HOUSTON HISTORIC DISTRICTS
DESIGN GUIDELINES STRATEGY PAPER
For the Freeland, Houston Heights East, Houston Heights South, Houston Heights West, Norhill, Old Sixth Ward, and Woodland Heights

THE CITY OF HOUSTON, TEXAS
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INTRODUCTION

Initiated in October 2015, the City of Houston Historic Districts Design Guidelines project seeks to develop design guidelines for multiple historic districts throughout the city. The guidelines will help property owners interpret the requirements of the Historic Preservation Ordinance and will provide guidance regarding alterations and improvements. The standards established in the design guideline documents will assist in providing predictable review of Certificate of Appropriateness (COA) applications by the Houston Archaeological and Historical Commission (HAHC). The project is a multi-stage process that includes data analysis and research, gathering community input, refining the community’s vision for each historic district, and developing the design guidelines.

This project was prompted by a 2015 amendment to the Historic Preservation Ordinance, which requires the development of design guidelines for the Houston Heights historic districts (Houston Heights East, West and South). The requirement to prepare design guidelines for the Houston Heights Historic Districts (East, West, and South) provided an opportunity to also create guidelines for the Norhill, Freeland, and Woodland Heights historic districts, and to update the Old Sixth Ward Protected Historic District’s design guidelines.

This Strategy Paper provides an opportunity for City Council to review the direction of the project as it moves into the design guidelines drafting stage. It also offers an opportunity for the community to respond to the strategy before the details of the design guidelines documents are developed.

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A DATA AND COMMUNITY-DRIVEN PROCESS

This project is informed by extensive research and data analysis, robust community engagement and input, and national best practices in historic preservation. Research included Geographic Information Systems (GIS) analysis to determine current metrics such as the proportion of house size to lot size, and lot coverage percentage. The process also involved computer modeling of alternative building designs to explore the visual impacts of different types of infill development. Additional analysis examined existing deed restrictions that influence development in the historic districts, in-the-field observations, and a review of building plans, designation reports and historic Sanborn fire insurance maps.

Community members participated in informational meetings and workshops. In addition, property owners provided their comments through a Compatible Design Survey. The outreach process is described in Section 3 of this Strategy Paper.

Compatible Design Survey

The Compatible Design Survey asked property owners to provide their opinions about recent trends in their districts, to comment on potential design tools to use in preserving the districts and to evaluate a series of alternative building models for new houses and additions while rating their compatibility.

A total of 3,486 surveys were mailed to property owners in the historic districts. (Surveys were not mailed to the Old Sixth Ward Protected Historic District, since theirs is an update to existing guidelines.) The survey was customized for each historic district, and responses were tabulated for them individually. The complete results, organized by historic district, are provided in Appendix D of this Strategy Paper. On average, approximately 25% responded. This yields a 95% level of confidence in the survey results with an acceptable margin of error.

Findings from the Survey Responses

Overall, with just a few exceptions, respondents across all historic districts are strongly consistent in their responses to many of the survey questions. Where opinions vary between individual historic districts, additional detail that shows some of those differences is provided in this Strategy Paper. With that in mind, the analysis of survey response data shows:

The Value of Historic Preservation

- Property owners are concerned about preserving historic character.
- Respondents believe that being in a historic district adds value to properties.
Renovation of Contributing Structures
• Opinions vary about the appropriateness of recent renovation projects.
• An addition that is subordinate to the contributing structure and to the site is preferred.

Design of New Buildings
• Concerns continue about the size of recent new construction.
• Maintaining traditional scale in the front of a lot is important.
• Sometimes, when additional building mass is located to the rear, it can be compatible.
• A bigger house can fit in if it is well-designed, but within limits.

Site Design
• A large house next door diminishes privacy in neighbors’ back yards.
• Maintaining open space is a key characteristic to preserve.
• Parking on site should be subordinate to the street.
• The loss of mature vegetation is a major issue.

Public Understanding of Preservation Principles
During the public workshops and focus group meetings, many topics were discussed that provide insight to some public perceptions that should be addressed in the design guidelines. For example, some people don’t appreciate that cumulative, inappropriate alterations to a contributing structure can negatively affect the historic resource. There is also a lack of understanding that, with the increasing percentage of noncontributing structures in a historic district, the integrity of the historic district is diminished. The guidelines should address these topics.

Some people assume that an older building is inherently less efficient in energy conservation whereas many can be highly efficient when appropriately used and maintained. This indicates the need for information is needed related to sustainability and treatment of historic buildings. Providing information related to enhancing energy conservation while preserving historic windows is an example. Other people understand the preservation principles, but question them. For example, the concept of distinguishing new from old in the design of an addition or a new building is not universally accepted. Information about these topics should be included in the design guidelines.
THE RECOMMENDED APPROACH TO THE DESIGN GUIDELINES

Considering the analysis of existing conditions, community input, and national best practices, the recommendations for developing the design guidelines are described here. They are organized into three parts: (1) General Recommendations, (2) Specific Recommendations for Prescriptive Standards, and (3) Recommendations for Special Discretionary Design Guidelines.

General Recommendations

Build on the Historic Preservation Ordinance.
The Historic Preservation Ordinance includes criteria to be used when evaluating applications for Certificates of Appropriateness. The design guidelines should illustrate some of the Historic Preservation Ordinance criteria.

Tailor the Design Guidelines to Each Historic District.
Each historic district is unique in terms of its content and the characteristics that contribute to its historic significance; those differences must be reflected in the design guidelines.

Use Consistent Language.
The design guidelines should have the same organizational structure for all historic districts. While variations in the historic districts should be recognized in the design guidelines, the terms used and the way in which the material is presented should be the same.

Use Prescriptive (Measurable) Standards to Enhance Predictability.
As indicated in the survey, some design guidelines should set numbers for variables such as wall height and building setbacks. This will enhance predictability and expedite the review process.

Use Qualitative Design Guidelines where flexibility is needed.
Some design guidelines will require judgment about how well a proposal meets the requirements. These more often will be for the guidelines addressing alterations to contributing structures. Determining when a portion of exterior siding is beyond repair and needs to be replaced is an example.
Executive Summary

Use Illustrations to Identify Where Flexibility is Available.
Where flexibility is available, the design guidelines should include illustrated options. For example, one set of images may show alternative design solutions for constructing an addition to a contributing structure.

Include Cross-References and Links to Other Related Information.
More detailed information is available on a range of topics that would help property owners when developing designs for rehabilitation and new construction.

Publish the Design Guidelines in Modules.
The design guidelines should be organized into “modules” (separate documents) so that the user can select those sections that apply to their project. For example, a property owner who is planning alterations to a historic house will not need the design guidelines for new infill construction. Some modules will present information that applies to all the historic districts while other modules will be tailored to fit individual historic districts. A chart, which illustrates the modules and some key topics within each, is presented in Section 6 of this paper.

Specific Recommendations for Prescriptive Standards
The Compatible Design Survey provides insights into the tolerance respondents have for house design in four variables: (1) lot coverage, (2) building size, (3) height, and (4) form. In the survey, a series of models presents alternative design scenarios that test how changes in those four variables influence perceptions of compatibility. The data indicate support for using design standards in the guidelines that address those four variables. The definitions of the potential prescriptive tools are in Section 4 and specific recommendations for their application are described in Section 6 of this Strategy Paper. The details of the survey responses appear in Appendix D.

The analysis found that many of the design tools could be applied to all of the historic districts, with different calibrations to fit individual districts. The recommended measurable limits for each tool are set to reflect historic precedent, but also, to permit a moderate increase in the scale of development, while still assuring compatibility.

Exceptions and special conditions may be identified while drafting the design guidelines in the next stage of this project. Specific details for measurement would be refined as well. In addition, some form of flexibility may be built into some of the design standards. This will be particularly important when applying the tools to an addition to a historic structure, because existing conditions may limit options for meeting some of the quantitative limits.
ExeCutivE Summary

The following topics are recommended to be included as prescriptive standards in the guidelines. Each is explained in the Strategy Paper and specific measurable dimensions are proposed in Appendix B:

- Maximum Building Envelope (described in Section 4)
- Floor Area Ratio (the proportion of house size to lot area)
- Lot Coverage
- Building Setbacks
- Building Height
- Maximum Continuous Side Wall Length
- One-story Building Element (porch) in Front
- Roof Pitch

Recommendations for Special Discretionary Design Guidelines

The design guidelines will address other topics that are not measurable. Many of these relate to alterations to contributing structures while others are relevant to new construction. Of these, a few topics merit an expanded discussion in the design guidelines. These are:

- Replacing a historic window – when it may be appropriate and when it may not
- Alternative siding materials on contributing structures – when matching the original should be required and when alternatives may be considered
- Additions to contributing structures – how to remain subordinate and to be compatible
- Porch design – how scale, proportion, style, and detail should be treated
- Window design in a new addition – how a new window should relate to those on the contributing structure
- Differentiating old from new construction in historic districts – why this is important and ways to achieve it
- Treating an older addition that has taken on historic significance
- Relocating windows and doors on historic structures

Other topics appropriate for discretionary guidelines appear in the chart illustrating the proposed modular structure for the design guidelines in Section 6.
NEXT STEPS

This Strategy Paper provides a check-point in the process of developing the design guidelines for the historic districts that are engaged in this process. The paper will be presented to the HAHC on March 29, 2017 and in a public workshop on March 30. A comment period will follow. Details for the comment period will be published on the City’s website. After comments are collected, and guidance from City Council is received, the formal drafting of the design guidelines will proceed. The drafting of the design guidelines for Houston Heights Historic Districts (East, West, and South) will be first.
Initiated in October 2015, the City of Houston Historic Districts Design Guidelines project seeks to develop design guidelines for multiple historic districts throughout the city. The guidelines will help property owners interpret the requirements of the Historic Preservation Ordinance and will provide guidance regarding alterations and improvements. The project will also help clarify the community’s expectations for historic preservation in each of the historic districts. The standards established in the design guideline documents will assist in providing predictable review of Certificate of Appropriateness (COA) applications by the Houston Archaeological and Historical Commission (HAHC).

The project is a multi-stage process that includes data analysis and research, gathering community input, refining the community’s vision for each historic district, and developing the design guidelines. This Strategy Paper describes the project as it has occurred to date and proposes the approach and specific steps for developing the individual design guidelines documents for each historic district.

**NOTE:**

A note about photographs used in this Strategy Paper:

Images of buildings in the historic districts that are part of this project are included to illustrate existing conditions of some types of properties. They are included without comment and are not intended to represent appropriate or inappropriate designs.
1. Introduction

PROJECT BACKGROUND

This project was prompted by a 2015 amendment to the Historic Preservation Ordinance, which requires the development of design guidelines for the Houston Heights Historic Districts (East, West, and South). The ordinance also permits the City to prepare design guidelines for existing historic districts that do not yet possess guidelines and would benefit from them. Thus, the requirement to prepare design guidelines for the Houston Heights Historic Districts (East, West, and South) provided an opportunity to also create guidelines for the Norhill, Freeland, and Woodland Heights historic districts, and to update the Old Sixth Ward Protected Historic District’s design guidelines.

The design guidelines project is split into two phases. Phase I includes new design guidelines for the three Houston Heights Historic Districts (East, West, and South), Freeland Historic District, Woodland Heights Historic District, and Norhill Historic District, and an update to the existing Old Sixth Ward Protected Historic District design guidelines. In Phase II, design guidelines will be written for the Main Street Market Square and Glenbrook Valley historic districts.

No changes to the Historic Preservation Ordinance are within this scope of work. While conducting a thorough review of the ordinance was key to the project, it was only done so to gain background knowledge and to ensure that the future design guidelines will be coordinated with, and not contradict, the ordinance.

This Strategy Paper focuses on the research, data analysis, public engagement, and strategy for the design guidelines for the Phase I historic districts.

NOTE:
The Strategy Paper introduces some terms in addition to those used in the Historic Preservation Ordinance. These terms are used nationally and are have acquired a standard meaning throughout the historic preservation profession. They are not intended to replace terms used in the ordinance, but may be used in the guidelines to help explain those that do appear in the ordinance.
A DATA-DRIVEN, COMMUNITY-DRIVEN PROCESS

Design guidelines for the Phase I historic districts are informed by extensive research and data analysis, thorough community engagement and input, and national best practices in historic preservation.

Research conducted so far included Geographic Information Systems (GIS) analysis to determine current metrics such as the proportion of house size to lot size, also known as Floor Area Ratio (FAR) described on page 44, lot coverage percentage, building age, size, and more. The research process also included extensive modeling to explore the visual impacts of different types of infill development. Some additional analysis examined the existing deed restrictions that influence development in the historic districts, in-the-field analysis, and a review of building plans, designation reports and historic Sanborn fire insurance maps. This research identified specific neighborhood characteristics and development patterns, as well as how each historic district has (or has not) changed over time.

Public input strongly influences the design guidelines project. Community workshops have provided property owners an opportunity to give input on the issues and provide a vision for the historic districts. In addition, community members have provided their feedback through a Compatible Design Survey that offered a chance to comment on issues, design tools, and the appropriateness of different types and scale of additions and infill development in the historic district.

Finally, the design guideline strategy is informed by best practices in historic preservation that have developed through extensive usage in communities across the nation, and can help provide guidance on how to preserve and enhance the character of the historic districts.

In October 2016, workshop participants discussed key features of their historic districts.

Models like this one exploring the potential for appropriate additions in the districts were utilized in the Compatible Design Survey and will be used in the design guidelines to illustrate appropriate treatment options.
1. **Introduction**

**SCOPe OF THE STRATEGY PAPER**

This Strategy Paper represents a critical stage in the design guidelines project. Using input gathered from community workshops, online surveys and other community feedback, it identifies a strategy for developing design guidelines.

This paper outlines the project process completed to date, summarizes the findings of analysis and outreach, presents specific tools that will be utilized in the design guidelines, and outlines the design guidelines that will be developed. The Strategy Paper also identifies some key topics that will be addressed in the design guidelines documents. Some of these are issues raised in community workshops and surveys.

In addition, the Strategy Paper outlines particular measurable design tools to which prescriptive standards can be applied. These standards are to be tailored to individual historic districts in order to address their unique physical settings and design issues. For example, building size is identified as an issue in some of the historic districts. In response, a maximum Floor Area Ratio (FAR) is proposed to regulate building size. This and other potential tools are discussed later in this paper.

Finally, the Strategy Paper outlines the content to be included in the design guideline documents and explains their relationship to other existing preservation policy documents (including the Historic Preservation Ordinance, the existing historic preservation web manual, other existing design guideline documents, and neighborhood deed restrictions). Several Appendices to this Strategy Paper provide important background information and are referenced throughout.

**PURPOSE OF THE STRATEGY PAPER**

This Strategy Paper provides an opportunity for City Council to review the direction of the project as it moves into the design guidelines drafting stage. It also offers an opportunity for the community to respond to the Strategy before the consultant develops the details of the design guidelines documents. The Strategy Paper will guide staff and consultants in developing design guidelines during the next steps of the project.
INTRODUCTION

This section provides an overview of fundamental principles of historic preservation that are embedded within the Historic Preservation Ordinance. It also establishes the connection between the ordinance and the forthcoming design guidelines. Finally, it provides information on why historic structures should be preserved and how their presence benefits a community.
Many people love Houston’s historic districts for their unique character and charm and for the cherished quality of life that they support. These historic districts tell stories of Houston’s early years and of those who helped to establish the city, build its economy, and nurture its culture. Property owners who are actively engaged in maintaining their historic homes do so within a framework of preservation principles that are used by the City and that are recognized nationally as best practices.

## PRESERVATION PRINCIPLES

The goal of historic preservation is to keep properties and places of historic and cultural value in active use, accommodating appropriate improvements to sustain their viability while maintaining the key character-defining features which contribute to their significance as cultural resources. Preservation also seeks to keep cultural resources intact for the benefit of future generations. It is an integral component of other community initiatives in neighborhood livability, sustainability, economic development, and cultural appreciation.

The term *historic preservation* includes the specific methodologies associated with maintaining the integrity of significant resources, and also covers a range of *character management tools* that serve to maintain traditional features of established neighborhoods.

The Historic Preservation Ordinance (Chapter 33, Article VII) supports a range of tools that serve to maintain the character of historic neighborhoods through the issuance of a Certificate of Appropriateness (COA). The COA is issued by the Houston Archaeological and Historical Commission (HAHC) and the Planning Director to approve proposed alterations, rehabilitations, restoration, or additions to historic structures. Among the conditions for approval is this one:

1. The proposed activity must preserve the distinguishing qualities or character of the building, structure, object, or site and its environment.

In order to apply criteria such as this from the ordinance, some basic terms used in historic preservation need to be explained. While these terms have nationally accepted definitions, many are mentioned but not defined in the Historic Preservation Ordinance. These terms apply to individual contributing structures (those that are considered to have historic significance) as well as to each historic district as a whole.

### WHY DO RESIDENTS VALUE HISTORIC RESOURCES?

“Many of us moved to the district for the history and the sense of community.”

... comment from a neighborhood meeting participant

“I love the eclectic nature of the district, including the people and the architecture.”

... comment from a neighborhood meeting participant

“I love this neighborhood and the history behind it. The home we live in has been in the family for over 80 years... it is my dream that my grandchildren will someday call this place their home too!”

... comment from a survey participant
Character-Defining Features

The condition for approval previously referenced mentions the “distinguishing qualities or character” of a property. The character of a historic structure or site refers to the visual aspects and physical features that comprise its appearance. Character-defining features include the overall shape of the structure, its materials, craftsmanship and stylistic exterior features, as well as the various aspects of its site and environment.

Significance

The historic significance of a property refers to the importance for which a property has been evaluated and found to meet national or local criteria. Significance may be related to the property’s association with important people or events, as well as its design and craftsmanship. Proposed physical changes to a historic structure may be approved or denied based on the impact to a structure’s historic significance.

Integrity

A building or site which has “Integrity” has retained sufficient aspects of its location, design, setting, workmanship, materials, feeling or association to convey its historic significance. A majority of the building’s structural system, materials, and its character-defining features should remain intact. Maintaining the integrity of each historic structure is a fundamental principle of historic preservation.

Building Integrity

These diagrams illustrate the concept of preserving integrity, and how changes may affect historic significance.

Original design | Partially altered | Substantially altered

“Contributing” Structure
This building retains its integrity.

“Contributing” Structure with some alterations
This building remains contributing with opportunity for restoration.

“Noncontributing” Structure with major alterations. This building does not retain its integrity.
2. Principles of Preservation

Treatments
What is an appropriate approach for work on a historic structure? Four treatments are recognized nationally: preservation, restoration, reconstruction and rehabilitation.

Preservation
*Preservation* is used broadly to mean keeping the integrity of a historic structure intact, but it also has a more specific, technical meaning. Preservation refers to maintaining the existing form, integrity, and material of a structure by keeping key features in good repair.

Restoration
The restoration of a historic structure is the process of accurately re-creating the form, features, and character of a property as it appeared at a particular point in time. Essentially, this means putting things back to the way they were.

Reconstruction
*Reconstruction* is the process of accurately replicating a structure’s appearance at a specific time by rebuilding missing features, such as reconstructing missing trim on an original porch.

Rehabilitation
The rehabilitation of a structure is the process of returning it to a state that makes a contemporary use possible, while still preserving those portions or features that are essential to its historical, architectural, or cultural significance. It may include repairing some features and constructing a compatible new addition. Rehabilitation may also include a change in use.

Combining Treatments
Finally, combining treatments is common. Many times, a rehabilitation approach will be the best overall strategy because it is the broadest and most flexible of the treatments. Within that, however, may be a combination of other treatments as they relate to specific building components. For example, a deteriorated window may be restored and a missing porch may be reconstructed, while an original door is preserved.

The character-defining features of this home, identified here, should be respected when homeowners are making improvements.
2. Principles of Preservation

Compatibility
New structures and alterations that preserve the historic character of a historic district are referred to as *compatible*. Some elements of compatible design include maintaining a sense of human scale and using materials of a familiar dimension, such as traditional lap siding. The shape and size of new construction also are among factors that influence compatibility. In reviewing a project for compatibility, the HAHC considers material, form, design, and scale; the massing, size, and scale of an alteration in comparison to the main structure; and the setback distance of new construction in a historic district, compared to existing structures.

Context Area
When considering compatibility, how large an area is to be used? The *context area* for a project, as defined by the 2015 Historic Preservation Ordinance, is the blockface and opposing blockface where the proposed activity is located. The ordinance goes on to say that context area may be defined differently if the HAHC and staff find that unusual and compelling circumstances exist or if it is described differently in design guidelines. When reviewing an application for a COA, Planning staff and the HAHC will consider whether the proposed project is compatible with contributing structures in the context area.

Contributing and Noncontributing Structure
As defined by the 2015 Historic Preservation Ordinance, a contributing structure is a “building, structure, object, or site that reinforces, or that has conditions which, if reversed, would reinforce the cultural, architectural, or historical significance of the historic district in which it is located, and that is identified as contributing upon the designation of the historic district in which it is located. The term also includes any structure that was identified as ‘potentially contributing’ in any historic district.”

A noncontributing structure, on the other hand, is a “building, structure, object or site that does not reinforce the cultural, architectural, or historical significance of the historic district in which it is located, and is identified as noncontributing upon the designation of the historic district in which it is located.” New buildings are noncontributing even if they are similar to existing houses.

Certificate of Appropriateness
A Certificate of Appropriateness (COA) is a “current and valid permit issued by the HAHC or the director, as applicable, authorizing the issuance of a building permit for construction, alteration, rehabilitation, restoration, relocation, or demolition required by this article.”
Preserving the historic significance and integrity of the historic districts is an essential policy embedded in the Historic Preservation Ordinance.

Many of the upcoming design guidelines will build upon the principles described previously, in that they will be directed toward preserving the integrity of historic structures and the historic districts as a whole. The design guidelines will also accommodate change and active uses, while preserving key character-defining features that contribute to the overall integrity of a structure and its significance as a cultural resource. Finally, the design guidelines will address how new construction can be compatible within the historic districts.

**WHY PRESERVE HISTORIC STRUCTURES?**

The historic districts are essential components of the city’s identity. They enhance quality of life, economic vitality, and environmental sustainability. Investment in these assets ensures that the social, cultural, and economic attraction of the city is maintained and enhanced.

**Livability and Quality of Life**

The distinct character of each historic district contributes to the city’s quality of life. When numerous historic structures are located on a block, they create a street scene that is pedestrian-friendly, which encourages walking and neighborly interaction. Decorative stylistic exteriors also contribute to a sense of identity that is distinct from newer and redeveloped areas of the city. This sense of place reinforces desirable community social patterns and contributes to a sense of security and community pride, making historic neighborhoods desirable places to live and work.

**Economic Benefits**

The economic benefits of investing in historic structures and preserving historic districts is well-documented through numerous state and nationwide studies, such as *Economic Impact of Historic Preservation in Texas*, updated in 2015. Because historic structures are finite and cannot be replaced, they can be precious commodities, especially in historic districts. Preservation, therefore, can add value to property.

Rehabilitation projects generally are more labor intensive, with up to 70% of the total project budget being spent on labor, compared to 50% for new construction. This means that more of the money invested in the project will stay in the local economy, rather than be used for materials sourced outside the community.
Many cities benefit from the economic effects of heritage tourism, which the National Trust for Historic Preservation defines as “people traveling to experience the places, artifacts, and activities that authentically represent the stories and people of the past.” According to the 2015 University of Texas and Rutgers University Economic Impact of Historic Preservation in Texas report, heritage tourism is a $7.3 billion dollar industry in Texas and accounts for more than 10.5 percent of all travel in Texas. Studies show that heritage travelers stay longer, and spend more money, than other tourists, and this economic activity helps to create and sustain jobs in travel, retail, restaurant, and service businesses.

Promoting heritage tourism is an important part of the City of Houston’s adopted Arts and Cultural Plan, which identifies heritage as a component of culture. It says, “Culture” is most often defined in anthropological terms. It is a broad definition of culture, and is defined as any form of human expression. Culture is also defined as traditions, historical resources, community heritage, and practices and forms of expression that are valued, practiced, and preserved by a community. The Plan specifically recommends that, among other things, the City should:

- Leverage Houston’s “world city” image, international arts venues and diverse cultural offerings in destination marketing with the Greater Houston Convention and Visitors Bureau and other partners, and
- Develop a program of neighborhood-based cultural tourism with the Greater Houston Convention and Visitors Bureau and other partners.

Neighborhood-based cultural tourism is most likely to occur in historic districts, where the authentic architecture and character of the neighborhood has been preserved. Historic areas inherently provide a strong foundation for the arts and other cultural activities. The City of Houston’s historic preservation program, therefore, directly supports these tourism objectives.
Environmental Sustainability
Sustainable development and the conservation of historic resources are central principles of historic preservation. Sensitive stewardship of historic building stock reduces environmental impact, and thus, preserving and adapting a historic building is sound environmental policy. Re-using a building preserves the energy and resources invested in its construction, keeps materials out of landfills, and reduces the need to produce new construction materials.

Preserving a historic building retains embodied energy, which is the amount of energy expended to create the original building and its components. Studies confirm that the loss of embodied energy associated with the replacement of an existing building would take three decades or more to recoup from the reduced operating energy costs in a new building. If a historic building is demolished, the embodied energy is lost and significant amounts of new energy are required to replace it.

In addition, according to the Environmental Protection Agency, building debris constitutes around a third of all waste generated in the United States. This can be reduced significantly if historic structures are retained, rather than demolished.

Furthermore, historic buildings can save energy, although some people may intuitively think otherwise. The most cost-effective energy savings are not usually achieved by replacing original building fabric with contemporary alternatives, but by the repair, weatherstripping, and insulation of original elements. For instance, properly caulking windows and doors, as well as adding insulation to attic spaces of historic buildings will save energy at a higher rate than replacing single-pane windows. Also, materials used to build historic houses (such as old-growth lumber) are more durable than materials available today. A 100-year-old window is made of stronger wood than a new wood window, and vinyl is a plastic, petroleum-based product and not as recyclable as wood.
INTRODUCTION

This section describes the background research and analysis that has occurred to date. It also provides a summary of outreach conducted by the City, as well as outreach conducted by the consultant, including workshops and surveys. While each of these items is summarized, the findings are not presented in this section. They will be discussed later in the Paper.

Community workshop for the Houston Historic Districts Design Guidelines Project

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BACKGROUND RESEARCH AND ANALYSIS

Historic Preservation Ordinance

The Historic Preservation Ordinance allows City Council to designate buildings, structures, sites, or districts that are of historical, cultural, architectural, and/or archaeological significance to the City of Houston. The ordinance offers protection to historically designated buildings from demolition, regulates exterior modifications and relocation, and regulates new construction in historic districts. The Historic Preservation Ordinance was first passed in 1995. A Tax Exemption Ordinance, which currently grants tax exemptions to property owners for up to 15 years for value-enhancing restorations, was passed concurrently. Both ordinances have been amended multiple times in the years since.

The Historic Preservation Ordinance was most recently updated in 2015 and provided amendments that allow HAHC to initiate the creation of Design Guidelines for existing historic districts; increase the scope of projects that can be approved administratively; establish an Appeals Board for HAHC appeals; clarify certain review criteria in the ordinance; require yard signs as public notice of COA applications; allow for the adoption of application fees for COAs; provide a process for reclassifying structures in historic districts; and alter the eligibility criteria for the historic site tax exemption to favor rehabilitation over additions.

The Evolution of the Ordinance

Since its initial adoption in 1995, the ordinance has undergone a series of modifications, including:

- March 1, 1995: Historic Preservation Ordinance PASSES at City Council. (95-228)
- March 1, 1995: Historic Tax Exemption Ordinance PASSES at City Council. (95-227)
- 2001: Tax Exemption Ordinance is AMENDED.
- December 12, 2001: Prevailing lot size and building line preservation tools are created by ordinance.
- August 17, 2005: Ordinance is AMENDED by City Council. (05-969)
- July 26, 2006: Ordinance is AMENDED by City Council. (06-0783)
- April 11, 2007: Ordinance is AMENDED by City Council. (07-0463)
- August 1, 2007: Ordinance is AMENDED by City Council to create Old Sixth Ward Protected Historic District. (07-885)
- March 4, 2009: Ordinance is AMENDED by City Council. (09-191)
- October 13, 2010: Ordinance is AMENDED by City Council.
- October 7, 2015: Ordinance is AMENDED by City Council. (15-967) (effective Nov 6, 2015)
Review of the Ordinance

The consultants reviewed the Historic Preservation Ordinance in order to identify topics that should be addressed in the design guidelines. The ordinance sets forth the basic criteria for approval of proposed exterior architectural changes, in the form of a Certificate of Appropriateness (COA). In doing so, the ordinance introduces several concepts that the design guidelines may build on. For example, in Sec. 33-242 of the ordinance, criteria for new construction are provided, including item (3):

The scale and proportions of the new construction, including the relationship of the width, overall height, eave height, foundation height, porch height, roof shape, and roof pitch, and other dimensions to each other, must be compatible with the typical scale and proportions of existing contributing structures in the context area unless special circumstances, such as an atypical use, location, or lot size, warrant an atypical scale and proportions;

Design guidelines that provide measurable information about the size, height, and roof pitch of existing contributing structures, tailored to each of the respective historic districts, would help to inform users in applying this criterion in the ordinance.

Specific prescriptive measures for the approval of “Shall Approve” conditions are also defined. For example, in Sec. 33-241.1 of the ordinance, measurable criteria for Administrative Approval, in which a Certificate of Appropriateness is issued by the Planning Staff, rather than HAHC, include these requirements for a side addition:

(2) A side addition that:
   a. Is not taller than the existing structure;
   b. Is attached only to one exterior wall of the existing structure and does not extend past the existing rear wall of the side to which it is attached;
   c. Is set back from the front of the wall to which it is attached at least 30 percent of the distance between the front of the wall to which it is attached to the rear of the wall to which it is attached;
   d. Is not wider than half the distance that the addition is set back from the front of the wall to which it is attached. For example, if the addition is set back 20 feet from the front wall to which it is attached, the addition may not be wider than ten feet;
   e. Has a roof pitch that is less than or equal to the existing structure; and
   f. Is not constructed on a building that has had an addition approved under this chapter.
While this text is relatively clear, illustrations in the design guidelines would make these dimensional standards easier to understand and interpret.

Note that no changes to the ordinance itself are within this scope of work. The intent in reviewing the ordinance is to assure that the design guidelines are coordinated with it. Also note that the ordinance permits the design guidelines to be more restrictive, but not less restrictive, than the criteria set forth in the ordinance in Sec. 33-267(b)(3).

**Previous Informational Materials**

Informational materials that were developed previously for the Houston historic districts were reviewed as part of the project. These included existing design guidelines, deed restrictions, maps, reports, agreements, inventories, presentations, photographs, and surveys from the associated historic districts. Another informational document is the City’s Historic Preservation Manual, which is discussed later in this section.
Data Gathering and Analysis

City staff assisted by assembling a series of Geographic Information System technology (GIS) data for each historic district. A GIS system is designed to capture, store, manipulate, analyze, manage, and present spatial or geographical data. This was used to develop a series of five Data Maps for each historic district to help the consultants understand the degree of consistency or diversity that exists, as well as other patterns of development.

These data maps help to show historical and current development patterns. For example, one set of maps documents the distribution of buildings by age. In some historic districts, highly consistent groupings by age occur, whereas in others, a wider mix exists. Examples of these maps appear below:

Construction Year Built

(Houston Heights Historic District East map detail)

A Building Age map shows the effective build dates for each house in the district. Note that building age in the GIS system usually reflects the original building date, but may at times mean an “effective” building date, if the property was significantly altered at a later stage. Ages are shown in 10-year intervals from 1900 to 2016.

Building Size

(Norhill map detail)

Building size, measured in square footage of floor area, appears in 500 square foot (SF) increments in the data maps. Building sizes range from less than 500 SF to greater than 3,500 SF. This information reflects existing building size, including additions.
Lot Size Patterns
(Woodland map detail)

This map shows a distinct pattern in the distribution of lot size (the area of each lot in square feet (SF)). In these maps, lot sizes are expressed in 1,000 SF increments and range from less than 4,000 SF to greater than 10,000 SF.

Lot Coverage
(Freeland map detail)

The Lot Coverage map shows the proportion of building footprint to lot size as a percentage. Lot coverage is shown in 5% increments, ranging from less than 5% to greater than 70%.

Floor Area Ratio (FAR)
(Old Sixth Ward Protected Historic District map detail)

The proportion of building size to lot size is expressed as a Floor Area Ratio (FAR), shown in 0.10 increments ranging from 0.05 to greater than 0.70. (See page 44 for additional information on FAR.)

This analysis of GIS data maps yielded descriptions for a set of Typologies that were developed for the historic districts. As a result of discussion at the community workshop in September of 2016 (discussed on page 32), the term Typology was changed to Character Area. These Character Areas provide descriptions of some of the key features that are found in various parts of the historic districts. They include some statistical data, such as the percentage of lot coverage and range of house sizes. Character Areas are discussed in Appendix G. The GIS maps appear in the Appendix F.
Field Analysis

The consultants and Planning staff toured the historic districts several times to gain an understanding of:

- Recent trends in development, including rehabilitation projects, additions to historic buildings, and new infill construction
- Development patterns, noting features that have a high degree of consistency (such as front setbacks) and other features that have more variety, such as differences in building periods and architectural styles
- Key character-defining features, such as the degree of similarity or diversity in building form, scale, and materials
- Types of historic resources, in terms of the degree of similarity or diversity in building age, height, and style
- Design issues related to the character of recent alterations that have occurred to historic buildings, as well as the scale, character, and location of additions to historic buildings and new construction

The consultants also photographed existing conditions in each of the historic districts and evaluated those images for appropriateness, in terms of the degree to which the integrity of historic resources has been maintained and the extent to which new construction is compatible.

The images above show examples of existing conditions in some of the historic districts. The top image shows an unaltered historic house, the bottom left image shows an addition to a historic house, and the bottom right image shows new construction in a historic district.
3. Process Summary

**Historic Inventories**

A Historic Inventory is a listing of each property in a historic district, providing basic information related to that property’s historic significance. Inventories, associated with designation reports, are available for the historic districts within this project. This material was used to enhance the consultants’ understanding of building ages within the historic districts.

**Historic Preservation Manual**

The Historic Preservation Manual is an online document developed by the Houston Planning and Development Department that includes information about the city’s preservation regulations, as well as about individual historic districts. For historic districts which do not yet have design guidelines, historic district profiles include information about the district’s history, architecture, and significance.
**Deed Restrictions**

Deed Restrictions were researched and reviewed for the historic districts in this project. The design guidelines are intended to support, not contradict, these deed restrictions.

Deed restrictions in Houston Heights Historic Districts (East, West, and South) are voluntary and on a lot-by-lot basis, not throughout the historic districts. And only some of Woodland Heights is covered by deed restrictions, as opposed to Norhill, which is 90% covered.
COMMUNITY ENGAGEMENT

The City of Houston has undertaken an extensive public outreach process during this project, with the goal of engaging as many property owners in the Phase I historic districts as possible.

Digital, Traditional, and Social Media

The City of Houston created a project webpage within the Planning and Development Department’s website to announce upcoming meetings, gather input and feedback, and archive project information. The City also sends project-related announcements via an email list of people who have indicated that they are interested in historic preservation; CitizensNet; and the Planning Department’s Twitter and Facebook pages.

Press releases have been used to announce community meetings, the Compatible Design Survey, and other project activities. Traditional media outlets, including the Houston Chronicle and The Leader community newspaper, have published articles about the project. Houston Public Media has interviewed project manager Steph McDougal several times for the Houston Matters radio show.

Neighborhood associations and individual community members have also helped to publicize community meetings and surveys by posting on their own websites, email lists, and various social media sites.

Home page for the Houston Historic Preservation Design Guidelines Project
Direct Input from Property Owners and Residents

Since the beginning of this project, property owners and residents have contacted City project manager Steph McDougal via email and telephone to ask questions and provide feedback. Comments and questions, as well as responses, are tracked and periodically summarized in a report, which is then posted on the City’s project webpage.

Community Meetings

The design guidelines project began, in Fall 2015, with two immediate activities: start the process of hiring a qualified consultant to develop the design guidelines, and engage the community while the contracting process was underway. While the City was required to develop design guidelines for the Houston Heights Historic Districts (East, West, and South), the Request for Proposals for this project asked respondents to also include other historic districts which either had requested design guidelines or would benefit from them. Initial community outreach included a series of meetings for property owners in the Houston Heights Historic Districts (East, West, and South), but in February 2016, the City determined that it would also develop design guidelines for additional historic districts. Subsequently, community meetings were held in those districts as well.

City of Houston project manager Steph McDougal led the early community meetings and has continued to meet with neighborhood associations and deed restrictions committees throughout the project. The consultants have led two community workshops and have also participated in meetings with members of the HAHC and the project advisory committee, and focus-group conference calls with property owners in Houston Heights Historic Districts (East, West, and South) and the Old Sixth Ward Protected Historic District Conservation Committee. Summary reports for these meetings are provided on the City’s project webpage.

Community engagement activities have included:
- Community meetings for the Houston Heights Historic Districts (East, West, and South)
  - December 8, 2015
  - January 14, 2016
  - February 16, 2016
  - April 26, 2016
- Houston Heights Association meeting (January 11, 2016)
- Community meeting for Freeland Historic District (April 12, 2016)
- Old Sixth Ward Protected Historic District Conservation Committee meeting (April 13, 2016)
- Old Sixth Ward Neighborhood Association meeting (April 18, 2016)
3. Process Summary

- Old Sixth Ward Neighborhood Association meeting (May 16, 2016)
- Community meeting for Norhill Historic District (June 15, 2016)
- Community meeting for Woodland Heights Historic District (June 20, 2016)
- Focus Group call with Winter & Co. for Houston Heights Historic Districts (East, West, and South) residents (August 16, 2016)
- Norhill Deed Restrictions Committee Meeting (October 10, 2016)
- Old Sixth Ward Protected Historic District Conservation Committee meeting (October 16, 2016)
- Old Sixth Ward Protected Historic District Conservation Committee focus group call (January 23, 2017)

Community Workshops with the Consultants

The consultants have led two community workshops so far: on September 27, 2016, and December 1, 2016. Each workshop included an informative presentation by the consultants, followed by exercises to gather participants’ feedback, and a question-and-answer session. Meeting materials were made available after the workshops on the City’s project webpage, and workshop exercises were made available online for those who were unable to attend in person.

The September workshop provided information about historic preservation and the consultants’ process in developing design guidelines, then asked participants to work together in groups with others from the same historic district. The activities gathered feedback on:

- Issues and concerns about the neighborhoods
- The consultants’ understanding of key characteristics in each historic district
- Compatibility of sample additions and new construction
- Compatibility of sample architectural styles and features

The consultants used that information to develop materials for the December workshop, which presented fundamental concepts in historic preservation, design tools which could potentially be included in the design guidelines, and a summary of the feedback received during the September workshop. During group exercises, participants were asked to provide feedback on a draft version of a Compatible Design Survey, customized for each historic district, which focused on issues affecting their neighborhood, the potential design tools, and the compatibility of sample additions and new construction. These exercises were also made available online, and the responses combined with those received in person at the workshop.
Compatible Design Survey

The Compatible Design Survey, previously called the “Visual Preferences Survey,” asks participants to provide their opinions about recent trends in their districts, to comment on potential design tools to use in preserving the districts and to evaluate a series of alternative building models for new houses and additions while rating their compatibility. The survey was developed from the responses in the community workshops (in person and online).

The survey was tailored to each historic district. A printed copy was mailed to each property owner of record, and an online option also was available. Unique survey numbers were utilized to prevent multiple responses from one address. To encourage participation and make property owners aware of the survey, postcards were mailed to each property owner in advance. Flyers were posted in local shops, and door-hanger notices were placed on owner-occupied properties. The City also worked with neighborhood associations and individuals to help publicize the survey via social media.

A total of 3,486 surveys were mailed out to the historic districts:
- Freeland (36)
- Norhill (850)
- Woodland Heights (386)
- Houston Heights Historic District East (905)
- Houston Heights Historic District West (521)
- Houston Heights Historic District South (788)

The Old Sixth Ward Protected Historic District did not participate in the survey, as its existing design guidelines are being updated, rather than developed from scratch.

The summary of response rates which follows is based on these fundamental aspects of statistical analysis:

- Percentage of responses: This is calculated by dividing the total number of responses (both mailed and online) by the total number of surveys mailed.
- Survey Reliability: In general, the results of a survey achieve reliability when the data set from which the results are calculated satisfies certain thresholds of data quantity and quality.
- Interpretation: This process is based on a standardized margin of error, which is calculated according to a 95% confidence level (industry standard). Results with a higher margin of error are less reliable, while results with a lower margin of error are more valuable or favorable.

Note: Approximately 25-35% of all properties are not owner-occupied. This is consistent across all of the Phase I historic districts. This likely affected response rates.
### Survey Accuracy

Because it is rarely feasible to interview every single individual in a particular group, surveys are often used to sample opinions of a representative population. The accuracy of the sampling is influenced by the number of individuals within the overall group, the number of survey respondents, and the amount of difference in the survey answers. Generally, as the number of survey respondents increases, the accuracy of the sample results increases as well.

Many surveys seek to have enough responses to achieve a level of confidence of 90% to 95%. This means that other people in this population (all those who received the survey) would be expected to respond in the same way 90% to 95% of the time as those who did respond to the survey. Depending upon the percentage of those responding out of the total population, there is also a margin of error, which means that answers could vary, plus or minus, by that percentage.

The table below shows the margin of error for the survey responses from each of the historic districts, using a level of confidence of 95%. For the relatively small survey populations in the historic districts, the response rates shown are strong, and the margin of error ranges between 4% and 6% for most of the individual districts. As an example, Houston Heights Historic District East has a response rate of 27% and a margin of error of 4%. This means that other property owners in that district can be expected to respond in a similar manner to those who did respond, with a range of deviation of plus or minus 4%. The exception is Freeland, which has a margin of error of 12% because the survey population is very small.

This information influenced the recommendations that follow (in Section 6), in these ways. In some cases, where a high percentage of people expressed the same opinions, this was an indication that proposing design guidelines addressing those issues should be included, and that the language should be firm. In other cases, the opinions were more divided, and in those cases, indicated that the design guidelines should be more flexible, or more general in nature.

<table>
<thead>
<tr>
<th>Historic District</th>
<th>Number of Surveys Mailed</th>
<th>Number of Responses</th>
<th>Percentage of Responses</th>
<th>Margin of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeland</td>
<td>36</td>
<td>23</td>
<td>64%</td>
<td>12%</td>
</tr>
<tr>
<td>Houston Heights East</td>
<td>905</td>
<td>246</td>
<td>27%</td>
<td>5%</td>
</tr>
<tr>
<td>Houston Heights South</td>
<td>788</td>
<td>192</td>
<td>24%</td>
<td>6%</td>
</tr>
<tr>
<td>Houston Heights West</td>
<td>521</td>
<td>134</td>
<td>26%</td>
<td>7%</td>
</tr>
<tr>
<td>Norhill</td>
<td>850</td>
<td>205</td>
<td>24%</td>
<td>6%</td>
</tr>
<tr>
<td>Woodland Heights</td>
<td>386</td>
<td>123</td>
<td>32%</td>
<td>7%</td>
</tr>
</tbody>
</table>

*Survey results with a 95% rate of confidence. Source: Survey Monkey*
INTRODUCTION

The design guidelines for each historic district will address ways in which additions and new buildings may be designed to be compatible in terms of setbacks, scale and proportion, and height. Some of the measurable design tools that could be used to promote compatibility are discussed in this section. The focus is on those design variables that can be measured.

A few caveats: Several measurable design tools are presented here. Not all of these are recommended to be used. The intent of this section is to document all that were considered. Those tools that are proposed to be used are described in Section 6. Note that the images illustrating how these tools work may not reflect designs that would be appropriate in some historic districts. Finally, some of these tools already appear in some existing deed restrictions and design guidelines.

This section begins with descriptions of some of the more basic tools for wall height and length, and then presents tools that address building size and massing. It concludes with tools related to site planning.

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Building Design Tools ....................................................... 36
Site Design Tools ............................................................. 46
BUILDING DESIGN TOOLS

Building Height Limits

Definition and Intent
A height limit sets the maximum vertical dimension of a wall, roof ridge, or other vertical feature. This measurement is taken from a pre-determined point, such as “at grade, next to the building,” to ensure consistency throughout. The intent of building height limits is to keep height within a range that is compatible with the context area. Building height is limited in the deed restrictions for Woodland Heights, Norhill, Houston Heights Historic Districts (East, West, and South), and Old Sixth Ward Protected Historic District.

These types of height limits are often used:
- Ridge Height: This is the maximum height to the highest point of a structure (although some features may be excluded, such as a tower or decorative railing).
- Height to the Mid-Point of a Roof: Historically, this was often set to assure access by firefighter’s ladders. It has become a standard way of measuring height in some communities. Houston does not use this measure at present.
- Height of a Wall: This is often used when addressing height at minimum building setback lines, especially along the sides of properties, where wall height can be an important factor in looming effects. (Some neighborhood deed restrictions use a variation of this concept.)
- Plate Height: The ordinance states that this is the distance from the subfloor of a building to the top of the framed wall.
Advantages of Building Height Limits

- Helps ensure that structures do not loom over their neighbors
- Relatively easy to understand and calculate
- Can provide an incentive to use specific roof forms that are consistent with neighborhood character (i.e., height may be calculated to the mid-point of a sloped roof to encourage pitched roof forms)

Observations

- To be effective, must be combined with other standards related to building size and massing
- Requires that methods of measurement be consistent
- Can limit height while still providing flexibility in size and style
- Note that the ordinance provides that a historic district may prohibit two-story buildings if the entire district is one-story.
Horizontal Wall Offset

**Definition and Intent**
A horizontal wall offset standard establishes a maximum wall length, after which an inset in wall plane must occur. A Horizontal Wall Offset tool can encourage a building form that appears similar in massing to neighboring contributing structures. This can reduce the “looming” impact into a neighboring side yard. When the maximum wall length is similar to traditional side wall lengths of historic buildings in the historic district, a new building may appear to be in scale with its neighbors as seen from the street. This type of offset also helps to maintain some open space in the rear yard.

A horizontal wall offset standard is intended to reduce the perceived mass of a house and to reflect the scale of smaller buildings that are a part of the context area. By setting a maximum wall length before an offset must occur, a larger structure may be sculpted to fit with smaller traditional buildings.

**Advantages of Wall Offsets**
- Helps ensure that a structure does not loom over its neighbor
- Reduces the perceived mass and scale of a new building

**Observations**
- Is particularly useful in reducing perceived size of two-story buildings
- May not be needed in a historic district that is exclusively one-story in height
Vertical Wall Offset

Definition and Intent
A Vertical Wall Offset standard sets a maximum permitted height before a step back must occur. Wall height is usually measured from either grade or the first finished floor to the highest horizontal framing member, or wall plate. This is usually the point at which the roof eave meets the wall.

Wall height standards are often tied to minimum setbacks to help ensure that taller building elements are located away from the edges of a lot. A Vertical Wall Offset standard can shape the building form in a way that is similar to a Maximum Building Envelope tool (described later). Many wall offset standards allow a one-foot increase in height for each foot of additional setback.

The intent of a vertical wall offset standard is to reduce the perceived mass of a building as seen by neighbors and to reflect the scale of smaller building forms that may be a part of the context area. Limiting the extent to which a tall wall can loom over neighbors can help to minimize visual impacts of larger buildings. By setting the appropriate wall height before a step back in height must occur, a larger structure may be sculpted to fit within the context area of smaller traditional buildings.

Advantages of Wall Offsets
- Helps ensure that a structure does not loom over its neighbor
- Reduces the perceived mass and scale of a new building
- Allows the height to increase as the distance from the property line increases

Observations
- Vertical wall offsets encourages variations in building forms.
- Yields a result similar to a maximum building envelope tool that uses a sloping form (described later)
One-Story Element

Definition and Intent
A one-story element is a portion of a building that is one story in height. It can be located along a building front or side wall in order to help reduce the apparent mass of a taller structure. As an alternative to requiring a one-story element, an incentive can also be included in a Floor Area Ratio limit (discussed later) or a building envelope standard to encourage using one-story elements. Currently none of the historic districts has an explicit one-story element requirement, but the deed restrictions in Norhill, Houston Heights (East, West, and South) and the design guidelines in Old Sixth Ward do require front porches.

In many parts of the historic districts, buildings have one-story elements on the street-facing façade, which reduces perceived scale. Using a tool that encourages, or requires, having a one-story element could protect this traditional pattern while allowing taller heights in other parts of a site. Requiring a one-story space or porch on the front of a residence may reduce the perceived mass of the building and match the traditional scale of the context area.

Sometimes a “One-Story Frontage Area” is used in setback standards. This limits height in that area to one story.
**Advantages of One-Story Element**
- Reduces the perceived mass and scale of a structure
- Creates a consistent scale along the street
- Matches traditional patterns of development

**Observations**
- Could limit buildable area on short-depth lots
- Many communities consider out-of-scale porches and two-story front façades to be inappropriate. This tool could ensure consistent scale at the street level while providing an increase in mass toward the middle or rear of a lot.
- May not be needed in a district that limits overall height to one story

*A one-story element on the side of a residence may reduce the perceived mass of the building for its neighbor.*
Maximum Building Envelope

Definition and Intent
A maximum building envelope, sometimes called a bulk plane or encroachment plane, is a boundary beyond which a primary structure may not extend. A building envelope can be tailored to shift some portion of the mass of a building to a preferred location on a site, such as moving a taller part of a house away from neighbors. Another option is to limit height in the front portion of a site to a lower scale than that in the rear. While no deed restrictions explicitly define a building envelope, the setbacks and height limits stipulated in them in effect create a building envelope, as in Houston Heights Historic Districts (East, West, and South). Design guidelines in Old Sixth Ward Protected Historic District establish a sloped building envelope by allowing building height to increase as setbacks increase.

Some uninhabited spaces and other building elements may be permitted to extend outside the building envelope such as:
- Chimneys
- Dormers (often limited in size)
- Solar panels
- Eaves
- Porches
- Gargages

A sloped maximum building envelope is intended to shift taller portions of the mass of a structure toward the center of the lot. This may help to maintain the perception of a traditional scale along the street and minimize a “looming” effect upon neighbors.
4. Potential Building Standards

Advantages of Maximum Building Envelope
- Restricts taller building mass to less sensitive parts of a lot
- Helps reduce the potential of tall walls adversely affecting neighbors
- Can be combined with lot coverage and floor area ratio standards to mitigate mass and scale impacts while encouraging creative design solutions

Observations
- Must be dimensioned to accommodate the range of heights seen on contributors in a historic district.
- The building envelope tool is particularly useful for accommodating a moderately larger house within a lower-scaled area while providing flexibility in building form and style.
- Must be tailored to address oddly shaped lots.

This envelope slopes in from the side property lines, moving taller portions of the mass away from neighbors, reducing the “looming” effect.
Floor Area Ratio (FAR)

Definition and Intent
A FAR standard sets the total square footage of primary, and sometimes all, structures that is permitted as a percentage of lot size. The concept is that a structure will be more compatible when it is in proportion to its lot. FAR is generally expressed to the second decimal place, calculated by dividing the total building square footage by the total lot square footage. For example, a building size of 2,000 sqft divided by its lot size of 5,000 sqft equals an FAR of 0.40. FAR rules typically have a cap that sets a maximum house size for very large lots. A minimum house size also is provided to assure that even on the smallest lots, a functional house will be built.

FAR applies to all construction, including new buildings and additions to existing ones. A FAR standard does not affect the form of a house. When the FAR is coordinated with height and building coverage limits, variation in building form is possible. That is, different design solutions, with varying massing arrangements, can occur.

Some building area may be excluded from FAR calculations (in part or in whole), to provide additional flexibility or to promote use of specific design elements. These exceptions may include:
- Accessory structures (including garages)
- Attic space
- Roofed porches

CALCULATING FAR

Level 1 Size = 1250 sqft.
+ Level 2 Size = 750 sqft.
Lot Size = 5,000 sqft.
FAR = (2,000) / 5,000 = 0.40 FAR

FAR / LOT SIZE CHART

FAR rules typically have a cap that sets a maximum house size for very large lots. A minimum house size also is provided to assure that even on the smallest lots a functional house is permitted. In this example, a straight line curve changes the ratio as lot size increases.
Advantages of a Floor Area Ratio

- Directly relates the size of a structure to the size of the lot
- Is relatively easy to understand and calculate
- Can be combined with lot coverage and height limits to reduce the overall scale of a structure
- Can provide an incentive to include front porches or detached garages and accessory structures (by discounting them) in designs

Observations

- Must be dimensioned to accommodate the range of heights that are appropriate to a historic district
- In historic districts with consistent lot sizes, a floor area ratio can relate the size of a structure to its neighbors.
- Floor Area Ratio does not affect the form or style of a building.
- Must be combined with other standards related to building size and massing to be effective

All three illustrations show an FAR of 0.40 in different design configurations.
SITE DESIGN TOOLS

Minimum Building Setback

Definition and Intent
A minimum building setback standard limits how close a building may be placed to the front, sides or rear of a lot. The setback can be calculated in three ways; 1) there can be a set number for the distance from the property line, 2) an average dimension for the front setback that is calculated from the surrounding context area, or 3) a permitted range for the distance from the property line to the structure where a variety in setbacks is a part of the historic character. Taken together, front, side and rear setback standards define the area of the lot where structures may be built. In some cases, a porch element may be permitted to encroach into the front building setback if such a pattern is seen traditionally in the area. Minimum building setbacks are already utilized in some deed restrictions.

A building setback is intended to maintain the traditional alignment of contributing structures. By determining how far a structure must be built from the front property line a consistent lawn area is established. This tool encourages a pedestrian friendly street edge and provides open space to the sides and rear of a lot.
### Advantages of Building Setback
- Front setbacks help maintain a streetscape rhythm.
- Side and rear setback standards protect privacy (especially when new construction involves a two-story building) by ensuring that buildings on adjoining lots are separated by a minimum distance.
- Exemptions can also promote desirable design elements such as front porches or buildings that step down towards their neighbors (i.e. allowing front porches to encroach into the setback or providing different side setback standards for one and two-story building elements).
- Retains open space on a site.

### Observations
- May require adjustment in an area with varied setbacks
- Many historic districts have a strong alignment of front porches and front walls. This tool ensures compatibility in site placement while allowing flexibility in mass and form.
Lot Coverage

Definition and Intent
Lot coverage standards establish the maximum percentage of a lot surface that may be covered by structures. This is calculated by dividing the building footprint of all structures on a lot by the total lot size. For example, a building footprint of 2,250 sqft. divided by its lot size of 5,000 sqft will yield a lot coverage of 45%. Lot coverage is intended to assure a minimum amount of open space on a parcel and to encourage retaining yard area. Limits on lot coverage appear in the deed restrictions of the Norhill Neighborhood Association.

Some elements may be exempt (in part or in whole) from building coverage to provide flexibility in design or to promote using specific design features. These may be exempt:
- Roof overhangs
- Accessory structure
- Roofed front porch
- Any deck or patio area that is not roofed
- A gazebo that is not enclosed on more than two sides
4. Potential Building Standards

Advantages of Lot Coverage
- Helps maintain open space
- Helps preserve side and rear yards
- Reduces privacy impacts by discouraging larger structures from extending substantially into the rear yard
- Can provide an incentive to include front porches or detached garages and accessory structures by discounting them

Observations
- Could encourage taller structures if not combined with specific height or floor area ratio standards
- Historic districts that consider loss of open space to be a concern would see a benefit in this tool.
- Could incentivize parking in the rear by exempting a rear-located garage from the calculations
- May also reduce pressure to remove mature trees

Lot coverage limits the maximum area of the footprint of a building. This also sets the minimum amount of open space on a parcel. The three examples above illustrate the same building coverage percentage in three different house designs.
Impervious Surface Limits

Definition and Intent
A maximum impervious surface standard limits the amount of non-porous paving on a site. This tool is a measurement of the percentage of hard surfaces that are allowed on the property. It can help maintain the sense of green space on a parcel and limit storm water run-off onto neighboring properties. Note that this is not regulated under the ordinance, but some property owners expressed interest in addressing this topic.

Intent
The intent of a maximum impervious surface limit is to minimize storm water runoff and maintain green space.

Advantages of Impervious Surface Limits
- Mitigates water runoff
- Encourages a pedestrian-friendly street edge

Observations
- Considering water runoff issues in several historic districts, impervious surface limits could be beneficial.
- Impervious surface limits may help retain open space and preserve historic landscaping.
- Could be addressed in advisory guidelines as best practices
Parking Location Standards

Definition and Intent
A parking location standard addresses the location, size and design of on-site vehicular use areas. Parking location standards are intended to minimize the visual impact of vehicles and maintain traditional parking patterns. Some parking design standards require using an alley to access parking where this pattern is a part of the neighborhood character. Where parking must be accessed from a street, design standards may minimize the visual impacts of curb cuts, driveways, and garages. Parking design standards also can limit the amount of paved surface allowed in the front yard by limiting the width and number of curb cuts. Note that the Historic Preservation Ordinance does not regulate paving or parking except carports and garages.

Advantages of Parking Location Standards
- Ensures street presence is consistent with traditional character
- Provides safe and orderly pedestrian and vehicle environment
- Minimizes visual impact of vehicles from the street and on the property
- Minimizes the visual impact of cars and service areas on adjacent properties

Observations
- Defining the location of parking could retain the traditional appearance from the street.
- May also prevent mature street trees from being displaced

A number of different parking conditions can be addressed in design standards. Different locations can be tailored to individual historic districts or sub-areas within them.
INTRODUCTION

This section summarizes the results of the Compatible Design Survey as well as the consultant’s analysis of existing conditions in the historic districts. It includes brief notes on some public perceptions that arose during the outreach process and a discussion of how the design guidelines can help to illustrate and explain criteria that appear in the Historic Preservation Ordinance.

The findings presented here represent information from several sources: The Compatible Design Survey provides data about property owners’ opinions of recent trends in the historic districts, their perceptions about historic preservation in general and their tolerance for new buildings and additions of varying designs. In addition, the information collected from GIS documenting development patterns was considered. Field observations also are reflected in these findings as well as comments collected from the public in workshops, focus groups, and online correspondence.

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General Conditions in the Historic Districts ................................................................ 54
Conditions in Individual Historic Districts ............................................................... 54
Compatible Design Survey Results ............................................................................. 56
Public Perceptions ...................................................................................................... 70
Guidelines Based on the Ordinance ............................................................................ 71
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GENERAL CONDITIONS IN THE HISTORIC DISTRICTS

Several universal findings should be addressed in the design guidelines. These appeared in focus groups and workshops as well as online communications and the surveys:

Those contributing structures that are in original condition are important to the integrity of the historic districts.

Historic resources that retain their integrity are important in maintaining the significance of each historic district. Many people commented on their hopes of preserving this historic character. The design guidelines should explain the importance of preserving the integrity of contributing resources.

Earlier inappropriate alterations and infill projects cause confusion.

Some inappropriate alterations and infill projects occurred before any preservation ordinance was put into place; others occurred under previous versions of the ordinance. These may cause confusion about what is considered acceptable today. However, some of these built projects do provide lessons, in terms of designs to avoid in the future. The design guidelines should address this issue.

Pressure to build continues in some of the historic districts.

The historic districts are becoming ever more desirable places to live because they are close to downtown and retain their character. This puts pressure on the historic districts since many buyers and builders seek to maximize house size to justify high purchase prices. The design guidelines should emphasize the importance of preservation under these conditions.

CONDITIONS IN INDIVIDUAL HISTORIC DISTRICTS

In addition to general trends found in all of the historic districts some features of individual districts should be noted. These should be addressed in the design guidelines:

Freeland Historic District

The Freeland Historic District is a small enclave of one-story historic bungalows that is generally intact. It consists of only two blocks and
retains most of its building fabric and setting. Some new construction has occurred to the rear of lots. This has not impacted the character of the historic district.

**Houston Heights Historic Districts**

The Houston Heights Districts consist of Houston Heights East, Houston Heights West, and Houston Heights South. Combined, they contain approximately eighty-eight blocks. A variety of historic building styles appear in these historic districts. Many areas retain their historic fabric and setting, while some parts have undergone more change. This may be due to the more relaxed regulations that were in place prior to the adoption of the current ordinance. New construction on small lots has had the greatest impact. The result sometimes is a large home that overwhelms the smaller houses in the area.

Some individual properties in the districts also have deed restrictions. These restrict party walls, front garage configurations, and building height. They do not consider historic preservation principles or neighborhood context, and they only apply to properties that have opted-in to those restrictions.

**Norhill Historic District**

The Norhill Historic District contains approximately forty-eight blocks. One-story bungalows predominate, but other styles also occur here. This historic district retains most of its historic fabric and setting. This may be due in part to the combination of the neighborhood association design guidelines and deed restrictions that limit lot coverage, building size, and placement. These are more restrictive than the criteria in the preservation ordinance. However, pressure still exists to expand houses. Since the lots are smaller in Norhill, new construction can have a major impact.

**Old Sixth Ward Protected Historic District**

The Old Sixth Ward Protected Historic District is a modest enclave with a mix of one and two-story historic buildings. It is relatively intact. It contains approximately nineteen blocks. Most buildings date from the nineteenth century and therefore this district differs from the others, which are primarily from the early twentieth century. The historic district has its own design guidelines, which in general are more restrictive than the ordinance. Deferred maintenance is an issue on some properties.

**Woodland Heights Historic District**

The Woodland Heights Historic District is an enclave primarily of one-story historic houses, but it also includes some two-story buildings. Houses are usually more grand than in other heights districts. The historic fabric is generally intact. It contains approximately twenty-eight blocks. Some changes have occurred, often as infill to the rear of lots and thus have had less of an impact on the character of the historic district.
COMPATIBLE DESIGN SURVEY RESULTS

The Compatible Design Survey data provides valuable insight into perspectives that property owners have for preservation and compatible infill in the historic districts. The Compatible Design Survey was customized for each historic district, and survey responses were tabulated for them individually. Unique identifier numbers were used on each survey to assure that only one response was recorded for a property. In some cases, respondents did not answer all questions relevant to their historic district. Therefore, the number of respondents reported for individual questions varies from question to question.

The Compatible Design Survey is the third in a series of exercises designed to identify issues of interest to property owners in historic districts and their opinions about the relative compatibility of different sizes and shapes of additions and new construction. Using information gathered through the exercises conducted in two previous community workshops (in person and online), the survey measures the extent to which various opinions are shared among property owners. The survey does not represent a vote for or against design guidelines, historic districts, or any specific concepts or designs. Instead, it provides a measure of property owners’ understanding of historic preservation principles and their perception of how new infill construction can fit into a historic district.

The survey includes three sections:

Part 1: Overall Issues in the Historic District
This section of the survey asks questions related to issues raised in community workshops and focus groups that relate to recent renovation and infill projects, as well as the value of owning property in a historic district.

Part 2: Building Design Tools
This section describes potential design tools that can be used to improve compatibility by managing mass, scale, and a building’s relationship to its neighbors. It then asks participants to indicate which tools should be considered in the design guidelines. These tools are those described in Section 4 of this paper.

Part 3: Building Scenarios
This section presents computer images of contributing structures in a block similar to one found in a part of the historic district, and asks the reader to comment on various aspects of additions or new (infill) houses in those settings, in terms of their compatibility.
Tabulating the Surveys

The survey was presented online using SurveyMonkey.com; paper copies were also mailed to each property owner using mailing address data provided by the Harris County Appraisal District. Approximately half of the surveys were completed online. Data from the paper surveys was entered manually into the SurveyMonkey system and combined with the online responses. The City’s project manager personally received, opened, and entered every mailed survey to ensure data consistency and accuracy.

Response by Degrees of Agreement

The survey used a ten-point Likert scale to measure positive or negative responses to a series of statements, such as “A bigger house can fit in if it is well designed and respects traditional neighborhood patterns.” For each statement, the survey asked respondents to indicate the degree to which they agree or disagree. Respondents answered by selecting one of ten numbers, with #1 indicating that the respondent “strongly disagrees” with the statement and #10 indicating that the respondent “strongly agrees” with the statement.

The complete results, organized by historic district, are provided in Appendix D. For each statement, a chart reports the number of respondents who selected each point of the ten-point scale, as well as the total percentage of respondents who selected that point. Bar graphs illustrate the distribution of the responses, for a quick visual comparison.

Here is an example of a response to Question #1, from the Houston Heights Historic District West:

| Question 1: “Some recent construction in my historic district is too large.” |
|---------------------------------------------------------------|-----------------|-----------------|-----------------|
| Answer Options | Strongly Disagree | Strongly Agree | Response Count |
| On-line Responses | 8 | 2 | 4 | 2 | 5 | 4 | 6 | 7 | 6 | 21 | 65 |
| Mail-in Responses | 4 | 2 | 1 | 1 | 2 | 3 | 3 | 14 | 4 | 35 | 72 |
| Total Responses | 12 | 8 | 6 | 3 | 7 | 7 | 9 | 21 | 10 | 56 | 137 |
| Response Percentages | 9% | 4% | 4% | 2% | 5% | 5% | 7% | 15% | 7% | 41% |

This bar graph associated with Question #1 illustrates the relative distribution of those agreeing and disagreeing with the statement about appropriateness of scale of recent construction in the Houston Heights Historic District West. Position #1 on the graph indicates those who “strongly disagree” with the statement. Position #10 indicates those who “strongly agree” with the statement. Similar bar charts appear in Appendix D for all of the survey questions for each district.
5. Our Findings

**NOTE:**

See Appendix C, “Compatible Design Survey: Summary of Responses.” This summarizes the survey results in the three groups described here.

---

**Grouped Responses**

While it is informative to view the percentage of respondents at each point on the scale, it requires careful study to see general patterns of responses. Grouping the responses into three categories makes the data patterns easier to identify.

- **Group 1.** Respondents who selected points 1 (*strongly disagree*) through 4 on the scale generally disagree to some extent with the statement.
- **Group 2.** Respondents who selected points 5 and 6, in the middle of the scale, are *undecided*.
- **Group 3.** Those who selected point 7 through 10 (*strongly agree*) generally agree with the statement, to some extent.

Here is an example of the three group response to Question #1, from the Houston Heights Historic District West:

1. “Some recent construction in my historic district is too large.”

<table>
<thead>
<tr>
<th>20%</th>
<th>10%</th>
<th>70%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>Undecided</td>
<td>Agree</td>
</tr>
</tbody>
</table>

These *grouped* data sets, along with the complete charts and graphs, are provided in Appendix C. Note that the finer-grained responses in the ten-point scale as reported in Appendix D also will be used in developing the design guidelines, especially in terms of the degree of firmness that specific prescriptive design standards may express.
General Observations to the Survey Responses

Overall, with just a few exceptions, respondents across all historic districts are strongly consistent in their agreement or disagreement with individual questions. Where distinctions exist between individual historic districts, in terms of degrees of agreement, additional detail that shows some of those differences is provided following this summary. With that in mind, the analysis of survey response data shows that, generally:

1. **Property owners throughout all historic districts are concerned about preserving historic character.**
The majority want to preserve the historic character of their individual historic districts. This means that design guidelines that show how to preserve the integrity of each contributing structure will be important.

2. **Being in a historic district adds value to properties.**
The survey indicates that a majority of respondents believe that historic district regulations add value.

3. **Opinions vary about the appropriateness of recent renovation projects.**
A majority of respondents indicate that recent renovation projects are appropriate. However, the degree to which respondents agree is less strong than with some other questions.

4. **Concerns continue about the size of recent new construction.**
Most property owners express concern about the large scale of recent new construction, which may result in the loss of open space and mature vegetation, as well as a loss of privacy when larger new buildings loom over neighboring property. When presented with models of additions and new construction, they respond less favorably to noticeably larger buildings and taller wall heights. This indicates that design standards that minimize the impacts of larger buildings are needed.

5. **Maintaining traditional scale in the front of a lot is important.**
In settings with predominantly one-story buildings, images that show a one-story element on the front of a new building receive more favorable responses than images of buildings which are entirely two stories. That leads us to conclude that preserving the historic scale of the block, as seen from the street, is important.

6. **Sometimes, when additional building mass is located to the rear, it can be compatible.**
On a block where most of the houses are of a smaller (traditional historic) scale, a somewhat larger mass is considered compatible if it is located to the rear of the building. However, opinions of compatibility decrease when lot coverage increases and open space is more compromised. Design standards that are coordinated to address the interaction of these factors are needed.
7. Traditional lot coverage is a key characteristic to preserve.
This theme reoccurs throughout the survey responses and across all historic districts. Models that maintain open space in the rear of the property, as well as in side yards, receive higher compatibility ratings.

8. Context-sensitive design can help a new building fit in.
While respondents express concern about the impacts of new construction, a small majority believes recent examples to be compatible. This suggests that other factors related to the design of buildings can help to mitigate the impacts of building size and loss of open space.

9. A limit exists on the ability to fit a larger building into a historic setting.
Images of very large houses receive unfavorable ratings, even when they have one-story elements and variations in massing. This indicates that variation in form and stepping down in height ceases to be effective when a design exceeds a certain threshold in size and lot coverage.

10. Parking on site should be subordinate to the street.
Designs that locate garages in the rear receive greater support than those with garages closer to the street. Detached garages are seen more favorably, probably because this reduces the perceived size of the main building.

Conclusive Analysis of Responses
The following section provides more detail about responses to individual survey questions. Using the grouped data sets, described on page 58, to understand how many respondents generally agreed with, are undecided about or disagreed with each question, some patterns emerge. Some percentages expressed in the statements below illustrate a plurality agreement, rather than a majority. In these cases, the largest percentage agreed with the statement rather than disagreed or were undecided. Therefore, while not the majority, these percentages represent the largest responses and are reported.

Survey Part 1: Overall Issues in the Historic District
The responses from all historic districts are summarized here in two categories:

(1) Questions in which the majority of respondents in each historic district agree with the statement, and

(2) Questions in which opinions are more divided.

The question numbers from the survey are included here so that these summaries may be easily cross-checked with the detailed responses in Appendix C.
5. Our Findings

Statements with strong support
Respondents from all historic districts agree to some extent with these four statements:

Question 2: “The loss of green space when a larger building is constructed is a key issue.”
Respondents in each historic district agree by more than two-thirds, with this statement, except for Houston Heights Historic District South, where 51% agree to some extent. Across all historic districts, the highest percentage of agreement appears in category #10, those who “strongly agree.” This indicates that design standards which help to maintain a substantial amount of open space could help preserve mature vegetation.

Question 3: “The loss of mature vegetation when new construction occurs is a key issue.”
A majority in each historic district agree with this statement. Those agreeing to some extent range from 64% to 79%, depending on the historic district. Agreement is less strong in Houston Heights Historic District South, where 51% agree to some extent. Looking at responses to each of the 10 points on the scale, the highest percentage in agreement is consistently in the “strongly agree” column, for all historic districts. This reinforces the need for guidelines that show how to preserve contributing structures.

Question 5: “A large house next door diminishes privacy in neighbors’ back yards.”
Respondents in five of the six historic districts agree by more than two-thirds (ranging from 67% to 74% agreeing). In Houston Heights Historic District South, 50% agree while 31% disagree; the balance are undecided. This further substantiates the need for guidelines that will minimize negative effects of larger house sizes.

Question 7: “A bigger house can fit in if it is well-designed.”
All historic districts agree by more than two-thirds (ranging from 68% to 83%). This suggests that design guidelines should show how to design houses that may be somewhat larger than contributing structures to be compatible with them.
5. Our Findings

**Statements with mixed responses**
In this category, respondents in many historic districts generally agree with the statements, but responses are more varied within each historic district than in the questions above.

**Question 1: “Some recent new construction is too large.”**
Respondents in Houston Heights Historic District East, Houston Heights Historic District West and Woodland Heights express strong levels of agreement with this statement, with more than two-thirds agreeing to some degree. Respondents in other historic districts are more divided: Houston Heights Historic District South (44% agree), Norhill (49% agree) and Freeland (48% agree). Nonetheless, these percentages are higher than those who disagree. (See the table below.) In the case of Norhill, neighborhood-wide deed restrictions limit house size, and Freeland has seen few infill projects. These factors may explain their responses.

<table>
<thead>
<tr>
<th>Question 1. “Some recent new construction is too large.”</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeland</td>
<td>43%</td>
<td>9%</td>
<td>48%</td>
</tr>
<tr>
<td>Houston Heights East</td>
<td>27%</td>
<td>9%</td>
<td>64%</td>
</tr>
<tr>
<td>Houston Heights South</td>
<td>42%</td>
<td>14%</td>
<td>44%</td>
</tr>
<tr>
<td>Houston Heights West</td>
<td>20%</td>
<td>10%</td>
<td>70%</td>
</tr>
<tr>
<td>Norhill</td>
<td>35%</td>
<td>16%</td>
<td>49%</td>
</tr>
<tr>
<td>Woodland Heights</td>
<td>25%</td>
<td>6%</td>
<td>69%</td>
</tr>
</tbody>
</table>
Question 4: “Most recent new construction has been compatible.”
In many of the historic districts, opinions are evenly distributed among those who agree, disagree and are uncertain about this statement. In other historic districts, a small majority of respondents agree or, in some cases, more disagree than agree. This indicates that, to some degree, a larger house may be designed to be compatible with its context area.

<table>
<thead>
<tr>
<th>Question 4: “Most recent new construction has been compatible.”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Disagree</td>
</tr>
<tr>
<td>Freeland</td>
</tr>
<tr>
<td>Houston Heights East</td>
</tr>
<tr>
<td>Houston Heights South</td>
</tr>
<tr>
<td>Houston Heights West</td>
</tr>
<tr>
<td>Norhill</td>
</tr>
<tr>
<td>Woodland Heights</td>
</tr>
</tbody>
</table>

Question 6: “Regulations that protect historic district character add value.”
In each of the historic districts, the majority of respondents agree with this statement, ranging from 61% to 65%. The exception is Houston Heights Historic District South, where 49% agree and 37% disagree.

Question 8: “Most recent renovation projects have been appropriate.”
In most of the historic districts, the majority agree with this statement, ranging from 50% in Woodland Heights to 74% in Freeland. The exception is Houston Heights Historic District East, where 49% agree and 28% disagree.

Question 9: “An addition to a historic house should be visually subordinate.”
In the individual historic districts, a majority of respondents agree with this statement, ranging from 50% in Freeland to 63% in Norhill. The exception is Houston Heights Historic District South, where 43% agree while 37% disagree. This indicates the need for guidelines that show how to design a compatible addition.
**Survey Part 2: Design Tools**
The second section of the survey presented a variety of different design tools which could be applied as prescriptive design standards to manage building mass and scale. For each tool, respondents indicated the degree to which they support that tool being utilized in the design guidelines for their historic district. Overall, property owners say that most of the design tools described should be used. Consistently across all historic districts, they express support for tools with dimensional requirements; the exception is Houston Heights South, where responses are more divided.

**All agree with these statements**
A majority of respondents in all historic districts agree to some extent with these two statements:

Question 12: “Guidelines that relate building size to lot size should be considered.”
Respondents in all historic districts agree to some extent with this statement, ranging from 57% in Houston Heights Historic District South to 82% in Houston Heights Historic District West. This indicates that a Floor Area Ratio tool, as described in Section 4 of this Strategy Paper, should be used.

Question 18: “Design guidelines should address appropriate parking locations.”
Respondents in all historic districts agree to some extent, ranging from 51% in Houston Heights Historic District South to 79% in Woodland Heights. Those in Houston Heights Historic District East, Norhill, and Woodland Heights express the strongest support. This indicates that guidelines for the location of garages should be included.

**Statements with mixed responses**
In this category, the majority of respondents in all historic districts except Houston Heights Historic District South agree to some extent with each statement listed below; in Houston Heights Historic District South more respondents agree with the statement than disagree, but the number of undecided responses kept the rate of agreement slightly below 50%.

Question 13: “A limit on the percentage of lot coverage should be considered to help maintain open space.”
The highest rate of agreement was in Houston Heights Historic District West (73%), while Houston Heights Historic District South is nearly evenly split, with 46% agreeing and 45% disagreeing. Note that in Part 3 of the survey, designs that retained more open space on a lot typically received higher favorable ratings.

Question 14: “Using a one-story element (such as a porch or a wing of a house) should be addressed in the guidelines.”
Support ranges from 58% in Houston Heights Historic District West to 70% in Freeland and Woodland Heights. In Houston Heights Historic District South, 48% agree, 32% disagree, and 19% are unsure. This indicates that this tool should be considered with application perhaps varying by district.
Question 15: “A Maximum Building Envelope should be considered as a tool to reduce perceived building size.”
The rate of agreement for this statement ranges from 61% in Freeland to 71% in Norhill. In Houston Heights Historic District South, 49% agree and 38% disagree. This indicates that this tool should be considered, with its application varying in form for different districts.

Question 16: “A side wall offset should be considered to reduce perceived building size.”
Support for this statement ranges from 52% in Freeland to 64% in Woodland Heights. In Houston Heights Historic District South, 48% agree and 36% disagree. This indicates that this tool should be considered.

Question 17: “A wall height limit should be considered as a tool to reduce perceived building size.”
The rate of agreement with this statement ranges from 57% in Freeland and Houston Heights Historic District East to 68% in Norhill. In Houston Heights Historic District South, 41% agree and 44% disagree.

The chart below summarizes the level of support for each of the potential design tools, by historic district:

<table>
<thead>
<tr>
<th>Support For Potential Design Tools</th>
<th>Freeland</th>
<th>Houston Heights East</th>
<th>Houston Heights South</th>
<th>Houston Heights West</th>
<th>Norhill</th>
<th>Woodland Heights</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAR</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Lot Coverage</td>
<td>—</td>
<td>✔</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>1-Story Element</td>
<td>✔</td>
<td>✔</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Building Envelope</td>
<td>✔</td>
<td>✔</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Horizontal Wall Offset</td>
<td>✔</td>
<td>✔</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Vertical Wall Offset</td>
<td>✔</td>
<td>✔</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Maximum Height</td>
<td>✔</td>
<td>✔</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Maximum Impervious Surface</td>
<td>✔</td>
<td>✔</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Parking Location</td>
<td>✔</td>
<td>✔</td>
<td>—</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

Key:
- ✔ The Majority Agree to Some Extent
- — Mixed Responses

Note that in no district did a majority respond negatively to using any of the potential design tools.
Applying the Data about Prescriptive Design Tools

Part 2 of the Survey focuses on the potential use of a variety of design tools that could be measurable standards. The data indicate that support exists for using many of these tools in the design guidelines. The guidelines should include some of these as measurable standards. The responses also suggest that consideration must be given to the conditions in each district in determining any specific standards. In all cases, the intent is that the HAHC will use prescriptive standards in determining appropriateness of a specific proposal. These would be balanced, and considered along with more qualitative guidelines.

Note that complying with the prescriptive standards in and of themselves alone does not mean that a design proposal automatically would be approved. It would still need to go through the formal design review process. Nonetheless, by complying with the measurable standards, there will be a higher probability of securing approval and in a more expeditious manner.

Survey Part 3: Building Scenarios

The responses to Part 3 of the Compatible Design Survey provide insights into the tolerance respondents have for house design in four variables: (1) lot coverage, (2) building size, (3) height, and (4) form. In the survey, a series of models presents alternative design scenarios that test changes in those four variables by combining them in various ways. Some models include a one-story mass in the front, with a taller part of the building in the rear. Other models show an opposite arrangement, with a taller portion in front and a lower part in the rear. Differences in lot coverage and wall heights also appear in the alternative scenarios. The dimensions of building heights and setbacks are known for each of the models, as are the statistics of floor area ratios and lot coverage.

Because respondents rated their opinions about compatibility in each of the four variables for individual design scenarios, it is possible to see how
a change in one variable influences perceptions of what fits with the part of the district that is illustrated. The details of the responses appear in Appendix D. An example from the survey for the Norhill Historic District appears at the bottom of the previous page.

In order to understand how this information is used in developing the recommendations for potential design standards, a sample of grouped survey responses showing the percentages of agreement from Houston Heights Historic District East is presented here with some observations about the lessons learned:

**Model D**  
This scenario illustrates a new two-story home with a one-story portion in front. It also includes a one-and-a-half story garage located to the rear of the lot. This design retains some open space on the lot.

Statistics for this model:
- Lot coverage: 30%
- Floor Area Ratio: .39

Compatible (grouped responses agreeing to some extent):
- Lot coverage: 71% agree
- Size: 63% agree
- Height: 62% agree
- Form: 67% agree

Observations:
1. The lot coverage and size appear to be within a range of tolerance for a clear majority of respondents.
2. Wall heights are relatively low, which may contribute to the high percentage of those agreeing.
3. A one-story portion of the building is in front, which may contribute to the high percentage of those agreeing with building form.

**Model F**  
This scenario illustrates a new home with a one-story portion in the front and a two-story portion in the rear that extends to the side. This design reduces open space on the lot.

Statistics for this model:
- Lot coverage: 48%
- Floor Area Ratio: .58

Compatible (grouped responses agreeing to some extent):
- Lot coverage: 31% agree
- Size: 30% agree
- Height: 37% agree
- Form: 31% agree
5. Our Findings

Observations:
1. The low percentage of those agreeing indicates that the lot coverage and building size exceed a range of tolerance.
2. Wall heights for the two-story portion are relatively high (21 feet), which may contribute to the low percentage of those agreeing.
3. Even with a one-story portion of the building in front, this form is unacceptable. When compared with the responses to Model D, which also has a one-story form in front, it suggests that a one-story form can only mitigate a larger mass and greater lot coverage up to a point.

Model G
This scenario illustrates a new two-story home with a one-story portion in front and along the side. It also has a detached one-story garage in the rear. This design retains some open space on the lot.

Statistics for this model:
- Lot coverage: 30%
- Floor Area Ratio: .36

Compatible (grouped responses agreeing to some extent):
- Lot coverage: 59% agree
- Size: 49% agree
- Height: 36% agree
- Form: 35% agree

Observations:
1. The high percentage of those agreeing with lot coverage indicates that this is within a range of tolerance.
2. The moderate percentage of those agreeing with the building size indicates that this is just at a point of tolerance.
3. Wall heights for the two-story portion are relatively high (20 feet), which may contribute to the low percentage of those agreeing.
4. Even with a one-story porch, this form is not accepted. When compared with the responses to Model D, which has a longer one-story form, it suggests that a more substantial one-story portion in front is needed.
Model H
This scenario illustrates a new two-story building with a one-story front portion in the rear and a one-story front porch element. It also has a detached one-story garage in the rear. This design retains some open space on the lot.

Statistics for this model:
- Lot coverage: 30%
- Floor Area Ratio: .41

Compatible (grouped responses agreeing to some extent):
- Lot coverage: 56% agree
- Size: 44% agree
- Height: 32% agree
- Form: 33% agree

Observations:
1. The percentage of those agreeing with lot coverage indicates that this is within a range of tolerance.
2. The moderate percentage of those agreeing with the building size indicates that this is just below a point of tolerance.
3. Wall heights for the two-story portion are relatively high (21 feet), which may contribute to the low percentage of those agreeing.
4. A one-story porch that is only on part of the front may not be sufficient to contribute to a sense of compatibility for a two-story building.

Conclusions to Survey Part 3
This sampling of the analysis of responses from one historic district to Part 3 of the Design Compatibility Survey shows that respondents can see the differences in changes to the design variables tested in the models. There also is a high degree of consistency in responses. For some models, the majority find a particular scenario to be compatible, and for others, a majority find a scenario to be incompatible. And, they can tell the difference when one variable changes, but not others. This is reflected in their answers.

This type of comparative analysis, was applied to the survey data from each district and provides a statistical basis for recommending prescriptive design standards related to the variables tested. That information, in combination with the analysis of historic development patterns from the background data described in Section 3, informs the recommended prescriptive standards that appear in Appendix B for each district.
PUBLIC PERCEPTIONS

During the public workshops and focus group meetings, many topics were discussed that provide insight to some public perceptions that should be addressed in the design guidelines. These are some perceptions among property owners about preservation principals and existing design policies:

- Some people don’t understand that cumulative alterations to a contributing structure can negatively affect the historic resource.
- There is also a lack of understanding that, with the increasing percentage of noncontributing structures in a historic district, the integrity of the historic district is diminished. This underscores the need to preserve the integrity of each existing contributing property.
- Some people don’t understand that the design guidelines cannot be more permissive than the ordinance.
- Many people assume that an older building is inherently less efficient in energy conservation whereas many can be highly efficient when appropriately used and maintained. This is especially relevant to questions about windows. Information about this fact should be presented in the design guidelines.

Other People Understand the Preservation Principles, but Question Them.

- For example, the concept of distinguishing new from old in the design of an addition or a new building is not understood (or accepted) by some people.
- An example is the degree to which an addition may encroach over a historic building. Some people feel that a larger addition should be permitted, because it may result in a well-functioning floor plan and believe that reason should take precedence over preserving the historic character of a building.
- Another example is understanding that an older addition may have taken on historic significance and merit preservation.
- Information about these topics should be included in the design guidelines.

Some People Perceive a Conflict Between Contemporary Lifestyles and Historic Buildings.

- For example, there is a perception that new lifestyles require larger rooms and taller ceiling heights.
- They also may seek to have a higher porch floor height.
What This Indicates

While these are only a few of the perceptions expressed, they are important because they indicate that the design guidelines should include material to better inform readers about these topics:

- The document needs to include some basic information about preservation principles.
- It needs to provide clarity for established policies (such as distinguishing new from old).
- It needs to identify where flexibility may be available (and where it is not) to meet “contemporary” needs.

GUIDELINES BASED ON THE ORDINANCE

The design guidelines will, of course, facilitate interpreting the criteria in the ordinance. Illustrations will be important in this regard. Illustrations that provide pictures of appropriate and inappropriate design solutions are needed. Many of these will relate to terms used in the ordinance.

Illustrations for Ordinance Definitions

These terms from the ordinance should be illustrated in the design guidelines:
- Block face
- Context area
- Massing
- Eave height

Illustrations for Broad Design Criteria in the Historic Preservation Ordinance

Some of the most important criteria in the ordinance are broad in nature. This is so they can be applied to many situations. But, because they are broad, some people may need help in interpreting their application to specific projects. Providing examples of how these criteria apply to the individual historic districts is essential. The design guidelines should include illustrations and sometimes additional text, to explain how to apply the criteria in the ordinance to specific projects. For example:
- “The proposed activity must retain and preserve the historical character of the property.” (Explaining “historical character,” and how it is “retained” while perhaps permitting alterations should be addressed in the guidelines.)
• “New materials to be used for any exterior feature excluding what is visible from public alleys must be visually compatible with, but not necessarily the same as, the materials being replaced in form, design, texture, dimension, and scale.” (What is “visible?” What is “compatible,” and what are the features, in terms of “form, design, etc.”? The design guidelines should help explain these concepts.)

How to Interpret Context Area

The ordinance defines a basic geographic area that is the “default” for considering how a proposed project relates to its surroundings. But, it doesn’t clearly state how context area influences decision-making; the design guidelines should help with this.

The ordinance permits using a different definition of context area when it is developed as a part of design guidelines for a specific historic district. The design guidelines should provide an explanation of how and when to apply a different context area for some historic districts. For example:

The Context Area should be expanded when one of these conditions exists:

1. Fewer than 50% of the primary structures within the one-block context area are contributing.
   • In this case, the default context area will not adequately convey the historic character of the setting. A larger area should be considered.
   • As a first step, a setting that extends an additional block in each direction along the street should be considered as the context area.

2. The historic district as a whole has a high degree of consistency. The entire historic district may be the context area when it has a high degree of consistency throughout. This is identified by:
   • A high percentage of contributing structures throughout the district
   • A uniform distribution of contributing structures throughout the district, and
   • A high degree of similarity in building form, size and, character throughout the district; these features are identified in the Character Area descriptions that are in Appendix G of this Strategy Paper.

3. The proposed project is unusual for the area.
   For example, when an institutional or commercial building is proposed in an area that is primarily residential in character, a broader context area should be defined.
OTHER SUPPORTING INFORMATIONAL NEEDS

Updating Background Information

During the process of reviewing background information, instances appeared in which some data appeared to be out-of-date. For example, some building dates, as recorded in GIS data or assessor's records, are estimates. This may be due in part to the effects of more recent additions that have altered the effective building dates that the assessor uses. In any case, some of these are inconsistent with the dates shown on the resource inventories. Workshop participants reported errors in ratings of contributing and noncontributing structures in resource inventories. More recent alterations also may merit reclassifying some of these properties. Sometimes, even an approved project may result in a loss of integrity for a property and it therefore should be reclassified. A means of tracking additions and distinguishing their dates from those of the original buildings would be helpful.

While none of these data issues substantially affects the observations about existing conditions, these discrepancies could cause confusion for individual property owners as they contemplate work. Updating these materials would help expedite the review process.

FINDINGS

The information collected from community engagement, GIS data and field observations confirms that design guidelines can help in interpreting the ordinance and in addressing issues related to preservation and compatible new construction. It further indicates that some of these guidelines can be prescriptive standards, with numbers assigned to them. Dimensional standards, related to building height, floor area, and lot coverage are examples. In other cases, the guidelines must be more discretionary, because some judgement is needed to determine if the proposed work would be appropriate. Many of these topics relate to the treatment of character-defining features on contributing structures. Determining when a portion of exterior siding is beyond repair and needs to be replaced is an example.

The design guidelines also need to include some educational material that explains the principles that underlie the guidelines. Providing information related to enhancing energy conservation while preserving historic windows is an example.

Many of the design guidelines can apply equally to all of the historic districts, but some material must be tailored to unique conditions in each district. The data collected provides the information to do so. The approach to developing the design guidelines based on these findings is described in the final section of the Strategy Paper.
5. Our Findings
THE BASIC APPROACH TO THE DESIGN GUIDELINES

Considering the analysis of existing conditions in the field and Geographic Information Systems (GIS) data along with community input, through workshops, focus groups and surveys, as well as national best practices, these are the recommendations for developing the design guidelines:

Build on the Historic Preservation Ordinance

The Historic Preservation Ordinance includes criteria to be used when evaluating applications for Certificates of Appropriateness. To support the consistent interpretation of these criteria, the design guidelines should provide additional information that will:

Illustrate some of the Historic Preservation Ordinance criteria.
Regardless of how specific the criteria are, the design guidelines should include sketches and photos that illustrate compatible and incompatible expressions of each criterion. For example, the method of measuring plate height is defined in the ordinance. A simple sketch would help in understanding that definition.

Expand on the Historic Preservation Ordinance criteria that are broad and would benefit from clarification.
In some cases, the Historic Preservation Ordinance establishes an intent for certain design issues without prescribing how that intent should be achieved.

For these conditions, the design guidelines should provide additional information, including illustrations, to aid in interpreting (but not changing) the language in the Historic Preservation Ordinance. For example, the ordinance states: “New materials to be used for any exterior feature excluding what is visible from public alleys must be visually compatible with, but not necessarily the same as, the materials being replaced in form, design, texture, dimension, and scale.” Providing an illustration of some materials that are considered compatible would help when interpreting this criterion.

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Recommendations for Prescriptive Standards ............................................................... 81
Special Design Policies to Address in the Design Guidelines ...................................... 87
Revisions to the Design Guidelines for Old Sixth Ward ............................................. 88
Recommendations for Other Work (Outside the Design Guidelines Project) .......... 89
Next Steps ................................................................................................................. 90
6. Recommendations

Tailor the Design Guidelines to Each Historic District.

Each historic district is unique in terms of its content and the characteristics that contribute to its historic significance; those differences must be reflected in the design guidelines.

Use Consistent Language.

The design guidelines should have the same organizational structure for all historic districts. While variations in the historic districts should be recognized in the design guidelines, the terms used and the way in which the material is presented should be the same. This will promote consistent interpretation and make the design guidelines documents easy to use.

Use Prescriptive (Measurable) Design Standards Where Possible.

Some design guidelines should set numbers for variables such as wall height and building setbacks. This will enhance predictability and expedite the review process. A more detailed description of the proposed prescriptive standards follows later in this section.

Use Qualitative Design Guidelines to Address Appropriateness.

Some design guidelines will require judgment about how well a particular proposal meets the requirements. For example, if a guideline states “a new window shall have proportions that are similar to those on the historic building,” the Houston Archaeological and Historical Commission (HAHC) will have to determine whether the proposed project has met that requirement. While the design guideline is discretionary, it can be applied objectively, by comparing the proposal with existing windows on a property.
Use Illustrations to Identify Where Flexibility is Available.

In some design guidelines, flexibility should be available, but within a range that assures compatibility. Where flexibility is available, the design guidelines should include illustrated options for these. For example, one set of images may show alternative design solutions for constructing an addition to a contributing structure:

**Rear Addition 2: 1-Story, Offset**
- Addition is less than that of existing structure in height and width
- Roof pitch is identical to existing structure
- Offset maintains the corners of the existing structure

**Rear Addition 3: 1-Story, Connector**
- Connector offset is lower and maintains the corners of the existing structure
- Primary addition is identical to existing building in height, width and roof pitch
- Side wall length of addition is less than that of existing structure

**Rear Addition 4: 2-Story, Connector**
- Connector offset is lower and maintains the corners of the existing structure
- Primary addition is separated from existing structure
- Depth of addition is less than that of existing structure

Illustrations that indicate appropriate and inappropriate designs will be provided throughout the guidelines.

Include Cross-References and Links to Other Related Information.

More detailed information is available for a range of topics that would help property owners when developing designs for rehabilitation and new construction. For example, information about the architectural styles of contributing structures that are found in the historic districts can help when identifying the key character-defining features of a property. This can help in determining which features should be preserved and, alternatively, where some flexibility in making alterations may be considered. Links to these resources should be provided.

**CROSS-REFERENCE EXAMPLE:**

For more information about the Reno Park Addition Historic District see:


These documents are located at the City of Arvada Community Development Department.

An example of a cross-reference sidebar used in the Reno Park, CO Historic Design Guidelines.
Publish the Design Guidelines in Modules.

The design guidelines will be organized so that users can easily access the information they need. The design guidelines will be organized into “modules” (separate documents) so that the user can select those modules that apply to their project. For example, a property owner who is planning alterations to a historic house will not need the design guidelines for new infill construction.

Some modules will present information that applies to all the historic districts while other modules will be tailored to fit individual historic districts. The chart that follows in this section, illustrates the modular approach to the design guidelines.

Module 1: User’s Guide
This first module will orient the user to the design guidelines system and explain how to determine which other modules are needed for a particular project. Links will also be provided to other related material, such as the Historic Preservation Ordinance.

Module 2: Introduction
This will explain how the design guidelines were developed, how they relate to the Historic Preservation Ordinance and how they are formatted.

Module 3: Preservation Theory
This module will include basic preservation principles, definitions of key terms, and a list of the steps that one should follow while planning a project. This will establish a foundation for the design guidelines that follow.

Module 4: Preservation Guidelines
This module, which is common to all historic districts, will include the design guidelines for restoration, rehabilitation, and alteration of historic properties, with examples that illustrate a range of architectural styles and building periods.

Module 5: District Overview
Module 5 will be custom-tailored to each historic district. It will identify key character-defining features and architectural styles, and describe how context area is to be applied. Any historic district-specific exceptions and special conditions for approval will be included in this module.
Module 6: Additional District Guidelines
Any special design guidelines that are specific to an individual historic district and apply equally to contributing structures and noncontributing structures, as well as to new infill buildings, will be included in this module. For example, one historic district may have specific policies for awnings or for signs, which would apply to a rehabilitation project as well as a new infill building. Any design guidelines that a historic district may wish to have removed from the list of exemptions or administrative approvals in the Historic Preservation Ordinance will also go here.

Module 7: Additions Guidelines
Design guidelines for additions to historic properties will be in this module, tailored to each individual historic district. The module will focus on minimizing the impact of an addition on the integrity of a historic structure. Some of these design guidelines may be measurable design standards, such as a height limit that is appropriate in an individual historic district.

Module 8: New Infill Guidelines
This module will provide design guidelines for compatible new construction (infill) buildings. It will be tailored to each historic district. The design guidelines will address the mass, scale, materials, and building elements appropriate for new infill buildings. They also will apply to existing noncontributing structures so that an addition or alteration will be compatible with its context area, just as a new building should. This is because preserving the character of a noncontributing structure is not an objective, as opposed to a contributing structure. Instead, an alteration to a noncontributing structure should be reviewed based on its compatibility with the context area.

Module 9: Miscellaneous Guidelines
Module 9 will serve as a “catch-all” location for design guidelines that apply to all historic districts and don’t fit into any other module, such as relocation and demolition.

Module 10: Appendices
A limited number of appendices will be published as part of the design guidelines. One appendix will include an illustrated glossary of terms and another will address best practices for topics that are not under review by the commission, including those defined as exempt in the Historic Preservation Ordinance, such as locating solar panels.
### 6. Recommendations

#### Module: 1 - User’s Guide
- “Start Here”
  - Material at the Front of the Book Orients the User
- How the Documents Came to Be
  - Introduction
  - Guidelines
  - New Infill Guidelines
  - Additions Guidelines
  - District Overview

#### Module: 2 - Introduction
- How the Documents Came to Be
  - Historical Context
  - Community Involvement
  - Development Process

#### Module: 3 - Preservation Overview
- How to Plan a Preservation Project
  - Concept
  - Structure
  - Mass & Scale

#### Module: 4 - Preservation Theory
- Architectural Styles Found in the District
  - Character Defining Features of Styles Found in the District
- Reference to Other Architectural Styles Information

#### Module: 5 - District Overview
- Key Features of the District
  - Awnings
  - Materials
  - etc...
- Guideline Topics:
  - Features
  - Porch Design
  - Materials
  - etc...
- Reference “Shall” Approves

#### Module: 6 - Additional District Guidelines
- List of Exceptions and Exemptions in the District
  - Architectural Styles Found in the District
  - Character
- Reference to Other Architectural Styles Information

#### Module: 7 - District Guidelines
- Guideline Topics:
  - Main & Secondary
  - Character
  - Features
  - Materials
  - Doors
  - Windows
  - Paint & Color
  - etc...

#### Module: 8 - New Infill Guidelines
- Measurable & Quantitative Guidelines
  - Lot Coverage
  - Building Envelope
  - Wall Offset
  - etc...
- Reference “Shall” Approves

#### Module: 9 - Additions Guidelines
- Secondary Guidelines
  - Features
  - Materials
  - Doors
  - Windows
  - Paint & Color
  - etc...
- Reference “Shall” Approves

#### Module: 10 - Appendices
- Illustrated Glossary
  - Including Some from the Ordinance
- Published Ordinance
  - Review
  - Impact on Integrity of Historic Resource
  - Context Area Definition for the District
  - Additions to nonconformant structures

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**HISTORIC DISTRICT DESIGN GUIDELINES**

**UNIVERSAL (Applies to All Districts)**

**SPECIFIC TO DISTRICT**

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**Houston, TX: Historic District Design Guidelines Project**
RECOMMENDATIONS FOR PRESCRIPTIVE STANDARDS

Section 4 of this Strategy Paper describes and illustrates a range of measurable design tools. Each tool was evaluated to determine whether it would effectively provide clarity during the design review process. This process utilized the findings from the Compatible Design Survey, a study of the historic development patterns as documented in Sanborn fire insurance maps as well as the data from GIS maps, and an analysis of existing buildings that are currently classified as contributing structures in the historic districts. Our analysis found that many of the design tools could be applied to all of the historic districts, with different calibrations to fit individual districts. The measurable limits for each tool reflect historic precedent, but in some areas, permit a moderate increase in the scale of development, while still assuring compatibility.

Note that, for the Houston Heights Historic Districts (East, Est and South) the same numbers are proposed for the recommended prescriptive standards. Even though some differences appear in their responses to individual questions in the Compatible Design Survey, these are not enough to merit different standards. Some adjustments may be available through the flexibility measures that are recommended later in this section. Other differences will be addressed in the qualitative design guidelines.

Exceptions and special conditions may be included while drafting the design guidelines. In addition, some form of flexibility may be built into the design tools. This may be particularly important when applying the tools to an addition to a historic structure, because existing conditions may limit options for meeting some of the quantitative limits or requirements.

The measurable design tools that are recommended to be used as prescriptive standards are listed on the following pages. First a table lists all of the tools that were considered for use as prescriptive standards and indicates which are recommended. Next, short narratives for each of the design tools that are recommended to be used are presented. Those that address building design are addressed first, followed by the ones that address site design. Appendix B presents a chart summarizing the preliminary dimensional standards and requirements that are recommended for each historic district.

NOTE:

The recommended design standards are in draft form for discussion purposes only. This material has not been reviewed by the City’s legal counsel and is not final until after council consideration.
### Potential Prescriptive Design Standards with Recommendations for their Use

#### BUILDING DESIGN STANDARDS

<table>
<thead>
<tr>
<th>Standard</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building Height Limits</strong></td>
<td></td>
</tr>
<tr>
<td>Maximum height to eave</td>
<td>Yes</td>
</tr>
<tr>
<td>Maximum to mid-point of roof</td>
<td>No</td>
</tr>
<tr>
<td>Overall maximum height limit</td>
<td>Yes</td>
</tr>
<tr>
<td>Maximum side wall height at minimum setback line</td>
<td>Yes</td>
</tr>
<tr>
<td>First floor height range</td>
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</tr>
<tr>
<td>Garage height limit</td>
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</tr>
<tr>
<td><strong>Horizontal Wall Offset Requirement</strong></td>
<td></td>
</tr>
<tr>
<td>Side wall offset</td>
<td>Yes</td>
</tr>
<tr>
<td>Front wall offset</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Vertical Wall Offset Requirement</strong></td>
<td></td>
</tr>
<tr>
<td>Side wall height increases as side setback increases</td>
<td>No</td>
</tr>
<tr>
<td><strong>One-story Element Requirement</strong></td>
<td></td>
</tr>
<tr>
<td>Front one-story porch</td>
<td>Yes</td>
</tr>
<tr>
<td>Side one-story element</td>
<td>No</td>
</tr>
<tr>
<td><strong>Maximum Building Envelope</strong></td>
<td></td>
</tr>
<tr>
<td>Envelope A (one-story in front)</td>
<td>Yes</td>
</tr>
<tr>
<td>Envelope B (two-story in front)</td>
<td>Yes</td>
</tr>
<tr>
<td>Envelope C (Bungalow form)</td>
<td>Yes</td>
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<tr>
<td><strong>Floor Area Ratio</strong></td>
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<tr>
<td>Maximum FAR (occupied space)</td>
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<tr>
<td><strong>Roof Pitch</strong></td>
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</tr>
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<td>Sloped primary roof</td>
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</table>

#### SITE DESIGN STANDARDS

<table>
<thead>
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<th>Standard</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building Setbacks</strong></td>
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<tr>
<td>Minimum building setback</td>
<td>Yes</td>
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<tr>
<td>Minimum side setback</td>
<td>Yes</td>
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<tr>
<td>Minimum rear setback</td>
<td>Yes</td>
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<tr>
<td>Minimum garage setback</td>
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<tr>
<td><strong>Maximum Lot Coverage</strong></td>
<td>Yes</td>
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<tr>
<td><strong>Impervious Surface Limit</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Parking Location Standards</strong></td>
<td></td>
</tr>
<tr>
<td>Garage location</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Height Limits

Height limits should be established for the following different measurements. Note that the current methods of measuring height, including eave height, would be continued.

Overall building height limit (ridge height)

A maximum height limit should be established for each historic district. This should be measured from existing natural grade to the ridge (top) of a roof. Some secondary architectural features, such as a decorative finial or turret may be excluded from this height limit.

Sidewall height limit

Sidewall heights should be lower at the minimum side setback line and then be permitted to increase in height as they move inward on the property. This will reduce the perception that a house is “looming” over a neighboring property. The Maximum Building Envelope tool (described on the following page) will accomplish this. (See Appendix B for specific dimensions per district.)

Height range for the first floor (finish floor elevation)

A range for finished floor heights should be established that indicates the minimum elevation required as well as a maximum height permitted for the first floor of a new building. This should be set to reflect development patterns of contributing structures in the context area. In the Houston Historic Districts, this is measured from existing natural grade to the porch floor.

Maximum Side Wall Length

A maximum length for a side wall should be established. In some of the historic districts, there is a consistency in the dimensions of front and side walls that contributes to a sense of visual continuity among properties. For example, in one historic district, the traditional length of a side wall ranges between 40 and 45 feet. Any additional building mass that extends deeper than that dimension into the lot traditionally is offset (typically inset) from this primary side wall plane. These dimensions are documented in the city’s GIS data and historic Sanbon maps. By establishing a maximum side wall length, a new building will appear to be more in scale with the contributing structures in the historic district, even when the overall size is larger than historic precedents.

One-story Building Element in Front

A one-story element should be required. A “one-story element” refers to a porch or occupied space, depending upon its relationship to the front setback requirement. Some maximum building envelopes will require a one-story element, but in some settings a one-story porch may be required specifically. Where this is the case, appropriate dimensions will be included.

NOTE:

See Appendix B for specific numbers that are recommended for the standards discussed here.
Maximum Building Envelope

Maximum building envelopes should be applied in each historic district. This tool is very effective at shifting parts of a building to locations on a lot that are more compatible with historic development patterns. Three different shapes for maximum building envelopes are proposed. These are designed to promote building forms appropriate to different settings.

Which of the Maximum Building Envelopes (MBE) are to be permitted within individual districts will be defined during the development of the guidelines. Where clear consistency in building form exists throughout an entire district, the MBE may be applied district-wide. In other cases, those forms to be permitted will be determined by examining the development patterns within the context area defined for a project. For example, some differences in responses to building forms are noted in the survey responses among Houston Heights Districts (East, West, and South). These would be taken into consideration in such cases.

Maximum Building Envelope A: This envelope has two parts, with different heights. It is shaped to permit a one-story portion in the front of the lot, with a taller two-story portion permitted in the rear. It is useful where historic, one-story buildings are typical, but where some two-story portions also could fit in, if sufficiently set back from the street.

Envelope A is useful where historic, one-story buildings are typical, but where some two-story portions would also fit in.

In this illustration, a new house with an assumed maximum permitted FAR for a 5,000 sq. ft. lot size condition is shown. It demonstrates that the Maximum Building Envelope is larger than the maximum permitted floor area. This provides flexibility in building design.

For this scenario:
Lot size: 5,000 sq. ft.
Total floor area shown: 2,200 sf
Max. permitted FAR: .44
Actual FAR shown: .44
Maximum Building Envelope B: This envelope also has two parts, but is the opposite of Envelope A. It permits a two-story building in front, with a lower one-story portion permitted in the rear. It is useful where historic two-story buildings occur frequently in a historic district and where maintaining a sense of open space in the rear portion of the property is desirable.

Envelope B is useful where historic two-story buildings occur frequently in a historic district and where maintaining a sense of open space in the rear portion of the property is desirable.

In this illustration, a new house with an assumed maximum permitted FAR for a 5,000 sq. ft. lot size condition is shown. It demonstrates that the Maximum Building Envelope is larger than the maximum permitted floor area. This provides flexibility in building design.

For this scenario:
Lot size: 5,000 sq. ft.
Total floor area shown: 2,200 sf
Max. permitted FAR: .44
Actual FAR shown: .44

Maximum Building Envelope C: This envelope also has two parts, but is tailored to fit in settings where the historic development pattern includes houses with long roofs that slope toward the street. Many bungalows have this form.

Envelope C is tailored to fit in a setting where the historic development pattern includes houses with long roofs that slope toward the street.

In this illustration, a new house with an assumed maximum permitted FAR for a 5,000 sq. ft. lot size condition is shown. It demonstrates that the Maximum Building Envelope is larger than the maximum permitted floor area. This provides flexibility in building design.

For this scenario:
Lot size: 5,000 sq. ft.
Total floor area shown: 2,200 sf
Max. permitted FAR: .44
Actual FAR shown: .44

The type of envelope to be applied should be based on precedents of contributing structures in the context area. The dimensions for the envelopes should be tailored to each historic district.
Floor Area Ratio (FAR)

The survey documents a clear preference for buildings that appear in scale with the historic setting and that is in proportion to lot size. The proportion of a building size to its lot size often determines how different building types and styles fit within their sites and their surroundings. A maximum FAR should be set to reflect the character of historic development patterns and, where appropriate, to accommodate moderately larger buildings when those are designed to be compatible with the context area. The responses to the Compatible Design Survey also provide an important base of information for establishing FAR. The FAR should include a cap for very large lots and a guaranteed minimum house size for very small lots.

The chart below illustrates the FAR recommended for the historic districts. The ratio of floor area declines as lot size increases, which provides for larger houses on larger lots, but still within a range that is in keeping with historic development patterns. Note that not all lot sizes appear in every district, but if an unusual size does exist, the table provides for this. These ratios were established by considering the responses to the Compatible Design Survey, examining the size of existing contributing structures in the district, and experience in other communities. The recommendations for the design standards take into consideration differences that appear among the districts in the responses to the Compatible Design Survey. This is seen in the different numbers which are proposed for maximum floor area ratios in the table that follows. Further refinement to some of these numbers would occur when drafting the design guidelines.

<table>
<thead>
<tr>
<th>Historic Districts</th>
<th>Recommended FAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Size</td>
<td>&lt; 4000</td>
</tr>
<tr>
<td>Freeland</td>
<td>.44</td>
</tr>
<tr>
<td>Houston Heights East</td>
<td>.48</td>
</tr>
<tr>
<td>Houston Heights South</td>
<td>.48</td>
</tr>
<tr>
<td>Houston Heights West</td>
<td>.48</td>
</tr>
<tr>
<td>Norhill</td>
<td>.44</td>
</tr>
<tr>
<td>Woodland Heights</td>
<td>.44</td>
</tr>
</tbody>
</table>

These ratios exclude garages, to remain consistent in the way in which floor area is currently calculated by assessors.
6. Recommendations

**Roof Pitch**

Minimum and maximum roof pitches should be established. New buildings and additions should be designed and constructed with roof pitches in the range of those seen historically. This should include a minimum slope requirement, tailored to each historic district. They should be based on the prevailing roof pitches of contributing structures in the context area.

**Building Setbacks**

These setback limits should be used:

**Side Setback:**

A minimum side setback should be established that is compatible with those of existing contributing structures in the context area. In addition, a cumulative side setback requirement should be introduced. For example, a minimum side setback may be established as 5 feet, and the cumulative total would be established at 15 feet. This means that on one side, if a building is set at the 5 feet minimum, then the other side setback must be 10 feet. This can accommodate a driveway or a large side yard. In another example, one side setback could be at 7 feet, and the other would be at 8 feet. This cumulative side setback requirement provides flexibility for where a house may be located while assuring that a reasonable amount of open space is maintained along the sides of a property.

**Front Setback:**

A front yard setback range measure should be used. This should be based on the existing setbacks of contributing structures within the context area. Establishing a range that is defined by contributing structures in the context area is recommended (except where deed restrictions provide for an alternative method).
Lot Coverage

Compatible Design Survey results indicate that respondents value highly open space. A maximum lot coverage should be established to maintain this feature. This should be based on historic development patterns.

This chart illustrates the maximum lot coverage that is recommended for each historic district. The percentage decreases as lot size increases. Note that not all lot sizes appear in every district, but if an unusual size does exist, the table provides for this. These percentages were established by considering the responses to the Compatible Design Survey, examining conditions for existing contributing structures, and experience in other communities.

<table>
<thead>
<tr>
<th>Historic Districts</th>
<th>Lot Size</th>
<th>&lt; 4000</th>
<th>4000-4999</th>
<th>5000-5999</th>
<th>6000-6999</th>
<th>7000-7999</th>
<th>8000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freeland</td>
<td></td>
<td>46%</td>
<td>46%</td>
<td>44%</td>
<td>42%</td>
<td>40%</td>
<td>38%</td>
</tr>
<tr>
<td>Houston Heights East</td>
<td></td>
<td>44%</td>
<td>44%</td>
<td>42%</td>
<td>40%</td>
<td>38%</td>
<td>36%</td>
</tr>
<tr>
<td>Houston Heights South</td>
<td></td>
<td>44%</td>
<td>44%</td>
<td>42%</td>
<td>40%</td>
<td>38%</td>
<td>36%</td>
</tr>
<tr>
<td>Houston Heights West</td>
<td></td>
<td>44%</td>
<td>44%</td>
<td>42%</td>
<td>40%</td>
<td>38%</td>
<td>36%</td>
</tr>
<tr>
<td>Norhill</td>
<td></td>
<td>42%</td>
<td>42%</td>
<td>40%</td>
<td>38%</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>Woodland Heights</td>
<td></td>
<td>44%</td>
<td>44%</td>
<td>42%</td>
<td>40%</td>
<td>38%</td>
<td>36%</td>
</tr>
</tbody>
</table>

Providing flexibility in the prescriptive standards

The prescriptive standards are not to be exceeded, but there may be a situation in which some flexibility in applying them should be considered.

The prescriptive standards provide limits in building size and lot coverage that are based on the findings in the survey in combination with the analysis of historic development patterns in each of the historic districts. The intent is to establish clear parameters for determining appropriateness. They provide a starting point for the basic location, size, and shape of building that can occur. Qualitative guidelines would then be applied to consider appropriateness of other aspects of design, including materials and architectural details. These are more flexible by nature.

For the prescriptive design standards, a need for flexibility may occur on a site with a contributing structure that is constrained in such a way that one of the measurable requirements cannot be met, and yet a compatible design can be conceived. In such a case, the HAHC could have the ability to adjust the requirement, but only within a limited range. (A variation of 5% is an example). If a property owner were to seek any greater exception to a measurable tool, they would appeal to the Historic Preservation Appeals Board, as provided in the ordinance.
SPECIAL DESIGN POLICIES TO ADDRESS IN THE DESIGN GUIDELINES

The design guidelines will address many other topics that are not set by measurable standards. Many of these are related to alterations to contributing structures while others are relevant to new construction. The non-prescriptive (discretionary) guidelines will address these. Many of these topics appear in design guidelines across the country and are straightforward in terms of writing them.

There are a few topics, however, that merit an expanded discussion in the design guidelines. During the data analysis and collection of input from the community, members of the public expressed confusion about some topics that need clarification. These are:

1. Replacing a historic window – when it may be appropriate and when it may not
2. Alternative siding materials on contributing structures – when matching the original should be required and when alternatives may be considered
3. Additions to contributing structures – How to remain subordinate and to be compatible
4. Porch design – how scale, proportion, style, and detail should be treated
5. Window design in a new addition – how a new window should relate to those on the contributing structure
6. Differentiating old from new construction in historic districts – why this is important and ways to achieve it
7. Treating an older addition that has taken on historic significance
8. Relocating windows and doors on historic structures

NOTE:
See Appendix A for examples of discretionary (qualitative) design guidelines.
REVISIONS TO THE DESIGN GUIDELINES FOR OLD SIXTH WARD PROTECTED HISTORIC DISTRICT

The existing design guidelines for Old Sixth Ward Protected Historic District will be updated, to include the measurable tools and expanded qualitative guidelines. These revisions will be based on input from focus group meetings with district representatives and an analysis of historic development patterns.

The prescriptive standards that are recommended for the other districts will be considered, but calibrated to fit the character of Old Sixth Ward Protected Historic District. This includes lot coverage, building size, height, and form.

Other topics to be updated for Old Sixth Ward Protected Histrict District include:

- Revisions to work subject to administrative approvals
- Additions to contributing structures, including the use of connectors
- Adding dormers
- Consideration of site and setting in the review process
- Roof pitch
- Porch design, including scale, and proportion
- Building materials
- Window design in new construction
- Parking, including carports, and similar structures
- Signage
- Lighting
- Fences
RECOMMENDATIONS FOR OTHER WORK (OUTSIDE THE DESIGN GUIDELINES PROJECT)

Some topics outside the scope of this project arose during the analysis phase and should be addressed in other work programs. Recommendations for actions related to those issues are listed in this section. Each of these actions will enhance the sense of fairness, predictability, and efficiency in the design review process.

Update the Historic Inventories

Some discrepancies appeared in the listings of contributing and noncontributing structures. For example, a structure presently may be listed as contributing, even though a later alteration that occurred after its rating has severely diminished the integrity of the structure, and it now should be reclassified as noncontributing. This could affect which sections of the design guidelines will apply to these properties. Updating the inventories would expedite project planning and better inform design review. Ideally, historic district inventories would be reviewed and updated on a regular basis; best practice in historic preservation suggests that this be done every ten years.

Update the GIS Data and Related Maps

Some GIS data appears to be out of date. The data layer of historic inventories, for example, will need to be updated as inventories are updated. Other maps recording building age, floor area, and lot coverage also should be reviewed for accuracy. For example, if a historic structure has a new addition, this additional square footage should be incorporated into the GIS data.

Update the Description of Architectural Styles

The classification of buildings by architectural styles, and descriptions of architectural styles, helps to identify which character-defining features should be preserved. Presently, architectural style names and descriptions of key features are inconsistent across historic district inventories, the Historic Preservation Manual, and historic designation applications. This can be confusing. The City should apply consistent styles descriptions globally to all related documents.
NEXT STEPS

This Strategy Paper provides a check-point in developing the design guidelines for the historic districts that are engaged in this process. The paper will be presented to the Houston Archaeological and Historical Commission on March 29, 2017 and in a public workshop on March 30. A comment period will follow. Details for the comment period will be published on the City’s website. After comments are collected, and guidance from City Council is received, the formal drafting of the design guidelines will proceed. The drafting of the design guidelines for Houston Heights Historic Districts (East, West, and South) will be first.

This Strategy Paper sets forth many recommendations for the design guidelines, including a description of the general approach to writing them, the modular structure to be used, and the key topics to address. The topics include those that would have prescriptive standards and those that would be qualitative.

During that drafting process, a detailed topical outline will be a first step. This will expand on the modular structure described earlier in this section of the Strategy Paper. Details for the recommended prescriptive standards also will be finalized at that time. These will relate to rules of measurement, such as:

- How height is to be measured
- How FAR is applied to lot sizes other than those most frequently appearing in the historic districts
- How floor area is calculated (for example, what qualifies as habitable space and how measurements are taken)
- How exceptions to height limits are addressed (such as decorative finials or cresting)
- Exceptions to encroachment limitations for the Maximum Building Envelope (such as portions of a gable or dormer)
- How accessory structures (such as gazebos and pool houses) are counted in lot coverage

Testing of potential designs will also continue, using the proposed prescriptive standards, to assure that the requirements will help to achieve compatible designs in terms of lot coverage, building size, height, and form.