	community for Dow Chemical employees, Lake Jackson became a shopping hub after establishing a regional mall in 1976, drawing many potential customers away from downtown Freeport. Several downtown buildings were lost during the late 20th and early 21st centuries. The waterfront shopping center was demolished by the early 2000s, creating a large vacant lot at the historic focal point of downtown.
70, ne ne ost tion	In 2006, the historic buildings at 203 and 207 W. 2nd St. were lost to fire, and the remainder of the block was demolished in 2016. The same year, a row of historic commercial structures in the 100 block of W. 2nd St. was demolished. Freeport's mid-century City Hall building on E. 4th St. was demolished ca. 2019. Although not part of the downtown commercial area, the historically African-American East End community, located just east of downtown, was demolished over nearly 30 years to expand the Port of Freeport (Hagerty, 2022).
ate	Today, the historic core of downtown Freeport serves as a tangible symbol of the city's growth, evolution, and

resilience, while also offering significant opportunities for future development. Freeport was recently recertified as a Main St.. community in 2021, and efforts to revitalize downtown are underway. The local economy continues to be shaped by the immense presence of the Dow Chemical Company and the Port of Freeport. Although many downtown commercial buildings are currently vacant, the rich historic character of downtown Freeport is a valuable asset to the city and has the potential to become a key element in local economic development and revitalization efforts.

Freeport's Historic Resources

The Freeport Downtown Historic District contains 53 resources, 35 contributing. The majority of resources serve a commercial function, though 200 W. 2nd St. currently serves a civic function as Freeport City Hall. Additionally, 311 E. Park Ave. is the Freeport Historical Museum and Visitor's Center. Many structures appeared to be vacant at the time of survey in February 2024. Most buildings in the district feature a 1- or 2-part commercial block form. Several rows of 1-part commercial block buildings are extant in the district, including 113-119 W. Broad St., 127-131 W. Broad St., and 204-212 W. Park Ave. Examples of the 2-part commercial block form are 101 W. Broad St. and 224 W. Park Ave. Several Art Deco structures dating to the early 1940s are in the district, including the Ora Theater (215 E. Broad), the Freeport Pharmacy (101 W Broad), the Evans Drug Company building (130 W. Broad), and Young's Prescriptions (231 W. Broad).

The period of significance for the Freeport Downtown Commercial District begins in 1912 with the construction date of the earliest extant resource in the district, a simple wood-frame commercial building at 116 W. Broad St. 202 W. Broad St. was also constructed in 1912 as the Freeport Townsite Company office, though it was extensively



Figure 1.4 | View of Broad St looking west from Park Ave in 1915 | Brazoria **County Historical Museum**



Figure 1.5 | View of Park Ave 1920 | Brazoria County Historical Museum

renovated in the 1950s and therefore retains integrity to its 1950s modernization appearance. The period of significance ends in 1970, the construction date of the most recent extant historic-age resource in the district: the First Freeport National Bank at 200 W. 2nd St. (now City Hall). Resources in the Freeport Downtown Historic District are associated with the commercial growth and development of Freeport from its founding in 1912 through its continued postwar growth in the late 20th century.

Though eight buildings date to Freeport's first decade of existence, the largest proportion of buildings were constructed during two building booms. At least eleven buildings were constructed in the two-year period immediately following the arrival of the Dow Chemical Company (1940-1942), and just prior to WWII-era moratoriums on new construction.

In the decade following WWII (1945-1955), approximately 23 structures were built, reflecting the postwar growth of the region and the substantial growth of the Dow Chemical Company. The majority of buildings in the district were constructed within the period of significance and retain sufficient integrity to convey their association with the commercial development and growth of Freeport.

History and Development of Freeport's Downtown Park

When the future City of Freeport was divided into lots in 1912, an unnamed linear park was included at the heart of the commercial area between W. and E. Park Aves. The park was bisected into northern and southern sections by Broad St. A large waterfront parcel featured prominently at the northern end of the park, where the scenic Tarpon Inn was constructed by the Freeport Sulphur Company in 1912. At the south end of the park, the railroad depot and railroad office were constructed on 4th St. shortly after the arrival of the Houston and Brazos Valley Railway. Upon arriving in Freeport by rail, the linear park provided travelers with a clear view and a scenic pathway from the depot to the Tarpon Inn.

Early photographs of Freeport from the 1920s indicate that the northern section of the park was developed first and more extensively landscaped than the southern

section. This was likely due to its proximity to the Tarpon Inn where early downtown commercial development was concentrated.

The northern section of the park featured flat expanses of grass planted with low shrubs, palmettos, and flowers. Two straight pathways extended north to south, curving at each of the four corners to deposit pedestrians at primary street intersections. A central, quatrefoil shaped concrete planter is positioned at the heart of the northern section, and circular planters were positioned in each of the four curved corner pathways.

The southern section of the park featured a much simpler design characterized by expanses of grass with few plantings. Two straight pathways extended southward from Broad St. to 4th Ave., with perpendicular pathways extending west to east midway down the block and at the southern end. The southern section of the park featured a prominent and important feature from at least the 1920s until the 1960s: a very tall pole upon which warning flags were flown when hurricanes were approaching land. This pole is still extant. A simple wood and wire mesh fence surrounded both sections of the park until at least the late

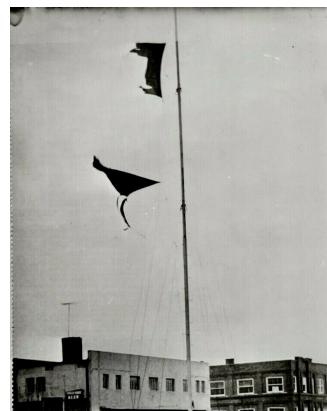


Figure 1.6 | Downtown hurricane warning flags in 1961 | Brazoria County Historical Museum



1920s.

In 1956, the long-standing focal point of downtown Freeport, the Tarpon Inn, was demolished to make way for a shopping center. The carefully landscaped waterfront property with semi-circular driveway was replaced with expansive rectangular buildings surrounded by paved surface parking lots. The shopping center drew customers to downtown Freeport, which evidently led to a need for additional parking. Sometime between 1958 and 1962, both sections of the park were narrowed by several feet of pavement to make way for additional angled St parking along W. and E. Park Aves. (This change was later reversed, and the park was restored to its original width in the early 2000s). In 1962, Freeport celebrated its Golden Anniversary. To mark the occasion, two new features were unveiled at the park: a three-tiered fountain in memory of early citizen R.E.L. Stringfellow and his sister Alice Delaney, and a marble marker with a bronze tablet identifying the role of the Freeport Sulphur Company in establishing the town.

For the first half of the twentieth century, landscaping in the park primarily consisted of flowers, shrubs, and



Figure 1.7 |View of the Tarpon Inn | Brazoria County Historical Museum

small trees, allowing for unobstructed views of the Tarpon Inn. By the 1970s, however, palm trees and large shade trees had been planted throughout the park, significantly blocking views of the northern waterfront parcel and altering the previously open character of downtown. The character of downtown was further impacted by the closure and demolition of the waterfront shopping center, which left a large vacant lot at the north end of downtown Freeport.

By the early twenty-first century, the park's original width was restored, and rows of palm trees were planted along its length. Though nameless for most of its existence (typically referred to as the "downtown park"), Freeport's linear park has become known as "Memorial Park" in recent years.

1.2 Why preserve historic resources?

Across the nation, thousands of communities promote historic preservation because it contributes to neighborhood livability and quality of life, minimizes negative environmental impacts, and yields economic rewards.

Because Freeport is rich in resources and offers an outstanding quality of life, it continues to attract development that challenges the community to seek creative ways of protecting its character. Preserving historic resources is a part of an overall strategy for maintaining community identity and livability. As Freeport continues to grow the goal is to maintain its ties to the past through the preservation of its architectural heritage reflected in its historic resources.

Preservation of the built environment provides a fundamental link to the past. Many of the buildings tell the story of Freeport's unique historical development and keeping these resources creates a sense of place for those who live here and provides visitors a connection with this unique heritage.

Construction Quality. Many of the historic structures in the city were constructed with high-quality materials and craftsmanship. Other buildings were more modest but, even so, may have used lumber from mature trees that were properly seasoned and typically sawed or milled to full dimension, which often yielded stronger framing. Masonry walls were carefully crafted to fit together, resulting in buildings with considerable stability. These structures also were thoughtfully detailed and the material finishes, including fixtures, wood floors, and trim, were generally of high-quality features that owners today appreciate and value.

Adaptability. Owners frequently find that the floor plans of historic buildings easily accommodate modern lifestyles and support a diversity of populations. Many rooms are large, permitting a variety of uses while retaining the overall historic character of the structure. Even historic buildings that are smaller in scale are often on sites that can accommodate additions if needed.

Livability. When older buildings occur in groups, they create a St scene that is "pedestrian friendly," and

encourages walking and neighborly interaction. Mature trees and decorative architectural features also contribute to a sense of identity that is not found in newer areas. These historic buildings therefore help create desirable places to live and work.

Environmental Benefits. Preserving a historic structure is also a sound environmental conservation policy because preservation and reuse save energy and reduce the need for producing new construction materials. Four types of energy savings occur:

- Demolishing a building, disposing of the resulting debris, or using more landfill space does not consume energy.
- Energy is not used to create new building materials, transport them and assemble them on site.
- The "embodied" energy used to create the original building and its components is preserved.
- By "reusing" older buildings or their salvaged materials, pressure is also reduced to harvest new lumber and other materials that may negatively affect the environment of other locales where these materials are produced.

Economic Benefits. Nationwide studies prove that preservation projects also contribute more to the local economy than do new building programs because each dollar spent on a preservation project has a higher percentage devoted to labor and to the purchase of materials available locally. By contrast, new construction typically has a higher percentage of each dollar spent devoted to materials produced outside of the local economy and to special construction skills that may be imported. Therefore, when money is spent on rehabilitating a building, it has a higher "multiplier effect," keeping more money circulating in the community.

Historic preservation efforts also foster a charm and character that attracts visitors. Many small towns throughout the country have made tourism, based on their historic resources, a profitable and effective development strategy.

Responsibility of Ownership. Ownership of a historic property carries both the aforementioned benefits and a responsibility to respect the historic character of the resource and its setting. While this responsibility does exist, it does not automatically translate into higher construction or maintenance costs. Ultimately, residents and property owners should recognize that historic preservation is a long-range community policy that promotes economic well-being and the overall viability of the city at large. In addition, they play a vital role in help to implement such a policy through careful stewardshi the area's historic resources.

1.3 Understanding Preservation Principles

Policies underlying the guidelines. The design guideline in this document incorporate principles set forth in the Secretary of the Interior's Standards for the Treatment of Historic Properties, a widely accepted set of basic preservation design principles. This document is compatible with the Secretary of the Interior's Standar while expanding on how these basic preservation principles apply in Freeport. See Appendix 3 for these standards.

The concept of historic significance. What makes a property historically significant? It is generally recognize that a certain amount of time must pass before the historical significance of a property can be evaluated. National Register, for example, suggests that a propert at least 50 years old and/or have extraordinary importa before it may be considered. Freeport also employs th "50-year" guideline; however, structures that are more recent may be considered significant if they are found have special architectural or historical merit. Also, in t future, other events, time periods, areas, or districts m become historically significant to the city and could be designated as a historic structure or district. Contribut and non-contributing status for buildings in the Downt Historic District have been established; see the Histor Building Inventory in the Appendices.

A property may be significant for one or more of the following reasons:

- Association with events that contributed to the broad patterns of history, the lives of significant people, or understanding of Freeport's prehistory or history.
- Construction and design associated with distinctive characteristics of a building type, period, or construction method.
- An example of an architect or master craftsman or an expression of particularly high artistic values.

Concept of Integrity. In addition to being historically significant, a property also must have integrity—a sufficient percentage of the structure must date from the period of significance. The majority of the building's structural system and its materials should date from th time and its key character-defining features also shoul remain intact. These may include architectural details, such as dormers and porches, ornamental brackets ar moldings, and materials, as well as the overall mass ar

ip of es e	form of the building. Buildings also should retain the integrity of the site and setting; consequently, thoughtful design of new construction within a historic district helps to preserve the integrity of the setting for existing historic buildings on adjacent blocks. Some changes to a building do not automatically mean that it lacks integrity and is therefore non-contributing; sufficient historic features and materials must remain to convey its integrity. It is these elements that allow a building to be recognized as a product of its time.
rds	1.4 Basic Preservation Principles for Freeport
zed	While the guidelines provide direction for specific design issues, some basic principles of preservation form the foundation for them. The following preservation principles apply in Freeport:
The	1.4.1. Respect the historic design character of the building.
ty be ance ie e	1.4.1.1.1. Do not try to change a building's style or make it look older than it really is. Confusing the character by mixing elements of different styles is not appropriate.
to the	1.4.2. Seek uses that are compatible with the historic character of the building.
nay e ting town	1.4.2.1.1. Although use is not reviewed by the Freeport Historical Commission, uses that do not require radical alteration of the original architecture are preferred.
ric	Period of Significance: (1912-1970)
ad the	Every historic building has a period of significance—or the time span during which it gained architectural, historical, or geographical importance. In most cases, a property is significant because it represents
an	or is associated with a particular historical period. Frequently, this begins with the construction of the building and continues through the peak of early occupation. Portions of the building fabric and features that date from the period of significance typically contribute to the structure's character. Historic districts also have a period of significance.

Every reasonable effort should be made to provide a compatible use for the building that will require minimal alteration to it or its site. An example of an appropriate adaptive use is converting a store into an office (when zoning regulations permit). Transitions between adjacent land uses should reflect appropriately compatible levels of intensity.

1.4.3. Protect and maintain significant features and stylistic elements.

1.4.3.1.1. Distinctive stylistic features or examples of skilled craftsmanship should be treated with sensitivity. The best preservation procedure is to maintain historic features through proper maintenance from the outset so that intervention is not required. This includes rust removal, caulking, limited paint removal, and reapplication of paint.

1.4.4. Preserve key, character-defining features of the property.

1.4.4.1.1. Key features are those that help convey the character of the resource as it appeared during its period of historic significance. These may include the basic structural system and building materials, as well as windows, doors, porches, and ornamentation. Typically, those features that are on the front of a building or that are highly visible from a public way will be most important.

1.4.5 Repair deteriorated historic features, and replace only those elements that cannot be repaired.

1.4.5.1.1. Maintain the existing material, using recognized preservation methods whenever possible. If disassembly is necessary for repair or restoration, use methods that minimize damage to original materials and replace the existing configuration.

1.4.6. New construction and additions should be compatible with but distinct from historic buildings.

1.4.6.1.1. Additions and infill construction should respect and reference the massing, materials, and fenestration patterns of historic buildings while being clearly distinct.

1.5 Developing a Preservation Strategy

Please refer to Figures 1.8 & 1.9.

1.6 Defining Preservation Treatments

When developing a preservation strategy, consider the application of these terms. Identify which applies to your project.

Maintenance. Work that often focuses on keeping the

property in good working condition by repairing features as deterioration becomes apparent, using procedures that retain the original character and finish of the features is considered maintenance. In some cases, preventive maintenance is executed prior to noticeable deterioration. No alteration or reconstruction is involved. Property owners are strongly encouraged to maintain their property in good condition so that more aggressive measures of rehabilitation, restoration, or reconstruction are not needed. See Appendix 1 for a Maintenance and Repair Guide.

Preservation. Keeping an existing building in its current state by a careful program of maintenance and repair is preservation. It will often include repair and stabilization of materials and features in addition to regularly scheduled maintenance. Essentially, the property is kept in its current good condition.

Rehabilitation. Rehabilitation is the process of returning a property to a condition that makes a contemporary use possible while still preserving those portions or features of the property that are significant to its historic, architectural, and cultural values. Rehabilitation may include the adaptive reuse of the building and constructing additions. Most good preservation projects in Freeport may be considered rehabilitation projects. See Appendix 3 for the Secretary of the Interior's Standards for Rehabilitation.

Restoration. To restore, one reproduces the appearance of a building exactly as it looked at a particular moment in time to reproduce a pure style - either interior or exterior. This process may include the removal of later work or the replacement of missing historic features. A restoration approach is used on missing details or features of a historic building when the features are determined to be particularly significant to the structure's character and when the original configuration is accurately documented.

Renovation. To renovate means to improve by repair, to revive. Renovation is similar to rehabilitation, although it includes the use of some new materials and elements. The basic character and significant details are respected and preserved, but some sympathetic alterations may also occur. Alterations are generally reversible should future owners wish to restore the building to its original design.

Adaptive Reuse. Converting a building to a new use that is different from its original purpose is considered adaptive reuse. For example, converting a residential structure to offices is adaptive reuse. A good adaptive reuse project retains the building's historic character while accommodating new functions. ach preservation project is unique. A project may include a variety of treatment techniques, including the repair and replacement of features and maintenance of those already in good condition. In order to define the range of preservation treatments that may be needed in a project, consider these steps:

01 RESEARCH THE HISTORY OF THE PROPERTY

This analysis should begin with an investigation of the history of the property. This may identify design alterations that have occured and may help in developing an understanding of the significance of the building as a whole as well as its individual componenets.

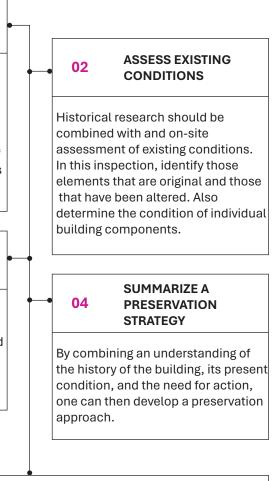
03 LIST USE REQUIREMENTS

Finally, list the requirements for continued use of the property. Is additional space needed? Or should the work focus on preserving and maintaining the existing configuration?

BY COMBINING AN UNDERSTANDING OF THE HISTORY OF THE
 BUILDING, ITS PRESENT CONDITION, AND THE NEED FOR
 ACTION, ONE CAN THEN DEVELOP A PRESERVATION APPROACH.

Figure 1.8 | Preferred Sequence of Preservation Action

While adaptive reuse allows the building owner to convert preferred preservation alternative, the proposed design the building to a purpose other than that for which it was should make use of the original building function as designed, it should be done with respect to the original closely as possible. The reason for this is that when the building form. For example, it would be inappropriate to programmatic uses of a building are drastically altered, turn the living room of a historic building into a bathroom. this often results in a major change to the original floor The reason for this is that when the programmatic uses plan as well as to the exterior appearance of the building. of a building are drastically altered, this often results in When adaptive reuse is the preferred preservation a major change to the original floor plan and the exterior alternative, the proposed design should make use of the appearance of the building. When adaptive reuse is the original building function as closely as possible.



once the basic approach to a project has been defined, it is important to assess the property and to identify any significant character-defining features and materials. Retaining these elements, and then using the guidelines to select an appropriate treatment mechanism will greatly enhance the overall quality of the preservation project. In making the selection follow this sequence: If a feature is intact and in good 01 good condition, maintain is as such. 02 If a feature is deteriorated or damaged, repair it to its original condition. 03 If it is not feasible to repair the feature, then replace it with one that is the same or simialr in character (materials,detail,finish) to the original one. Replace only the portion which is beyond repair. If the feature is missing entirely, 04 reconstruct it from appropriate evidence. 05 If a new feature or addition is necessary, design it in such a way to minimize the impact on the original features.

Remodeling / Renovating. To remake or to make over the

is changed by removing original detail and by adding

Remodeling is inappropriate for historic buildings in

Freeport.

new features that are out of character with the original.

design image of a building is to remodel it. The appearance

Figure 1.9 | Preferred Sequence of Preservation Action

Introduction

Chapter 02: Existing Character of Downtown

Chapter 02: Existing Character of Downtown

To maintain, preserve, and enhance the neighborhood's character, it is necessary to understand the principal elements and attributes that make up the general qualities of a place. Knowing why and what makes a particular place or neighborhood special makes it easier to understand and verbalize why some buildings seem appropriate and fit in and others do not. This chapter describes downtown Freeport's physical characteristics, from the broader neighborhood to the siting of structures on the lots, and finally, the architectural styles of the structures. First is a look at the existing Public Realm. Second, how are structures and features placed on lots? Finally, what are the prominent architectural styles in the Downtown Historic District? All of these aspects are important. For example, a well-designed commercial building that does not align with other buildings on the block and sits at an angle can look out of place. Or if new buildings or additions are placed so they do not align with similar existing structures, the new structures won't "fit in." Therefore, it is essential to understand the existing patterns of the City of Freeport so that they are preserved in new development and construction.

Freeport Downtown Historic District

The Freeport Downtown Historic District encompasses the city's historic commercial core. The district is concentrated in the blocks that line the park and W. Broad St.



Figure 2.1 | A combination of paved and unpaved alleys provide service access to buildings

2.1 Character of the Public Realm

Patterns of Streets & Allevs

The majority of buildings in downtown Freeport are built to the lot lines with zero setback, creating a relatively continuous streetwall effect. A prominent exception is the former Masonic Lodge at 303 E. Park Ave., which is on a corner lot and set back from both E. Park Ave and E.

Broad St. by several feet. Other exceptions include 231 W. Second St., a former service station situated on a corner lot, and the former fire station on E. 4th St., both of which have a greater setback from the street.

Alleys are behind the buildings along W. and S. Park Ave., accessible via 2nd St., Broad St., and 4th St.. Alleys are also present behind buildings that face Broad St. and connect with the Park Ave. alleys near the center of the blocks.

Pedestrian Experience



Figure 2.2 | Most downtown buildings adhere to a uniform setback

- Several of the buildings on the north end of E. Park Ave. feature awnings that extend over the sidewalk.
- Sidewalks line all of the primary commercial streets in the district except for E. 4th St., where sidewalks are intermittent.
- The park between W. and E. Park Ave. provides a comfortable, shaded place for pedestrians to rest, with ample seating throughout.
- Palm trees have been planted intermittently along W.



Figure 2.3 | Awnings are interspersed throughout downtown, providing shade for pedestrians

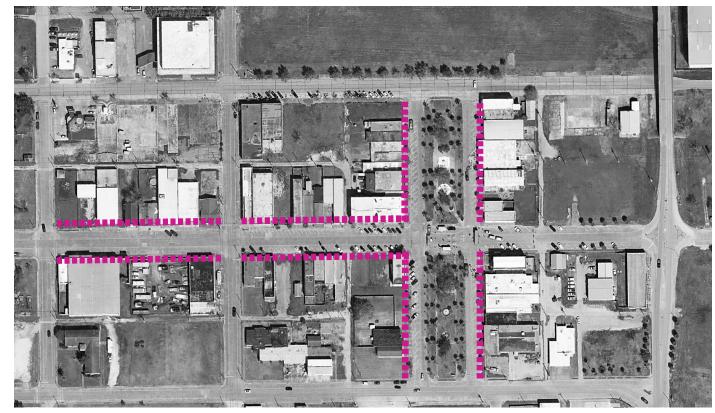


Figure 2.4 | Most downtown buildings are built to the lot lines, creating a streetwall effect

and E. Park Aves. and Broad St., providing some shade to the sidewalks. Shade trees line much of W. 2nd St.

W. 2nd St. between Oak St. and W. Park Ave. is mainly vacant and is generally unwelcoming to pedestrians, though historically, it was a busy commercial street lined with businesses. The south side of W. Park Ave. also features several vacant lots, though this was historically the case.

Landscaping



Figure 2.5 | Some areas of downtown feature a grassy median between the sidewalk and the street

- With the exception of Memorial Park (discussed below), the district's landscaping primarily consists of palm trees planted along the sidewalks of W. and E. Park Ave. and Broad St. Grassy medians are present between the sidewalks and the street along W. and E. Park Ave.
 - Grass covers most vacant lots within the district.

Memorial Park

- Memorial Park is bordered by 2nd St. to the north, W. Park Ave. to the west, 4th St. to the south, and E. Park Ave. to the east. It is a linear park that once connected the Tarpon Inn on the northern waterfront parcel southward to the train depot and railroad office at 4th St. The park is bisected by Broad St., which splits the park into north and south sections.
- The north section of the park was historically more ornate and carefully landscaped, as it was located near the Tarpon Inn. It featured paved sidewalks that curved to each of the four corners of the park, depositing pedestrians at the main downtown intersections. Circular concrete planters were located within the pathways at each of the four corners, and a central, quatrefoil-shaped concrete planter was located at the



Figure 2.6 | Small shade trees line the north side of Second St.

center. Landscaping historically consisted of flat grassy areas and formal flower beds with some low shrubs and palmettos throughout. Up until the 1970s, the low plantings permitted open and unobstructed views across the park.

- The south section of the park was historically much less ornate and characterized by large open expanses of grass and straight pathways. It also served an important community function: a tall flagpole near the south end served as Freeport's hurricane warning system. When a hurricane approached land, warning flags were flown from the pole to notify residents to evacuate.
- A park retains a number of significant historic site features that help convey its historic character, including:
- Historic pathway configurations
- Circular planters in the north section of the park
- A quatrefoil-shaped centerpiece, which originally served as a planter but now serves as the base for a fountain
- The Stringfellow Fountain, dedicated during Freeport's Golden Anniversary in 1962 in honor of two prominent local citizens: R.E.L. Stringfellow and his sister Alice



Figure 2.7 | View looking north from Memorial Park

Delaney.

- A marble pedestal and a bronze plaque recognizing the role of the Freeport Sulphur Company in creating the city(also dedicated in 1962)
- A flagpole in the south end of the park, which served as the town's hurricane warning system, appears to be the same pole depicted in historical photographs following the 1961 landfall of Hurricane Carla.

2.2 Site Design

Site and Lot Design describes the placement of major structures and features within the site. The location of a building on the lot can significantly influence the overall character of a neighborhood. A building located too far back or too far forward does not seem to "fit" within the neighborhood. The location of parking areas can also have



Figure 2.8 | View looking south from Memorial Park

significant effects on the character of a neighborhood. Understanding the existing character can provide guidance in determining the compatibility of future development.

Street Frontage

- Most buildings in the district are built with zero setbacks and extend to the lot lines.
- Buildings are oriented toward the street.

Lot Width & Setbacks

• Original commercial lots along W. and E. Park Ave. and Broad St. were 25 feet wide by 140 feet deep. Commercial lots along W. 2nd St. were 50 feet wide by 140 feet deep. Most buildings do not extend the entire length of the lot but were built to the front and side lot lines, and several buildings occupy multiple lots.

Parking

 Angled, on-street parking is located along 2nd St., W. and E. Park Ave., and Broad St.



Figure 2.9 | Corners buildings typically face primary and secondary streets



Figure 2.10 | W Park Ave and E Park Ave features angled street parking

 A few buildings have small surface parking lots, including 230 and 231 W. 2nd St.

2.3 Building Design

Architectural styles in a small downtown, such as Freeport, generally feature common architectural styles and elements. Buildings of mixed influence are common. Building owners often picked architectural elements, such as ornament, storefronts, windows, and interior finishes from catalogs, resulting in common architectural language.

Most building types in the Downtown Historic District share a basic one- or two-story box-like form. They are generally rectangular in plan with load-bearing masonry walls and flat roofs. The first floors of two-story buildings generally have large display windows or storefront systems, while the upper floors have smaller windows. Individual buildings are attached, often sharing party walls.



Figure 2.11 | One-story and two-story masonry buildings are a common throughout downtown Freeport

Key Characteristics of the District and its Buildings

- One- to two-story, rectangular buildings oriented toward the street
- Predominantly masonry construction
- Large display windows at ground floors
- Awnings & canopies to provide shade
- Emphasis on the park and blocks surrounding it as the cultural and commercial center of Downtown Freeport.

Commercial (1890-1920)

Commercial style is most often associated with tall buildings in downtowns. While large, steel-frame skyscrapers may seem to have nothing to do with Freeport, their stylistic components are present, albeit on a smaller scale. Low-rise commercial style buildings are typified by having a more transparent ground floor and a rectangular shape and emphasis through masonry and ornamental details.

Characteristics

- Rectangular shape
- If two stories, clear division between the floors using masonry or other details
- If present, ornament references past architectural styles
- Large display windows at the ground floor and smaller windows on upper floors

Art Deco (1925-1940)

The Art Deco style of architecture emerged in the late 1920s as a "modern" American style that departed from popular revival styles of the previous decades. Characterized by smooth wall surfaces often clad with stucco, Art Deco buildings often feature geometric decorative elements and vertical projections. Bright colors were often employed in Art Deco buildings, though not always.

Characteristics

- Smooth walls, typically stucco
- Emphasis on verticality, expressed through vertical projections and vertical lines
- Geometric ornamentation (zigzags and chevrons are common)
- Use of bright color paint, tiles, or glass



Figure 2.12 | 208-210 W Broad



Figure 2.13 | 201 E Park Ave



Figure 2.14 | 215 E Park (Ora Theater) | Brazoria County Historical Museum



Figure 2.15 | 215 E Park Ave

Mid Century Commercial (1945-1965)

Mid Century Commercial buildings represent the natural evolution of the Commercial Style after World War II. These buildings are typically simple rectangular structures with prominent display windows and, often, large signage. Roofs can be flat or shed. Mid Century buildings may utilize newer materials such as aluminum or construction technologies, such as curtain walls.

Characteristics

- Asymmetrical facades and canopies or awnings
- Rectangular shape
- Flat roof
- Masonry or concrete cladding
- Large windows and/ow horizontal bands of windows (ribbon windows)
- Lack of ornament



Figure 2.16 | 118 W Broad



Figure 2.17 | 209 E Park Ave



New Formalism (1955-1975)

New Formalism combines classical design elements such as symmetrical proportions, arches, arcades, and columns, with modern building materials and techniques associated with the International Style of architecture. New Formalist buildings are typically large in scale, often raised above street level on a base or podium, and feature a flat roof. Smooth exterior surfaces, arches or arcades extending from the main body of the building, and decorative grilles or screens are common.

Characteristics

- Concrete construction
- Monumental scale, often raised above street level
- Symmetrical proportions and elevations
- Flat roof
- Use of arches and arcades extending from the main body of the building
- Patterned screens or grilles



Figure 2.18 200 W 2nd Street



Figure 2.19 |200 W 2nd Street

Chapter 03: Historic Preservation Guidelines

Chapter 03: Historic Preservation Guidelines

This section presents the design policies and guidelines for the rehabilitation of a **contributing** historic resource located in the Downtown Historic District. Preserving original architectural details is critical to the integrity of a historic building. The best way to preserve these features is through well-planned maintenance. Refer to the maintenance guide in Appendix 1. Use the historic photographs in Appendix 5 to determine what historic features remain. Where replacement is required, one should remove only those portions that are deteriorated beyond repair.

3.1. Maintain and repair character-defining features. Original architectural features should be preserved in place.

3.1.1. Avoid removing, altering, or covering up any significant architectural detail or material, especially those that are in good condition and can be repaired in place.

3.1.2. Protect and maintain significant stylistic elements.

3.1.3. Distinctive stylistic features and examples of skilled craftsmanship should be treated with sensitivity.

3.2. Deteriorated architectural materials should be repaired rather than replaced when feasible.

3.2.1. When deterioration occurs, repair the material and any other related problems. It is also important to recognize that all details weather over time and that a scarred finish does not represent an inferior material, but simply reflects the age of the building. Therefore, preserving original materials and features that show signs of wear is preferred to replacing them.

3.2.2. Repair only those features that are deteriorated.

3.2.3. Patch, piece-in, splice, consolidate, or otherwise upgrade existing materials, using recognized preservation methods as those identified in the National Park Service's Preservation Briefs, located online at https://www.nps.gov/ orgs/1739/preservation-briefs.htm

3.2.4. Isolated areas of damage may be stabilized or fixed using consolidants. Epoxies and resins may be considered for wood repair. Also, special masonry repair components may be used.

3.2.5. Removing damaged features that can be repaired is not appropriate.

3.2.6. Protect features that are adjacent to the area being worked on.

3.2.7. When disassembly of a historic element is necessary for its restoration, use methods that minimize damage to the original materials. Always devise methods of replacing the disassembled materials in their original configuration.

3.2.8. Use the technical procedures for cleaning, refinishing, and repairing architectural details specified in the National Park Service's Preservation Briefs. When choosing preservation treatments, use the gentlest means possible that will achieve the desired results.

3.3. Preserve historic masonry.

3.3.1. Historic masonry, including stone and brick, should not be painted.

3.3.2. If masonry is currently painted, it may be repainted. Loose paint should be removed prior to painting. Elastomeric paint should be avoided.

3.3.3. If paint or staining should be removed from masonry, this should be accomplished using the gentlest means possible including very low-pressure water (under 300psi) or chemical solvents recommended for historic masonry. Cleaning methodologies should be tested in an inconspicuous location prior to proceeding with work.

3.3.4. Mortar repointing should be performed if mortar is missing, deteriorated, or incompatible. New mortar should match historic mortar in composition, hardness, texture, and profile. Mortar testing may need to be performed to ensure that new mortar is compatible with historic brick, which is softer than modern brick and requires a softer mortar. Portland cement and other similar mortars are usually too hard to be compatible with historic brick and will lead to further deterioration. Caulk is not an appropriate mortar.

Considering Substitute Materials

Considering the use of a substitute material should begin with the following questions about the conditions and location where it will be used:

- Will the significance or visibility of the historic feature require a very precise match?
- Is the entie feature being replaced or just a component of it?
- Are pre-existing conditios contributing to the failure of the existing material, and, if so, how will they be addressed/corrected?
- Is the need for replacement due to inherent deficiencies of the original material?
- Will the material need to resist any environmental hazards such as flooding or fire?

Criteria for Replacement Instead of Repair

Applicants must be able to supply proof such as quote product specifications, search lists, etc.

- Repair of an item is over 50% more expensive than replacement; OR
- Replacement item is more durable/ more appropriat for the climate/location; OR
- Repair of an item requires technical knowledge that is not locally available

Additional Considerations

Another factor which may determine the appropriateness of using substitute materials for architectural details is their location and degree of exposure. For example, lighter weight materials may be inappropriate for an architectural detail that would be exposed to intense wear.

3.4. Replace deteriorated or missing historic materials in kind where feasible. Consider the use of substitute materials carefully.

3.4.1. Replacement should occur only if the existing historic material cannot be reasonably repaired due to economic and/or technical feasibility.

3.4.2. Remove only that which is deteriorated and must be replaced.

3.4.3. If parts are damaged or missing, it is preferred that they are replaced with the same material as the original.

3.4.4. Substitute materials may be considered when the original material is no longer available or not readily available. Substitute materials may also be used where the original is known to be susceptible to rapid decay, where maintenance access may be difficult, or where code-driven requirements necessitate a change in material.

3.4.5. Substitute materials generally should not be used wholesale, but only when replacing damaged or deteriorated materials. However, wholesale replacement of an element or feature may be preferred in order to avoid the use of incompatible materials side by side.

3.4.6. Substitute materials must meet the following criteria:

3.4.6.1. They must be compatible with the historic materials in appearance.

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3.4.6.2. Their physical properties must be similar to those of the historic materials.

3.4.6.3. They must meet certain basic performance expectations over an extended period of time.

3.5. Respect the distinct style and history of each building.

3.5.1. Each architectural style has distinct characterdefining features (refer to Chapter 2) which should be respected as records of their time.

3.5.2. Replacement of missing or deteriorated details shall be based on original features. The design should be substantiated by physical or pictorial evidence to avoid creating a misrepresentation of the building's heritage.

3.5.3. Do not add elements or details, such as millwork or cornices, that were not an original part of the building. Conjectural "historic" designs for replacement parts that cannot be substantiated by documented evidence are inappropriate. Dressing up a building with pieces of ornamentation that are out of character with the architectural style gives the building a false "history" it never had, and is inappropriate.

3.5.4. When inadequate information exists to allow for accurate reconstruction, use a simplified interpretation of the original. The new element should still relate in general size, shape, scale, and finish.

3.6. Prioritize the preservation of the public-facing elevations of the building.

3.6.1. Street-facing and public-facing building faces should be prioritized for preservation and all efforts should be made to preserve their historic materials and characteristics.

3.6.2. Alterations of elevations not visible from the street of the public right of way may have more flexibility in replacement materials if the alteration does not affect the mass and form of a structure and/or does not involve any significant architectural details.

3.7. Storefront replacements should be compatible with the historic building.

3.7.1. If a storefront is altered, restoring it to its original design is preferred. Reference historic photographs of the building.

3.7.1.1. If evidence of the original design is missing and not evidence of its character exists, a new design that uses traditional elements may be considered. Use a simplified interpretation of similar storefronts. The

	Historic Building Features						
		Masonry Stone, terra cotta	Architectural Metals Cast & wrought iron, steel, pressed metal	Siding Wood, asbestos	Roofing Wood shingle, slate, tile	Decking Tongue-and- groove & square-edge wood	Molding / Trim Wood
	Aluminum	•	•	•			•
)	Cast Stone & Precast concrete	•			•		
	Fiber Reinforced Concretes	•					
	Glass Fiber Reinforced Polymers	•	•				
	Fiber Cement			•	•		•
	Mineral / Polymer Composite			•	•	•	•
	Cellulose Fiber / Polymer Composite			•	•	•	•
	Non-composite Polymers					•	
	Cellular PVC			•		•	

Potential Substitution Materials

storefront still should be designed to provide interest to pedestrians.

3.7.1.2. In some cases, an original storefront may have been altered early in the history of the building, and may itself have taken on significance. Such alterations should be preserved. See also Preservation Brief 11: Rehabilitating Historic Storefronts, published by the National Park Service.

3.7.2. If a storefront is altered, restoring it to its original design is preferred. Reference historic photographs of the building.

3.7.2.1. Display windows: The main portion of glass on the storefront, where goods and services are displayed. This will help maintain the interest of pedestrians by providing views to goods and activities inside first floor windows.

3.7.2.1.1. A contemporary interpretation of a traditional display window, which is similar in scale and overall character to those seen historically, may be considered if the historic display windows are missing or have been altered in a manner inconsistent with the style of the building.

3.7.2.2. Transom windows: The upper portion of the display window, separated by a frame.

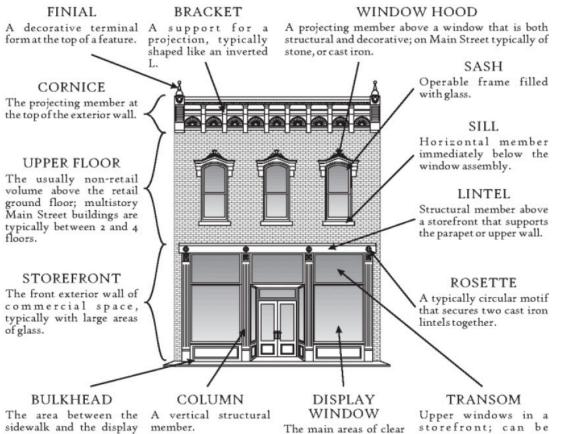
3.7.2.2.1. Transoms, the upper glass band of traditional storefronts, introduced light into the depths of the building, saving on light costs. These bands should not be removed or enclosed.

3.7.2.2.2. Retain the original shape of the transom glass in historic storefronts. The shape of the transom is important to the proportion of the storefront, and it should be preserved in its historic configuration.

3.7.2.2.3. If the original glass is missing, installing new glass is preferred.

3.7.2.2.4. If the transom must be blocked out, be certain to retain the original opening proportions. One option is to use it as a sign panel or decorative band within the framework. Another option is to paint the back of the glass black to conceal mechanical equipment.

3.7.2.3. Bulkhead: Found beneath the display window.



BULKHEAD

sidewalk and the display windows; can be of wood. tile, or metal, or can be glazed.

Figure 3.1 | Anatomy of a Main Street building | Illinois Main Street Program

3.7.2.3.1. If the original bulkhead is covered with another material, consider exposing the original design.

3.7.2.3.2. If the original bulkhead is missing, develo sympathetic design.

3.7.2.4. Entry and Doors: Usually set back from the sidewalk in a protected recess.

3.7.2.4.1. A contemporary interpretation of a traditional building entry, which is similar in scale ar overall character to those seen historically, may be considered if the historic storefront is missing or ha been altered in a manner inconsistent with the style the building.

3.7.2.4.2. Designs may also need to comply with oth code requirements, including door width, direction of swing, and construction. In some cases, entries

glass on a storefront behind which goods are arranged. Usually of polished plate glass.

operable or fixed, clear or patterned.

op a	must comply with accessibility requirements of the Americans with Disabilities Act. Note, however, that some flexibility in application of these other regulations is provided for historic properties. See also Preservation Brief 32: Making Historic Properties Accessible, published by the National Park Service.
	3.8. The design of replacement windows in contributing historic resources should follow the guidelines below.
and e as .e of	3.8.1. The position and number of windows on each elevation should remain the same as it was historically. Refer to historic photographs or clues on the elevations such as sill locations
ther 1	3.8.2. The size, shape, and orientation of historic window openings should be preserved.
	3.8.3. Historic window openings should not be enclosed or covered.

Determining the Appropriateness of a Replacement Window				
	Not Approvable	Good	Better	Best
Material	Vinyl on front elevations (acceptable on the rear elevations)	Aluminum with a painted or baked finish	Aluminum-clad wood with a painted or baked on finish	Matches original
Muntins	Simulated divided with only interior grids	Simulated divided with exterior grids	Simulated divided with exterior and interior grids	True divided
Glass	Highly reflective or deeplt tinted			Clear,colorless, and non-reflective with no less than 69% VLT and no greaer than 11% VLR
Operability	Fixed in place without offset sashes on front elevations (acceptable on rear elevations)		Fixed-in place but with offset sashes to mimic original operability	Operability matches historic

3.8.4. Do not use perimeter infill framing to create smaller windows.

3.8.5. Replacement windows should have a minimum 1 ½ inch sash dimensions plus a brick mold. This trim should have dimension and shadow lines similar to those used historically.

3.8.6. Replacement windows should be set a minimum of two inches behind the plane of the facade to create a shadow line.

3.8.7. Considerations of replacement windows show follow the below decision matrix

3.8.8. More flexibility is allowed for replacement windows on elevations that are not visible from the street or public right of way.

3.9. Retain and preserve the historic character of Memorial Park.

3.9.1. The following features are character defining elements that contribute to the significance of Memorial Park and should be preserved:

3.9.1.1. Historic pathway configurations, particularly those in the north section of the park

3.9.1.2. Circular planters in the north section of the park

3.9.1.3. The Stringfellow fountain, dedicated during Freeport's Golden Anniversary in 1962 in honor of two prominent local citizens: R.E.L. Stringfellow and his sister Alice Delaney.

3.9.1.4. The quatrefoil-shaped base for the Stringfellow fountain, which originally served as a planter

3.9.1.5. A marble pedestal and bronze plaque recognizing the role of the Freeport Sulphur Company in creating the city (also dedicated in 1962)

3.9.1.6. A flagpole in the south end of the park, which served as the town's hurricane warning system, and is depicted in historic photographs following the 1961 landfall of Hurricane Carla

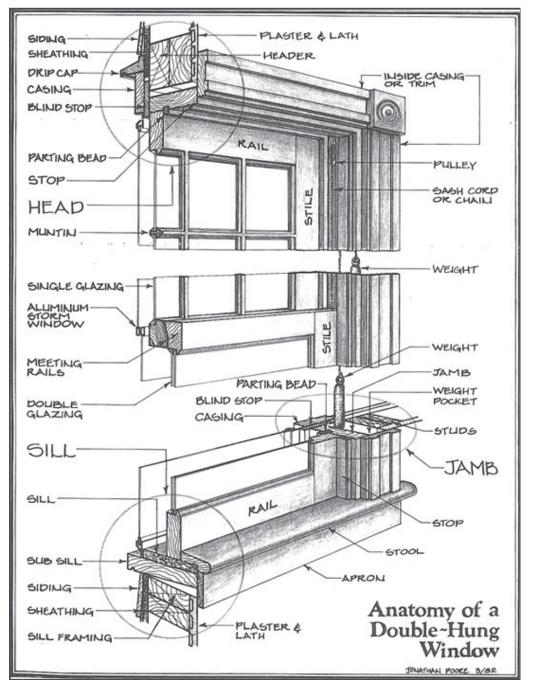


Figure 3.2 | Anatomy of a Double-Hung Window | Jonathan Poore

Chapter 04: New Buildings & Additions

Chapter 04: New Buildings & Additions

Chapter 4 concerns new infill construction and additions to existing buildings, both contributing and non-contributing, within the historic district. The same principles apply to both types of proposals. In order for a new development proposal or building addition to seamlessly and cohesively fit into the historic district, it must be compatible with the overall patterns and character of the district. These guidelines take that general approach and break it down into a series of focused criteria for the design of properties such that they may be cohesive with and contribute to the unique character of Downtown Freeport.

4.1. Design Goals

The historic district should continue to develop in a coordinated manner so that an overall sense of visual continuity is achieved. The dominant character of this area should be that of a retail-oriented, commercial environment, with an active street edge that is pedestrianfriendly. The design goals are:

- To rehabilitate existing historic commercial buildings;
- To continue the use of traditional building materials found in the area;
- To design new buildings that are compatible with the historic downtown without copying or mimicking historic buildings;
- To maintain the traditional mass, size, and form of buildings seen along the street (i.e., a building should be a rectangular mass that is one- to two-stories in height.);
- To design commercial buildings with storefront elements similar to those seen traditionally (i.e., a commercial building should include: display windows, bulkhead, transom windows, cornices or pediments, and vertically-oriented upper-story windows.);
- To design additions that enhance the character of the historic districts;
- To design a project that reinforces the retail-oriented function of the street and enhances its pedestrian character;
- To promote friendly, walkable streets (i.e., projects that support pedestrian activity and contribute to the quality of life are encouraged.);
- To provide site amenities—such as benches, lights, waste receptacles, landscaping, etc.—to enhance the pedestrian experience; and
- To protect the historic character of the park.

The Public Realm refers to the area where the public has access to the historic district. It can be both a physical access, such as on streets and sidewalks, as well as a visual access of front yards and to some extent, the side yards. In many ways, the Public Realm is a great outdoor room with facades of buildings forming walls and the tree canopy forming the ceiling.

Contrary to what its name suggests, the Public Realm includes both public and private property. "Public" in this case refers to the area seen by the public. As one drives down a street, it is the area viewed by the visitor that creates a sense of place. The width of the street, the distance the buildings are setback from the street, and the landscaping all contribute to the character of the area.

4.2.1. Streets and parking should be designed to be compatible with the historic district and enhance the walkability of downtown and retail vibrancy.

4.2.1.1. Creating high speeds and large volumes of traffic movement through the district should not be a priority.

4.2.1.2. The pedestrian experience should always be the priority in creating a livable and walkable downtown.

4.2.1.3. On-street parking directly in front of a store should be short term to encourage turnover. On street parking should be enhanced with landscaping and bulbouts to provide pedestrian buffers.

4.2.1.4. Surface parking on individual lots should be minimized. Visible parking structures are not appropriate. The first floors of parking structures should be leasable retail space.

4.2.1.5. A historic building should not be demolished to create a parking lot.

4.2.1.6. Curb cuts should be minimized to improve pedestrian safety.

4.2.1.7. Landscaping or screening should be used to buffer parking areas.

4.2.1.7.1. Where a parking lot exists that is presently not screened or landscaped, consider a landscaping program or an infill building that relates to the surrounding historic context.

4.2.1.7.2. New parking areas should be screened from pedestrian areas using planters and planting beds. Simple, picket-style, wrought iron fencing, or cedar split rail fences can provide screening as well.

4.2.1.7.3. Trees, planters, and planting beds are encouraged in parking areas.

4.2.2. Sidewalks are essential to the vibrancy and character of downtown and should be retained and thoughtfully incorporated in any new developments.

4.2.2.1. Alignment with other original sidewalks, the street and overall city grid is of primary importance.

4.2.2.2. Replace only those portions that are deteriorated beyond repair.

4.2.2.3. When new sidewalks are to be installed, they shall be compatible with the traditional character of t streetscape.

4.2.2.4. Decorative paving should be used only as an accent in the district.

4.2.2.5. Landscaping is encouraged to provide a welcoming environment and shade throughout the downtown.

4.2.3. Landscaping and hardscaping enhance the character and vibrancy of downtown and should utilize native and low-maintenance materials and plan selections.

4.2.3.1. Install new street trees to enhance the pedestrian experience. Locate street trees along edge of sidewalks, maintaining a clearly defined pedestrian travel zone.

4.2.3.2. Select trees that are appropriate for planting a commercial area. Trees should not become oversiz and should not touch buildings.

4.2.3.3. Locate street trees in larger planting areas, su as buffer strips adjacent to parking lots.

4.2.3.4. Trees should be trimmed and maintained.

4.2.3.5. Replace trees that are diseased or have pass their life cycle.

4.2.3.6. The height of a street tree should be minimize however, to avoid blocking views of storefronts and interesting details.

4.2.3.7. Additional landscaping, in the form of planter is encouraged throughout the District. These can probuffers along sidewalks, around seating areas, and surrounding parking areas.

4.2.3.8. Plantings are preferable to turf as these are easier to maintain and require less irrigation.

4.2.3.9. Landscaping between curbs and the sidewalk should be no taller than 2 feet.

4.2.3.10. Use of native and low-maintenance materials such as stone in landscaping installations i encouraged.

	4.2.3.11. Use indigenous, native, and drought-tolerant plant materials when feasible.
	4.2.3.12. Provide underground irrigation systems where long-term growth will not impact the irrigation system.
	4.2.3.13. Use flowers to provide seasonal colors.
	4.2.4. Well-designed fences and retaining walls can
y the ı	provide separation between public and private realms or buffer between pedestrian and vehicular travel.
	4.2.4.1. Where the building faces the street, fences should be low, no higher than 4 feet, and transparent.
	4.2.4.2. Where the building faces the street, a low masonry wall, provided it is lower than 3 feet is also acceptable and should use native materials compatible with the district.
	4.2.4.3. Side and rear fences, where not facing the street, should be between 6 and 8 feet tall and can be more solid in appearance in order to provide privacy or screen services and utilities.
es	4.2.4.4. Fences or retaining walls can also provide a buffer between pedestrians and parking areas.
in	4.2.5. Street furniture should be simple in design and compatible with the character of the historic district .
;in zed,	4.2.6. Street furnishings and sidewalk displays should not block the view of a building's primary facade.
such	4.2.7. Street furnishings and sidewalk displays should not interfere with pedestrian traffic. In order to comply with TAS/ADA requirements, a clear 4 foot pedestrian path should be maintained at all times to allow for the orderly flow of pedestrians and to maintain accessibility. Smaller tables and chairs are generally preferred to meet this requirement.
ed, ers,	4.2.8. Sidewalk displays that include hanging features such as decorations, lighting, or signage should provide a minimum of eight feet clearance between the sidewalk surface and the bottom of the feature.
ovide	4.2.9. Individual furnishings should be of designs such that they may be combined with other street furniture in a coherent composition.
lks	4.2.10. Street furniture should be located in areas of high pedestrian activity. Locate furniture at pedestrian route intersections and major building entrances and near outdoor gathering places.
	4.2.11. Bike racks are encouraged.
is	4.2.12. Street furnishings should be clustered in "groupings," when feasible.

4.2.13. Advertising promotions on benches is prohibited.

4.3. Public Art

Public Art adds points of interest and energy to the downtown streetscape and should be encouraged.

4.3.1. Place Public Art so that it does not obscure or cover historic architectural features on historic buildings.

4.3.2. Public art should not damage historic materials or features such as drilling holes into historic metal features or applying paint to unpainted masonry surfaces on historic buildings.

4.3.3. Public Art placement should not interfere with the orderly flow of pedestrians or traffic and ADA/TAS requirements regarding minimum sidewalk widths should be maintained.

4.3.4. Murals are encouraged, provided that they are not painted on previously unpainted historic masonry buildings.

4.4. Site Design

Site design refers to the placement of new construction on a site, its orientation to the street, and the location of site features. Recommendations below apply to the design of new construction within the historic district in order to maintain the character of the district.

4.4.1. Orient the primary entrance of a building toward the street. A building should have a clearly defined primary entrance facing the street.

4.4.2. Corner Buildings may have their primary entrance at a 45-degree angle to the corner.

4.4.3. Maintain the alignment of buildings at the sidewalk edge. Locate the front building wall at the sidewalk line.

4.4.4. Buildings should occupy the entire width of the lot along the front elevation facing the street. Buildings may abut neighboring buildings directly, sharing a party wall.

4.4.5. Drive thru facilities are not appropriate within the historic district.

4.4.6. Service areas for trash, recycling, storage and loading should be screened from public view to the greatest extent possible. Locate service areas from major pedestrian routes, at the rear of the building when feasible.

4.4.7. Compatible canopies & Awnings are encouraged on new construction within the district.

For purposes of these guidelines, an awning is a structure with a fabric or material surface, usually sloped. A canopy is a rigid structure with a metal roof, generally attached to a building by hangers or tie rods. Canopies can also be mounted to the ground plane with columns.

4.4.7.1. An awning or canopy should be similar to existing or historical awnings in the historic district.

4.4.7.2. An awning should be compatible in material and construction to the style of the building.

4.4.7.3. The awning should fit the opening of the building.

4.4.7.4. Simple shed shapes are appropriate for rectangular openings. Odd shapes, bullnose awnings, and bubble awnings are inappropriate.

4.4.7.5. A fixed metal or wood-frame canopy is appropriate if properly detailed so that it is similar to that seen historically.

4.4.7.6. Use appropriate supporting mechanisms such as wall-mounted brackets, chains, or metal tie rods. These should be anchored in the mortar joints rather than into the stone or brick.

4.4.7.7. Simple wood or metal posts may also support the awnings. These should be simple, square, round, or rectangular posts that are proportional to the building. Ornate metal or turned wood posts are not appropriate.

4.4.7.8. Mount an awning or canopy to accentuate character-defining features. It should be mounted to highlight moldings that may be found above the storefront and should not hide character-defining features. Mounting should not damage significant features and historic details.

New construction should follow a FRESH approach

Footprint: of the building should be similar to historic structures nearby.

Roof: form, pitch, materials, complexity should be similar to those in the neighborhood.

Envelope: size and "bulk" or massing and scale as well as projections (porches and the like) of the new construction should be similar to the neighborhood.

Skin or exterior materials should be similar visually and physically to what is typical in the neighborhood.

Holes: windows and door styles, proportions, rythm, appearance, and placemnet should be similar to surrounding historic buildings.

4.4.7.9. Internal illumination in an awning is inappropriate. Awnings should not glow.

4.4.7.10. Lighting that shines onto sidewalks from the underside of a canopy or awning, such as downlights or can lights, is encouraged. Shielded or low-wattage lights may be used on the underside of a canopy. Rope/ icicle lights are discouraged outside of the winter holiday season.

4.5. Design of New Buildings

4.5.1. Buildings should be visually compatible with traditional commercial buildings, like those seen in the historic district. New construction should reference and be compatible with the massing, materials, and overall form of the historic buildings in the district.

4.5.2. New interpretations of historic building styles are encouraged. While it is important that new construction is compatible, it should be distinct from historic and should not imitate older building styles.

4.5.2.1. A new design that draws upon the fundamental similarities among older buildings in the area without copying them is preferred. This will allow the building to be seen as a product of its own time and yet be compatible with its historic neighbors.

4.5.2.2. Buildings that are similar in scale and overall character to those seen historically are strongly encouraged.

4.5.2.3. Infill should be a balance of new and old in design. This applies to architectural details as well as the overall design of a building.



Figure 4.2 | This large commercial building is broken up into smaller modules | Post Oak Preservation Solutions



Figure 4.1 | The opaque glass on the first floor and unadorned, blank walls are not appropriate for new building design | rawpixel

4.5.3. Maintain the distinction between the street level and upper floor of the building. Ensure that the street level is welcoming.

4.5.3.1. The first floor of the primary facade should feature large display windows.

4.5.3.2. Upper floors should be perceived as being more opaque than the lower floor.

4.5.3.3. Highly reflective or darkly tinted glass is inappropriate. Glass should be clear, colorless, and non-reflective w/no less than 69% VLT and no greater than 11% VLR.

4.5.3.4. Avoid unadorned, blank walls facing entries and

Brick

Existing Exterior Building Materials

Appropriate



Stone

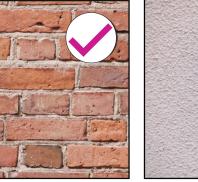


Plaster Stucco



Rough Stone, Ashlar Pattern

Brick





Plaster Stucco



Stone Veneer

Metal Siding

Inappropriate



Vinyl Siding

Figure 4.3 | Appropriate & Inappropriate Exterior Building Materials | Post Oak Preservation Solutions

streets.

4.5.3.5. Express the traditional distinction in floor heights between street level and upper levels through detailing, materials, and fenestration.

4.5.4. A new building should appear similar in mass to surrounding historic-age buildings.

4.5.4.1. Massing should be solid and heavy, predominantly masonry. Visually lightweight steel and glass buildings are inappropriate.

4.5.5. New buildings should appear similar in form to historic commercial buildings nearby.

4.5.5.1. Form should be simple and rectangular.

4.5.5.2. Corner buildings could have a canted corner, tower, or other focal point.

4.5.5.3. Flat roofs should be the dominant roof form, with the exception of accents or focal points at corners.

4.5.5.4. Parapets on the primary elevation should be flat or have step downs. Curved or elaborated shaped parapets are not appropriate. Corbelled brickwork or other ornament is appropriate at the parapet.

4.5.6. A new building should appear similar in scale to traditional commercial buildings.

4.5.6.1. The dominant scale of one-to-two stories should be a scale of one-to-two stories should be a scale of one-to-two stories and the scale of one-to-two stories and the scale of one-to-two stories and the scale of one-to-two stories are scale of one-to-two stories and the scale of one-to-two stories are scale of one-to-two stories and the scale of one-to-two stories are scal be maintained. An additional story may be added if it is set back significantly from the front facade so that it is not visible from directly across the street.

4.5.6.2. A larger building should be broken into "modules" that are similar in scale to the width of buildings on the blockface. Street-facing elevations should have sufficient facade relief and interruption every 25-50 feet to provide visual interest. "Modules" o facade articulation can be accomplished using varying materials, colors, recesses, canopies, or other details.

4.5.6.3. Rooftop additions should be no more than one story and should be set back from the primary facade minimize their appearance.

4.5.6.4. Floor-to-floor heights should appear to be similar to those seen historically. This is especially true of the ground floor. Traditional floor heights should be expressed with horizontal moldings, alignment of windows and other architectural details.

4.5.6.5. Windows in a building should appear similar in nearby commercial storefront buildings in the district. First floors should be more transparent than upper floors. Avoid a blank wall appearance that does not provide interest to

height to those seen traditionally. 4.5.7. Building materials of new structures should appear similar to those seen traditionally.

4.5.7.1. New materials appropriate for the district should have the characteristics of masonry and be scaled to replicate the size that could be lifted by one or two persons. Monolithic slabs are not appropriate.

4.5.7.2. Appropriate materials are listed below:

- ✓ 4.5.7.2.1. Stone
- ✓ 4.5.7.2.2. Brick
- ✓ 4.5.7.2.3. Stucco
- × 4.5.7.2.4. EIFS is not an appropriate material.

4.5.7.3. If alternative materials are selected they should be comparable to traditional materials, including in texture and color. Acceptable alternate materials are listed below:

✓ 4.5.7.3.1. Cast stone, provided it is only used as an accent or that it has a rusticated finish

- ✓ 4.5.7.3.2. Terracotta

4.5.7.4. More flexibility for materials is allowable on elevations that are not visible from the street or public right-of-way. The following materials are not appropriate on visible elevations but may be acceptable on elevations that are not visible:

ould is s	× 4.5.7.4.1. Corrugated metal
	× 4.5.7.4.2. Concrete block
	× 4.5.7.4.3. Decorative concrete block
	× 4.5.7.4.4. Vinyl windows
	× 4.5.7.4.5. Cementitious siding
	4.5.7.5. The following materials are not appropriate on new buildings or additions in the historic district.
or	× 4.5.7.5.1. Metal panels
ıg	× 4.5.7.5.2. Chromed metal
6.	× 4.5.7.5.3. Steel and Glass Facades
to	× 4.5.7.5.4. Mirrored glass
	× 4.5.7.5.5. Tilt-wall with exposed aggregate or painted surface.
le	× 4.5.7.5.6. Vinyl siding
	× 4.5.7.5.7. Plywood panels
in	4.5.8. Ground floors in new buildings shall be visually open and provide interest on the street. The ratio of solid-to-void surface area shall be similar to that seen traditionally on nearby commercial storefront buildings in the district. First

	Determining the A	Appropriatness of an	Upper Story Windw	
	Not Approvable	Good	Better	Best
Material	Vinyl on front elevations (acceptable on the rear elevations)	Aluminum with a painted or baked finish	Aluminum-clad wood with a painted or baked on finish	Matches original
Muntins	Simulated divided with only interior grids	Simulated divided with exterior grids	Simulated divided with exterior and interior grids	True divided
Glass	Highly reflective or deeplt tinted			Clear,colorless, and non-reflective with no less than 69% VLT and no greaer than 11% VLR
Operability	Fixed in place without offset sashes on front elevations (acceptable on rear elevations)		Fixed-in place but with offset sashes to mimic original operability	Operability matches historic

pedestrians.

4.5.9. Storefront systems on new buildings should be compatible with those seen on historic buildings in the district.

4.5.9.1. New storefronts can be constructed of wood, steel, anodized aluminum, painted aluminum, or other alternative materials with the same long-lasting characteristics.

4.5.9.2. Storefronts should have trim with profile dimensions and shadow lines similar to those used historically or be trimmed with wood to create a more historic profile.

4.5.9.3. A new storefront should have the following parts listed below:

4.5.9.3.1. **Display windows**: The main portion of glass on the storefront, where goods and services are displayed. This will help maintain the interest of pedestrians by providing views to goods and activities inside first floor windows

4.5.9.3.1.1. These shall be large windows with no dividers. Moduled windows with square or rectangular mullions are not in keeping with the existing character. 4.5.9.3.1.2. Glass should be clear, colorless, and non-reflective w/no less than 69% VLT and no greater than 11% VLR, but may be insulated and/or low-e.

4.5.9.3.2. **Transom**: The upper portion of the display window, separated by a frame.

4.5.9.3.2.1. The use of transom windows in the design of new storefronts is encouraged.

4.5.9.3.2.2. The proportion of transom window size to display window size should be similar to the proportion seen historically in Area 1.

4.5.9.3.2.3. Glass within transom windows may have a textured finish, as seen historically.

4.5.9.3.3. **Bulkhead:** Found beneath the display window.

4.5.9.3.3.1. The bulkhead, located below the display window, adds interesting detail to the streetscape and should be preserved.

4.5.9.3.3.2. Wood is an appropriate material for bulkheads on most styles. However, ceramic tile and masonry may also be considered when appropriately used with the building style.

4.5.9.3.3.3. Bulkheads should align with historic

bulkheads on the block face.

4.5.9.3.4. **Entry and doors:** Usually set back from t sidewalk in a protected recess.

4.5.9.3.4.1. Building entrances should appear similar to those used historically in the block. The should either be centered with windows on either side or located to one side with store windows taking up the rest of the facade. They should be clearly defined, and obvious to pedestrians.

4.5.9.3.4.2. Building entrances may be recessed or flush with the facade. Repetition of recessed entries provides a rhythm of shadows along the street, which helps establish a sense of scale. These recessed entries were designed to provide protection from the weather and the repeated rhythm of these shaded areas along the street he to identify business entrances. Recessed entries may be set back between three and five feet.

4.5.9.3.4.3. Secondary public entrances to the upper floors can be a part of the storefront configuration.

4.5.10. Upper story windows on new buildings within th district should be of similar size and proportion to other windows on the block and should be vertically oriented

4.5.10.1. The pattern of window placement in the primary facade of a building should reflect other patterns of nearby buildings. Upper floors should app more solid than first floors when compared to the first floor.

4.5.10.2. Upper story windows should align with other in a block. Windows, lintels and their trim elements should align with those on adjacent historic buildings When the alignment differs between adjacent building the new construction can select one or the other, or create a compromise between the two.

4.5.10.3. Upper story window configurations should be similar to those used traditionally in the district. The windows all have a vertical orientation. The configuration of panes in the bottom and top sash varies, with some having a single pane of glass in each sash (1-over-1), and some having 2 or more panes of glass in each sash. Windows need to appear as a minimum of one-over-one windows on the upper floo

4.5.10.4. Windows do not need to be operable.

4.5.10.5. Design of windows in new construction and additions should follow the Good/Better/Best practice set forth in these guidelines.

he	4.5.10.6. Upper story windows should have a minimum 1 ½ inch sash dimensions plus a brick mold. This trim should have dimension and shadow lines similar to those used historically.
ey r	4.5.10.7. Upper story windows should be set a minimum of two inches behind the plane of the facade.
	4.5.10.8. Windows can be wood, metal clad wood, or aluminum. Metal clad wood and aluminum windows should have a painted or baked on finish that mimics the look of paint. Clear, anodized aluminum or other metallic finishes are not appropriate.
elps	4.5.10.9. Glass should be clear, colorless, and non- reflective w/no less than 69% VLT and no greater than 11% VLR. Isolated use of obscure, patterned, or stained glass is acceptable but should not comprise the majority of upper story windows.
	4.5.10.10. Glass can be insulated and/or low-e.
	4.5.10.11. Window film can be applied if it is non- reflective and does not darken the windows.
r	4.5.10.12. Vinyl windows may be appropriate in upper stories on rear elevations, provided that they meet the above requirements.
•	4.6. Design of Additions to New Buildings
oear st	4.6.1. Additions to contributing historic buildings should follow the guidance above under 4.5 Design of New Buildings as well as the guidance below.
ers S.	4.6.2. Additions to contributing historic buildings should minimize damage to the historic building's materials and details and, ideally, could be removed in the future and allow the historic building to be restored to its original appearance.
	4.6.3. Additions to contributing historic buildings should be compatible in scale, materials, and character with the main building.
	4.6.3.1. Additions should relate to the building in mass, scale, and form. It should be designed to remain subordinate to the main structure.
h	4.6.3.2. Additions should not damage or obscure architecturally important features. Loss or alteration of a cornice line should be avoided.
ors.	4.6.3.3. Additions to the rear of the building may be the same height as the existing building.
es	4.6.3.4. Additions to the side of the building should be held to the rear half of the building.

- 4.6.3.5. Additions should not overwhelm the historic building when viewed from the right of way.
- 4.6.3.6. An addition may be made to the roof of a building if it does all of the following:

4.6.4. A rooftop addition should be minimally-visible from the street curb directly across the street from the primary elevation, to preserve the perception of the historic scale of the building.

4.6.4.1. Its design should be modest in character, so it will not attract attention from the historic facade.

4.6.4.2. The addition should be distinguishable as new, albeit in a subtle way. Contrasting materials, a visible seam, or a setback hyphen between new and old can help provide distinction.

4.6.4.3. The roofs of additions should not interfere with the original roof form by changing its basic shape and should have a roof form compatible with the original building.

4.6.5. Additions that are not visible from the street or the public right of way have more flexibility with regards to materials, massing, and details and may not need to follow the above guidance as precisely as a visible addition.



Figure 4.4 | The design of this addition overwhelms the historic building and is not appropriate for the Historic District | Oneninetwo

New Buildings & Additions

Chapter 05: Demolitions

Chapter 05: Demolitions

Demolition is forever, and once a building is gone, it takes away another piece of the City's character. Demolition of a historic building or resource that retains most of its original design and features should only be an action of last resort.

Chapter 5 outlines the process for determining whether demolition or relocation is appropriate. Guidelines also describe recommendations for documenting buildings prior to demolition and deconstructing them so that historic materials may be salvaged for reuse. The Freeport Historical Commission can delay or deny requests for demolition while it seeks solutions for preservation and rehabilitation.



Figure 5.1 | Deconstruction and Relocation techniques | Better Future Minnesota

5.1. Demolition Conditions

5.1.1. The Freeport Historical Commission should not allow the demolition or relocation of any contributing resource unless one or more of the following conditions exist and if, by a finding of the Freeport Historical Commission, the proposed demolition or relocation will materially improve or correct these conditions:

5.1.1.1.The resource constitutes a hazard to the safety of the public or the occupants, as determined by the Building Official.

5.1.1.1.1. At such a determination the Building Official will present his report to the Historic Preservation Officer. The HPO will convene a meeting of the appropriate City Departments to look for viable alternatives to demolition. Departments might include Development Services and Public Works. The purpose is to see if there are monies or resources available to the owner to alleviate the issue identified by the building inspector. A structural report written by a licensed structural engineer familiar with historic resource preservation must be included in the Certificate of Appropriateness application.

5.1.1.2. The resource is a deterrent to a major improvement program that will be of substantial benefit to the community and the applicant proposing the work has obtained all necessary planning and zoning approvals, financing, and environmental clearances.

5.1.1.2.1. The Historic Preservation Officer must be included in early meetings with the City to assist in the development and design to determine whether viable options exist to retain the property in the new design. It should be noted in determining the "substantial benefit" to the community that the beauty, charm and reputation of Freeport is rooted in its Historic Character. Destroying that authentic character for a new improvement should be carefully considered when determining benefit.

5.1.2. Retention of the resource will cause undue financial hardship to the owner when a governmental action, an act of God, or other events beyond the owner's control created the hardship, and all feasible alternatives to eliminate the financial hardship, which may include offering the resource for sale at its fair market value or moving the resource to a vacant site within the historic district, have been attempted and exhausted by the owner.

5.2. Considerations for Demolition

5.2.1. The Freeport Historical Commission should consider the following when evaluating proposals to demolish or relocate historic resources:

- Does the resource proposed for demolition or relocation have architectural and/or historical significance?
- What would be the effect on surrounding buildings of demolition or relocation of the resource?
- What would be the effect on the historic district as a whole of demolition or relocation of the resource?
- What would be the effect on safeguarding the heritage of the City of the demolition or relocation?
- What has been the impact of any previous inappropriate alterations?
- Is the demolition solely a matter of convenience?
- Has the owner offered the property for sale?
- Has the owner asked for a fair price?
- Has the property been marketed for a reasonable time?
- Has the property been advertised broadly in a reasonable manner?
- Has the owner sought the advice of a professional experienced in historic preservation work?

- What would be the effect of open space in that location if the lot is to be left open?
- What would be the effect of any proposed replacement structure to the community?
- What is the appropriateness of design of any proposed replacement structure to the historic district?



Figure 5.2 | Demolition of historic home | Katie Mckay

5.3. Demolition of a historic building should be an order of last resort.

5.3.1. Only as a last resort should a historic structure be considered for demolition.

5.3.2. Where a structure must be razed, then a record shall be made of it prior to demolition. This shall include photographs and architectural drawings which should be stored by the City.

5.3.3. A structure should never be demolished as a matter of convenience.

Demolitions



Chapter 06: Lighting

Chapter 06: Lighting

Chapter 6 addresses exterior lighting on all buildings within the historic district.

The design of the lighting and the intensity of the resulting illumination are key factors to consider. Traditionally, lights were simple in character and were used to highlight entrances, walkways, and signs. Most fixtures had incandescent lamps that cast a color similar to daylight, were relatively low in intensity, and were shielded with simple shade devices. Although new lamp types may be considered, such as LEDs, the overall effect of modest, focused light should be continued. Use lighting for the following:

Although new lamp types may be considered, such as LEDs, the overall effect of modest, focused light should be continued. Use lighting for the following:

- To accent architectural details
- To accent building entrances
- To accent signs
- To illuminate sidewalks and pedestrian routes
- To illuminate parking and service areasfor safety
- To illuminate a state or national flag

International Dark-Sky Association: Five principles for responsible outdoor lighting practice

- 01 Useful: All light should have a clear purpose. Before installing or replacing a light, determine if the light is needed. Consider how the use of the light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.
- 02 Targeted: light should be directed only to where needed. Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.
- 03 Low Light Levels. Light should not be brighter than req'd Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.
- 04 Controlled: light should be used only when it is useful. Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.
- 05 Color: use warmer color lights where possible. Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.

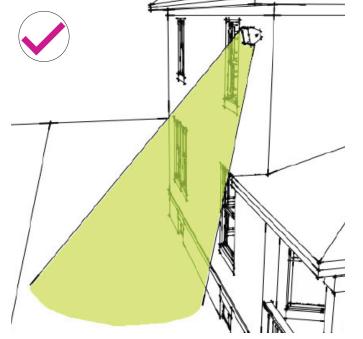


Figure 6.1 | Shield light to limit spread within the property boundaries | Dark Sky International

6.1. Minimize the visual impacts of architectural lighting.

6.1.1. Lighting should be shielded so that it falls entirely on a wall or sign so that the source is not visible off of the property.

6.1.2. Light fixtures should be appropriate to the building and its surroundings in style, scale, and intensity.

6.1.3. Color temperature should be below 3000 Kelvins

6.1.4. Outdoor lighting, wherever feasible, should be turned off after 10pm or close of business, whichever is later.

6.1.5. Consider following the International Dark-Sky Association's Five Principles for Responsible Outdoor Lighting Practices.

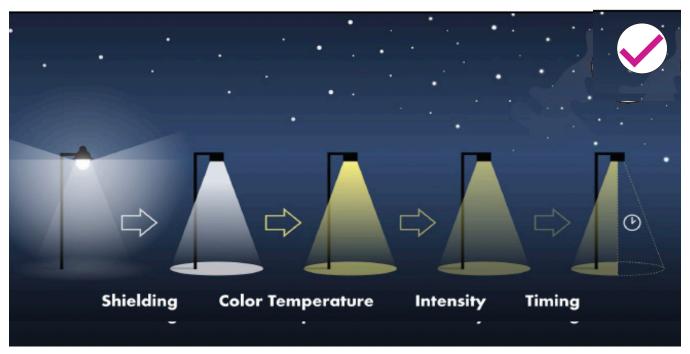


Figure 6.2 | Shielding, color temperature, intensity, and timing all contribute to appropriate lighting | Dark Sky International

6.2. String lights and temporary lighting should generally be limited to the traditional end-of-year and New Year holidays (between November 1 and January 15 of the following year) and other special occasions where there is a multi-business event.

6.2.1. Other temporary lights, such as for an event or sale, should be up for no more than four (4) two-week periods per calendar year. These periods may be combined.

Chapter 07: Signage

Chapter 07: Signage

This chapter presents guidelines for signage on all existing and new buildings within the historic district.

Traditionally, a variety of signs were seen in downtown commercial centers. Five different types occurred:

- Small, freestanding signs mounted on a pole or post; located near the sidewalk because the primary structure or business was setback from the street (e.g., an area with residential character); printed on both sides
- Medium-sized, square or rectangular-shaped signs that projected from the building above the awnings or canopies; printed on both sides
- Small, horizontally oriented rectangular signs that protruded from the building below the awnings or canopies but above pedestrians' heads, printed on both sides
- Medium- to large-sized, horizontally-oriented rectangular signs attached flat against the building, above and/or below the awnings; printed on one side only
- Window signs, painted on glass, used at the street level and on upper floors

Signs that were mounted on the exterior advertised the primary business of a building. Typically, this use occupied a street level space and sometimes upper floors as well. In the case of a large structure that included several businesses on upper floors, the name of the building itself was displayed on an exterior sign. Tenants relied on a directory at the street level.

In addition, signs were mounted to fit within architectural features. In many cases, they were mounted flush above the storefront, just above moldings. Others were located between columns or centered in "panels" on a building face. This method also enabled one to perceive the design character of individual structures.

7.1. The number of signs allowable on each building is limited.

7.1.1. Each nonresidential structure in the historic district may have up to 5 types of signs in use at any given time. The five sign types are listed below:

7.1.1.1. A primary sign represents the owner's largest sign expense and is likely the most important of the five sign types. Only one primary sign will be allowed per business per building. The primary sign's audience is specifically the viewer driving past in a vehicle.

7.1.1.2. Secondary signs are utilized in addition to



Figure 7.1 |The size, location, and number of signs on this building are inappropriate for a Historic District | Post Oak Preservation Solutions

the primary building sign. Typically, a secondary sign protrudes from the building below the awnings or canopies but above pedestrian heads, printed on both sides. This may also be a small to medium freestanding sign mounted on a pole or post. The secondary sign is generally intended to capture the attention of the pedestrian walking on the sidewalk.

7.1.1.3. Window signs are painted or applied to the glass used at street level and/or on upper floors. The window signage is intended for the pedestrian walking on the sidewalk and conveys specific information about the business offered.

7.1.1.4. Portable signs are intended for the pedestrian walking on the sidewalk. Portable signs include sandwich boards, signs mounted on easels, or freestanding frames with sign inserts. Portable signs must not block sidewalks or walkways. Each business is limited to one portable sign.

7.1.1.5. Temporary signs are used for a special purpose, such as a limited-time offer or a sale. Temporary signs may be up for no more than four (4) two-week periods per calendar year. The periods may be combined.

7.1.2. Multi-tenant buildings shall share signage through co-locating the various businesses' advertising on directories and monument signs or other approved signs via an approved sign permit.

Inappropriate



Flashing Lights Exposed Lighting Covers Transom



Covers Transom Lightbox Signs

Figure 7.2 | Inappropriate Signage | Post Oak Preservation Solutions

7.2. Signs should be compatible with the overall character of the building, property, and historic district.

7.2.1Coordinate the sign within the overall design of the exterior of the building.

7.2.2. Signs should be proportional to the building so that it does not dominate the appearance. Signs should be subordinate to the overall building composition.

7.2.3. Mount signs to fit within existing architectural features. Use the shape of the sign to reinforce the lines, moldings, and transoms seen along the street. Signage should not obscure, cover up, or damage histor materials.

7.2.4. Sign materials and details should be compatible with the historic character of the district

7.2.4.1. Painted wood, unpainted wood, and metal are appropriate materials for signs. Their use is encouraged.

7.2.4.2. Plastic is not permitted, except for flush, adhesive, professionally installed lettering.

7.2.4.3. Highly reflective materials that will be diffic to read are inappropriate.

7.2.4.4. Painted signs on blank walls were common historically and may be considered. Painted signs should only be used on non-masonry walls or on masonry walls that have already been painted.

7.2.5. Develop a master sign plan for the entire building guide individual sign design decisions, especially for mu tenant buildings.



Appropriate



A-Frame Signs

Pedestrian Signs Minimally Lighted

Blade Signs

Figure 7.3 | Appropriate Signage | Post Oak Preservation Solutions

7.3. The light for a sign should be an indirect source and compatible with the guidelines set forth in Chapter 6.

ic	7.3.1. Light should be directed at the sign from an external, shielded lamp.
	7.3.2. The fixture should have a sense of design, which is coordinated with the sign surface and appropriate to building style and character.
	7.3.3. A warm light, similar to daylight, is appropriate.
	7.3.4. Light should not shine directly or reflect into the eyes of pedestrians.
	7.3.5. Exposed up-lights are inappropriate.
ult	7.3.6. Luminance must not exceed 65 footcandles for any portion of the sign.
ı	7.3.7. Lighting should be turned off after 10 pm or the close of business, whichever is later.
	7.3.8. If internal illumination is used, it should be designed to be subordinate to the overall building composition.
to ılti-	7.3.8.1. Internal illumination of an entire sign panel is discouraged. If internal illumination is used, a system that backlights only the sign text is preferred.
	7.3.8.2. Neon and other tubular illumination may be

considered. However, use neon in limited amounts so it does not become visually obtrusive.

7.3.8.3 Internal illumination of an awning is inappropriate.

7.3.9. Neon signs may be considered in limited situations.

7.3.9.1. The use of neon signs is more appropriate to new construction, non-historic structures, and historic structures built after 1930. These signs should have a historic character.

7.3.9.2. Neon is not appropriate on structures built before 1930 or on residential structures.

7.3.9.3. Unshielded neon is not permitted

7.4. Allowable Signage Types

7.4.1. Primary signs should be compatible with the character of the building and easily readable.

7.4.1.1. To avoid driver confusion, the information on the primary sign should be in a large enough font or design that it is easily viewable from a vehicle.

7.4.1.2. The sign should contain only enough information to alert the viewer in a vehicle to the location of the business or entity at the building.

7.4.1.3. Whenever possible, other signs should be utilized for information geared towards pedestrians or other viewers.

7.4.1.4. The primary sign should be easily viewable from a vehicle with as little visual clutter as possible.

7.4.2. Secondary signs are encouraged and should be scaled and located to capture the attention of pedestrians walking on the sidewalk.

7.4.2.1. The sign should contain only enough



Figure 7.4 | Ora Theater | Brazoria County Historical Museum

Wall Height	Max Sign Height	Max % of Wall Length
0 feet - 20 feet	20% of wall height	75%
20+ feet - 30 feet	20% of wall height	60%
30+ feet	20% of wall height	50%

information to alert the viewer on a sidewalk to the location of the business or entity at the building.

7.4.2.2. The secondary sign should be easily viewable from the sidewalk with as little visual clutter as possible.

7.4.3. A freestanding sign or pole-mounted sign may be used in the front yard of a former residence with a commercial use. It may also be used in areas where the primary use is set back from the street edge.

7.4.3.1. One freestanding sign or monument sign with a maximum sign area of 60 square feet and a maximum sign height of 6 feet, 6 inches may be considered.

7.4.4. Flush-mounted wall signs are encouraged and should be located above the transoms or canopies.

7.4.4.1. When utilizing the sign frieze as the sign placement location, it is important to respect the frieze borders. In other words, the sign should not overlap or crowd the top, bottom, or ends of the frieze.

7.4.4.2. When feasible, place a wall sign such that it aligns with others on the block.

7.4.4.3. A flush-mounted wall sign shall not exceed 64 square feet; the maximum size shall be calculated based on the height of the wall.

7.4.4.4. Note that the formula establishes the maximum permitted sign area, when all other factors of scale, proportion, and compatibility are met. A sign does not have to be as large as this equation allows. The first consideration shall be compatibility with the size and character of the facade.

7.4.5. A business can opt for either a wall sign OR a roof sign.

7.4.5.1. A secondary roof sign is a sign that is mounted

to or projects from a canopy or secondary roof over an entry to a building, but that does not project above the highest point of the building.

7.4.5.2. Secondary roof signs may also be attached to parapet walls.

7.4.6. A window sign may be considered in addition to the primary building sign to convey specific information regarding contact information (i.e. telephone number, email, or web address of a business), other business locations, or list more than one (1) specific product or service.

7.4.6.1. A window sign should cover no more than fifty percent (50%) of the total window area.

7.4.6.2. It may be painted on the glass, attached with flush vinyl, or hung just inside a window using appropriate attachment materials.

7.4.6.3. No more than 50% of a window shall be cove by business signage, advertisements, open signs, how of operation, and other messages.

7.4.6.4. No illuminated window signs shall be allowed within two (2) feet of the window glazing except for op closed signs.

7.4.6.5. Electronic message center signs that are designed to be visible from the right-of-way are not allowed.

7.4.7. A projecting sign should appear to be in proportion with the building. It should not overwhelm the appearan of the building or obscure key architectural features.

7.4.7.1. A projecting sign shall provide a minimum clearance of eight feet between the sidewalk surface and the bottom of the sign.

7.4.7.2. A projecting sign shall be no more than twelv square feet in size.

7.4.7.3. Additionally, a projecting sign shall in no case project beyond 1/2 of the sidewalk width.

7.4.7.4. Signs should not obscure the view of any windows, existing signs, and/or adjacent buildings to unreasonable extent.

7.4.7.5. A larger projecting sign is not permitted unles other types of signage are not appropriate for the building.

7.4.7.6. A large projecting sign, if approved, should be mounted higher, and centered on the facade or positioned at the corner of a building. Generally, a projecting sign should not be located above the seco floor.



Figure 7.5 | Historic Signage | Brazoria County Historical Museum

	7.4.7.7. "Blade" signs are considered projecting signs and should follow the guidelines for projecting signs.
ered ours	7.4.8. Awning and canopy signs are encouraged and should be proportional to the width of the building facade.
	7.4.8.1. An awning or canopy sign shall not exceed one
ed pen/	square foot for every one linear foot of facade width. In no case should an awning or canopy sign exceed the size of the awning or canopy surface to which it is applied.
on nce	7.4.8.2. The size of an awning or canopy sign shall be calculated by its actual area and shall be included in the calculation for total allowable building signage.
	7.4.8.3. Consider mounting a sign centered on top of a building canopy where a flush-mounted sign would obscure architectural details.
e ve	7.4.9. Where several businesses share a building, coordinate the signs. Align several smaller signs, or group them into a single panel as a directory.
se	7.4.9.1. Use similar forms or backgrounds for the signs to tie them together visually and make them easier to read.
o an	7.4.9.2. The manner in which a directory sign is mounted to a building, either flush to or projecting from a wall, will determine the maximum allowable sign area.
ess	7.4.9.3. Electronic message centers are not allowed.
ond	7.4.9.4. Signage allocation must be considered when setting up a building for multiple tenants, and the appropriate distribution of allowable sign square footage and sign sizes and locations planned for the various tenants.

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Appendices

Appendix 01: Maintenance & Repair Guide

Exterior Wall Materials



Non-historic paint coatings and water repellent treatments are inappropriate for historic masonry | Post Oak Preservation Solutions



Covering historic masonry can cause damage to the underlying historic material | Post Oak Preservation Solutions



Repoint missing or deteriorated joints with an appropriate, compatible mortar | Post Oak Preservation Solutions

Exterior walls may be constructed of or clad in durable materials such as natural or manufactured masonry, wood, stucco, asbestos, or even metal. Regular maintenance of historic building materials is essential to long-term preservation. When possible, these materials should be repaired in-kind, with a material that is similar in look and composition, rather than replaced when damaged or deteriorated.

Masonry

Masonry refers to a type of building construction that consists of separate, individual units laid in rows, stacked on top of one another, and held together by mortar (a mixture of water, sand or gravel, and cement or lime). It can be structural or decorative. Masonry can be natural, such as limestone or granite, or it can be manmade, such as brick or concrete blocks. When maintained properly, masonry is a durable material; however, inappropriate repair, mortar, or cleaning can rapidly deteriorate the material.

Maintaining Exterior Masonry

- Do not paint historic masonry, and avoid applying water-repellent coatings or sealants.
- Historic masonry should not be coated or covered with any additional materials.
- Repoint missing or deteriorated masonry joints with a mortar that matches the historic in strength, composition, color, and texture, per guidance in National Park Service Preservation Brief #2 (see Additional Resources). It should look the same as the existing mortar and be as soft or softer than original.
- Never use Portland cement to patch or repoint historic masonry as it is too hard and can damage the historic material.
- If any masonry units need to be replaced, the replacement material should match existing historic in size, color, texture, and composition.
- Cleaning masonry should only be undertaken to stop active deterioration or remove significant soiling. If cleaning is necessary, start with the gentlest means water, typically low-pressure water (like a garden hose) with a soft bristle brush. Any additional cleaning products should be appropriate for historic masonry and should be tested prior to application. Test products in an inconspicuous location and wait to observe any adverse effects (such as change in color, texture, or gloss). Cleaning may not make masonry look "like new." Avoid abrasive or mechanical cleaning with power washers, wire wheels, or similar tools. See National Park Service Preservation Brief #1 for additional cleaning guidance (see Additional Resources).

Wood

Wood siding was commonly used on historic building exteriors, especially on historic buildings. It was typically coated in paint. Coatings are important in preserving historic wood as exposed wood can deteriorate from exposure to sun, water, and environmental conditions.

Maintaining Exterior Wood Siding

- Maintain existing paints and coatings to prevent the wood siding. from being exposed wind, sun, and rain. See National Park Service Preservation Brief 47 (see Additional Resources) for additional information on maintaining wood siding on building exteriors.
- Avoid excessive exposure to water by maintaining gutters, downspouts, and drainage; keeping sprinklers from hitting the building; and keeping vegetation away from the wood siding.
- When repainting, prepare, prime, and spot paint, as needed. Avoid stripping existing exterior paints as it can damage the wood siding. Remove loose paint by hand and sand the surface to prepare the surface for new paint. Preparation and a paint compatible with the existing is essential to lasting exterior paint. See National Park Service Preservation Brief 10 (see Additional Resources) for additional information on maintaining wood siding on building exteriors.

Other Siding Materials

Siding materials such as metal, stucco, or asbestos siding may also be present on the exterior of historic buildings.

Maintaining Other Siding Materials

- Maintain existing paints and coatings.
- Deteriorated siding should be repaired, rather than replaced, with materials compatible in color, texture, and composition.
- If siding requires cleaning due to heavy soiling or to halt deterioration, start with the gentlest means possible, typically low-pressure water (like a garden hose) and a soft bristle brush. If cleaning chemicals are required, test in an inconspicuous location first. See National Park Service Preservation Brief 1 and 47 (see Additional Resources) for additional guidance on cleaning and maintaining historic exteriors.



Maintain existing paint coatings on exterior wood to prevent exposure to wind, sun, and rain | Post Oak Preservation Solutions

Additional Resources

NPS Preservation Brief #1: Cleaning and Water-Repellent Treatments for Historic Masonry Buildings

NPS Preservation Brief #2: Repointing Mortar Joints in Historic Masonry **Buildings**

NPS Preservation Brief #10: Exterior Paint Problems on Historic Woodwork

NPS Preservation Brief #37: Appropriate Methods for Reducing Lead-Paint Hazards in Historic Housing

NPS Preservation Brief #47: Maintaining the Exterior of Small and Medium Size Historic Buildings



Regularly clean gutters and downspouts | Post Oak Preservation Solutions



Replace or resecure loose roof materials to ensure long-term preservation | Post Oak Preservation Solutions

Additional Resources

NPS Preservation Brief #4: Roofing for **Historic Building**

Roofing

Sloped roofs may be clad in composition shingles, slate, metal or other durable materials. Flat roofs may be composed of a variety of materials including tar and gravel. Roofing requires routine inspection and regular maintenance.

Roof Maintenance

- Inspect roof materials regularly as part of regular maintenance, looking for loose elements, debris in gutters or downspouts, deteriorated flashing or connections, evidence of water intrusion or leaks, vegetation in contact with the roofing, ponding water, or other unusual conditions. Preventing water intrusion is important to roof maintenance and regular inspection can address issues early on.
- Trim adjacent vegetation. Regularly clean gutters and downspouts. Check and re-secure flashing. Re-secure or replace loose materials, including shingles, in-kind to match existing in color, texture, size, and profile. See National Park Service Preservation Brief 4 (see Additional Resources) for additional information on routine roof maintenance.

Windows, Doors, and Porches

Historic windows, doors, and porches are typically made of wood with metal, glass, and tile or terrazzo detailing or ornamentation. These materials may require repair and/or selective replacement over time.

Wood Maintenance

- Maintain existing paints and coatings to prevent the wood elements from being exposed to wind, sun, and rain.
- Avoid excessive exposure to water by maintaining gutters, downspouts, and drainage; keeping sprinklers from hitting the building; and keeping vegetation away from the wood elements.
- When repainting, prepare, prime, and spot paint, as needed. Avoid stripping existing paints as it can damage the wood. Remove loose paint by hand and sand the surface to prepare the surface for new paint. Preparation and a paint compatible with the existing is essential to lasting exterior paint. See National Park Service Preservation Brief 47 (see Additional Resources) for additional information on maintaining wood on historic buildings.
- If wood is deteriorated or has areas of decay, selective repair with dutchman patches may be appropriate.

Metal Maintenance

- If metals are painted, the paint coating should be retained as exposed metal may rust when exposed to air and water. Repaint with a compatible paint, as needed. If metals are not painted, which is common with sheet metals, they should be left unpainted.
- Avoid abrasive cleaning methods, such as wire wheels or pressure washing.
- Clean with the gentlest, least abrasive method possible, usually lowpressure water (like a garden hose) and a soft bristle brush. Avoid chemical cleaners unless they are appropriate for historic metals. Any cleaners should be tested in an inconspicuous area and observed for adverse effects (such as change in color, texture, or gloss) per National Park Service Preservation Brief 1 (see Additional Resources).

Glass Maintenance

- Most glass elements, other than painted glass, can be cleaned with water alone.
- Avoid abrasive, acidic, or most household cleaners on historic colored or stained glass.



Regularly maintain wood windows, doors, and porches with appropriate repainting techniques | Post Oak Preservation Solutions

Additional Resources

NPS Preservation Brief #9: The Repair of Historic Wooden Windows

NPS Preservation Brief #10: Exterior Paint Problems on Historic Woodwork

NPS Preservation Brief #13: The Repair and Thermal Upgrading of Historic Steel <u>Windows</u>

NPS Preservation Brief #33: The Preservation and Repair of Historic Stained and Leaded Glass

NPS Preservation Brief #45: Preserving Historic Wood Porches

NPS Preservation Brief #47: Maintaining the Exterior of Small and Medium Size **Historic Buildings**

Appendix 02: Glossary of Terms

- 1. **ALIGNMENT**. The arrangement of objects along a straight line.
- 2. **ALTERATION**. Any act or process that changes one of more historic, architectural, or physical features of an area, site, place, and/or structure including, but not limited to the erection, construction, reconstruction, or removal of any structure.
- 3. **APPLICANT**. A person seeking a designation or authorization under this Chapter or the person's designated and duly authorized agent or representative. This term may include the property owner, occupant of the site, the Planning and Zoning Commission or City Council.
- 4. APPROPRIATE. Suitable for a particular condition, occasion, or place, compatible, fitting.
- 5. APPURTENANCES. An additional object added to a building; typically includes vents, exhausts hoods, air conditioning units, etc.
- 6. **ARCHITRAVE**. The lowest part of an entablature that rests on the capitals of the columns.
- 7. ARCHITECTURAL DETAILS. Small details like moldings, carved woodwork, etc. that add character to a building.
- 8. AWNING. An architectural projection, which provides weather protection, identity, or decoration, and is supported by the building to which it is attached. It is composed of a lightweight rigid or retractable

- skeleton structure over which another cover is attached that may be of fabric or other materials. Awnings are typically sloped.
- 9. **BRACKET**. A supporting member for a projecting element or shelf, sometimes in the shape of an inverted L and sometimes as a solid piece or a triangular truss.
- 10. BUILDING. A resource created principally to shelter any form of human activity, such as a house.
- 11. CANOPY. A projecting, rigid structure with a roof generally mounted to the ground and/or suspended with tie rods.
- 12. CERTIFICATE OF APPROPRIATENESS. An order issued by the Planning and Zoning Commission indicating approval of plans for alteration, construction, or removal affecting a designated landmark or property within a designated district.
- 13. CHARACTER/ CHARACTERISTIC. The aggregate of distinctive qualities, attributes, or features that make up and distinguish a particular structure, neighborhood, street, etc. from another.
- 14. COLUMN. A slender upright structure, generally consisting of a cylindrical shaft, a base and a capital; pillar: It is usually a supporting or ornamental member in a building.

- 15. CORNICE. The continuous projection at the top of a wall. The top course or molding of a wall when it serves as a crowning member.
- 16. **DEMOLITION**. The complete destruction of a building or structure; or removal of more than 30 percent of the perimater walls; or removal of any portion of a street-facing facade.
- 17. DEMOLITION BY **DECONSTRUCTION**. The selective dismantlement of building components, specifically for re-use, recycling, and waste management.
- 18. **DEMOLITION BY NEGLECT.** Allowing a property to fall into a serious state of disrepair so as to result in deterioration, which would produce a detrimental effect upon the life and character of the property itself. For Demolition by Neglect standards see Chapter 4 of Unified Development Code.
- 19. DESIGN GUIDELINES. Guidelines of appropriateness or compatibility of building design within a community or historic district. Often in the form of a handbook, design guidelines contain drawings accompanying "do's and don't's" for the property owner. The Planning and Zoning Commission has authority to administer design guidelines.
- 20. DESIGN REVIEW. The decision-making process

conducted by the Planning and Zoning Commission or an appointed historic preservation officer that is guided by established terms.

- 21. DETERIORATE. To diminish or 27. ENTABLATURE. Refers to the impair in quality, character, function, or value, also to fall into decay or ruin.
- 22. DETERMINATION OF SIGNIFICANCE. A determination based on the importance of a historic property as defined by criteria found in Sec. 9.03.255(f).
- 23. DOORFRAME. The part of a door opening to which a door is hinged. A doorframe consists of two vertical members called jambs and a horizontal top member called a lintel.
- 24. DOUBLE-HUNG WINDOW. A window with two sashes (the framework in which window panes are set), each moveable by a means of cords and weights.
- 25. ECONOMIC HARDSHIP. An onerous and excessive financial burden, not created by the owner, which destroys reasonable and beneficial use of the property. For commercial properties the ability to make a reasonable income does not mean the highest and best use.
- 26. **ELEVATION**. A mechanically accurate, "headon" drawing of a face of a building or object, without any allowance for the effect of the laws of perspective. Any

building.

superstructure of moldings and bands that lie horizontally above columns, resting on their capitals. It is the upper section of a classical building, resting on the columns and constituting the architrave, frieze, and cornice.

28. EXTERIOR ARCHITECTURAL **FEATURE**. The architectural style and general arrangement of such portion of the exterior of a structure as is designed to be open to the view from a

public way.

29. FAÇADE. Front or principal face of a building, any side of a building that faces a street or other open space.

30. **FASCIA**. A flat board with a vertical face that forms the trim along the edge of a flat roof, or along the horizontal, or "eaves," sides of a pitched roof. The rain gutter is often mounted on it.

- building.

measurement on an elevation will be in a fixed proportion, or scale, to the corresponding measurement on the real

31. **FENESTRATION**. The arrangement of windows and other exterior openings on a

32. FORM. The overall shape of a structure (i.e., most structures are rectangular in form).

33. FRAME. A window component. See window parts.

34. FRIEZE. A horizontal band

that runs above doorways and windows or below the cornice. It may be decorated with designs or carvings. In classic architecture, architectural ornament consisting of a horizontal sculptured band between the architrave and the cornice.

- 35. **GLAZING**. Fitting/securing glass into windows and doors.
- 36. HEAD. The top horizontal member over a door or window opening.
- 37. HISTORIC DISTRICT. A geographically and locally defined area that possesses a significant concentration, linkage, or continuity of buildings, objects, sites, structures, or landscapes united by past events, periods, or styles of architecture, and that, by reason of such factors, constitute a distinct section of the City. Historic sites within a local district need not be contiguous. for an area to constitute a district. All sites, buildings, and structures within a local historic district, whether individually contributing or not are subject to the regulations of the district.
- 38. HISTORIC LANDMARK. Any site, building, structure, or landscape of historic significance that receives designation by the City pursuant to this Division.
- 39. HISTORIC PRESERVATION. The protection. reconstruction, rehabilitation, repair and restoration of places and

structures of historic. architectural, or archaeological significance.

- 40. HISTORIC RESOURCE. Any building, structure, object or site that is 50 years or older or any resource that has been identified as a high or unique history or architectural characteristics.
- 41. **IN-KIND**. In the same manner and material.
- 42. **INTEGRITY**. The authenticity of a property's historic identity, evidenced by survival of physical characteristics that existed during the property's historic or prehistoric period.
- 43. INVENTORY. A list of historic properties that have been identified and evaluated as meeting specified criteria of significance.
- 44. MAINTENANCE. The work of keeping something in proper condition, upkeep. Activities required or undertaken to conserve as nearly, and as long, as possible the original condition of an asset or resource while compensating for normal wear and tear. The needed replacement of materials is done in-kind.
- 45. MASS/MASSING. The physical size and bulk of a structure. A building's massing is derived from the articulation of its facade through the use of dormers, towers, bays, porches, steps, and other projections. These projections significantly contribute to the

character of the building and, in town, the character of a street.

- 46. **MASONRY**. Construction materials, typically bound together by mortar, such as stone, brick, concrete block, or tile.
- medium priority because of its 47. **MATERIAL**. As related to the determination of "integrity" of a property, material refers to the physical elements that were combined or deposited in a particular pattern or configuration to form a historic property.
 - 48. MODULE. The appearance of a single façade plane, despite being part of a larger building. One large building can incorporate several building modules.
 - 49. MOLDING. A decorative band or 54. ORDINARY MAINTENANCE s;trip of material with a constant profile or section designed to cast interesting shadows. It is generally used in cornices and as trim around window and door openings.
 - 50. MOTHBALLING. The process of temporarily closing up a building to protect it from the weather as well as to secure it from vandalism.
 - 51. MUNTIN. A bar member supporting and separating panes of glass in a window or door.
 - 52. NATIONAL REGISTER OF HISTORIC PLACES. The nation's official list of buildings, 56. **ORIGINAL**. Belonging or districts, and sites (including structures and objects) significant in American history

and culture, architecture, archeology, and engineering maintained by the National Park Service and administered on a state-wide basis by the Texas Historical Commission. Restrictions on these properties exist only when there is an undertaking that uses federal funds or that requires a federal permit or license.

- 53. **OBJECT**. A physical item associated with a specific setting or environment that is movable by nature or design, such as statuary in a designed landscape. The term object is used to distinguish from buildings and structures those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed.
- **AND REPAIR**. The repair of any exterior or architectural feature of a landmark or property within a historic district which does not involve a change to the architectural or historic value, style, or general design. In-kind replacement or repair is included in this definition of ordinary maintenance.
- 55. **ORIENTATION**. Generally, orientation refers to the manner in which a building relates to the street. The entrance to the building plays a large role in the orientation of a building; whereas, it should face the street.
 - pertaining to the origin or beginning of something, or to a thing at its beginning.

- 57. **OWNER**. The individual. corporation, partnership, or other legal entity in whom is vested the ownership, dominion, or title of property and who is responsible for payment of ad valorem taxes on that property; including a Lessor or Lessee if responsible for payment of ad valorem taxes.
- 58. PANEL. A sunken or raised portion of a door with a framelike border.
- 59. **PARAPET**. A low protective wall or railing or wall-like barrier along the edge of a raised structure such as a roof, 63. **POST**. A piece of wood, metal, bridge, terrace, or balcony. Where extending above a roof, it may simply be the portion of an exterior wall that continues above the line of the roof surface, or may be a continuation of a vertical feature beneath the roof such as a fire wall or party wall.
- 60. **PEDIMENT**. A triangular section framed by a horizontal molding on its base and two sloping moldings on each of its sides. Usually used as a crowning member for doors, windows, and mantles.
- 61. **PRESERVATION**. The stabilization of a historic building, its materials and features in their present condition to prevent future deterioration. Preservation focuses on the maintenance and repair of existing historic materials and retention of a property's form as it has evolved over time. (Protection and Stabilization have now

been consolidated under this treatment.)

relationship between actual dimensions of elements to each other and to the overall façade. Often proportions are expressed as mathematical ratios drawn from architectural theories of ancient Greece and Renaissance Italy. A design element such as a window may have the same shape as adjacent windows, but may appear out of proportion because the dimensional relationships are not the same.

etc., usually long and square or cylindrical, set upright to support a building, sign, gate, etc.; pillar; pole.

65. **QUOIN**. (pronounced koin) Dressed stones or bricks at the corners of buildings, laid so that their faces are alternately large and small. Originally used to add strength to a masonry wall, later used decoratively.

62. **PROPORTION**. The

64. **PROPERTY**. Area of land containing a single historic resource or a group of resources.

66. **RECONSTRUCTION**. The act or process of reproducing by new construction the exact form and detail of a vanished building as it appeared at a specific period of time. A technique used earlier in the 20th century, reconstruction is rarely used today because of the preference to use limited financial resources to preserve existing historic buildings.

67. RECORDED TEXAS

HISTORICAL LANDMARK. A state designation for buildings important for their historical associations and which have retained a high degree of their original historic fabric. They must be at least 50 years of age and retain their original exterior appearance. State historical landmarks receive greater legal protection than National Register of Historic Places designations.

- 68. **REHABILITATION**. The act or process of returning a property to a state of utility through repair or alteration that makes possible an efficient contemporary use while preserving those portions or features of the property that are significant to its historical, architectural, and cultural values.
- 69. **RESTORATION**. Returning a property to a state indicative of a particular period of time in its history, while removing evidence of other periods.
- 70. **RHYTHM**. The spacing and repetition of building façade elements, such as windows, doors, belt courses, and the like, give an elevation its rhythm. The space between freestanding buildings in towns, as well as the height of roofs, cornices, towers, and other roof projections establishes the rhythm of a street.
- 71. SASH. See window parts.
- 72. **SCALE**. a. The perceived size of a building relative to

the size of its elements and to the size of elements in neighboring buildings. The overall shape and massing of buildings is significant to defining character. In order to retain the character of a community, maintaining a balance between landscaping and building scale in relation to space available is essential. A building built to the legal limits established for height, building scale, and setbacks may result in a building, which is not compatible with the character of its neighborhood. b. An indication of the relationship between the distances or measurements on a map or drawing and the corresponding actual distances or measurements.

- 73. SCONCE. A decorative wall bracket for holding lights, and other sources of illumination. A light fixture patterned on a candle sconce.
- 74. SEASONAL BANNER. Any sign generally designed for temporary, long-term, or seasonal use mounted to a light standard.
- 75. SHAPE. The general outline of a building or its facade.
- 76. SHOULD. For the purposes of these Design Guidelines should means shall.
- 77. **SIDE LIGHT**. A usually long fixed sash located beside a door or window; often found in pairs.
- 78. SIDEWALK FURNITURE. Any item used to embellish the

facade of a building or the streetscape (including statues, planter boxes, pots or vases, benches, trash receptacles, art, or signs).

- 79. **SIDING**. The narrow horizontal or vertical wood boards that form the outer face of the walls in a traditional wood frame house. Horizontal wood siding is also referred to as clapboards. The term "siding" is also more loosely used to describe any material that can be applied to the outside of a building as a finish.
- 80. SIGN. Any device that uses letters, numerals, emblems, pictures, outlines, characters, spectacle delineation. announcement, trademark, logo, illustrations, designs, figures, or symbols for advertising purposes. The term "sign" shall also include any use of color such as bands, stripes, patterns, outlines, or delineations displayed for the purpose of commercial identification (corporate colors) that comprises more than twenty percent (20%) of any facade or visible roof face. This term shall also include all
- 81. **SIGN AREA**. The area of a sign inclusive of the sign face, sign base, and sign cabinet.

Flags.

flags other than Governmental

82. SIGN, AWNING. Any sign painted or applied to the face, valance, side, or top panel of an awning, or any sign made by removing material from an awning.

- 83. SIGN BASE. The structure supporting a sign. The sign base is a part of the sign, unless otherwise specified in Chapter 10 of the UDC.
- 84. **SIGN CABINET**. The sign cabinet is the structure or border used to differentiate a sign face from the structure on or against which a sign face is placed.
- 85. SIGN, CHANGEABLE COPY. A sign designed to allow the manipulation of messages through manual or mechanical means.
- 86. SIGN, CANOPY. Any type of sign attached to in any manner or made a part of a canopy.
- 87. SIGN, EXTERNAL **ILLUMINATION**. A sign utilizing an artificial or reflective light source mounted or operated from the outside of the frame of the sign, for the purpose of lighting the sign.
- 88. SIGN FACE. The area of a sign where the name of the business or facility is advertised and the background on which it is placed. Does not include the sign cabinet or frame.
- 89. SIGN, FLUSH-MOUNTED. Any flat sign mounted or applied to a building facade.
- 90. **SIGN, HANGING**. Any sign suspended from an awning, canopy, bracket, or brace.
- 91. SIGN, IDENTIFICATION. An incidental sign of identification or of informational nature

- bearing no advertising, unless otherwise specified in Chapter 10 of this Code.
- 92. SIGN, ILLUMINATED. A sign utilizing an artificial or a reflective light source.
- 93. SIGN, INTERIOR ILLUMINATED. 100. SIGN, POLE. A sign that is Any sign designed to be lit from the inside (including awning, canopy, hanging, or flushmounted signs).
- 94. SIGN, INCIDENTAL. A sign, generally informational, that has a purpose secondary to the use of the lot on which it is located, such as "no parking," "entrance," "loading only," "telephone," an address, and other similar directives.
- 95. SIGN, INTERNAL **ILLUMINATION.** A sign utilizing an artificial or a reflective light source mounted or operated from the inside of the frame of the sign, for the purpose of lighting the sign.
- 96. SIGN, LOW PROFILE POLE. A sign that is mounted on one or more freestanding poles or other support so that the bottom edge of the sign face is not in direct contact with a solid base or the ground.
- 97. SIGN, MARQUEE. Any sign attached to, in any manner, or made a part of a marquee.
- 98. SIGN, MONUMENT. A sign which is attached directly to the ground or is supported by a sign structure that is placed on or anchored in the ground and is independent from any building or other structure.

103. SIGN, PROJECTING. Any sign affixed to a building wall in a

99. SIGN, PEDESTRIAN. Any sign oriented to pedestrians at street level visibility (including window, awning, or hanging signs, as well as nameplates, plaques, or sandwich boards).

> mounted on one or more freestanding poles or other support so that the bottom edge of the sign face is not in direct contact with a solid base or the ground.

101. SIGN, PORTABLE. Any sign not permanently attached to the ground or other permanent structure, or a sign designed to be transported, including, but not limited to, signs designed to be transported by means of wheels; signs converted to A or T frames; sandwich board signs; balloons used as signs; umbrellas used for advertising; and signs attached to or painted on vehicles parked and visible from the public right of way, unless said vehicle is used in the normal day to day operations of the business.

102. SIGN, PRIMARY. A medium to large-size, horizontally oriented sign attached flat against the building, above the awning, printed on one side only. Or, a medium-size sign that projects from the building above the awning(s) or canopy(es), printed on both sides. Or, a mediumsize sign that is mounted on a free-standing pole or post.

nonparallel manner

- 104. SIGN, SANDWICH BOARD. Any sign designed for placement on the sidewalk, of A-frame construction, generally twosided.
- 105. SIGN, SECONDARY. A small, horizontally-oriented, rectangular sign that protrudes from a building below the awnings or canopies but above pedestrian's heads, and is printed on both sides. Or, a small to medium, free-standing sign mounted on a pole or post.
- 106. SIGN, TEMPORARY. Any sign that is not intended to be permanent.
- 107. SIGN, WALL. A sign which is fastened to or painted on the wall of a building or structure in such a manner that the wall becomes the supporting structure for, or forms the background surface of, the sign. Wall signs shall not project more than eight (8) inches from the building or structure, may have only one (1) sign face, and must be parallel to the wall on which it is attached.
- 108. SIGN, WINDOW. Any sign that is placed inside a window or upon the window or upon the window panes or glass and is intended to be visible from the exterior of the window. Merchandise displays shall not be considered window signs.
- 109. SILL. The lowest horizontal member in a frame or opening for a window or door. Also, the lowest horizontal member in a framed wall or partition.

- 110. **SITE**. The location of a significant event, a prehistoric or historic occupation or activity, or a building 118. TRADITIONAL. Based on or or structure, whether standing, ruined, or vanished, where the location itself possesses historical. cultural, or archaeological value regardless of the value of any existing structure.
- 111. SIZE. The dimensions in height and width of a building's face.
- 112. SPECIAL EVENT BANNER. Same as Seasonal Banner.

113. STATE ARCHAEOLOGICAL

LANDMARK. A designation made by the Texas Historical Commission and, in the case of privately owned property, with the landowner's permission. Although called "archaeological" landmarks, this designation can include buildings as well as archaeological sites. For a building to be designated as a State Archaeological Landmark, it must first be listed on the National Register of Historic Places. Damage to a State Archaeological Landmark is subject to criminal, not civil, penalties.

- 114. **STILE**. A vertical piece in a panel or frame, as of a door or window.
- 115. STREETSCAPE. Generally, the streetscape refers to the character of the street, or how elements of the street form a cohesive environment.
- 116. STRUCTURE. A term used to distinguish specific types of functional constructions from buildings that are usually made for purposes other than creating shelter.
- 117. THEMATIC BANNER. Same as

Seasonal Banner.

- established by the history of the area.
- 119. TRANSOM WINDOW. A small window or series of panes above a door, or above a casement or double hung window.
- 120. VISUAL CONTINUITY. A sense of unity or belonging together that elements of the built environment exhibit because of similarities among them.
- 121. WINDOW PARTS. The moving units of a window are known as sashes and move within the fixed frame. The sash may consist of one large pane of glass or may be subdivided into smaller panes by thin members called muntins or glazing bars. Sometimes in nineteenthcentury houses windows are arranged side by side and divided by heavy vertical wood members called mullions.
- 122. YARD, FRONT. The area that lies between the established front building line of the principal building and the front lot line.
- 123. ZONING. A police power measure, enacted by a municipality, including the City, in which the community is divided into districts or zones within which permitted and special uses are established as are regulations governing lot size, building bulk, placement, and other development standards.

Appendix 03: Secretary of the Interior's Standards for Treatment of Historic Properties

Rehabilitation as a Treatment

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features,

and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Note

The following article is reprinted from the U.S. Department of the Interior, National Park Service: https://www.nps.gov/orgs/1739/secretary-standardstreatment-historic-properties.htm

Appendix 04: Grant Resources & Tax Incentives

Program	Details	Limitations	Link
Texas Historic Tax Credit	25% of QREs applied to Franchise tax	Only available to nonprofits or for profits. City would need to sell the building, use less of it, and/or enter into a long-term (39+ years) lease. Building must be historically designated	Texas historic tax credits: https://thc.texas.gov/ preserve/grants-tax-credits- and-funding/historic- preservation-tax-credits/ texas-historic
Federal Historic Tax Credit	20% of QREs applied to Federal income tax	Only available to for-profit entities. City would need to sell the building and/or enter into a long-term (39+) year lease with a for-profit. Building must be historically designated.	Federal historic tax credits: https://www.nps.gov/ subjects/taxincentives/tax- credit-basics.htm
Texas Preservation Trust Fund Grant	\$10,000-\$100,000	May require a match. Building must be historically designated. Requires an easement be created.	Texas Preservation Trust Fund: https://thc.texas. gov/preserve/grants-tax- credits-and-funding/texas- preservation-trust-fund
EPA Brownfield Grant	Grant amounts vary but can be used for cleanup of hazardous materials.	Long grant process. Can only be used for hazardous material abatement (lead paint, pigeon guano, asbestos, etc)	Brownfield Grant: https:// www.epa.gov/brownfields/ types-funding.
USDA Rural Community Development Initiative Grants	\$50,000-\$500,000 for "community facilities"	Match required	Rural Community Development Initiative: https://www.rd.usda. gov/programs-services/ community-facilities/rural- community-development- initiative-grants
HOT Fund	TBD by City but historic preservation is an allowable use of HOT funding	Must be approved by City Council	

Appendix 05: Downtown Historic District Resource Inventory

Note: Use the chart on the following pages to determine if a building in the historic district is a contributing or noncontributing resource. Each resource has an individual page with a current photo and a historic photo (as available).

#	Address	Parcel#	Year Built	Style/Form	Historic/Current Function	C/NC
1 201 E Park Avenue		venue venue		Historic: Tobey Hardware Co. was formed in 1917 as both a retail and wholesale hardware store and operated from this building well into the late 20th century. Edward C. Tobey had previously been an owner of the Freeport Lumber Yard, which supplied building materials for much of the city's early development. A one-story addition was constructed in 1956 and an outbuilding at the rear sometime prior to 1943. Current: The first floor is vacant and the second floor is occupied as a residence.	С	
2	207 E Park Avenue	209225	1942	1-part commercial block	is occupied as a residence. Historic: Built for Brown's Dry Goods store, a longstanding Freeport business. Construction began in 1941 and was completed in 1942. The front was designed to be "very modernistic" and display windows were originally bordered with black glass. Brown's occupied the building until at least the late 1970s. Architect: Hermon Lloyd of Houston. Current: Vacant	
3	209 E Park Avenue	209220	1963	1-part commercial block	Historic: Constructed in 1963 by Nannie Maddox Stringfellow, prominent local businesswoman, rancher, and real estate developer. The building was first occupied by Crawford's Fashions and Fabrics. Current: Vacant	С
4	215 E Park Avenue	209224	1940	Art Deco	Historic: Constructed in 1940 as the Ora Theater, which operated until 1953. It was originally designed with a seating capacity of 550. It later housed the Bargain Furniture Company during the 1950s and 1960s. Current: Vacant	
5	221 E Park Avenue	209219	1931	1-part commercial block	Historic: Originally two separate commercial buildings that housed the Sulphur Drug Company and Ted's Place, a sporting goods store. The building was later occupied by Barrow Furniture Store after 1940. Current: R.E.L. Stringfellow Interests	NC

#	Address	Parcel#	Year Built	Style/Form	Historic/Current Function	C/NC
6	303 E Park Avenue	209237	c. 1920	2-part commercial block	Historic: The Velasco Masonic Lodge spearheaded the effort to construct the lodge. The first floor was rented out to various businesses as a commercial space. According to the 1943 Sanborn, the first floor was occupied by physician's offices. The building housed the Freeport Museum in the early 21st century. Architect: O.F. Holcombe & Co. of Houston.	С
7	311 E Park Avenue	209236, 638039, 209235	c. 1950s	1-part commercial block	Historic: Historically 2 separate commercial buildings with a driveway constructed after WWII. The buildings housed the Brazosport Facts newspaper offices and were combined into a single structure in the early 21st century. Current: Freeport Historical Museum	NC
8	313 E Park Avenue	209234	1952	1-part commercial block	Historic: The Houston Lighting & Power Company Freeport office occupied the building from its construction until the late 1960s. Current: Vacant	NC
9	315 E Park Avenue	209233	1948	Mid Century Commercial	Historic: Built for Parker Motors Company, which sold Lincoln and Mercury automobiles and housed a service department. Earle Pearson Motors occupied the building from 1960-1968. It was remodeled in 1968 for Theriot, Inc., an air conditioning and industrial company that has continuously occupied the property to present day. Current: Theriot Incorporated	С
10	113 E Broad Street	209238	c. 1950	Masonry Vernacular	Historic: Bob Roach Electric Company was the first known occupant. Collins Electric and Lackey's Electric Wiring occupied the building briefly during the 1950s and a bar known as Shorty's Place in the 1960s Current: Vacant	
11	128 E 4th St	209242	1951	Fire Station	Historic: Freeport Fire Station and City Jail Architect: Lloyd Borget Current: City of Freeport (storage)	С
12	204 W Park Avenue	209316	1949	1-part commercial block	Historic: Built for Gautreaux Cleaners, which had occupied the two-story building previously on the site. Current: Vacant	NC

#	Address	Parcel#	Year Built	Style/Form	Historic/Current Function	C/NC
13 206 W Park Avenue DEMOLISHED 2024		209317	c. 1933	1-part commercial block	Historic: This parcel was occupied by Penney's Variety Store beginning in the 1920s. The wood-frame building previously on the parcel was damaged in the 1932 hurricane and replaced with the current building shortly afterward. Freeport Home & Auto Supply occupied the building from 1945-1948, Crockett's Radio and Appliance from 1948-1953, and Lack's Associate Store from 1955-1970. It housed a series of restaurants beginning in the early 1970s. Current: Vacant	С
14	208 W Park Avenue DEMOLISHED 2024	209318	c. 1949	1-part commercial block	Historic: Housed the Freeport Office Equipment Company and the Texas Gulf Finance Co. during the 1950s, Loyd Taylor accounting services and Sansom- Davis Insurance Agency during the 1960s. Current: Vacant	NC
15	210 W Park Avenue	209319	1949	1-part commercial block	Historic: Constructed by F.E. Coldwater for his book and magazine store "Coldwater's," which had been located on the site since the 1920s. The second commercial space was originally occupied by Griff's Men's Store. Both businesses occupied the building into the 1970s. Current: Vacant	NC
16	212 W Park Avenue	209320	1952	1-part commercial block	Historic: Western Auto Supply occupied the building from its construction through the late 1960s. The historic storefront was recently removed. Current: Vacant	NC
17	216-218 W Park Avenue209321C. 19272-part commercial blockHistoric: Two-story building with two commercial spaces. One of the earliest occupants was the Houston Lighting & Power Company. The Port Cafe was a long standing tenant. The present facade was added in the early 21st century. Current: Home Crafts Professional Home Repair and Remodeling		NC			
18	220 W Park Avenue	209322	1918	1-part commercial block	Historic: Constructed as Baker's Barber Shop. Despite changes in ownership over time it retained the Baker name and housed barber shops well into the 1960s. Current: Vacant	С

#	Address	Parcel#	Year Built	Style/Form	Historic/Current Function	
19	224 W Park Avenu	209323	1913	Classical Revival 2-part commercial block	Historic: Originally constructed as a one-story building for the Freeport National Bank. A second story was added in 1915 to house the Houston & Brazos Valley Railway offices. A two-story addition was built on the adjoining lot in 1918. In the 1940s, it housed Freeport City Hall and the Chamber of Commerce meeting room (1943 Sanborn). The Freeport Sulphur Company bought the building in 1955 and housed its offices there until 1973. Current: Park Ave. Lofts	С
20	101 W Broad Street	209303	1940	Art Deco 2-part commercial block	Historic: The Freeport Pharmacy was one of Freeport's original businesses, occupying a one- story, wood-frame building on the site. The present building was constructed in 1940 and the second floor was leased as office space. Architect: Otto Woestemer of Houston. Current: Vacant.	С
21	316 W Park Avenue	209307	1958	Mid Century Commercial	Historic: Constructed as the Brazosport office of the Houston Natural Gas Company, which operated in the building until at least the early 1970s. The brick building included a covered drive-in window for customers and a small paved parking area. As a "nostalgic touch" a gas light burned 24 hours a day on the front of the building. Architect: the Austin Company Current: Vacant	С
22	318 W Park Avenue	209308	1945	1-part commercial block	Historic: Constructed by a Mrs. W.L. Water and identified as the "Walter Building" in some newspapers. Occupied by Sellers Insurance Agency (later Sellers Harbour Insurance Agency) from 1945 until the 1970s. Current: Vacant	С
23	112 W Broad Street	209324	1950	1-part commercial block	Historic: Constructed for Gary Hardware & Sporting Goods. During the 1960s it housed Landry Hardware and the Retail Merchants Association, and the Credit Bureau of Freeport from the late 1960s into the 1970s. Current: Vacant	NC
24	116 W Broad Street	209325	c. 1912	1-part commercial block	Historic: Freeport's first post office and one of the few remaining wood-frame commercial buildings dating to Freeport's early years. Occupied by Stringfellow Paint Shop/Stringfellow's Hardware and Paint Shop from the 1930s until 1952. Subsequently occupied by Mize Jewelry Store in the mid 1950s and Marian's Dress Shoppe in the 1960s. Current: Vacant	С

#	Address	Parcel#	Year Built	Style/Forr
25	118 W Broad Street	209325	1952	1-part commercia block
26	120 W Broad Street	209326	c. 1940	1-part commercia block
27	126 Broad Street	209328	1941	2-part commercia block
28	130 W Broad Street	209329	1941	Art Deco 1-part commercia block
29	202 W Broad Street	209344	1912	Modest Colonial Revival
30	204-206 W Broad Street	209345	c. 1980	1-part commercia block
31	208-210 W Broad Street	209346	1949	1-part commercia block

m	Historic/Current Function	C/NC
al	Historic: Built by Nannie Maddox Stringfellow as the new location of Stringfellow Paint Store, which occupied the building into the 1970s. In lieu of solid plate glass, storefront windows were designed with 48-inch squares framed with cast aluminum. Current: Vacant	С
al	Historic: Occupied by the Twentieth Century Club in 1955. Current: Broad St. Market	С
al	Historic: Constructed as a Butler-Grimes Company variety store as their 16th location, which operated until 1961. It was subsequently occupied by an Army-Navy store into the 1970s. Current: Vacant	С
al	Historic: Known as the Wetzel Building (owned and constructed by Harry Wetzel). Built to house two businesses, one facing the corner of Broad and Cherry and the other at the rear facing Cherry. The corner commercial space was originally occupied by Proctor Drug Company while the M System grocery store originally occupied the Cherry storefront. Evans Drug Company occupied the corner space from the late 1940s through 1970. Both Proctor and Evans Drug Company were affiliated with Walgreens. Current: Tim Hootman Appeals Lawyer	С
	Historic: The Freeport Townsite Company office, the first building constructed in Freeport. It was later occupied by the Southwestern Bell Telephone Company. The building was extensively renovated prior to 1943 to enclose the porch and clad the entire structure with brick. Current: Vacant	С
al	Historic: Non-historic age; n/a Current: Vacant (204), New Hope Holiness Church (206)	NC
al	Historic: Built by Claude A. Stringer (known as the Stringer Building) and originally housed his Star Dry Cleaners business, as well as Russell's sewing appliance store. Star Cleaners occupied the building until at least the 1970s. Current: Vacant	С

#	Address	Parcel#	Year Built	Style/Form	Historic/Current Function	C/NC
32	212 W Broad St.	209347	c. 1950	1-part commercial block	Historic: Ben Gordon Loans first known occupant (1954-1962). Ward's Fashion Outlet in the early 1970s. West addition added some time prior to 1982. Current: Vacant	
33	218 W Broad	209348	c. 1917	2-part commercial block	Historic: Likely constructed in 1917 when the Freeport Independent Order of the Oddfellows (I.O.O.F) was formed. One of few examples of wood- frame commercial buildings dating to Freeport's early years. The 1943 Sanborn map identifies the first floor as the Public Library. Current: Vacant	С
34	222 W Broad Street	209349	1942	1-part commercial block	Historic: Built as a Piggly Wiggly grocery store by L.C. Morrison. Addition constructed in 1947. Western Auto from 1961 until at least the 1970s. Current: Vacant	С
35	W Broad Street	209350	c. 1918	Masonry Vernacular	Historic: Freeport Jail built in 1918 and in use until approximately 1951. Current: Vacant	
36	231 W Broad Street	209351	1941	Art Deco 1-part commercial block	Historic: Originally housed Phillip's Prescriptions and was diagonally across from the Freeport Medical and Surgical Clinic built the same year. The building was constructed of hollow tile with white stucco on the exterior. Young's Prescription House occupied the building from the late 1940s through at least the late 1970s. Current: Residence	С
37	225 W Broad Street	209352	1950	1-part commercial block (originally)	Historic: Built as the new home of Wright Chevrolet, which previously occupied the building at 203 Broad Street. Wright Motor Sales occupied the building until 1950. The company also sold home appliances, and the building included a showroom, parts and service departments, a model kitchen, and offices. Current: Residential	
38	219 W Broad Stree	209353	c. 1942	1-part commercial block	Historic: Identified as "dry cleaning" on the 1943 Sanborn Map. Freeport Tailors & Cleaners 1947- 1972. The building is currently a ruin, with only exterior walls intact. Current: Ruin/Vacant	NC

#	Address	Parcel#	Year Built	Style/Form	Historic/Current Function	C/NC
39	203 W Broad Street	209356	c. 1925	1-part commercial block	Historic: Lynn Chevrolet Company (later known as Wright Motor Sales) was the earliest known occupant. The second floor was lost during the 1932 hurricane (the building next door collapsed onto it). The large storefront windows and transoms have been infilled and the brick exterior walls have been painted, but the original openings are somewhat discernible. Current: Vacant	
40	131 W Broad Street	"O"	1949	1-part commercial block	Historic: Constructed by G.C. Hardman, former Freeport mayor and owner of the adjacent building. First occupied by the Hobby Horse. Subsequent occupants included The Paint Store 1951-1952, Glamour Shop 1953-1956, Olive's La Vogue Beauty Salon 1956-1963. Current: Vacant	
41	129 W Broad Street	209296	c. 1927	1-part commercial block	Historic: Earliest known owner was pioneer citizen, former mayor, and owner of the Freeport Insurance Agency, G.C. Hardman and known as the "Hardman Building." The Freeport Insurance Agency occupied the building from at least 1930 through the mid- 1970s. It originally featured two storefronts, which were combined into a single storefront prior to 1961. Houston Natural Gas Company occupied a storefront from 1931-1941 followed by the Freeport Flower Shop from 1941-1945. Current: Vacant	С
42	127 W Broad Street	209297	c. 1947	1-part commercial block	Historic: Earliest known occupant was the Freeport Paint and Wallpaper Company in 1952. The Guardian Financial Corporation occupied the building from at least 1953-1961. Current: Vacant	NC
43	121 W Broad Stree	209299	с. 1925	Frame Vernacular	Historic: The building appears to be the small dwelling depicted at the rear of the Caroll Hotel/Lone Star Rooming House/Central Hotel on the 1926 and 1943 Sanborn maps. Current: Vacant	
44	119 W Broad Street	209300	1941	Modest Art Deco 1-part commercial block	Historic: Built for Houston Natural Gas Company which occupied the building until 1958. Modern Cleaners 1958-1964, followed briefly by Sun Ray Cleaners. The Coast Record Shop occupied the building from 1966-1976. Architect: Otto Woestemeyer of Houston. Current: Vacant	С

#	Address	Parcel#	Year Built	Style/Form	Historic/Current Function	C/NC
45	117 W Broad Street	209301	1949	1-part commercial block	Historic: Part of a block of three buildings constructed by Nannie Maddox Stringfellow. McSpadden Jewelry was the original occupant and remained in the building until 1961. It was then occupied by the Brazosport Flower Shop until at least the early 1970s. Current: Vacant	
46	115 W Broad Street	515910	1949	1-part commercial block	Historic: Part of a block of three buildings constructed by Nannie Maddox Stringfellow. Emerald Beauty Shop was the original occupant and remained there until at least the early 1970s. Current: Residence	NC
47	113 W Broad Street	209302	1949	1-part commercial block	Historic: Part of a block of three buildings constructed by Nannie Maddox Stringfellow. Frenchy's Barber Shop was the original occupant. Current: Vacant	С
48	127 W 2nd Street	209311	1941	1-part commercial block	Historic: Built for Brockman & Company, a department store. The primary elevation features marble and Texas shell stone. The C.R. Anthony Company occupied the building from 1951- 1968, and Willenberg Pharmacy from 1969 into the 1970s. The current storefront dates to a 1969 renovation and appears to be intact beneath boarded windows. Architect: Leland Gabert of Houston.	
49	129 W 2nd Street	209310	1941	1-part commercial block	Current: Vacant Constructed as a Ben Franklin Variety Store and shoe store (two commercial storefronts. Front originally featured colored structural glass. Jack Reid Appliances occupied the building from the late 1960s through the 1970s. Current: Vacant	
50	200 W 2nd Street	209335	1970	New Formalism	Historic: Three-story building constructed by the Freeport First National Bank. The first and second floor served banking functions, while the third floor was leased for private offices. Newspapers from the time of the building's completion described a rooftop helipad. Current: City Hall	
51	222 W 2nd Street	209336	1953	1-part commercial block	Historic: Built and operated as a Goodyear Service Store until at least the mid-1970s. Current: Signal Electronics	NC

#	Address	Parcel#	Year Built	Style/Form	Historic/Current Function	C/NC
52	230 W 2nd Street	209338	c. 1950	Mid-Century Commercial	Historic: Built as a Conoco Service Station which operated well into the 1960s. Current: Ocean Food Mart, U-Haul dealer	С
53	231 W 2nd Street	209339	1942	Service Station	HHistoric: Part of a block of three buildings constructed by Nannie Maddox Stringfellow. Emerald Beauty Shop was the original occupant and remained there until at least the early 1970s. Current: Residence	NC

Inventory of Images

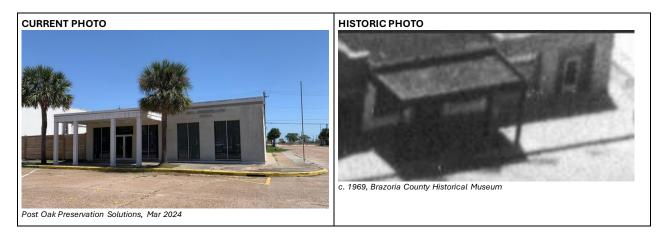


215 E PARK AVENUE Parcel #: 209224 Year Built: 1940 Style/Form: Art Deco C/NC: Contributing

Historic function: Constructed in 1940 as the Ora Theater, which operated until 1953. It was originally designed with a seating capacity of 550. It later housed the Bargain Furniture Company during the 1950s and 1960s.

Current function: Vacant

Current conditions: First floor openings have been altered to include glass block windows on either side of the entrance and the original marquee and "Ora" signage has been lost. Doors on the primary facade have been replaced.



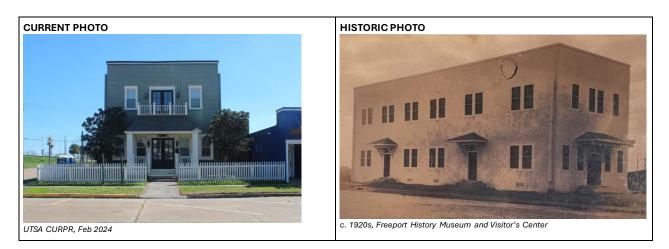
221 E PARK AVENUE

Parcel #: 209219 Year Built: 1931 Style/Form: 1-part commercial block C/NC: Non-Contributing

Historic function: Originally two separate commercial buildings that housed the Sulphur Drug Company and Ted's Place, a sporting goods store. The building was later occupied by Barrow Furniture Store after 1940.

Current function: R.E.L. Stringfellow Interests

Current conditions: The storefronts were combined and reoriented sometime after 1969 to create a single entrance. Stucco was likely applied to the primary elevation at the same time. The awning over the sidewalk dates to the period of significance.



303 E PARK AVENUE

Parcel #: 209237 Year Built: c. 1920 Style/Form: 2-part commercial block C/NC: Contributing

Historic function: The Velasco Masonic Lodge spearheaded the effort to construct the lodge. The first floor was rented out to various businesses as a commercial space while the lodge occupied the second floor. According to the 1943 Sanborn, the first floor was occupied by physician's offices. The building housed the Freeport Museum in the early 21st century. Architect: O.F. Holcombe & Co. of Houston.

Current function: Vacant

prior to 2008. Windows have been replaced with compatible replacements.



311 E PARK AVENUE

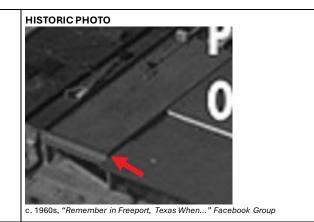
Parcel #: 209236, 638039, 209235 Year Built: c. 1950s Style/Form: 1-part commercial block C/NC: Non-Contributing

Historic function: Historically 2 separate commercial buildings with a central driveway constructed after WWII. The buildings housed the Brazosport Facts newspaper offices and were combined into a single structure in the early 21st century. Current function: Freeport History Museum Current conditions: The primary elevations of historically separate buildings have been heavily altered to present the appearance of a single building. The driveway was enclosed and incorporated into the structure.

Current conditions: Wood siding is not historic. New awnings with support columns and second story porches were added to the west and north elevations sometime

CURRENT PHOTO





313 E PARK AVENUE Parcel #: 209234 Year Built: 1952 Style/Form: 1-part commercial block C/NC: Non-contributing

Historic function: The Houston Lighting & Power Company Freeport office occupied the building from its construction until the late 1960s. Current function: Vacant Current conditions: The original storefront has been removed and infilled. Original awning and angled facade have been retained.



315 E PARK AVENUE

Parcel #: 209233 Year Built: 1948 Style/Form: Mid Century Commercial C/NC: Contributing

Historic function: Built for Parker Motors Company, which sold Lincoln and Mercury automobiles and housed a service department. Earle Pearson Motors occupied the building from 1960-1968. It was remodeled in 1968 for Theriot, Inc., an air conditioning and industrial company that has continuously occupied the property to present day.

Current function: Theriot Incorporated

Current conditions: Some of the storefront windows on the west elevation have been infilled and most of the exterior brick has been covered with stucco.



113 E BROAD STREET

Parcel #: 209238 Year Built: c. 1950 Style/Form: Masonry Vernacular C/NC: Contributing

Historic function: Bob Roach Electric Company was the first known occupant. Collins Electric and Lackey's Electric Wiring occupied the building briefly during the 1950s and a bar known as Shorty's Place in the 1960s Current function: Vacant Current conditions: Though no clear historic photos were located, the building appears to retain its simple form, gable roof, and exposed CMU exterior walls.



128 E 4TH STREET Parcel #: 209242 Year Built: 1951 Style/Form: Fire Station C/NC: Contributing

 Historic function: Freeport Fire Station and City Jail.

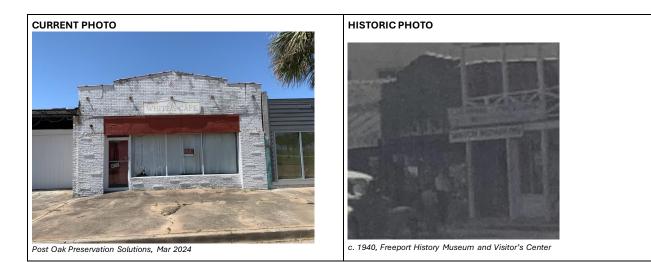
 Architect: Lloyd Borget

 Current function: City of Freeport: Storage

 Current conditions: Largely unchanged since original construction. Overhead doors have been replaced and the exterior brick has been painted.



HISTORIC PHOTO



206 W PARK AVENUE DEMOLISHED 2024 Parcel #: 209317 Year Built: c. 1933 Style/Form: 1-part commercial block

C/NC: Contributing

Historic function: This parcel was occupied by Penney's Variety Store beginning in the 1920s. The wood-frame building previously on the site was damaged in the 1932 hurricane and replaced with the current building shortly afterward. Freeport Home & Auto Supply occupied the building from 1945-1948, Crockett's Radio and

Appliance from 1948-1953, and Lack's Associate Store from 1955-1970. It housed a series of restaurants beginning in the early 1970s. Current function: Vacant.

Current conditions: Painted brick facade. Storefront appear largely unchanged though transoms are currently covered.





208 W PARK AVENUE DEMOLISHED 2024

Parcel #: 209318 Year Built: c. 1949 Style/Form: 1-part commercial block C/NC: Non-Contributing

Historic function: Housed the Freeport Office Equipment Company and the Texas Gulf Finance Co. during the 1950s, Loyd Taylor accounting services and Sansom-Davis Insurance Agency during the 1960s.

Current function: Vacant.

Current conditions: Painted brick facade. A portion of the overhanging roofline appears to have been partially lost, which provided a sheltered, recessed entrance. Windows are boarded; it is unclear if they are intact beneath. If the historic windows remain and were restored, this building could be changed to a contributing building.



210 W PARK AVENUE Parcel #: 209319 Year Built: 1949 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Constructed by F.E. Coldwater for his book and magazine store "Coldwater's," which had been located on the site since the 1920s. The second commercial space was originally occupied by Griff's Men's Store. Both businesses occupied the building into the 1970s. Current function: Vacant Current conditions: With the exception of a single replacement door, the building appears largely unchanged from its original appearance.



204 W PARK AVENUE

Parcel #: 209316 Year Built: 1949 Style/Form: 1-part commercial block C/NC: Non-Contributing

Historic function: Built for Gautreaux Cleaners, which had occupied the two-story building previously on the site. Current function: Vacant.

Current conditions: Original storefront windows have been replaced and exterior covered with non-historic siding. Tile kneewall below the display windows has been removed. Glass block window remains adjacent to the entryway.



212 W PARK AVENUE

Parcel #: 209320 Year Built: 1952 Style/Form: 1-part commercial block C/NC: Non-Contributing

Historic function: Western Auto Supply occupied the building from its construction through the late 1960s. Current function: Vacant Current conditions: Historic storefront has been replaced with non-historic infill, though retains roman brick parapet and exterior walls.



216-218 W PARK AVENUE

Parcel #: 209321 Year Built: c. 1927 Style/Form: 2-part commercial block C/NC: Non-Contributing

Historic function: Two-story building with two commercial spaces. One of the earliest occupants was the Houston Lighting & Power Company. The Port Cafe was a long standing tenant. The present facade was added in the early 21st century.

Current function: Home Crafts Professional Home Repair and Remodeling

Current conditions: The historic facade has been covered with brick. All windows have been replaced, opening shapes altered, and surrounded with brick arches, transoms covered/removed, and historic storefronts removed and clad with brick.



Post Oak Preservation Solutions, Mar 2024

220 W PARK AVENUE Parcel #: 209322 Year Built: 1918 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Constructed as Baker's Barber Shop. Despite changes in ownership over time it retained the Baker name and housed barber shops well into the 1960s. It was renamed Penney's Barber Shop by 1974. Current function: Vacant Current conditions: Storefront has been altered with partial non-historic infill.

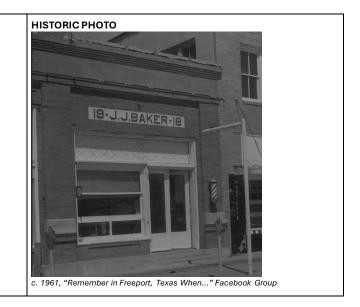


224 W PARK AVENUE

Parcel #: 209323 Year Built: 1913 Style/Form: Classical Revival, 2-part commercial block C/NC: Contributing

Historic function: Originally constructed as a one-story building for the Freeport National Bank. A second story was added in 1915 to house the Houston & Brazos Valley Railway offices. A two-story addition was built on the adjoining lot in 1918. In the 1940s, it housed Freeport City Hall and the Chamber of Commerce meeting room (1943 Sanborn). The Freeport Sulphur Company bought the building in 1955 and housed its offices there until 1973. Current function: Park Ave. Lofts

Current conditions: Historically iron bars were located on the first floor bank windows; they have been removed. The building has otherwise experienced minimal change to the exterior.



CURRENT PHOTO



101 W BROAD STREET

UTSA CURPR, Feb 2024

Parcel #: 209303 Year Built: 1940 Style/Form: 2-part commercial block C/NC: Contributing

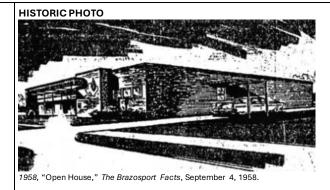
Historic function: The Freeport Pharmacy was one of Freeport's original businesses, occupying a one-story, wood-frame building on the site. The present building was constructed in 1940 and the second floor was leased as office space.

Architect: Otto Woestemer of Houston.

Current function: Vacant

Current conditions: The second story window on the primary elevation has been partially infilled and original neon signage has been moved. Second story windows on the east facade have all been replaced.





316 W PARK AVENUE

Parcel #: 209307 Year Built: 1958 Style/Form: Mid Century Commercial C/NC: Contributing

Historic function: Constructed as the Brazosport office of the Houston Natural Gas Company, which operated in the building until at least the early 1970s. The brick building included a covered drive-in window for customers and a small paved parking area. As a "nostalgic touch" a gas light burned 24 hours a day on the front of the building.

Architect: the Austin Company.

Current function: Vacant

Current conditions: The glass storefront windows have been covered with painted plywood, but appear to be intact beneath. Minimal alterations beyond the removal of original Houston Natural Gas Company signage.



318 W PARK AVENUE

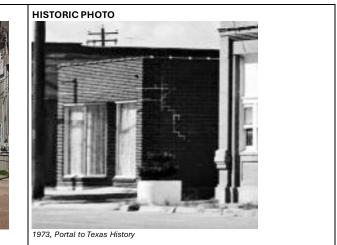
Parcel #: 209308 Year Built: 1945 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Constructed by a Mrs. W.L. Water and identified as the "Walter Building" in some newspapers. Occupied by Sellers Insurance Agency (later Sellers Harbour Insurance Agency) from 1945 until the 1970s. Current function: Vacant Current conditions: The railing along the awning has been removed.

CURRENT PHOTO UTSA CURPR, Feb 2024

112 W BROAD STREET Parcel #: 209324 Year Built: 1950 Style/Form: 1-part commercial block C/NC: Non-contributing

Historic function: Constructed for Gary Hardware & Sporting Goods. During the 1960s it housed Landry Hardware and the Retail Merchants Association, and the Credit Bureau of Freeport from the late 1960s into the 1970s. Current function: Vacant Current conditions: Original storefront has been infilled and is no longer discernible. Brick has been coated with stucco.





Parcel #: 209325 Year Built: c. 1912 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Freeport's first post office and one of the few remaining wood-frame commercial buildings dating to Freeport's early years. Occupied by Stringfellow Paint Shop/Stringfellow's Hardware and Paint Shop from the 1930s until 1952. Subsequently occupied by Mize Jewelry Store in the mid 1950s and Marian's Dress Shoppe in the 1960s.

Current function: Vacant

Current conditions: Largely unchanged since original construction. Doors and windows are boarded but appear to be intact and date to the period of significance.



118 W BROAD STREET

Parcel #: 209325 Year Built: 1952 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Built by Nannie Maddox Stringfellow as the new location of Stringfellow Paint Store, which occupied the building into the 1970s. In lieu of solid plate glass, storefront windows were designed with 48-inch squares framed with cast aluminum.

Current conditions: Appears to have been minimally altered beyond painted brick. Front door is covered but appears to be original.



120 W BROAD STREET

Parcel #: 209326 Year Built: c. 1940 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Occupied by the Twentieth Century Club in 1955. Current function: Broad St. Market Current conditions: Awning has been removed and transom is boarded.



126 W BROAD STREET

Parcel #: 209328 Year Built: 1941 Style/Form: 2-part commercial block C/NC: Contributing

Historic function: Constructed as a Butler-Grimes Company variety store as their 16th location, which operated until 1961. It was subsequently occupied by an Army-Navy store into the 1970s. Current function: Vacant Current conditions: Storefront has been removed, creating open recessed space beneath the second story. Shingles and non-historic windows applied to primary elevation. Awning has been removed. Appendix 05



130 W BROAD STREET

Parcel #: 209329 Year Built: 1941 Style/Form: Art Deco, 1-part commercial block C/NC: Contributing

Historic function: Known as the Wetzel Building (owned and constructed by Harry Wetzel). Built to house two businesses, one facing the corner of Broad and Cherry and the other at the rear facing Cherry. The corner commercial space was originally occupied by Proctor Drug Company while the M System grocery store originally occupied the Cherry storefront. Evans Drug Company occupied the corner space from the late 1940s through 1970. Both Proctor and Evans Drug Company were affiliated with Walgreens.

Current function: Tim Hootman Appeals Lawyer

Current conditions: Brick around the storefront is not historic. Doors and windows have been replaced through retained original openings. Awning has been removed. The building originally had structural glass surrounding the windows and entrance, which has been removed.



Facebook Group

202 W BROAD STREET

Parcel #: 209344 Year Built: 1912 Style/Form: Modest Colonial Revival C/NC: Contributing

Historic function: The Freeport Townsite Company office, the first building constructed in Freeport. It was later occupied by the Southwestern Bell Telephone Company. The building was extensively renovated prior to 1943 to enclose the porch and clad the entire structure with brick. Current function: Vacant

Current conditions: Largely unchanged since mid-20th century renovation.



204-206 W BROAD STREET

Parcel #: 209345 Year Built: c. 1980 Style/Form: 1-part commercial block C/NC: Non-Contributing

Historic function: Non-historic age; n/a Current function: Vacant (204), New Hope Holiness Church (206) Current conditions: Unpainted aggregate concrete building with awning. Elevated slightly above street level with a set of concrete steps.



208-210 W BROAD STREET Parcel #: 209346 Year Built: 1949 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Built by Claude A. Stringer (known as the Stringer Building) and originally housed his Star Dry Cleaners business, as well as Russell's sewing appliance store. Star Cleaners occupied the building until at least the 1970s. Current function: Vacant

Current conditions: Painted brick facade. East storefront transoms and entrance have been altered.

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HISTORIC PHOTO

CURRENT PHOTO



HISTORIC PHOTO

212 W BROAD STREET

Parcel #: 209347 Year Built: c. 1950 with later addition Style/Form: 1-part commercial block C/NC: Non-Contributing

Historic function: Ben Gordon Loans first known occupant (1954-1962). Ward's Fashion Outlet in the early 1970s. West addition was added some time prior to 1982. Current function: Residence

Current conditions: Though no clear historic photos have been found, the primary facade has been altered through the removal of the historic storefront and application of vinyl siding.



218 W BROAD STREET

Parcel #: 209348 Year Built: c. 1917 Style/Form: 2-part commercial block C/NC: Contributing

Historic function: Likely constructed in 1917 when the Freeport Independent Order of the Oddfellows (I.O.O.F) was formed. One of few examples of wood-frame commercial buildings dating to Freeport's early years. The 1943 Sanborn map identifies the first floor as the Public Library. Current function: Vacant

Current conditions: Windows, entrance, and awning are non-historic. It appears that the building historically featured signage on the second story between the windows, which has been removed.



222 W BROAD STREET

Parcel #: 209349 Year Built: 1942 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Built as a Piggly Wiggly grocery store by L.C. Morrison. Addition constructed in 1947. Western Auto from 1961 until at least the 1970s. Current function: Vacant Current conditions: Painted brick exterior. Windows are boarded and wrap-around awning has been removed. Roof cap is likely non-historic.

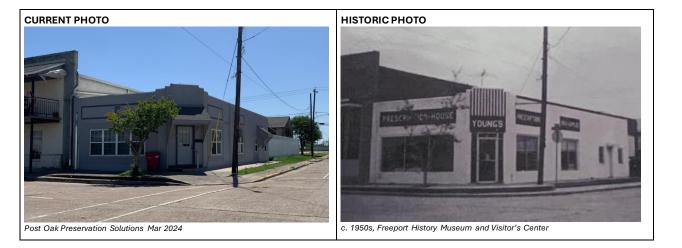


W BROAD STREET

Parcel #: 209350 Year Built: c. 1918 Style/Form: Masonry Vernacular C/NC: Contributing

Historic function: Freeport Jail built in 1918 and in use until approximately 1951. Current function: Vacant

Current conditions: The exterior has been painted but otherwise retains its historic appearance. The painted sign that reads "FREEPORT JAIL" is not original.



Parcel #: 209351 Year Built: 1941 Style/Form: Art Deco, 1-part commercial block C/NC: Contributing

Historic function: Originally housed Phillip's Prescriptions and was diagonally across from the Freeport Medical and Surgical Clinic built the same year. The building was constructed of hollow tile with white stucco on the exterior. Young's Prescription House occupied the building from the late 1940s through at least the late 1970s. Current function: Residence

Current conditions: Storefront windows and entrance have been altered. Awning above primary entrance is non-historic.



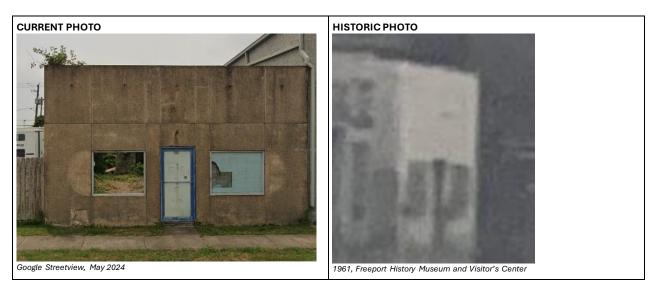


c. 1950s (left) and 1961 (right), Freeport History Museum and Visitor's Center

225 W BROAD STREET Parcel #: 209352 Year Built: 1950 Style/Form: Originally 1-part commercial block (second floor appears to have been added on interior) C/NC: Non-contributing

Historic function: Built as the new home of Wright Chevrolet, which previously occupied the building at 203 Broad Street. The company also sold home appliances, and the building included a showroom, parts and service departments, a model kitchen, and offices. Current function: Residential

Current conditions: Painted brick exterior, storefronts heavily modified and infilled. Non-historic two-story porch appended to primary facade.



219 W BROAD STREET

Parcel #: 209353 Year Built: c. 1942 Style/Form: 1-part commercial block C/NC: Non-contributing

Historic function: Identified as "dry cleaning" on the 1943 Sanborn Map. Freeport Tailors & Cleaners 1947-1972. The building is currently a ruin, with only exterior walls intact. Current function: Ruin/Vacant Current conditions: All that remains are the exterior walls. The roof and all interior finishes have been lost.



203 W BROAD STREET

Parcel #: 209356 Year Built: c. 1925 Style/Form: 1-part commercial block C/NC: Non-contributing

Historic function: Lynn Chevrolet Company (later known as Wright Motor Sales) was the earliest known occupant. Wright Motor Sales occupied the building until 1950. The second floor was lost during the 1932 hurricane. Current function: Vacant Current conditions: The large storefront windows and transoms have been infilled and the brick exterior walls have been painted, but the original openings are still

somewhat discernible.



Parcel #: "0" Year Built: 1949 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Constructed by G.C. Hardman, former Freeport mayor and owner of the adjacent building. First occupied by the Hobby Horse. Subsequent occupants included The Paint Store 1951-1952, Glamour Shop 1953-1956, Olive's La Vogue Beauty Salon 1956-1963. Current function: Vacant

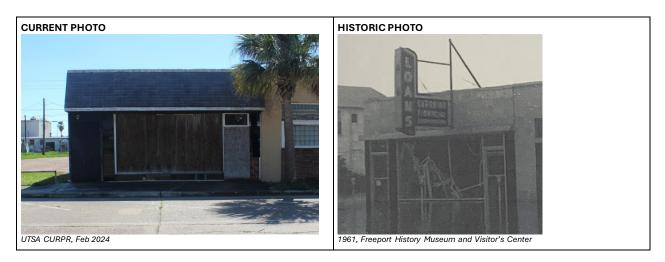
Current conditions: Non-historic aggregate concrete cladding is in deteriorated condition, revealing historic stucco exterior beneath. Original openings have been partially infilled and altered.



129 W BROAD STREET Parcel #: 209296 Year Built: C. 1927 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Earliest known owner was pioneer citizen, former mayor, and owner of the Freeport Insurance Agency, G.C. Hardman and known as the "Hardman Building." The Freeport Insurance Agency occupied the building from at least 1930 through the mid-1970s. It originally featured two storefronts, which were combined into a single storefront prior to 1961. Houston Natural Gas Company occupied a storefront from 1931-1941 followed by the Freeport Flower Shop from 1941-1945. Current function: Vacant

Current conditions: The entrance door has been replaced. The building otherwise retains its 1961 appearance.



127 W BROAD STREET

Parcel #: 209297 Year Built: c. 1947 Style/Form: 1-part commercial block C/NC: Non-contributing

Historic function: Earliest known occupant was the Freeport Paint and Wallpaper Company in 1952. The Guardian Financial Corporation occupied the building from at least 1953-1961. Current function: Vacant

CURRENT PHOTO



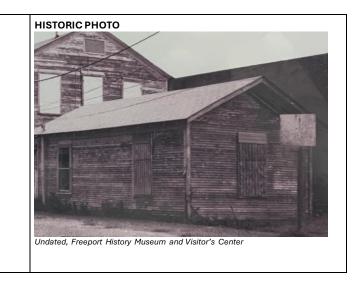
UTSA CURPR, Feb 2024

121 W BROAD STREET Parcel #: 209299 Year Built: c. 1925 Style/Form: Frame Vernacular C/NC: Contributing

Historic function: The building was originally a small dwelling at the rear of the Caroll Hotel/Lone Star Rooming House/Central Hotel (no longer extant). Current function: Vacant

Current conditions: Non-historic vinyl or aluminum siding has been applied to original wood siding. Several openings have been enclosed beneath the siding.

Current conditions: Non-historic mansard roof appended to primary elevation, storefront has been altered and partially boarded.





Parcel #: 209300 Year Built: 1941 Style/Form: Modest Art Deco, 1-part commercial block C/NC: Contributing

Historic function: Built for Houston Natural Gas Company which occupied the building until 1958. Modern Cleaners 1958-1964, followed briefly by Sun Ray Cleaners. The Coast Record Shop occupied the building from 1966-1976.

Architect: Otto Woestemeyer of Houston.

Current function: Vacant

Current conditions: A newer, compatible storefront appears to have been installed. Historic signage has either been lost or boarded over.





117 W BROAD STREET

Parcel #: 209301 Year Built: 1949 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Part of a block of three buildings constructed by Nannie Maddox Stringfellow. McSpadden Jewelry was the original occupant and remained in the building until 1961. It was then occupied by the Brazosport Flower Shop until at least the early 1970s. Current function: Vacant

Facebook Group

Current conditions: Brick facade has been painted. Storefront is boarded, but appears to be intact beneath.



115 W BROAD STREET

Parcel #: 515910 Year Built: 1949 Style/Form: 1-part commercial block C/NC: Non-Contributing

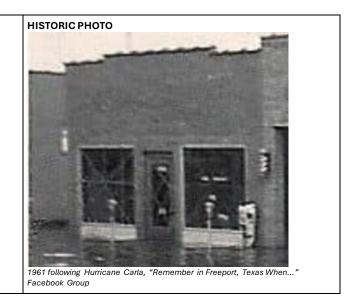
Historic function: Part of a block of three buildings constructed by Nannie Maddox Stringfellow. Emerald Beauty Shop was the original occupant and remained there until at least the early 1970s. Current function: Residence Current conditions: Brick facade has been painted. Storefront has been infilled and heavily modified: if a more compatible storefront were introduced, the building could be changed to contributing status.



113 W BROAD STREET

Parcel #: 209302 Year Built: 1949 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Part of a block of three buildings constructed by Nannie Maddox Stringfellow. Frenchy's Barber Shop was the original occupant. Current function: Vacant Current conditions: Exterior brick has been painted. Newer, compatible storefront has been installed.



CURRENT PHOTO HISTORIC PHOTO WILLENBERG PHARMAC Post Oak Preservation Solutions, Mar 2024 c. 1969, "Remember in Freeport, Texas When..." Facebook Group

127 W 2ND STREET

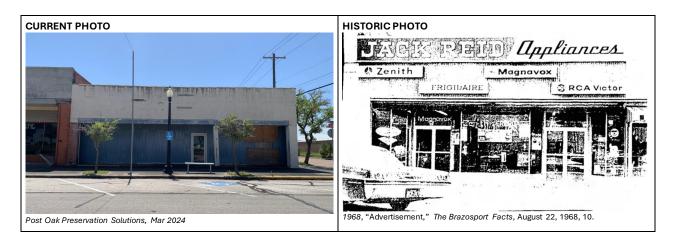
Parcel #: 209311 Year Built: 1941 Style/Form: 1-part commercial block C/NC: Contributing

Historic function: Built for Brockman & Company, a department store. The primary elevation features marble and Texas shell stone. The C.R. Anthony Company occupied the building from 1951-1968, and Willenberg Pharmacy from 1969 into the 1970s. The current storefront dates to a 1969 renovation and appears to be intact beneath boarded windows.

Architect: Leland Gabert of Houston.

Current function: Vacant

Current conditions: The storefront windows are currently boarded but appear to be intact beneath. Character-defining Texas shell stone remains intact above the storefront.



129 W 2ND STREET

Parcel #: 209310 Year Built: 1941 Style/Form: 1-part commercial block C/NC: Non-contributing

Historic function: Constructed as a Ben Franklin Variety Store and shoe store (two commercial storefronts. Front originally featured colored structural glass. Jack Reid Appliances occupied the building from the late 1960s through the 1970s. Current function: Vacant

Current conditions: Storefront has been heavily altered with non-historic infill.



200 W 2ND STREET Parcel #: 209335 Year Built: 1970 Style/Form: New Formalism

C/NC: Contributing

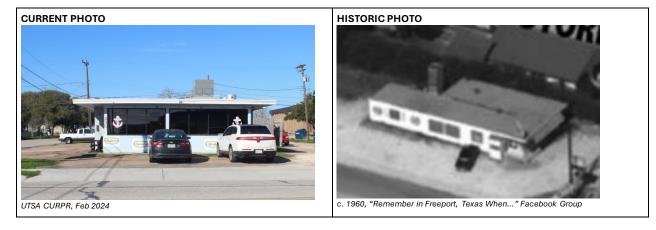
Historic function: Three-story building constructed by the Freeport First National Bank. The first and second floor served banking functions, while the third floor was leased for private offices. Newspapers from the time of the building's completion described a rooftop helipad. Current function: City Hall Current conditions: Largely unchanged since original construction.



222 W 2ND STREET Parcel #: 209336

Year Built: 1953 Style/Form: 1-part commercial block C/NC: Non-contributing

Historic function: Built and operated as a Goodyear Service Store until at least the mid-1970s. Current function: Signal Electronics Current conditions: Historic storefront has been heavily altered with non-historic infill.



230 W 2ND STREET Parcel #: 209338 Year Built: c. 1950 Style/Form: Mid-Century Commercial C/NC: Contributing

Historic function: Occupied by a series of restaurants since its construction: Ace's Cafe (1951), the Cherokee Inn restaurant (1962), Country Boy Bar-B-Q (1971) Current function: Sweet T's Diner Current conditions: Appears to retain its original form and configuration. Windows have been replaced with tinted glass.



231 W 2ND STREET

Parcel #: 209339 Year Built: 1942 Style/Form: Service Station C/NC: Contributing

Historic function: Built as a Conoco Service Station which operated well into the 1960s. Current function: Ocean Food Mart, U-Haul dealer Current conditions: A non-historic addition has been appended to the rear of the building. The westernmost awning has been removed. Non-historic brick covers the base of the awning columns. Downtown Historic District Resource Inventory

Appendix 06: The Use of Substitute Materials on **Historic Building Exteriors**

The following article is reprinted from the U.S. Department of the Interior, National Park Service: https://www.nps.gov/orgs/1739/upload/preservation-brief-16-substitute-materials-2023.pdf.

Note

16 PRESERVATION BRIEFS

The Use of Substitute Materials on Historic Building Exteriors

John Sandor, David Travte, and Amy Elizabeth Uebel



National Park Service U.S. Department of the Interior **Technical Preservation Services**

The Secretary of the Interior's Standards for Rehabilitation generally require that deteriorated distinctive architectural features of a historic property be repaired rather than replaced. Standard 6 of the Standards for Rehabilitation further states that when replacement of a distinctive feature is necessary, the new feature must "match the old in composition, design, color, texture, and other visual properties, and, where possible, materials" (emphasis added). While the use of matching materials to replace historic ones is always preferred under the Standards for *Rehabilitation*, the Standards also purposely recognize that flexibility may sometimes be needed when it comes to new and replacement materials as part of a historic rehabilitation project. Substitute materials that closely match the visual and physical properties of historic materials can be successfully used on many rehabilitation projects in ways that are consistent with the Standards.

The flexibility inherent in the Standards for Rehabilitation must always be balanced with the preservation of the historic character and the historic integrity of a building, of which historic materials are an important aspect. Any replacement work reduces the historic integrity of a building to some degree, which can undermine the historic character of the property over time. With limited exceptions, replacement should only be considered when damage or deterioration is too severe to make repair feasible. When needed replacement is made with a material that matches the historic material, the impact on integrity can be minimal, especially when only a small amount of new material is needed. When a substitute material is used for the replacement, the loss in integrity can sometimes, although not always, be greater than that of a matching material. Also, whether historic or substitute material, there is a point where the amount of replacement can become excessive and the building's historic integrity is diminished to an unacceptable degree, regardless of the material used-that is, a loss of authenticity and the physical features and characteristics closely associated with the property's historic significance.

The term substitute materials is used to describe building materials that have the potential to match the appearance, physical properties, and related attributes of historic materials well enough to make them alternatives for use in current preservation practice when historic materials require replacement.

Compelling reasons to use a substitute material instead of the historic material include the unavailability or poor performance of the historic material, or environmental pressures or code-driven requirements that necessitate a change in material. When using a substitute material for replacement it is critical that it match the historic material in all of its visual and physical properties to preserve the historic character of the building and minimize the impact on its integrity.

Substitute materials can be cost-effective, permit the accurate visual duplication of historic materials, and provide improved durability. While the behavior of traditional, historic materials is generally well understood, the behavior of newer materials can be less established and sometimes less predictable. Substitute materials are most successful when the properties of both the original material and the substitute are thoroughly understood by all those involved in the design and construction process. The architect must be adept at the selection of substitute materials and their incorporation into architectural plans and specifications. The contractor or tradesperson in the field must also be experienced with their use.

This Preservation Brief provides general guidance on the use of substitute materials as replacement materials for distinctive features on the exterior of historic buildings. Due to the ever-evolving product market for construction materials, this Brief does not provide specifications for substitute materials. This guidance should be used in conjunction with gualified professionals who are knowledgeable in current construction and historic preservation practices.

This Brief includes a discussion of the appropriate use of substitute materials and provides a path for decisionmaking in their use. In considering the use of substitute materials, such issues as the deterioration or failure of the historic building component and material must be understood. The existing component's physical and visual properties, profile, surface texture, dimensions, and performance should be identified to establish the basis for evaluating a possible replacement material. The physical and visual properties of the various substitute materials available should also be assessed and compared to the original material for their physical and visual compatibility. Lastly, the suitability of a given substitute replacement material should be determined based on how well the material matches both the physical and visual properties of the existing material as well as any specific performance or application needs. The Brief's descriptions of common substitute materials are not meant to be comprehensive, and, as the performance history of newer materials continues to grow and new materials are developed, available options will change, and our understanding of current material performance will continue to evolve.

Historical Use of Substitute Materials

The tradition of using affordable and common materials in imitation of more expensive and less available materials is a long one. At Mount Vernon, for example, George Washington used wood painted with sand-impregnated paint to imitate rusticated stone. This technique, along with scoring stucco into block patterns, was common in Colonial America to imitate stone.

Nineteenth-century technology made a variety of materials readily available and widely used that were not only able to imitate traditional materials but were also cheaper to fabricate and easier to use. Traditionally, carved stone units were individually worked. Molded or cast materials greatly increased efficiency in creating repetitive elements. Cement-based products such as cast stone could provide convincing imitations of natural stone with carefully chosen aggregates and cements and was typically a commercially manufactured product. It could be tooled like natural stone, though that could reduce much of the cost advantage. These carefully-crafted cementitious products were widely used as trim elements for masonry structures or as the face material for an entire building. At the other end of the spectrum, mail-order catalogs provided a wide variety of forms for molding concrete that were merely evocative of natural stone and did little to match its appearance. Concrete masonry units could be fabricated locally and on site, avoiding expensive quarrying and shipping costs.

Offering similar efficiencies as cast stone for reproducing repetitive and even complex decorative shapes, terra cotta could mimic the surface characteristics of stone with various textures and glazes. It was popular in the late nineteenth and early twentieth centuries for details on stone or brick buildings as well as for the entire skin of large and elaborately detailed buildings.

Cast iron was also used to imitate stone, often with very decorative profiles, for a variety of architectural features ranging from window hoods to columns, piers, balustrades, and even whole façades. Cast iron offered its own set of efficiencies including cost, fabrication time, and weight, but required a painted finish.

While cast stone, terra cotta, and cast iron offered efficiencies over quarried and, particularly, carved stone, they were not cheap or impermanent materials. Less costly, but also less durable, stamped or brake-formed sheet metal, typically galvanized, could also be used instead of masonry for cornices, window hoods, roofing tiles, and even entire building façades.

Substitute Materials and Applying the Standards for Rehabilitation

The Standards for Rehabilitation are focused on preserving the important and distinctive character-defining features of a historic property (Standards 2 and 6), and they are to be applied in a reasonable manner, taking into account economic and technical feasibility (<u>36 CFR 67.7</u> and <u>36 CFR</u> <u>68</u>). The Standards have an inherent flexibility that facilitates their application to diverse projects, historic properties, and conditions. They are to be applied on a "cumulative-effect" basis, when the overall effect of all work in the context of the specific conditions of the property and the project is consistent with the property's historic character.

The Standards for Rehabilitation require that the replacement of a distinctive feature match the old in physical and visual properties. While the use of matching materials is always preferred, the Standards purposely allow for the use of substitute materials when the use of original materials is not reasonably possible, such as in consideration of economic and technical feasibility or in new construction. They also provide additional flexibility in the treatment of secondary, less distinctive features that are less important in defining the historic character of the property. The Standards for Rehabilitation recognize that flexibility is appropriate to facilitate "a compatible use for a property ... while preserving those portions or features which convey its historical, cultural, or architectural values" (definition of "Rehabilitation," 36 CFR 67.2(b)).

Examples of Historical Use of Substitute Materials



Figure 2a. Casting concrete blocks to mimic quarried stone was a popular late 19th- to mid 20th-century technique. Concrete masonry units could be completed by local craftsman, saving time and shipping costs. Photo: John Sandor, NPS.



Figure 2c: Stucco has been used to imitate a number of building materials for many centuries. Seen here, stucco was applied to a brick structure and scored to represent a stone façade. Photo: John Sandor, NPS.

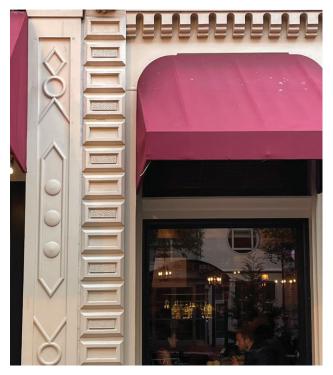


Figure 2b: The 19th century also produced a variety of metal products used to imitate other materials. Across the country, cast iron was used in storefronts to imitate stone. Photo: John Sandor, NPS.



Figure 2d: Terra cotta gained popularity in the late 19th century as a cheap and lightweight alternative to stone. Glazing techniques allowed the blocks to imitate a variety of natural stone materials. Photo: John Sandor, NPS.

These examples of one material used to imitate another, more often in initial construction than for later repair and replacement purposes, are referred to as *imitative materials* in the *Guidelines for Preserving*, *Rehabilitating*, *Restoring* & *Reconstructing Historic Buildings*, updated in 2017, that accompany the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. These imitative materials, while evoking other materials, usually had distinctive qualities of their own and were not always a very close match in appearance to the historic material they were meant to imitate.

Many of the traditional materials discussed above are still available and used to replace damaged or missing original features, both to replace matching historic materials and sometimes as substitute materials. Because of their extensive use over time and their known physical and chemical properties, cast stone, cast iron, and terra cotta are well understood substitute materials. This continued usage and familiarity means their installation requirements and service life are well established, which in turn makes it easier to determine when and how to use these traditional materials as substitutes for a deteriorated material. However, innovation in replacement materials continues, and new products (many of them consisting of synthetic materials) are continually introduced. These non-traditional products are an increasing part of both the new construction and rehabilitation industries. Some materials, like glass fiber reinforced polymers, glass fiber reinforced concrete, or fiber cement, have been in use long enough for an accurate prediction of their service life and performance. Other newer, non-traditional materials may be too new to have established performance records, thus, understanding their material properties is critical, and their use should be approached with more caution.

When to Consider Using Substitute Materials in Preservation Projects

According to the Standards for Rehabilitation, deterioration should generally be addressed through repair if in repairable condition. Repair can entail a variety of treatments that retain the unit of building material and remove and patch or replace only the damaged portion. This approach can be done with traditional methods and materials such as a dutchman, where like-kind material is precisely inserted into wood or stone, or it may employ other materials such as epoxies for wood repair or cementitious compounds for masonry. As long as the repair methods are sound and do not damage or accelerate the deterioration of the historic material, repairs are generally preferable to replacement of an entire element. More complex manufactured products, typical of more recent historic materials (as well as a lot of modern building materials generally), may be more difficult to repair, if they can be repaired at all.

There are situations, however, when the level of deterioration makes localized repairs infeasible and entire fea-



Figure 3: Incremental repair is best done using in-kind material to minimize differences in the performance characteristics that could negatively affect the overall assembly. Photo: NPS.

tures or units of historic material must be replaced. While achieving an effective match of all of the visual qualities of a material can be challenging, even when replacement is in kind, it can be even more challenging when the replacement is a substitute material. A good visual match is not the only consideration when a substitute material is to be used for incremental replacement within a larger assembly of historic material. When an individual siding board or a single block of ashlar is being replaced, it is usually best achieved with the original material. Introduction of a different material into an intact assembly requires that its inherent properties, such as expansion and contraction, moisture resistance, or permeability, be thoroughly considered relative to those of the surrounding historic materials to avoid causing damage.

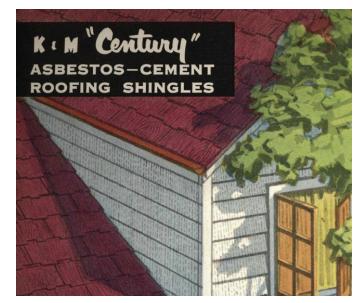


Figure 4. While occasionally used to imitate other materials such as wood or slate shingle, many asbestos shingles and siding materials had their own distinct shape and profile. No longer manufactured today, alternative materials must be found to replace these materials when they are distinctive features on a historic structure. Drawing: Association for Preservation Technology, Building Technology Heritage Library.



Figure 5. (Left) Asbestos shingles were often used as a substitute for traditional slate roof shingles. The historic asbestos roof on this rehabilitation project had reached the end of its lifespan and required complete replacement. (Right) Given the limited replacement materials available to match the historic asbestos shingles, utilizing natural slate was determined to be the best visual match for the original shingles and design intent in this instance. Photos: Crosskey Architects.

Circumstances in which the use of substitute materials may generally be considered appropriate, taking into consideration technical and economic feasibility reasons, include: the unavailability of historic materials; the unavailability of skilled artisans or historic craft techniques; inadequate durability of the original materials; the replacement of a secondary feature; construction of a new addition; the reconstruction of a missing feature; code-required performance; and for enhanced resilience and sustainability:

• Unavailability of historic material. A common reason for using substitute materials is the difficulty in finding a good match using the historic material (particularly a problem for masonry materials where the color and texture are derived from the material itself). This may be due to the actual unavailability of the material or to protracted delivery dates, particularly if the material cannot be sourced domestically. It is not uncommon for a local guarry that is no longer in operation to have been the source of an original stone. If another quarry cannot supply a satisfactory match, a substitute material such as drytamp cast stone or textured precast concrete may be an appropriate alternative, if care is taken to ensure that the detail, color, and texture of the original stone are matched. Even when the color is successfully matched, the appearance of a cementitious product may diverge from that of the historic stone as the substitute material ages.

Many manufactured materials that were used historically on buildings are no longer made. Terneplated steel, which was the material most typically used for painted standing-seam or flat-seam roofing, is no longer made. However, because it was always painted, other metals including galvanized steel or copper can generally be substituted if painted. When the historic material needing to be replaced is a manufactured product developed as an imitation of a natural material, which was the case with asbestos shingles meant to imitate slate, the natural material may now be an appropriate substitute material to consider for the manufactured one that is no longer produced.

- Unavailability of skilled artisans or historic craft techniques. These two issues can complicate any preservation or rehabilitation project. This is particularly true for intricate ornamental work, such as carved wood, carved stone, wrought iron, or cast iron. While skilled craftsmen may not be as difficult to find as they once were, there can still be limitations geographically, even in finding less specialized skills, and particularly if a project is small. Technical advances have allowed some stone or wood carvers to take advantage of computerized equipment, but complex designs will likely still require hand work. It may also be possible to mimic a carved element using a material that can be cast in a mold, adding significant efficiency where an historic element survives from which a mold can be made. Options for casting include aluminum, cast stone, fiberglass, glass fiber reinforced concretes, and terra cotta, but not all carved elements can be duplicated by a casting, and mold-making and casting still require skilled craftsmen.
- Inadequate durability of the original material. Some historic building materials were of inherently poor quality or were not durable. In other cases, one material was naturally incompatible with other materials on the building, causing staining or galvanic corrosion. Examples of poor-quality materials are very soft sandstones, which eroded quickly, and brownstone, which is vulnerable to delamination. In some cases, more durable natural stones may be visually similar enough to stand in for these soft stones but cast stone or another material may be needed to achieve an appropriate match.

The ready availability of manufactured ornamental wood features fed a nineteenth-century taste for decorative architectural details that were often used on the exterior of buildings with little concern for how they would be affected by moisture or maintained. Even old-growth wood from decayresistant species often could not prevent features with severe exposure from eventually needing to be replaced. Today's available commercial supplies of lumber no longer provide the denser, more decayresistant wood of old-growth forests, so even careful matching to species, which is not always possible, will not yield a replacement equal in performance to the historic material. Old-growth wood is likely to be very expensive, if it can be found, and may not be available from a sustainable, environmentally responsible source. When features with severe exposure need to be replaced or reproduced, substitute materials that are less susceptible to decay can have a longer life, and when the feature is painted, as exterior wood features generally are, the visual effect of a substitute material can be minimal.

• Replacement of a secondary feature. When it is necessary to replace a less distinctive, secondary feature that is less important in defining the historic character of the property, there is more flexibility in how it can be replaced. While it may be less important to find an exact match in materials when replacing



Figure 6. The dramatic difference in the number of growth rings between old-growth wood and wood that was recently harvested from secondor third-growth forests is indicative of the diminished dimensional stability and durability of most lumber currently available. Photo: Zachary Dettmore.

such a feature, the retention of the overall historic character should still guide selection of an appropriate replacement material. For example, replacing secondary features such as those with limited visibility (e.g., siding materials on a rear elevation) may permit replacement materials that are similar in appearance or character without having to be a perfect match.

• Construction of a new addition. The Standards require that new additions to historic buildings and related new construction be differentiated from the old as well as be compatible with the historic character of the property and its site and environment. Using materials that evoke, without matching, the historic material can be an effective means of achieving the needed balance between compatibility and



Figure 7. A new addition replaced non-historic construction on the rear elevation of this building. Fiber cement gives the addition a compatible appearance without replicating the exposure for thickness of the historic siding. Photo: Ward Architecture + Preservation.

differentiation for new additions and new construction. Even if differentiation is achieved through design rather than materials, there generally is no basis for requiring the use of matching historic materials for new additions and new construction as part of a rehabilitation project.

 Reconstruction of a missing feature. Many buildings lose significant features over the course of their lives for reasons such as those previously discussed. When a missing feature is to be reconstructed, the importance of matching the original material may be less important to the effect replacing the missing feature may have on the overall historic character and appearance of the building. Though replacement of missing features must be substantiated by documentary, physical, or pictorial evidence, in many cases the authenticity of the material may be secondary to the overall visual qualities. The use of a more cost-effective substitute material for the construction of a missing feature can often be an important factor in the feasibility of undertaking such work.

• Code-required performance. Modern building codes are regularly amended to require higher performance levels for new and existing buildings in such areas as life safety, seismic retrofits, and accessibility. Rehabilitation projects often trigger compliance with code requirements that were not in place when a building was constructed. Although building codes may often allow for the retention of historic materials and assemblies, substitute materials can offer an alternative in situations when the historic materials are non-compliant and cannot otherwise be reasonably retained. In these instances, a change in material may be appropriate to meet code requirements, while in other instances selecting the optimal code compliance method for the project may achieve code-compliant solutions that also allow for the preservation of a building's historic materials and finishes.

For example, fire codes may require increased resistance to flame spread for buildings within dense urban environments where building proximity and separation between buildings is a concern. Some substitute materials are non-combustible, have good ratings for flame spread, and can provide an alternative to help meet

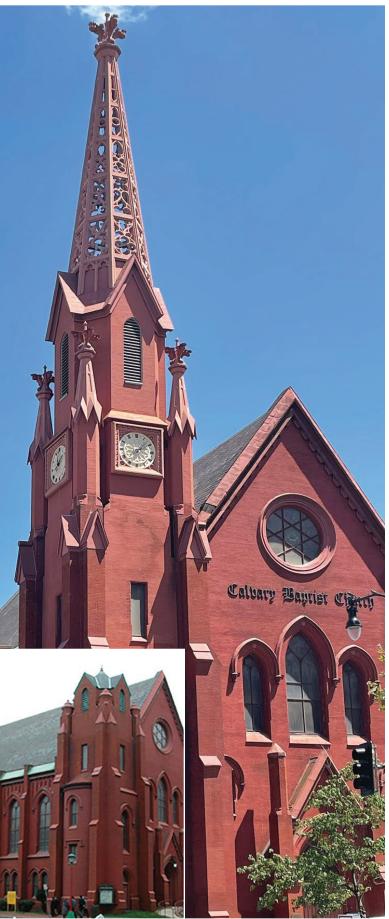


Figure 8. A long-missing cast-iron steeple was reconstructed in aluminum and fiber-reinforced polymer (FRP). Photo: John Sandor, NPS, Inset: Quinn Evans.

fire code requirements. Depending on the building component and the material, however, a substitute material may not resist fire any better than the historic material. In addressing code issues, all feasible alternatives should be considered to minimize the impact on the historic character of the building while still meeting code requirements.

With specific provisions in building code related to issues such as seismic hazards, the choice of materials for features inherently unstable in a seismic event can be a key part of a code-compliant retrofit solution. Elements at risk of falling such as parapets, finials, and overhanging cornices may be made safe by anchoring them to new structural frames. However, for some heavy masonry features, especially where there is deterioration or the feature is difficult to effectively brace, adequately anchoring the existing feature may not prove feasible. In such cases removing and replacing these features with lighter-weight replicas that incorporate a resilient structural framework can help preserve the historic character of the building while improving life safety performance.

 Enhanced resilience and sustainability. Wildfires, earthquakes, floods, hurricanes, and other extreme weather events put historic buildings and their occupants at risk and may require adaptive treatments that are more invasive than might be accepted in other circumstances, including related to the use of substitute materials. In these contexts, it is still necessary to try to minimize impacts on a building's historic character as much as possible while still adapting it to be more resilient. Widespread wildfires, for example, have increased demand for fire resistant materials for the exterior building envelope. Flood events may necessitate the replacement of historic materials that have been damaged or inundated with hazardous substances in contaminated floodwaters. When undertaking repairs in such circumstances, substitute materials may offer greater resilience to anticipated future exposure to natural hazard risks.

Similarly, efforts to improve energy efficiency and performance may include the use of substitute materials as replacement components when modifications to building assemblies are required and the historic materials cannot be preserved. When evaluating substitute materials in the context of sustainability objectives, factors such as the environmental impact of production, the full life cycle of products, and the embodied carbon of the materials already in place should be carefully analyzed. There may be more sustainable choices for a replacement material, including the use of more traditional materials in place of manufactured products that may consist of non-renewable resources or hazardous materials. While some synthetic substitute materials are made from recycled materials or are otherwise sustainably produced, many are not repairable, salvageable, or recyclable themselves, and

they may have shorter lifespans to their historic material counterparts. When either greater resilience or sustainability is a factor, all feasible alternatives should be considered in finding a balanced approach that maintains historic character while meeting resilience and sustainability goals.

Substitute Materials and Economic Feasibility

Economic feasibility is inevitably a concern when choosing a material for any part of a project, whether a historic or substitute material, but it should not be the sole determinant factor at the expense of maintaining the



Figure 9. Previously bricked-in openings below the flood line were reopened and new aluminum windows installed with cellular PVC trim detailed to hold back moderate flood waters and survive exposure to water. Photo: John Sandor, NPS.

historic character and historic integrity of a building. Other factors may prompt the consideration of a substitute material, such as the cost of maintaining the historic material, because it is comparatively difficult or costly to reach or access, or the frequency of required maintenance the historic material needs. Additionally, where inkind replacement material is found to be prohibitively expensive, it may be reasonable to consider a substitute that offers an alternative and is a good physical and visual match. Not all substitute materials are, however, cost-effective replacements. Long-term durability and maintainability are other factors that should be considered in conjunction with initial cost.

Maintenance of a material, particularly where accessibility is difficult or expensive, can be an important part of a cost evaluation. Maintenance costs should not be considered without also considering life-cycle expenses. While some substitute materials may offer reduced initial costs, they may be as or more costly than traditional materials to maintain over time. For example, many substitute materials are not readily repairable, necessitating full replacement when damaged. The cost to replace a material or assembly at the end of its lifespan may also be greater than the accumulated incremental expense to maintain the historic material, particularly if it is a more traditional, repairable material. Maintenance cost should never be the sole reason for replacing a historic material that is not deteriorated.

Criteria for the Appropriate Use of Substitute Materials

Substitute materials must meet three basic criteria to be considered: they must be compatible with the historic materials in appearance; their physical properties must be similar to those of the historic materials, or the materials must be installed in a manner that tolerates differences; and they must meet certain basic performance expectations over an extended period of time.

• Matching the Appearance of the Historic Material

Any material's appearance varies depending on the nature of the material and how it is used. Some historic materials, such as wood and ferrous metals, were typically painted, making the color of the substitute unimportant, though the texture of the surface, which telegraphs through a paint layer, is still an important consideration. Texture can be a large part of distinguishing a material formed by hand from one that is machine-made. Many historic materials, such as most building stones, are used without any coating, making the color, pattern, and reflectivity, as well as surface texture, dependent on the material itself. Matching the color and surface



characteristics of a historic natural material with a man-made substitute can often be quite difficult.

When the color and surface characteristics of an existing material are important, cleaning the material should be the starting point for evaluating a potential matching material. In situations where there are subtle variations in color and texture within the original material, the substitute material should be similarly varied so that it is not conspicuous by its uniformity. If a material is custom fabricated, a sufficient number of samples should be supplied to permit on-site comparison of color, texture, detailing, and other critical visual qualities. For a manufactured product with preset choices of color or texture, it may be necessary to look at samples from more than one manufacturer to find the best match. Similarly, prefabricated products, such as roofing slate, may offer limited, if any, choice of unit size, which can be a critical factor for achieving a good match. A substitute material should not be used to replace distinctive, characterdefining materials and features if an adequate match in design and appearance is not possible.

As all exposed materials are subject to ultraviolet degradation, samples of a new material, particularly when custom formulated, should be prepared during the early planning phases to allow for evaluation of the effects of weathering on color stability. When that is not possible, or if a prefabricated product is used, the fabricator or manufacturer may be able to identify regional locations where equivalent products have been installed long enough ago to get a better sense of how the material weathers and performs.

While a perfect match is the desired goal for replacing distinctive features, it is not always possible, even when the same matching material is chosen for the replacement. When any compromise



Figure 10. Polymer slates offer a choice of shapes but not sizes, limiting their ability to achieve a good visual match for some historic slate. With the size of the polymer slates (right) being nearly twice that of the historic slates (left), the scale of the entire feature is incompatibly altered. The molded edges of this material, which contribute to its ability to replicate slate, would be lost if each shingle was resized by cutting. Photo: John Sandor, NPS.



Figure 11. The thickness of the wood siding on the front (left) creates a deeper shadow line than is achieved with the fiber cement siding used on the side (right) elevation. While the exposure can be adjusted, fiber cement siding is not available in a matching thickness. Photo: John Sandor, NPS.

must be made in the precision of the match, it is wise to consider the vantage point from which the material will be seen. Sometimes what seems important at close range, such as variations in the texture of a surface, may be secondary to other aspects of the material when viewed from some distance. The closer a feature is to the viewer, the more closely the material and craftsmanship should match the original. An on-site mock-up using a sample of the proposed material can help evaluate whether it is an adequate visual match.

• Matching the Physical Properties of the Historic Material

Carefully chosen substitute materials can often closely match the appearance of historic materials, but their physical properties may differ greatly. These differences are most critical when incrementally replacing components of a larger assembly that retains significant historic material. The chemical composition of the material (e.g., the presence of acids, alkalis, salts, or metals) should be evaluated to ensure that the replacement materials will be compatible with the adjacent historic materials. Materials that will cause galvanic corrosion or other chemical reactions must be isolated from one another.

The thermal- and moisture-driven expansion and contraction coefficients of each adjacent material must be within narrow limits or be accommodated



Figure 12. Cellulose composite materials, like wood, expand and contract with moisture. Here it was used to reconstruct a missing storefront. Unlike solid wood that is dimensionally stable parallel to the grain, this composite moves equally in all dimensions, resulting in gaps that were not adequately anticipated in the design. Photo: John Sandor, NPS.

by carefully designed joints and fasteners. Joints can play a role both in accommodating movement of materials as well as in managing moisture, either to keep it from entering the enclosure assembly or to let it escape from the building envelope, or both. Because some synthetic materials are less permeable to moisture than more traditional materials, installations must take into account the potential to trap moisture and cause deterioration of historic and new materials. An assembly incorporating new and historic materials should be designed so that if material failures occur, the failures occur within the new material rather than the historic one.

During installation, surface preparation is critical to ensure proper attachment. Deteriorated underlying material must be removed or stabilized. Noncorrosive anchoring devices or fasteners that are designed to carry the new material and to withstand wind, rain, snow, and other destructive elements should be used. Since physical failures often result from poor anchorage or improper installation techniques, a structural engineer should be included in planning any major project. For readily available, off-the-shelf materials, manufacturers' recommendations for attachment and spacing should be followed.

Nearly all substitute materials have some properties that are different from the historic materials they may replace. Even when substitute materials are isolated from historic materials and features, it is important to understand the substitute materials' properties in order to use them successfully.

• Performance of the Material Over Time

When more traditional materials are used to replace damaged historic materials and features, their performance is predictable in most cases. An exception may be modern wood that has durability and other properties different than those of historic wood from oldgrowth forests. Many of the materials used as substitutes have been in use long enough to provide some idea of how they perform over time. Other material may only have test results from accelerated weathering. The length of manufacturer warranties may be an indicator of expected durability and lifespan. Warranties only predict a manufacturer's expectation of a product's performance and are no guarantee that the manufacturers will still be in business at the time needed to stand behind them. Just as new manufacturers emerge with new materials, others disappear. Where possible, projects involving substitute materials in similar installations and exposures should be examined before selecting a new, less-tested material. It is unrealistic to expect a substitute material, which can be quite different in composition than the historic material, not to age differently.

Even traditional materials will not perform well if not used or detailed appropriately, and experienced architects, engineers, fabricators, and installers rely on their professional knowledge and experience to ensure proper installation and techniques when working with familiar materials. This is just one of many reasons that using the original materials for needed replacement is usually the best choice. Some of the materials now available as substitutes have properties that differ greatly from the traditional materials they may be used to replace. It is critical to the successful performance of substitute materials that everyone involved in the selection, design, and installation fully understands the material's properties, especially how it is different than the material it is replacing, and how that will affect the surrounding materials and building systems.

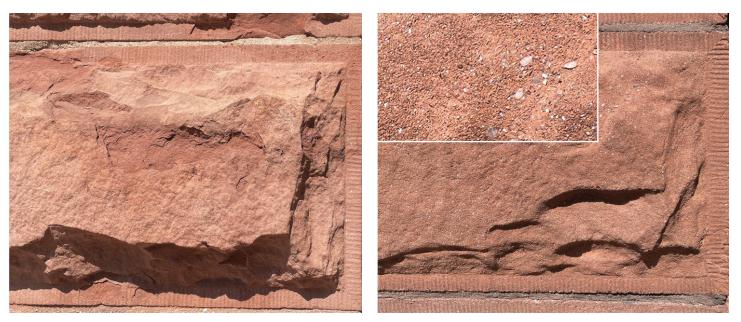


Figure 13. Cast stone was used to effectively replace individual blocks of sandstone. Both the original (left) and the substitute material (right) retain similar physical and visible properties. Having weathered for over 30 years, some erosion of the binder has revealed quartz grains of the aggregate (inset), but it is only noticeable upon close inspection. Photo: John Sandor, NPS.

Many traditional building materials can be repaired either with traditional methods and materials or with more modern conservation techniques using substances like epoxies. However, many modern substitute materials (particularly synthetic ones) are not as easily repaired, if repairable at all, as their more traditional counterparts. Confirming that a material is repairable may be important for those used, e.g., where impact or significant wear or abrasion is likely.

Finally, it is critical that the substitute materials be documented as part of the historical record of the building so that proper care and maintenance of all of the building materials continue, ensuring the continued life of the historic building.

Choosing an Appropriate Substitute Material

Once all reasonable options for repair and replacement in kind have been considered and sufficient justification for substitute materials has been established, the choice among the variety of substitute materials currently available must be made. Rapidly developing technologies allow a wide variety of materials to choose from that are intended to mimic historic materials. Many of the materials that were historically used as substitutes for more traditional historic materials have themselves become historic, and some of these early substitutes continue to be reasonable options as substitute materials today. No substitute material will exactly match the historic material in all aspects, but many are able to adequately match the appearance and relevant physical attributes to make for a potential substitute. If a substitute material is not an adequate physical and visual match given the specific conditions of the building and the project, then it should not be used to replace distinctive, character-defining materials and features.

Listed below are various building components or features and the substitute materials which may, in some circumstances, be considered for use as possible replacement materials in a historic rehabilitation project consistent with the Standards for Rehabilitation. This list includes different substitute material options available today for these building features and poses questions that should be asked and considered when choosing between the original material and various types of substitute materials. This is followed by a list of some of the more commonly used, currently available materials that may have some applications as substitute materials and the properties of each that affect their suitability for use as substitutes. This list should not be read as an endorsement of any of these materials, generally, or their appropriateness for use as a substitute material, but it serves as a reminder that the successful use of any building material requires a careful consideration of its properties relative to where and how it will be used.

Considering Substitute Materials

Considering the use of a substitute material should begin with the following questions about the conditions and location where it will be used:

- Will the significance or visibility of the historic feature require a very precise match?
- Is the entire feature being replaced or just a component of it?
- Are pre-existing conditions contributing to the failure of the existing material, and, if so, how will they be addressed/corrected?
- Is the need for replacement due to inherent deficiencies of the original material?
- Will the material need to resist any environmental hazards such as flooding or fire?

Historic Features and Substitute Materials

	instorio Bunang i caturos					
	Masonry Stone, terra cotta	Architectural Metals Cast & wrought iron, steel, pressed metal	Siding Wood, asbestos	Roofing Wood shingle, slate, tile	Decking Tongue-and- groove & square-edge wood	Molding / Trim Wood
Aluminum	•	•	•			•
Cast Stone & Precast Concrete	•			•		
Fiber Reinforced Concretes	•					
Glass Fiber Reinforced Polymers	•	•				
Fiber Cement			•	•		•
Mineral / Polymer Composite			•	•	٠	•
Cellulose Fiber / Polymer Composite			•	•	٠	•
Non-composite Polymers		•			٠	•
Cellular PVC			•		٠	•

Historic Building Features

The above chart lists materials that are sometimes used as substitutes for replacement of historic building features. Even within a given category, all materials may not be equally suitable as a substitute replacement material for the actual historic material or feature. Any substitute material should be selected based on its specific physical and visual characteristics, conditions, and intended application consistent with the Secretary of the Interior's Standards for Rehabilitation.

Historic Building Features: Criteria for selecting an appropriate replacement material

Masonry

FEATURES: corbels, brackets, balusters, cornices, window and door surrounds, friezes, wall surfaces, horizontal surfaces, incidental ornament, columns

HISTORIC MATERIALS: terra cotta, cast stone, stone, concrete

POTENTIAL SUBSTITUTES: cast stone, pre-cast concrete, GFRC, GFRP, non-composite polymers (polyurethane), cast or stamped metal

Questions to ask about the replacement material:

- Can it serve a structural function?
- How is the material affected by moisture?
- Can the material survive flooding and be reused?
- Can it reproduce the surface texture of the original?
- Is its shrinkage in curing low enough to allow it to be molded from existing stones?
- Can matching color be achieved without a coating and with UV stability?
- Can an adequate match of the surface (color and texture) be achieved with a coating?
- Is a coating required?
- If it is not self-supporting, is it lightweight enough to be supported by an underlying framework?
- Can multiple original units be replicated with a single replacement piece?
- Where thermal movement is different from the original material, how will joints accommodate?
- Is the material combustible?

Architectural Metals

FEATURES: pilasters, door and window surrounds, cornices, incidental ornament, columns, spandrels, ceilings, sheathing, roofing

HISTORIC MATERIALS: cast and wrought iron, steel, bronze, lead, aluminum, and stamped steel (usually galvanized or terne-coated)

POTENTIAL SUBSTITUTES: GFRP, aluminum, non-composite polymer (polyurethane), GFRC, metallic/polymer composite

Questions to ask about the replacement material:

- Will the replacement material serve a structural or cosmetic role?
- Will it expand and contract with temperature change enough to require special accommodation in its installation?
- If part of an assembly of mixed materials, how will any expansion and contraction of the dissimilar materials be accommodated?
- Will the replacement material increase deterioration of the historic or surrounding elements, for instance due to galvanic corrosion, moisture entrapment, jacking of original material, off-gassing creating a corrosive environment, or poor original design of the historic material?
- How will the replacement material mimic the surface color/patination of the original material?
- If a coating is needed, what preparation is needed, and what is its durability or service life of the finish?
- What attachment and support systems are necessary?
- If the original element is structural, but the new material is not, how can supplemental structure be introduced to support the new?



Figure 14. Surface texture is an important aspect in matching the appearance of a historic material, especially when a material is viewed at close range. As seen in these two images, many of the substitute materials produced for siding and trim have an embossed wood grain, making them incompatible for replacing historic wood that was typically planed to a smooth surface. Some substitute products are available with a smooth surface as well. Photos: John Sandor, NPS.

Siding

FEATURES: clapboard, tongue-and-groove or shiplap siding, board and batten, shingles

HISTORIC MATERIALS: wood and asbestos

POTENTIAL SUBSTITUTES: cellular PVC, wood fiber/ polymer composite, fiber cement, mineral/polymer composite

Questions to ask about the replacement material:

- What are the widths, lengths, profiles, thicknesses, and textures available?
- What, if any, are the finishing requirements, and/or is it available factory-finished?
- How well does it hold paint, and can prefinished surfaces be renewed?
- What tools are needed to cut it, and can it be machined?
- Does it absorb moisture and, if so, to what effect?
- Can the material survive flooding and be reused?
- Will it expand and contract with temperature change enough to require special accommodation in its installation?
- What characteristics can affect its handling (e.g., weight, flexibility, brittleness)?
- Does it have specific fastening requirements?
- Is it susceptible to insect damage?
- What is its impact resistance?
- Does it have a flame spread rating?
- What is the expected lifespan and/or warranty?

Roofing

HISTORIC MATERIALS: wood shingle, slate shingle, asbestos shingle, clay tile, concrete tile, metal

POTENTIAL SUBSTITUTES: fiber cement, mineral/polymer composite, wood fiber/polymer composite, pre-cast concrete, metal

Questions to ask about the replacement material:

- What sizes and shapes are available?
- What are color choices?
- What is the color stability of the new material, and how will it age/weather?
- What is the impact resistance?
- What is its flame spread rating?
- What are the installation requirements of the new material?
- Can the feature being replaced be customproduced if ready-made ones of the new material are not an accurate match?
- What is the expected lifespan and/or warranty?

Decking

FEATURES: tongue-and-groove, square-edge flooring

HISTORIC MATERIALS: wood

POTENTIAL SUBSTITUTES: cellular PVC, wood fiber/ polymer composite, mineral/polymer composite, noncomposite polymers (solid PVC)

Questions to ask about the replacement material:

- What are the widths, lengths, and textures available?
- Is it site painted or prefinished?
- How well does it hold paint, and can prefinished surfaces we renewed?
- What tools are needed to cut it, and can it be machined?
- What dimensional span does its strength allow?
- Does it absorb water, and if so, to what effect?
- Can the material survive flooding and be reused?
- Does it require a drainage plane, or can it be installed atop a membrane?
- Will it expand and contract with temperature change enough to require special accommodation in its installation?
- Is it susceptible to insect damage?
- Is it impact resistant?
- Does it have a flame spread rating?
- What is the expected lifespan and/or warranty?



Molding / Trim

FEATURES: run moldings, flat boards, casings, cornice, frieze, railings, balustrade, columns

HISTORIC MATERIALS: wood, metal

POTENTIAL SUBSTITUTES: cellular PVC, wood fiber/ polymer composite, mineral/polymer composite, noncomposite polymer (polyurethane), GFRP, sheet metal

Questions to ask about the replacement material:

- What are the widths, lengths, and textures available?
- What, if any, are the finishing requirements and/or is it available factory-finished?
- How well does it hold paint, and can prefinished surfaces be renewed?
- What tools are needed to cut it, and can it be machined?
- Does it absorb moisture, and if so, to what effect?
- Can the material survive flooding and be reused?
- Will it expand and contract with temperature change enough to require special accommodation in its installation?
- What characteristics can affect its handling (e.g., weight, flexibility, brittleness)?
- Does it have specific fastening requirements?
- Is it susceptible to insect damage?
- What is its impact resistance?
- Does it have a flame spread rating?
- What is the expected lifespan and/or warranty?

Figure 15. Tongue-andgroove porch flooring is manufactured in several different substitute materials. Each type has different properties, though most are more moistureresistant than wood. The prefinished product shown can be painted when worn, but repainting is not recommended for some product choices. Photo: Oak Alley Foundation.

Potential Substitute Materials: Matching properties and performance needs

Physical Composition and Properties

After assessing different material options based on the intended application, the appropriateness of a substitute material should also be considered in context of the material's physical composition, associated properties, and necessary visual match.

Aluminum

MATERIAL: Aluminum is a highly corrosion-resistant alloy that can be cast, wrought, or extruded. Molten aluminum is cast into permanent (metal) molds or one-time sand molds forming cast aluminum. Extruded aluminum is formed by passing heated aluminum through a die which produces the desired form. Wrought aluminum is worked using the heated metal and then bending, stamping, and otherwise shaping the metal. If not selfsupporting, aluminum elements are generally screwed or bolted to a structural frame. Aluminum can be welded, but more often sections, particularly extruded ones, are mechanically connected.

PROPERTIES:

- Isotropic
- Lightweight
- Thermal movement greater than cast iron or wood
- Corrosion-resistant, but direct contact with other metals may trigger galvanic corrosion
- Lower structural strength that iron or steel
- Ductile less brittle than cast iron
- Non-combustible
- Retains high definition through molding process and produces crisp profiles through extrusion
- Can be given a durable metallic finish through anodization. Surface etching required for paint adhesion
- Can be machined into a large variety of shapes/ dimensions



Figure 16. Aluminum is a highly corrosion-resistant metal that is commonly used as a substitute material for cast iron. Aluminum can be a more affordable and lightweight alternative to cast iron that retains a similar texture, shape, and maintenance cycle. Photo: NPS.



Cast Stone & Precast Concrete

MATERIAL: A cement lime and aggregate mixture that is dry-tamped into a mold is generally referred to as cast stone. Cast stone is one of the original substitute materials. Its longevity has proved that the material ages compatibly with stone. A wet mix of cement and aggregate poured into molds also has a long history of being used to produce concrete masonry units mimicking stone and roofing tiles mimicking clay tile. Both methods have minimal shrinkage during curing, though they employ different curing and finishing techniques. Both can include reinforcing bars and anchorage devices installed during fabrication. The dry-tamp fabrication method is especially effective at producing an outer surface with the appearance of stone.

Figure 17. The balustrade consists of multiple prior campaigns of using cast stone to replace the natural stone. The effective match for the surface texture and color of the original stone allowed individual elements to be incrementally replaced only when they had failed, thus retaining the maximum amount of original material as long as possible. Photo: EverGreene Architectural Arts.

PROPERTIES:

- Isotropic
- Weight equivalent to stone
- Expansion/contraction similar to stone
- Water absorption may differ from that of any particular stone
- Can be structural
- Non-combustible
- Vapor-permeable
- May achieve a wide range of color and surface textures by varying mix, but use of pigments may reduce UV stability
- Can be coated
- May be tooled to match the appearance of tooled stone
- Repairs similarly to stone



historic terra cotta spandrel panels on all floor levels were recreated utilizing glass fiber reinforced concrete (GFRC) replacements. New spandrels were fabricated as individual components and attached with metal clips between historic terra cotta piers. Photo: Kris Frail, Dewberry.

Figure 18. Missing



Figure 19. A new, lightweight fiber reinforced polymer is attached to a new metal armature to replicate damaged and missing elements of a terra cotta cornice. Photo: Quinn Evans.

Glass Fiber Reinforced Polymers (FRP, Fiberglass)

MATERIAL: Fiberglass is the most well-known of the FRP products generally produced as a thin, rigid, laminate shell formed by pouring a polyester or epoxy resin gelcoat into a mold. When tack-free, layers of chopped glass or glass fabric are added along with additional resins. The surface gel coat can be pigmented or painted. Reinforcing rods and attachment devices can be added when necessary. Because of is low shrinkage in curing, it can be produced using molds taken directly from the building. Rather than being produced as standard components, FRP is custom fabricated for individual applications.

Fiber Reinforced Concretes (GFRC, CFRC)

MATERIAL: Fiber reinforced concretes are lightweight concrete compounds modified with additives and reinforced with alkaline resistant glass fibers (GFRC), or less frequently carbon fibers (CFRC). They are generally fabricated as thin-shelled panels and applied to a separate structural frame or anchorage system. GFRC is typically sprayed into forms, although it can be poured, and anchoring devices are included in the fabrication. The color is derived from the natural aggregates and, if necessary, a small percentage of added pigments. Because of its low shrinkage in curing, it can be produced using molds taken directly from the building.

PROPERTIES:

- Isotropic
- Lighter weight than solid masonry
- Expansion/contraction similar to stone
- No load bearing capacity, so underlying framework must be used to accommodate any loads
- Material can be fire-rated
- Vapor-permeable
- Can be produced in larger sections efficiently reproducing repetitive elements or features that were originally made up of small individual units
- Large range of colors achievable by varying aggregates, but when pigments are needed UV stability may be reduced
- May be left uncoated or may be painted

PROPERTIES

- Isotropic
- Lighter weight than masonry, similar to sheet metal
- More thermally driven expansion than masonry or metals
- No load bearing capacity, so underlying framework must be used to accommodate any loads
- High strength to weight ratio
- Flammable
- Not vapor-permeable
- Can be produced in larger sections efficiently reproducing repetitive elements or features that were originally made up of small individual units
- May be difficult to match false joints in multiunit assemblies to actual joints that need to accommodate movement
- Color can be incorporated into the surface gel-coat, or the surface may be coated



Figure 20. Cement board was used to replace a non-historic infill and mimics the configuration of a typical vehicular door of the period. Photos: Historic Augusta.

Fiber Cement

MATERIAL: Fiber cement products are made from fiber, sand that is ground to a powder, cement, and proprietary additives to reduce moisture absorption. The fiber used in roof products is glass fiber alone, whereas siding and trim board products are primarily wood fiber. The material is formed with a smooth or textured surface, cut to standard sizes of panels, boards, or shingles, and cured in an autoclave. Roofing material has integral color, but board and siding products are produced with a primer, if not fully factory finished. Most siding and trim boards are embossed with a wood grain on one surface and are smooth on the other, the smooth side being the appropriate surface to imitate planed wood.

PROPERTIES:

- Products are minimally orthotropic
- Heavier and more brittle than wood, limiting available lengths
- Very little thermal- and no moisture-driven movement
- Low water absorption, but not recommended for ground or roof contact
- Class A flame spread
- Resists insect damage
- Available in limited thicknesses and widths
- Not machinable, but may be cut with special carbide blades; cutting requires dust collection and personal protective equipment
- Cut edges require sealing
- Available unfinished, primed, or prefinished, and must be painted (with latex paint)
- 15-year limited warranty typical



Mineral / Polymer Composite

MATERIAL: Calcium carbonate or fly ash are mineral ingredients held in a matrix of various polymers to produce materials formed or molded into a number of building products. Additives found in some of the roof-ing products include pigments and UV stabilizers. Some use a substantial portion of recycled material. Different combinations yield products with different properties, each formulated for a specific building component. When the material is fly ash with some glass fibers bound in a matrix of polyurethane, it is identified as polyash. Siding, trim, bead board, and deck products have integral color.

PROPERTIES:

Fly ash (siding and trim)

- Isotropic
- Heavier and more brittle than wood, and lacking structural capacity
- Little thermal or moisture-driven movement
- Sufficiently low water absorption to permit ground contact
- Class C flame spread
- Resists insect damage
- Available in limited thicknesses and widths
- Machinable with carbide tools blades; requires dust collection
- Cut edges do not require sealing

Figure 21. A mineral polymer composite siding was available in the profile very similar to the historic siding. The replacement siding was used where the original material was almost completely missing beneath a more modern covering. Areas where the original wood was largely intact were replaced with matching wood to sustain more of the material integrity of the building. Photo: Belk Architecture.

- Must be painted
- 30-year limited warranty typical

Calcium carbonate or recycled rubber (roofing)

- Isotropic
- More thermally-driven movement than slate or wood
- Little to no moisture absorption
- As shingles: lighter and more flexible than slate
- As tongue-and-groove decking: heavier and harder than wood
- Not vulnerable to insect damage
- Available in limited dimensions
- As shingles: Class 4 impact resistance, and flame spread ratings ranging from Class A to Class C depending on the specific product
- As shingles: integral color, that may be subject to fading
- As tongue-and-groove decking: prefinished with non-renewable finish, and can be cut with woodworking tools
- 50-year limited warranties on roofing products typical

Cellulose Fiber / Polymer Composite

MATERIAL: Wood strands or fibers are coated with resin for moisture resistance and zinc-borate for insect and fungal-decay resistance, then consolidated under heated pressure. Solid composite core boards are cut from sheets of material, then factory-primed or finished. Resulting siding and trim board products can be referred to as engineered wood, fiber board, or hardboard. Products may be embossed with a wood grain or have a smooth finish, the smooth side being the appropriate surface to imitate planed wood. Siding, trim, and tongue-and-grove decking with a slightly different properties are produced by extruding polyvinyl chloride (PVC) combined with non-wood cellulose. Roofing shingles are molded from fine wood fibers, color additives, and UV stabilizers bound with polypropylene or polyethylene (thermoplastics).



Figure 22. A porch was reconstructed using posts fabricated on site from a smooth-surface cellulose/polymer composite material. Though the face of the posts are painted, the lack of paint on the bottom at the cut ends is not consistent with manufacturers' recommendations. This treatment will allow moisture to be absorbed, shortening the life of the new replacement feature. Photo: John Sandor, NPS.

PROPERTIES:

Predominantly Cellulose (siding, trim and decking)

- Minimal thermal movement
- · Resistant to moisture-driven movement
- Lighter and more flexible than solid wood, but lacks structural capacity
- Rice hull cellulose: can span typical floor-framing spacing as decking
- Low water absorption (for wood, no ground or roof contact)
- Class A or Class C flame spread
- Resists insect damage
- Available in limited dimensions
- Machinable with woodworking tools
- Wood cellulose: Cut edges must be sealed and may need additional surface prep for finish; must be painted if unfinished or primed, also available prefinished
- Rice hull cellulose: Accepts stain/paint, but no finish required
- 30–50 year limited warranty, depending on manufacturer

Predominantly Polymer (roofing)

- Minimal thermal movement
- Little to no moisture absorption
- Lighter and more flexible than slate
- Class 4 impact-resistance
- Class A flame spread
- Available in limited shingle size
- 50-year limited warranty typical



continually being refined, but the application can be successful when a painted, lightweight feature needs to be replicated. Photo: NPS.

Non-composite Polymers

MATERIALS: The main two polymer materials used without significant other components are polyurethane and polyvinyl chloride (PVC). Polyurethane millwork is constructed of urethane foam created by mixing isocyanate and resin. The polyurethane mixture is kept under pressure in a mold as it expands to any desired shape. These molded products have a closed-cell, foamed core with a denser surface skin. Polyurethane products can have exterior applications but are more often used for interior features. Polyvinyl chloride (PVC) in a solid extruded form is another polymer that can have architectural application as tongue-and-groove decking. Various polymers formed using 3-D printing are also being explored as replacements for painted metal or wood ornamental features.

PROPERTIES: Each of the two groupings has distinct physical properties

Urethane Foam (moldings and decorative elements)

- Lightweight and flexible, but lacking structural capacity
- · More thermally-driven movement than wood or stone, but less than cellular PVC
- Does not absorb water
- Flammable
- Resists insect damage
- Can be cut with standard woodworking tools
- Adhesive and mechanical fasteners both recommended for installation

Figure 23. 3-D printing using various polymers is occasionally used to replicate missing metal or wood features. This new application is

- Supplied primed and must be painted (latex paint)
- Lifetime limited warranty typical

Solid PVC (flooring)

- Isotropic
- Heavier and less flexible that wood
- Minimal thermal movement
- Does not absorb water
- Strength to span typical floor-framing spacing
- Impact-resistance greater than wood
- Class A flame spread
- No insect susceptibility
- · Good paint adhesion, but also available prefinished
- 20-year warranty typical

Cellular Polyvinyl Chloride (PVC)

MATERIAL: Varying amounts of calcium carbonate and a foaming agent are added to melted PVC before passing through an injection die and then a calibrator to produce the shape and size of the finished product. Cellular PVC is produced as sheets, boards, and moldings. Differences in the specifics of the equipment and the rate of cooling create two varieties of product, with distinct properties. One is known as free-foam, having a fairly consistent structure throughout its section, and the other is identified as Celuka, having a skin that is denser than its core. This primarily affects the ease with which the product can be milled and shaped. The material is white and needs no applied finish. When produced for decking the material has a colored and textured wear layer over the PVC core.

PROPERTIES

- Isotropic
- Lighter and more flexible than wood
- Less strong than wood (in tension and shear), but can span typical floor- framing spacing as decking
- More impact-resistance than wood
- Negligible water absorption; no moisture-driven movement, unlike wood
- Subject to thermal expansion and contraction significantly greater than wood, though the thermal movement is less for the same dimension than the cross-grain moisture-driven movement of wood

- For longer pieces, thermal movement requires manufacturer's specifications to be followed for attachment, and inclusion of expansion joints when installed at low temperature (joints should be glued)
- Class A flame spread
- Resists insect damage
- Machinable with woodworking tools, though cut edges may need additional surface prep for finish
- Good paint adhesion; if painted, high light reflectance (HLV) is recommended to minimize heat driven expansion
- 25–30-year limited warranty, depending on manufacturer



Figure 24. Cellular PVC when painted can be used to replace deteriorated wood features. This beadboard set in a wood frame was not historically designed to shed water effectively and had deteriorated. Cellular PVC was able to match the appearance of the wood details, while its properties were well matched to the shady location, painted finish, and limited size and configuration within the overall assembly; thus, it should provide a long-lasting solution for this application. Photo: Jennifer Balson Alvarez, NPS.

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