Introductions

- City of Houston
  Steph McDougal, Project Manager

- Winter & Company
  Noré Winter, Principal
  Julie Husband, Senior Urban Designer
Project Scope

• Design guidelines for
  – Freeland Historic District
  – Houston Heights (East, West, and South) Historic Districts
  – Norhill Historic District
  – Woodland Heights Historic District
  – Update the Old Sixth Ward Protected Historic District’s existing design guidelines
Process – Phase 1

Step 1: July 2016
- Collect and analyze data
- Workshop #1: Identify trends, issues & goals
- Workshop #2: Identify compatible development scenarios

Step 1: August – December 2016
- Classify “Typologies”

Step 2: January – March 2017
- Compatible Design Survey

Step 2: March 2017

Step 3 & 4: April – August 2017
- Workshop #3: Present Findings & Recommendations
- Deliver final Design Guidelines (8-2017)
Tonight’s Agenda

• Walk through the Strategy Paper
• Process for developing the design guidelines
• Process for providing comments
Strategy Paper Table of Contents

• Executive Summary
• Section 1: Introduction
• Section 2: Principles of Preservation
• Section 3: Process Summary
• Section 4: Potential Building Standards
• Section 5: Our Findings
• Section 6: Recommendations
TOC of the Strategy Paper

- Appendix A - Design Guidelines Sample Pages
- Appendix B - Recommended Building Standards
- Appendix C - Compatible Design Survey: Summary of Responses
- Appendix D - Compatible Design Survey: Detailed Responses
- Appendix E - Compatible Design Survey: Original Documents
- Appendix F - Background Maps
- Appendix G - Character Area Descriptions
General Recommendations

2. Tailor the design guidelines to each historic district.
3. Use consistent language.
4. Use prescriptive standards to enhance predictability.
5. Use qualitative design guidelines where flexibility is needed.
6. Use illustrations to identify where flexibility is available.
7. Include cross-references and links to other related information.
8. Publish the design guidelines in modules.
Recommendations for Prescriptive Standards

1. Maximum Building Envelope
2. Floor Area Ratio (FAR)
3. Lot Coverage
4. Building Setbacks
5. Building Height
6. Maximum Continuous Side Wall Length
7. One-Story Building Element (porch) in Front
8. Roof Pitch
Recommendations for Qualitative Guidelines

- Replacing a historic window
- Alternative siding materials on contributing structures
- Additions to contributing structures
- Porch design
- Window design in a new addition
- Differentiating old from new construction
- Treating an older addition
- Relocating windows and doors
How We Got Here
Review of the Ordinance

Design Guidelines can:

- Illustrate definitions.
- Explain key criteria with text and illustrations.
GIS Data Analysis

Map historic districts by:

• Building Age
• Building Heights
• Building Size
• Deed Restrictions
• Figure Ground
• Floor Area Ratio
• Lot Coverage
• Lot Size
Workshop Findings

Community Engagement:

• All 7 historic districts participated
• 17 meetings with the various historic districts so far
• Activities and meetings have been held from December 8, 2015 to January 23, 2017
Field Research
Compatible Design Survey

- Tested in a community workshop and online
- Advance notice and promotion
  - Postcards
  - Flyers in retail shops
  - Door hangers
- Mailed to all property owners
- Online option also available
## Survey Participation Overview by Historic District

<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 Level of Confidence

- Accuracy is influenced by:
  - Number of individuals within the overall group
  - Number of survey respondents
  - Amount of difference in the survey answers

- As the number of respondents increases, the accuracy increases.

- Many surveys seek a level of confidence of 90% to 95%.

Houston Heights East:

Calculate Your Margin of Error:

- Population Size: 905
- Confidence Level (%): 95
- Sample Size: 246

Margin of Error (%): 5
Survey Content

- **Part 1:** Overall Issues
- **Part 2:** Potential Design Tools
- **Part 3:** Building Design Scenarios
Survey Content – Part 1: Findings

1. “Some recent construction in my historic district is too large.”
Survey Content - Part 1: Findings

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

Comparison of graphed responses to the same prompt, by historic district
Survey Content - Part 1: Findings

General Observations to the Survey Responses:
1. All districts are concerned about preserving historic character.
2. Respondents felt that being in a historic district adds value.
3. Opinions vary about recent renovation projects.
4. Respondents were concerned about the size of recent new construction.
5. Maintaining traditional scale in the front is important.
6. Sometimes, additional building mass in the rear can be compatible.
7. Traditional lot coverage is key to preserve.
8. Context-sensitive design can help a new building fit in.
9. A limit exists on fitting a larger building into a historic setting.
10. Parking should be subordinate.
Note that in no district did a majority respond negatively to using any of the potential design tools.
**Recommended Tools:**

**Building Design Standards**

<table>
<thead>
<tr>
<th>Potential Prescriptive Design Standards with Recommendations for their Use</th>
<th>Standard?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building Height Limits</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum height to eave</td>
<td>Yes</td>
<td>This is currently used and should be continued.</td>
</tr>
<tr>
<td>Maximum to mid-point of roof</td>
<td>No</td>
<td>Other height limits address issues more directly.</td>
</tr>
<tr>
<td>Overall maximum height limit</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Maximum side wall height at minimum setback line</td>
<td>Yes</td>
<td>Embedded in Maximum Building Envelope standards</td>
</tr>
<tr>
<td>First floor height range</td>
<td>Yes</td>
<td>Based on vcontributing structures in the context area</td>
</tr>
<tr>
<td>Garage height limit</td>
<td>Yes</td>
<td>Overall maximum</td>
</tr>
<tr>
<td><strong>Horizontal Wall Offset Requirement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side wall offset</td>
<td>Yes</td>
<td>Maximum length based on contributing structures in the district</td>
</tr>
<tr>
<td>Front wall offset</td>
<td>Yes</td>
<td>Maximum length based on contributing structures in the district</td>
</tr>
<tr>
<td><strong>Vertical Wall Offset Requirement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Side wall height increases as side setback increases</td>
<td>No</td>
<td>The Maximum Building Envelope accomplishes this.</td>
</tr>
</tbody>
</table>

Note that the recommendations are a *package* of tools that work together.
Recommended Tools:
Building Design Standards

<table>
<thead>
<tr>
<th>BUILDING DESIGN STANDARDS</th>
<th>STANDARD?</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-story Element Requirement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front one-story porch</td>
<td>Yes</td>
<td>Porch to be required</td>
</tr>
<tr>
<td>Side one-story element</td>
<td>No</td>
<td>The Maximum Building Envelope accomplishes this.</td>
</tr>
<tr>
<td>Maximum Building Envelope</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Envelope A (one-story in front)</td>
<td>Yes</td>
<td>Applies based on context area</td>
</tr>
<tr>
<td>Envelope B (two-story in front)</td>
<td>Yes</td>
<td>Applies based on context area</td>
</tr>
<tr>
<td>Envelope C (Bungalow form)</td>
<td>Yes</td>
<td>Applies based on context area</td>
</tr>
<tr>
<td>Floor Area Ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum FAR (occupied space)</td>
<td>Yes</td>
<td>Varies by lot size and by historic district</td>
</tr>
<tr>
<td>Roof Pitch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sloped primary roof</td>
<td>Yes</td>
<td>Established by contributing structures in the context area</td>
</tr>
</tbody>
</table>

Note that the recommendations are a package of tools that work together.
Recommended Tools: Site Design Standards

<table>
<thead>
<tr>
<th>SITE DESIGN STANDARDS</th>
<th>STANDARD?</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Setbacks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum building setback</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Minimum side setback</td>
<td>Yes</td>
<td>Includes special provision for corner lots</td>
</tr>
<tr>
<td>Minimum rear setback</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Minimum garage setback</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Maximum Lot Coverage</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Impervious Surface Limit</td>
<td>No</td>
<td>Include as advisory guideline in Best Practices</td>
</tr>
<tr>
<td>Parking Location Standards</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garage location</td>
<td>Yes</td>
<td>Established by contributing structures in the context area</td>
</tr>
</tbody>
</table>

Note that the recommendations are a *package* of tools that work together.
Recommended Tool: Side Setbacks

- 5’ side minimum
- 15’ cumulative

Example A:
5’ side (minimum)  
+10’ side  
=15’ cumulative minimum

Example B:
7.5’ side  
+7.5’ side  
=15’ cumulative minimum
Recommended Tool: **Lot Coverage**

Advantages of Lot Coverage:
- Maintains open space
- Preserves side and rear yards
- Reduces privacy impacts
Recommended Tool: **Floor Area Ratio**

- Relates house size to lot size
  - Square footage of house ÷ square footage of lot
  - Current recommendations based on HCAD figures

- Is easy to calculate
- Does not affect form
Recommended Tool: Maximum Building Envelope

Maximum Building Envelope A:

- One-story portion in front
- Two-story portion in rear
- Useful where one-story contributing structures are typical
Recommended Tool: Maximum Building Envelope

Maximum Building Envelope B:

- Two-story portion front
- One-story portion rear
- Useful where two-story contributing structures occur frequently
- More open space in the rear of the property
Recommended Tool: Maximum Building Envelope

Maximum Building Envelope C:

Useful where long roof slopes to the street (such as bungalows)
Survey Content – Part 3

Houston Heights East Addition

Norhill New Infill
Four questions about compatibility for each scenario:

1. Lot coverage
2. Size
3. Height
4. Form
Question 31. “Lot coverage is compatible.”

Links to the Detailed Survey can be found at:
Scenario D:
This scenario illustrates a new two-story home with a one-story portion in the front. It also includes a one-an-a-half story garage located in 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

Compatibility (grouped responses agreeing to some extent):
- Lot coverage: 71% agree
- Size: 63% agree
- Height: 62% agree
- Form: 67% agree
Survey Content – Part 3: Findings

Scenario D:

Observations:
• Lot coverage and size are within the range of tolerance for majority of respondents.
• Low wall heights may contribute to the high percentage of agreement.
• A one-story portion in front of the building may contribute to the high percentage agreement.
Survey Content – Part 3: Findings

Scenario 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

Compatibility (grouped responses agreeing to some extent):
- Lot coverage: 31% agree
- Size: 30% agree
- Height: 37% agree
- Form: 31% agree
Scenario F:

Observations:
• Lot coverage and building size exceed the range of tolerance.
• High wall heights (21 feet) may contribute to the low percentage of agreement.
• Even with a one-story portion of the building in front, this form is unacceptable.
Survey Content – Part 3: Findings

Scenario G:

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

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

Observations:
• The lot coverage is within the range of tolerance.
• The building size is just at a point of tolerance.
• Relatively high wall heights (20 feet) may contribute to the low percentage of agreement.
• This form is not accepted. A more substantial one-story portion in the front is needed.
Survey Content – Part 3: Findings

Scenario H:

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

Compatibility (grouped responses agreeing to some extent):
- Lot coverage: 56% agree
- Size: 44% agree
- Height: 32% agree
- Form: 33% agree
Survey Content – Part 3: Findings

Interpreting the Results:

1. Respondents see differences in lot coverage, building size, height and form.
2. There is a high degree of consistency in responses.
3. The survey data provides a statistical basis for prescriptive design standards.
Developing the Recommended Standards

Combining information:
1. Geographic Information System (GIS) data
2. Survey results
3. Review of recent projects
4. Workshops and focus groups
5. Field observations
6. Our experience
Developing the Recommended Standards

Houston Heights East Contributing Structures Map – Sample Area
Developing the Recommended Standards

Houston Heights East Building Age Map – Sample Area
Developing the Recommended Standards

Houston Heights East Floor Area Ratio (FAR) Map – Sample Area
Developing the Recommended Standards

Houston Heights East Lot Coverage Map – Sample Area
## Applying the Data

<table>
<thead>
<tr>
<th>6,600 sf lot</th>
<th>FAR</th>
<th>Lot Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey data: Compatible New Construction</td>
<td>.39 - .41</td>
<td>30% - 40%</td>
</tr>
<tr>
<td>GIS data: Predominant Historic Building</td>
<td>.10 - .29</td>
<td>20% - 39%</td>
</tr>
<tr>
<td>Recommendation</td>
<td>.44</td>
<td>40%</td>
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</tbody>
</table>

_Houston Heights East_
Developing the Recommended Standards

Houston Heights East
# Standards vary by Lot Size

<table>
<thead>
<tr>
<th></th>
<th>&lt; 6,000</th>
<th>6,000 – 6,999</th>
<th>7,000+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Coverage</td>
<td>42%</td>
<td>40%</td>
<td>38%</td>
</tr>
<tr>
<td>FAR</td>
<td>.44</td>
<td>.42</td>
<td>.40</td>
</tr>
</tbody>
</table>
Testing the Recommended Standards

Example of recent project compared to Maximum Building Envelope
What’s Next for the Prescriptive Standards

1. Receive community comments.
2. Continue testing with model scenarios.
The Design Guidelines

Modules:

Modules Include:

1. Users Guide
2. Introduction
3. Preservation Theory
4. Historic Preservation Design Guidelines
5. District Overview
6. Additional Historic District Design Guidelines
7. Additions to Design Guidelines
8. New Infill Design Guidelines
9. Miscellaneous Guidelines
10. Appendices
The Design Guidelines
Modules:

**Module 1: User's Guide**
- "How Does" - Implementation Questions About the District
- How the Guidelines were Developed

**Module 2: Introduction**
- Basic Determining Principles & Terms - Morphology - Design - Sustainability

**Module 3: Preservation Guidelines**
- Subdivision Guidelines - Guidelines for Various Districts (To Be Determined)

**Module 4: District Overview**
- Joint History of the Historic District
- Guidelines Topic - Design - Location - District

**Module 5: Additional Guidelines**
- Guidelines Topic - Design - Height - Materials - Width - Color & Texture
- Reference to Development and Other Regulations

**Module 6: Adoptions Guidelines**
- Guidelines Topic - Height - Location - Materials - Width - Color & Texture
- Reference to Development and Other Regulations

**Module 7: New Infill Guidelines**
- Guidelines Topic - Height - Location - Materials - Width - Color & Texture
- Reference to Development and Other Regulations

**Module 8: Misc. Guidelines**
- Guidelines Topic - Height - Location - Materials - Width - Color & Texture
- Reference to Development and Other Regulations

**Module 9: Appendices**
- Guidelines Topic - Height - Location - Materials - Width - Color & Texture
- Reference to Development and Other Regulations

**Module 10: Appendices**
- Guidelines Topic - Height - Location - Materials - Width - Color & Texture
- Reference to Development and Other Regulations

**Legend**
- Specific to District
- Universal (Applies to All Districts)
### The Design Guidelines Modules:

<table>
<thead>
<tr>
<th>MODULE: 1 USER'S GUIDE</th>
<th>MODULE: 2 INTRODUCTION</th>
<th>MODULE: 3 PRESERVATION THEORY</th>
<th>MODULE: 4 PRESERVATION GUIDELINES</th>
<th>MODULE: 5 DISTRICT OVERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Start Here&quot;</td>
<td>Basic Preservation</td>
<td>Preservation Guidelines</td>
<td>Guide of Historic Preservation</td>
<td></td>
</tr>
<tr>
<td>Introductory Material</td>
<td>Principles &amp; Terms</td>
<td>Guidelines for Moving a Historic Property</td>
<td></td>
<td></td>
</tr>
<tr>
<td>that helps Orient the User</td>
<td>Significance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How to Use the Documents (Modules)</td>
<td>Integrity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chart Illustration of All Modules, indicating which to use for Specific Project Types</td>
<td>Compatibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Links to Related Material</td>
<td>etc...</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SPECIFIC TO DISTRICT</th>
<th>UNIVERSAL (Applies to All Districts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Styles Found in the District</td>
<td></td>
</tr>
<tr>
<td>Character Defining Features of Styles Found in the District</td>
<td>Reference to Other Architectural Styles Information</td>
</tr>
</tbody>
</table>
### The Design Guidelines Modules:

<table>
<thead>
<tr>
<th>Module</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Module: 6</strong></td>
<td><strong>Additional District Guidelines</strong></td>
</tr>
<tr>
<td>- Guideline Topics:</td>
<td></td>
</tr>
<tr>
<td>- Averings</td>
<td></td>
</tr>
<tr>
<td>- Materials</td>
<td></td>
</tr>
<tr>
<td>- etc...</td>
<td></td>
</tr>
<tr>
<td>(To Be Determined)</td>
<td></td>
</tr>
<tr>
<td>- Reference to Deed Restrictions and other Regulations</td>
<td></td>
</tr>
<tr>
<td>- List of Exceptions and Exemptions for the District</td>
<td></td>
</tr>
<tr>
<td>- Administrative Review for the District</td>
<td></td>
</tr>
<tr>
<td>- Context Area Definition for the District</td>
<td></td>
</tr>
<tr>
<td>- Additions to nonconforming structures</td>
<td></td>
</tr>
</tbody>
</table>

| **Module: 7** | **Additions Guidelines** |
| - Guideline Topics: |
|  - Mass & Scale |
|  - Location |
|  - Character |
|  - Porch Design |
|  - Features |
|  - Materials |
|  - Doors |
|  - Windows |
|  - Paint & Color |
|  - etc... |
| - Reference “Shall Approves” |

| **Module: 8** | **New Infill Guidelines** |
| - Guideline Topics: |
|  - Mass & Scale |
|  - Location |
|  - Style & Character |
|  - Porch Design |
|  - Features |
|  - Materials |
|  - Doors |
|  - Windows |
|  - Paint & Color |
|  - etc... |
| - Primary Structure Guidelines |
| - Secondary Structure Guidelines |
| - Non-Contributors |

| **Module: 9** | **Misc. Guidelines** |
| - Relocation |
| - Demolition |

| **Module: 10** | **Appendices** |
| - Illustrated Glossary |
| - Including some from the Ordinance |
| - Best Practices |
|  - Site Design |
|  - Streetscape |
|  - Street Trees |
|  - Borrow Ditches |
|  - Parking Access |
|  - Solar Panel Location |
|  - etc... |

**Specific to District**

**Universal (Applies to All Districts)**
The recommended guidelines format

**Legend**

- **A** Design Topic
  Describes the design topic addressed by the Design Standards that follow.

- **B** Intent Statement
  Explains the desired outcome for the design topic and provides a basis for the Design Standards that follow. If a standard does not address a specific design issue, the intent statement will be used to determine appropriateness.

- **C** Quantitative Guideline
  Describes a desired performance-oriented design outcome.

- **D** Additional Information
  Provides a bulleted list of suggestions on how to meet the intent of the design standard. These are not the only alterations that can be applied.

- **E** Images
  Clarify the intent of the design standard by illustrating appropriate and inappropriate design solutions (see below).

- **✓** Appropriate
  Images marked with a check illustrate appropriate design solutions.

- **✗** Inappropriate
  Images marked with an X illustrate inappropriate design solutions.

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**Sample Quantitative Guideline**

**Building Placement and Orientation**

This section provides design guidelines for changes to non-historic buildings related to placement and orientation. The design of additions and alterations to a non-historic structure should result in building orientation and placement that respects the character of a historic district.

**1.1 Design additions and alterations to non-historic structures to be compatible with the placement, massing and scale of surrounding historic structures.**

- Design an addition to respect the original orientation of the building and maintain the typical orientation of adjacent historic buildings.
- Design an addition to a non-historic building to preserve setback distances and spacing between buildings to maintain setbacks and spacing typical of surrounding historic structures.
The recommended guidelines format

The preferred sequence of actions:

1. Preserve
2. Repair
3. Replace
Next Steps

1. Collect comments
   • On the approach in general
   • On the specific recommendations
2. Houston Heights Historic Districts Design Guidelines
   • Draft #1:
     • Post to web site: June 12, 2017
     • Present Draft #1 to Community: June 20, 2017
     • Final draft: August 7, 2017
3. Complete rest of Phase 1 Design Guidelines: Fall 2017
4. Phase 2 begins: August 2017
   • Main Street Market Square Historic District
   • Glenbrook Valley Historic District
How to Provide Comments

Comments due by April 9, 2017

Please contact Steph McDougal, project manager
Phone: 832-393-6541
Email: steph.mcdougal@houstontx.gov
Thank You!