


City of Knoxville Residential Historic Districts

Design Guidelines

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Introduction

LOCAL DESIGNATION AS A HISTORIC PRESERVATION STRATEGY

The City of Knoxville recognizes the power historic structures to define our unique community identity and encourages their preservation so that they remain an important part of the city's building blocks. To this end, the City, through the Knoxville-Knox County Metropolitan Planning Commission (MPC), works with organizations and private property owners to preserve, protect, and celebrate our historic places.

While various means exist for recognizing and celebrating the importance of historic structures, protection is best accomplished at the local level. It is here that the value of preservation is defined directly by the community, which drives the direction of the design guidelines to protect their valued historic context. It is through discussion with the community that the scope and extent of these guidelines, which ultimately reflect the vision and priorities chosen by neighborhood property owners, are defined.

HISTORIC OVERLAY DISTRICTS (H-1) DEFINED

Among the most effective and proven of local preservation tools is the historic overlay district (H-1). Established in Knoxville under Tennessee Code Annotated, Section 13-7-401, and the City of Knoxville Zoning Ordinance (as amended) No. 3369, a historic overlay district (H-1) may be established for a "geographically-definable area which possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects which are



united by past events or aesthetically by plan or physical development."

HISTORIC OVERLAY DISTRICT (H-1) PURPOSE

The historic overlay district (H-1) broadly seeks to define and protect historic neighborhoods. This zoning strategy provides oversight for ensuring that its historic buildings and streetscapes are protected from inappropriate changes. This protection is accomplished through the review of proposals for changes to buildings exteriors, and approval or denial of the changes based on the design guidelines and the specific characteristics of the neighborhood. This design review is conducted monthly by the Knoxville Historic Zoning Commission (HZC), whose members are appointed by the Mayor and confirmed by City Council.

The goal of establishing a historic overlay district (H-1) and reviewing proposed projects within it is not to freeze time, stall improvements, or prevent improvements to the community. When preservation is provided for in a meaningful way through a historic overlay district (H-1), it promotes a vibrant, culturally-rich community that supports appropriate changes and allows for the contemporary use of historic buildings, but in a responsible and sensitive way that respects the larger community's agreed-upon goals and priorities.

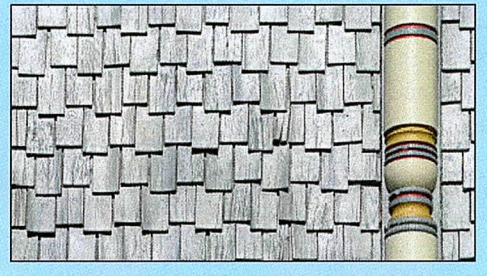
DESIGN GUIDELINES: PURPOSE AND NEED

Each designated historic overlay district (H-1) is accompanied by a set of design guidelines that provides a framework for achieving the design goals and objectives of the community. Drafted with input from property owners, these guidelines represent the vision of the community in maintaining its historic character and provide the standards that help to achieve the goals of that vision.

Property owners play a primary role in ensuring that the historic fabric of the district is appropriately preserved. As stewards of historic properties within the historic overlay district (H-1), those caring for our historic building stock must make daily decisions on how best to accommodate modern-day needs while preserving the character-defining features of the places we call home. Such decisions should be made with the historic value of the building in mind, and these decisions must also be grounded in sound and practical guidance. The design guidelines serve this role.

DESIGN GUIDELINES **DO**:

- Provide a framework for the community to achieve their specific vision for retaining an area's historic character
- Provide flexible, goal-oriented approaches to addressing the particular needs of an individual property
- Provide guidance for contemporary use of a historic building while maintaining its historic character
- Reduce the potential for adverse impacts resulting from inappropriate treatments to individual buildings and the district as a whole
- Promote consistent, defensible decision-making by MPC and the HZC



DESIGN GUIDELINES **DO NOT**:

- Require maintenance on a property
- Require museum-quality restoration
- Regulate the use of a property
- Review changes for a building's interior

Rooted in accepted preservation standards for exterior maintenance and rehabilitation, the guidelines provide a common language and consistent direction for all parties that work with historic buildings in the historic district overlay (H-1).

Specifically, the design guidelines:

- Clarify preservation standards for property owners to enable them to make informed decisions
- Provide an agreed-upon community values approach to the appropriate treatment of historic properties
- Help coordination among architects, engineers, contractors, and others that work on historic buildings in the community
- Provide a consistent basis for the MPC and HZC to make well-informed and defensible decisions regarding the appropriateness of proposed work

PRESERVATION PRINCIPLES

Design guidelines for historic overlay districts (H-1) are developed based on the *Secretary of the Interior's Standards for the Treatment of Historic Properties.* Developed by the National Park Service (NPS), this document provides a broad framework intended to promote responsible preservation practices that respect and protect our historic places. The NPS' *Standards for Rehabilitation* and accompanying *Guidelines for Rehabilitating Historic Buildings* outline standards that allow for adaptation of historic buildings for modern-day use while also preserving their character. Generally, the principles promoted by the National Park Service and incorporated into these guidelines include:

- Planning projects with an understanding of a building's significant architectural features
- Preserving significant historic features and materials through regular, appropriate maintenance
- Repairing durable historic materials instead of replacing them
- Replacing deteriorated or missing historic components and features with in-kind materials
- Designing alterations and additions so that they do not cover over or destroy significant features
- Incorporating sustainable materials, where appropriate

More specifically, the preservation principles included in these design guidelines are also supported by the Technical Preservation Services developed by the NPS, which provide specific guidance related to particular rehabilitation and repair projects. A list of currently available *Preservation Briefs* may be found at http://www.nps.gov/tps/how-to-preserve/briefs.htm.

USING THE DESIGN GUIDELINES

As the criteria used by the HZC in determining the appropriateness of proposed work within the historic overlay district (H-1), the design guidelines are an important resource that should be consulted by any property owner considering a project that will affect any exterior element of a building within the overlay. Of primary importance, the guidelines should be referred to at the beginning of the project planning process – and in consultation with any chosen architects or contractors – in order to avoid getting too far along with a project that is otherwise considered to be inappropriate. Early review of the guidelines can help save time and money in receiving approval for a proposed project. It is also important to note that while the guidelines provide a general framework for the care and maintenance of historic buildings they do not provide case-specific advice or address rare and unusual situations.

The design guidelines are likewise intended for use by the MPC historic preservation staff and HZC. MPC staff uses these guidelines when advising property owners and when providing recommendations to the HZC regarding compatibility of the proposed changes. The HZC also uses these guidelines as part of the basis of their approval or denial of a proposed project. Use of the guidelines will help to ensure that review is conducted according to consistent and fair standards.

Common changes within the historic overlay district (H-1) that require using the guidelines include (but are not limited to):

- Alteration, restoration, or replacement of exterior features
- Installation of new cladding materials
- Replacement of windows or doors or the addition of a new window or door opening
- Construction of an addition
- Construction of a new building, including an outbuilding
- Demolition or relocation, in whole or in part, of a historic building

SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that hav acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new features shall match the old design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials, shall not be used. The cleaning of surfaces, if appropriate, shall be undertaken using the gentlest means possible.
8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources are proposed to be disturbed, mitigation measures should be undertaken.
9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

YOUR HISTORIC STRUCTURE MAY ALREADY BE A GREEN BUILDING

By their design most historic buildings already feature numerous 'green' features that promote energy efficiency but may be overlooked. In considering the sustainable features of your historic building, look for the following:

- Substantial tree canopy that provides natural shade and cooling
- Operable, double-hung windows that allow cool air to flow in and warm air to pass out
- Windows arranged so as to take advantage of natural lighting, as well as passive heating in the winter
- Deep-set porches that moderate temperature fluctuations between interior and exterior spaces
- Deep eaves that provide for seasonal shading
- Steeply-pitched roofs that allow for heat to pass upward away from the living space, while also collecting rainwater
- Operable shutters that can be used to block solar heat gain
- Window and door arrangements that allow for cross-ventilation
- Heavy masonry materials with natural insulating properties
- Chimneys that allow non-mechanical heating
- High ceilings that facilitate movement of air

HISTORIC PRESERVATION AND SUSTAINABILITY

The preservation of historic buildings is a sustainable practice because it promotes continued use and maintenance of our historic building stock over unnecessary replacement. Preservation is kinder to the environment because it makes use of already-invested resources and avoids the excessive energy usage and waste associated with demolition as well as new construction. Preservation also makes use of existing historic building elements and site features that are by their design intended to provide natural comfort without using excessive energy.

The reasons for embracing historic buildings as a sustainable practice are many and start with understanding the design features of historic buildings that promote energy efficiency. For example, historic buildings were typically designed for their particular environment, which influenced the placement of porches, windows, and other features that connect the building to its setting. The use of these features was typically a very conscious decision intended to make buildings energy efficient. The particular care taken in site placement and development of the surrounding community allows many historic buildings to take advantage of natural shade and carefully placed window openings provide efficient, natural ventilation and lighting.

In their construction, historic buildings embrace durable traditional materials such as old growth lumber, brick, and stone, which last for decades if properly maintained, whereas many contemporary manufactured materials are not only unsustainable in their production but have a comparatively shorter lifespan. Some contemporary materials need to be replaced more often, causing the use of more energy.

Historic preservation as a sustainable practice works because it retains the "embodied" or "already present" energy within existing building stock. From the manufacture of goods, to the transportation of those goods to the project site, to the physical labor needed for construction, buildings represent large expenditures of energy. Preserving a building and appropriately maintaining its individual features respects this embodied energy and minimizes the need for the use of additional energy to produce new materials.

Even when designed as sustainable as possible, new construction can take decades of incremental savings to simply recover the embodied energy represented in a demolished building. In addition, it takes years for new construction to offset the substantial material waste associated with demolition and disposal of the materials of the former building. Based on this reasoning, replacement of historic buildings, even when with sustainable architecture, not only makes little financial sense but also destroys irreplaceable architectural heritage. A more responsible approach is to embrace preservation as an environmentally-sound policy that makes the most of historic resources and limits the need for new large-scale energy use in the production of materials and disposal of waste.

Recognizing the connection between historic preservation and sustainability and the desire of property owners to have energy-efficient dwellings, the design guidelines are intended to balance necessary flexibility for alternative materials and designs while also preserving the historic character of individual buildings and the community as a whole. Guidelines for sustainable measures are incorporated throughout this document in an effort to promote both goals.

While guidelines for specific building features and sustainable measures are found throughout the document, the following considerations make sense in the plan to improve the energy efficiency of a property.

SUSTAINABLE CONSIDERATIONS IN THE PROJECT PLANNING PROCESS

Considering goals for energy savings at the beginning of a project is particularly important in making sure that the project balances efficiency with limiting any ill-effects on the historic character of a building. In other words, energy-efficient approaches should not be an afterthought in planning the project. It may be useful to have an expert conduct an energy audit, which is a comprehensive and systematic overview of how energy is used and distributed in the building. This can be a tremendously useful tool in assessing which upgrades will provide the most benefit.

Embrace Repair and Reuse of Historic Materials as a Priority

Preserving existing building fabric in sound condition should be a priority not only to retain historic character, but also to limit the need to expend energy in the production of new materials. Continued use of building fabric begins with routine maintenance and timely repair of materials to minimize significant deterioration.

During a repair or renovation project, historic building material should be protected to avoid accidental damage that may cause a need for replacement. Temporary removal of materials to make repairs or renovate is not recommended, but if it becomes necessary, materials should be removed with enough care to allow reinstallation. In rare instances where historic building materials in good condition will not be reused as part of a project, they should be retained by the owner for future reuse or donated to another project or non-profit organization that may be able to use them.

Take Advantage of the Green Features of a Historic Building

As previously noted, many historic buildings incorporated design features that promote energy efficiency but are sometimes overlooked. When developing a project and incorporating sustainability strategies, a property owner should first develop an understanding of the already-present sustainable qualities of their building and ensure that the effectiveness of these features will not be reduced. Of particular importance is to avoid making inoperable features such as windows, shutters, chimneys, and transoms so as to retain their ability to offer energy efficiency.

Incorporate Sustainable Measures in Consideration of the Building's Character

While the design guidelines are flexible in allowing for sustainable measures such as solar panels, storm windows, and rainwater collection systems, it is important that any added features do not detract from the historic character of the building or the district. Locating new features out of view from the public right-of-way or incorporating screening is recommended to reduce their potential to ruin the look of a building. In addition, as with all modifications to a historic building, a more recently added feature should be removable without harm to the building's historic fabric.

A SENSIBLE APPROACH TO SUSTAINABLE DESIGN SOLUTIONS

While embracing sustainable design solutions as part of the project planning process is important in realizing energy savings as an end product, it is equally important that the solution is carried out with sustainability in mind.

Where replacement or new materials are necessary, they should be produced locally and without use of harmful chemicals or other treatments. Ideally, they should also be matched to the local climate, as was often the case with original building materials. Replacement and new materials should also be chosen for their durability and their ability to be repaired. Using high-quality durable materials will reduce future replacement.

Project activities should also be carried out in a way that minimizes waste, particularly of sound materials. Materials should only be removed as necessary. If a component is damaged, only the damaged section should be removed. Where possible, removed materials should be recycled or made available for reuse on another project, either at the site or to another property owner.

CONSIDERING ALTERNATIVE MATERIALS

While traditional materials are the most appropriate, the HZC recognizes the increasing need to consider alternative materials due to the limited availability of traditional materials and tradespersons, as well as to consider sustainable initiatives. As such, the HZC will carefully consider the proposed use of alternative materials in order to determine if they are compatible with the historic character of the building. When determining if use of an alternative material is appropriate, the HZC may consider:

AVAILABILITY AND TECHNOLOGY: Are traditional materials of a high-quality available, or is the availability of traditional materials limited?

VANISHING TRADES: Are there local craftspersons available that can work with the traditional material or is the local building industry only trained in the use of new materials?

DURABILITY: Based on available information, does the proposed material perform as well as the traditional material over time?

APPEARANCE: Does the proposed material match the original in terms of color, texture, finish, reflectivity, and profile?

COMPATIBILITY: Does the new material appear seamless with the surrounding historic fabric? Will installation affect the way that adjacent materials appear or react (for example, expansion and contraction of masonry materials)

FEASIBILITY: Does the proposed material allow the property owner to undertake a rehabilitation project that would not otherwise be feasible?

Guidelines and recommendations for alternative materials are addressed in each section of the design guidelines.

DESIGN REVIEW BASICS

The historic overlay district (H-1) provides a framework for timely design review of proposed exterior changes to historic buildings before work is begun. The design review process is intended to be completed through a team effort which preserves the architectural character as well as meets the needs of the property owner.

Applicability

The design review process is applicable to all properties within the historic overlay district (H-1), regardless of whether the property is considered a "contributing" or "non-contributing" resource. Design review is required for exterior alterations and repairs that require a building permit or any other type of City approval. Exterior changes such as landscaping and painting non-masonry items do not require review and approval. Interior changes are also not reviewed, although building permits may still need to be obtained from the relevant City departments.

Responsibility of Property Owners

Responsibility for complying with the design review process ultimately lies with the property owner or applicant, who should initiate submittal of their application to MPC Historic Preservation staff. The design review process begins when the property owner decides to undertake an exterior project on a building within the historic district overlay (H-1); the overlay itself does not require the property to otherwise undertake any rehabilitation or restoration activity. Property owners within the overlay are expected to be familiar with the design guidelines and design review process and are encouraged to actively participate in it while a project is under review.

Certificate of Appropriateness

The Certificate of Appropriateness (COA) serves as the record of written approval for a proposed project and provides the documentation necessary to obtain building permits for projects within the historic district overlay (H-1). The HZC or its staff issues the COA after reviewing and approving plans for the proposed work. Once issued, a COA is valid for twenty-four (24) months.

There are four levels of work associated with COA applications, depending on the intensity of the proposed project. Minor work (Level I) such as routine repair of existing features using in-kind materials or installation or replacement of functional components such as gutters and downspouts is typically reviewed by MPC staff for administrative approval, although staff has the option of forwarding any proposed project to the HZC for their review. Any project higher than a Level 1 requires review by the HZC for compatibility with the design guidelines.

Working Together to Gain Compliance

Within the historic overlay district (H-1), an exterior project that is begun without a valid COA or is continued after a COA has expired is a violation of the City's ordinance. It is in the property owner's best interest to be aware of the formalities of the design review process and to work within the MPC's HZC staff in advance of work on any project. Should a property owner begin work without a COA and this is reported to MPC staff, the Building Inspections office may place a stop work order on the project until it can be reviewed and approved by the HZC or its staff. Work completed that is not compatible with the design guidelines may be required to be undone, and the property owner may be subject to fines and other penalties.

DOES YOUR PROJECT REQUIRE A CERTIFICATE OF APPROPRIATENESS

If your project includes:

- Exterior work that requires a building permit, such as roof repair or replacement (other than just the shingles), porch repair or replacement, installation of new claddings, and construction of additions
- Exterior repairs, replacement, or removal of existing features such as windows, doors, stairs, railings, cornices, fascia, or trim
- Construction of a new main building or outbuilding
- Demolition or relocation of a building

YES – *Your project will require design review by the HZC or its staff and issuance of a COA before you may apply for a building permit and begin work.*

If your project includes:

- Any changes to the interior of the building
- Painting wooden features or siding
- Installation of walkways or driveways
- Landscaping, including establishing gardens and pruning of trees

NO – *Your project will not require a COA; however, be sure to obtain any other relevant building permits before beginning work.*

CERTIFICATE OF APPROPRIATENESS LEVELS OF WORK

LEVEL I (STAFF REVIEW)

- Routine repair of siding, fascia, soffit, roof, or other features using materials, design, and dimensions that match original or early features
- Installation of gutters, storm windows or doors, satellite dishes, and screen doors
- Removal of artificial siding or non-historic additions in order to reveal the original materials or configuration of the building
- Installation of signage
- Renewal of an expired Certificate of Appropriateness

LEVEL II

- Major repair or replacement of materials or architectural elements
- Construction of an addition or outbuilding
- Demolition or relocation of a non-contributing building or structure

LEVEL III

- Construction of a primary building
- Subdivision of a designated property

LEVEL IV

- Demolition or relocation of a contributing building or structure

CONTRIBUTING vs NON-CONTRIBUTING

A **contributing** resource is a building within the historic overlay district (H-1) that is of an early age and retains sufficient integrity to lend historic character to the district. Even if a historic property has been altered, it can be considered contributing as long as it retains the important character-defining features that support its association with the district.

A **non-contributing** resource is a property that does not retain sufficient historic integrity to enhance the significance of the district due to late age, alterations, additions, or other changes.

CONSIDERATIONS WHEN PLANNING TO REPLACE, REMOVE, OR ADD FEATURES OR MATERIALS

As part of the project planning process, the applicant should evaluate how changes might impact the historic architectural character of the building. Questions that should be considered include:

- Is the feature/material original or added later?
- If added later, is the feature/material of low-quality construction or inappropriate to the original design of the building?
- Is the feature/material a significant character-defining element that helps convey the style and associated period of construction for the building?
- Is the feature architecturally or artistically unique, or is it common and utilitarian?
- Will the building's character be altered significantly if the feature/material is removed or replaced?
- Is the feature/material prominently visible from the public right-of-way?
- Would the proposed replacement or new feature/material affect perception of the building's style or era of construction?
- Would the proposed replacement or new feature detract from the original design of the building, particularly the facade?
- Is the proposed feature/material typical of those found on other buildings of the period in the district or similar to those identified in academic resources on architectural styles?

DESIGN REVIEW PROCESS

The design review process outlined by the overlay zoning ordinance is intended to provide an efficient framework by which proposed projects can be submitted to and reviewed by the HZC. This framework also is intended to promote consistent and fair decision-making by MPC staff and the HZC in the review of proposed projects. For projects subject to design review, design approval in the form of a COA shall be obtained before other permits can be issued by the relevant City department and before work can begin.

APPLICATION AND APPROVAL PROCESS

Step 1.
Plan Your Project

The design review process should begin with carefully planning a project that is appropriate by considering the design guideline recommendations. As the first step, this will make the design review process go more smoothly and can help save time and money. Project planning should also include developing an understanding of the property, its integrity, and its character-defining features. This research will help in evaluating how a potential project such as removal, replacement, or addition of a feature may or may not affect the character of the building. Appropriate project planning at the outset of the process will also help the applicant in preparing proper documentation for HZC review. This documentation will let the HZC know that the applicant has considered and respects the significant features of the building.

Step 2.
Meet with the MPC Historic Preservation Planner

The MPC planner will serve as the applicant's contact during the design review process and is available to assist in properly preparing the application. The planner can provide preliminary insight into what may or may not be appropriate according to the design guidelines. The planner can also confirm whether the application requires a Level I or Level II review.

For a Level I project, if appropriate documentation has been submitted and the proposed project meets the design guidelines, staff may approve a COA for a simple application without the requirement for a formal review by the HZC. Issuance of the COA enables the applicant to obtain any other required permits before beginning the project. For Level II-IV projects, the applicant must submit a more detailed application under the guidance of staff or the HZC to review.

Step 3.
Complete the COA Application and Submit Relevant Supporting Materials

A copy of the COA application form is available at the City of Knoxville MPC office or online at the MPC's website (http://knoxmpc.org). The applicant may also request a copy by e-mail attachment or fax. The application is to be used for all levels of work and is intended to provide MPC staff and the HZC with a thorough understanding of the proposed project. Specific submittal requirements depend on the nature of the proposed project but generally include sketches, photographs, and written descriptions of proposed work. Product samples and specifications on proposed materials and products may also be needed. Depending on the complexity of the proposed project, professional drawings or renderings may also be recommended to effectively inform the HZC about the project.

The applicant must submit the completed and signed form, fee, and all supporting materials to MPC staff several days in advance of the HZC meeting. The COA application deadlines are available from MPC staff or on the MPC's website.

DESIGN REVIEW SPECIFICS

Application Completeness

Application submittals must be complete and include fee payment before they will be accepted.

HZC Meeting Frequency/Location

Monthly in the Small Assembly Room, Main Level, City County Building, 400 Main Street

COA Validity

An authorized COA is valid for 24 months from its approval date.

Step 4.
MPC Staff Review of Completed COA Application

Once the applicant submits the completed application, MPC staff will review it and consider the proposed project with regard to the guidance provided in the design guidelines. The MPC staff may need to visit the property in association with the review in order to view existing conditions firsthand. The staff will then prepare a summary report on the proposed project and provide a recommendation to the HZC regarding its appropriateness.

Step 5.
HZC Design Review Meeting

All completed applications referred to the HZC will be reviewed in a public hearing during the next available monthly meeting.

MPC staff will inform the applicant when the project has been added to the agenda. While attendance at the meeting is not required for review or approval, it is strongly encouraged for all applications as it provides the opportunity for the applicant to present the project to the HZC and address any questions or concerns, or agree to any conditions for approval

Following discussion, the HZC will vote on the proposed project to issue a determination. One of four determinations will be made by the HZC:

Approval: The project is approved as proposed. No changes are required, and a COA will be issued. Conditional Approval: The HZC may propose an alteration or limitation to the proposed project in order to bring it into alignment with the design guidelines recommendations, and choose to approve the project only if that condition is agreed to by the applicant. If the applicant agrees to the proposed condition, a COA will be issued for the project.

Table Application: If the HZC determines that it has not received enough information about a project to either approve or deny it, the HZC may table the application for future consideration. MPC staff will notify the applicant of this decision and request the necessary information so that consideration of the application may be rescheduled.

Denial: If the HZC determines that a project does not meet the intent of the historic overlay district (H-1) or the design guidelines, the HZC will deny the application and will not issue a COA.

Two types of denial are possible. If the HZC issues an outright denial, a new application for the same proposal may not be submitted for a period of one (1) year from the date of the denial. If, however, the HZC issues the denial "without prejudice," the applicant may resubmit the application with minor changes at any time.

Step 6.
Apply for Required Permits

Once a COA has been issued for a project, the applicant can apply for any required building permits necessary to carry out the project. The COA should be presented to the respective city department, typically the Building Inspections Office, when applying for permits.

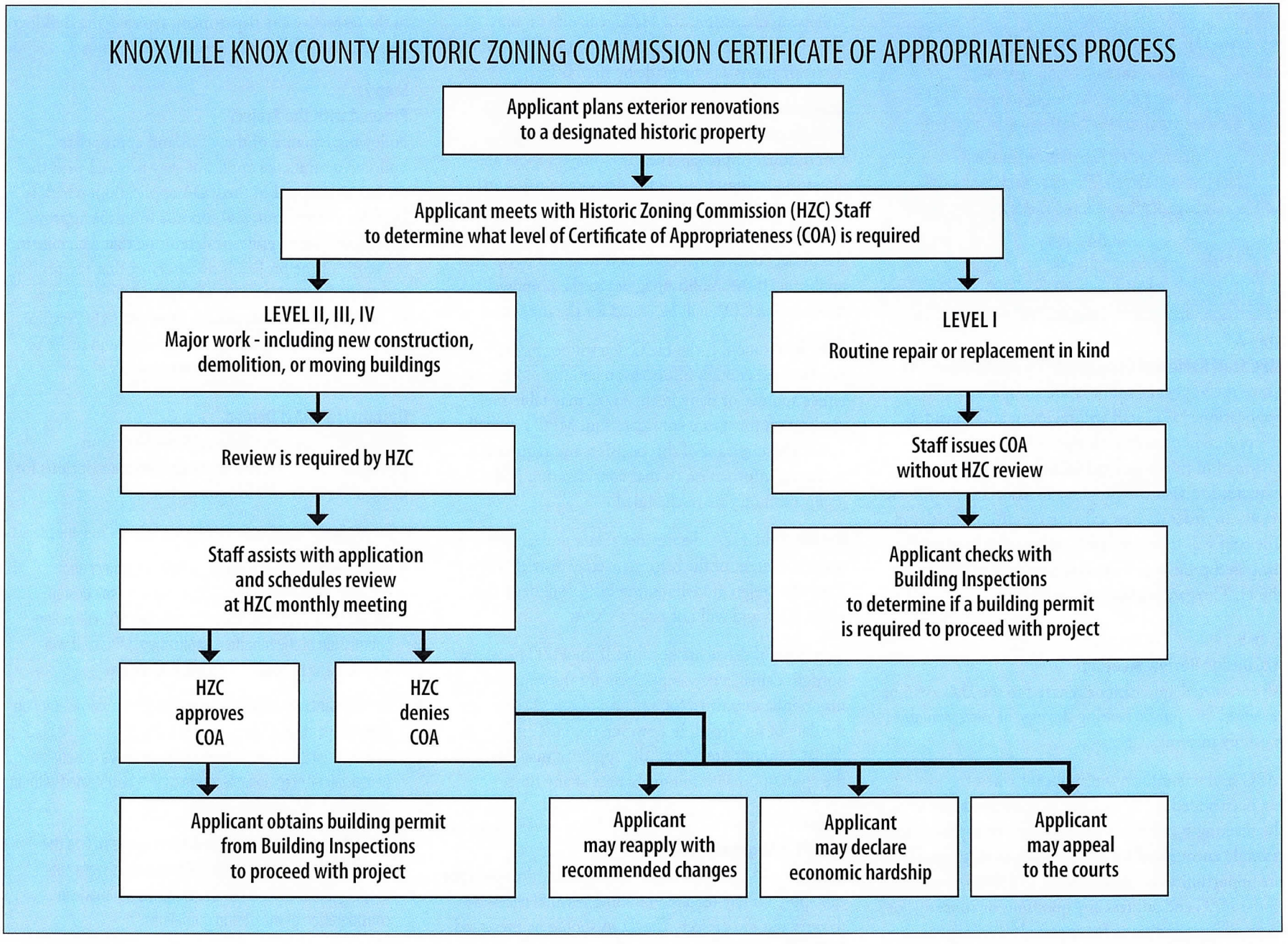
Step 7.
Proceed with the Project

Following issuance of the COA and appropriate building permits,the applicant may proceed with the project as outlined in the COA application, which is valid for twenty-four (24) months from the approval date. Should the applicant determine that a change in the scope of the project is necessary or that the project will extend past the COA's date of validity, it is the responsibility of the applicant to notify MPC staff of any proposed changes as soon as possible in order to determine if re-review will be required.

Options if a COA is Denied

If the HZC does not issue a "denied-without-prejudice" decision, the applicant has four options for proceeding after an outright denial:

- The applicant may choose not to move forward with the project.
- The applicant may modify the proposed project and application to bring it into alignment with the design guidelines and recommendations of the HZC. Following submission of the modified application, MPC staff will schedule the project for another HZC review.
- The applicant may appeal for an economic hardship exemption from one or more of the guidelines. In this instance, the burden of proof is on the property owner to prove that a reasonable beneficial use or reasonable return cannot be obtained without completing the proposed project.
- The applicant may appeal the finding of the HZC to the courts if they feel that rules and procedures were not properly followed or a fair decision was not made in consideration of the design guidelines.


KNOXVILLE KNOX COUNTY HISTORIC ZONING COMMISSION CERTIFICATE OF APPROPRIATENESS PROCESS
Applicant plans exterior renovations to a designated historic property
Applicant meets with Historic Zoning Commission (HZC) Staff to determine what level of Certificate of Appropriateness (COA) is required
LEVEL II, III, IV
Major work - including new construction, demolition, or moving buildings
LEVEL I
Routine repair or replacement in kind
Review is required by HZC
Staff issues COA without HZC review
Staff assists with application and schedules review at HZC monthly meeting
Applicant checks with Building Inspections to determine if a building permit is required to proceed with project
HZC approves COA
HZC denies COA
Applicant obtains building permit from Building Inspections to proceed with project
Applicant may reapply with recommended changes
Applicant may declare economic hardship
Applicant may appeal to the courts

Edgewood-Park City

A BRIEF HISTORY OF THE DISTRICT

In 1890, streetcar lines were extended east from Knoxville to an area that became Park City. One of these traveled down Park Avenue (now known as Magnolia) to Lake Ottossee in Chilhowee Park, while the other traveled Washington Avenue. The Edgewood Land and Improvement Company subdivided and promoted lots in the Washington Avenue Addition, which stretched along Washington and Jefferson Avenues east from Winona. Prior to the Edgewood Land and Improvement Company's promotional efforts, residential development in this area was sparse, but rapid expansion soon began, and a town named Park City developed. This incorporated municipality included not only Edgewood's Washington Addition, but also other subdivisions. From the two names — Edgewood and Park City — comes the name of this historic district.

The Edgewood Land and Improvement Company included George F. Barber and his partner, Martin E. Parmalee. Barber had moved to Knoxville in 1888 and established an architectural office with Parmalee. Barber designed and marketed mail order house plans, publishing numerous periodicals and even maintaining his own publishing company, The American Home Publishing Company, which he established in 1898. George F. Barber maintained his architectural firm and designed and published house plans until his death in 1917. His designs were sold nationally and even internationally.

Barber's publications include The Cottage Souvenir (1891), Cottage Souvenir No. 2 (1892), new Model Dwellings and How Best to Build Them (1894), Artistic Homes (1895), Art in Architecture (1902-03), and Modern Dwellings (1907-1907). American Homes, which was an illustrated monthly magazine published by The American Home Publishing Company, continued for six years. If any of these publications inspired the purchase of homes or designs by Barber, a client could fill out a questionnaire and send it with the appropriate fee to Barber's Knoxville offices. Plans, elevations, working drawings, a bill of materials or even pre-manufactured architectural details for the house could be purchased in this manner.

Barber's designs progressed through a series of styles, with the earlier ones best described as Eastlake, Queen Anne, or a mixture of the two Victorian styles. Elaborate in their detailing, they contained such features as patterned slate roofs, fish scale shingles, turrets, bays, balconies, spindlework, beaded spandrels, and elaborate brickwork. Classical Revival details began to appear in his work b the early 1900s. These designs often featured paired and tripled wood columns with Ionic and Doric capitals, Palladian windows, and dentil molding.

Although the location of all Barber houses in Knoxville has not been established, the Edgewood Land and Improvement Company development contains a great many of his designs, which could be expected since his architectural partner was one of the developers. Barber lived in at least one home he designed, at 1635 Washington.

Barber houses in Edgewood-Park City:

- 1614 Washington Avenue
- 1618 Washington Avenue
- 1620 Washington Avenue
- 1635 Washington Avenue
- 1701 Washington Avenue
- 1702 Washington Avenue
- 1704 Washington Avenue
- 1705 Washington Avenue
- 1712 Washington Avenue
- 1724 Washington Avenue
- 1730 Washington Avenue
- 1802 Washington Avenue
- 1803 Washington Avenue
- 1904 Washington Avenue
- 1905 Washington Avenue
- 1912 Washington Avenue
- 1640 Jefferson Avenue
- 1701 Jefferson Avenue
- 1708 Jefferson Avenue
- 2039 Jefferson Avenue

There are probably other designs of Barber's in Edgewood-Park City. Some of his designs have been altered so that they are not easily identified, and no complete collection of his published designs is known to exist in Knoxville.

Mixed with the elaborate George F. Barber designs are other houses typical of the late 19th and early 20th centuries. Queen Anne, Craftsman/Bungalow, and Neoclassical styles are represented here. Merchants,

clerks, factory workers and owners, salesmen, and railroad employees who benefited from Knoxville's expanding economy and improved local transportation moved to Edgewood-Park City as Knoxville's central city became increasingly crowded and noisy. Knoxville in the late 19th century became the regional wholesaling center for the southeast. Its location on the railroads not only made this economic distinction possible, but also made the city a logical location for expanding manufacturing concerns, particularly in the textile industry. Standard Knitting Mills, located at the west end of the neighborhood, employed many of the people who found houses in the neighborhood.

The boundaries of this district include much of the original Edgewood Land Improvement Company development, but only a small part of a Park City. Park City was incorporated in 1907, and has been a part of Knoxville twice in its history. In 1891, Knoxville's government annexed the large developing area on its eastern boundary as the Tenth Ward. Two years later, when Knoxville had failed to address the area's educational and street improvement needs, the Tenth Ward was removed from Knoxville's incorporated area by an act of the General Assembly.

Knoxville annexed Park City the second time in 1917 and this time the action was not reversed. However, public improvements were not widespread in the area until the 1920s.

Adjacent to the boundaries of Edgewood-Park City are many other houses that reflect the architectural styles and economic strength of 19th and 20th century Knoxville. Those buildings are also eligible for listing under an H-1 overlay, and should be included in the future as their owners desire the protection of a local historic designation.

ARCHITECTURAL STYLES OF THE DISTRICT

The Edgewood-Park City Historic District contains distinctive architectural styles that date from the late 19th and early 20th centuries. As is true with most of the historic architecture in Knoxville, there are very few "pure" styles. Instead, the styles found in the Edgewood-Park City Historic District draw characteristics from several styles to form an eclectic mix. Styles most representative of the neighborhood are discussed in this section, with drawings that illustrate that style's characteristics.

LATE NINETEENTH CENTURY STYLES

The last half of the 19th century saw a shift from the restrained, classical designs of Georgian, Federal, and Greek Revival to the textured, varied designs of the Victorian era. By the time houses were being designed and built in Edgewood-Park City, in the late 1800s, these Victorian designs were well established.

Queen Anne

The Queen Anne style was popularized by a 19th century architect, Richard Norman Shaw, about 150 years after the time of Queen Anne's reign, which was from 1702 to 1714. The first American example of Queen Anne style is thought to be the Watts Sherman house in Newport, Rhode Island, built in 1874. By 1880, architectural pattern books were spreading the style throughout the country. The expanding railroads helped to popularize it by making pre-cut architectural details widely available.

The Queen Anne style contains varied, exuberant architectural elements. Details from many other styles are reinterpreted and captured in Queen Anne designs. Queen Anne houses have irregular floor plans, large porches, corbelled chimneys, and elaborate decoration on exterior surfaces. Roofs are complex and steeply pitched, some with coverings of colored slate, patterned oversize asphalt shingles, or terra cotta tiles. Ornamental wood shingles, with a diamond, square, or fish scale pattern, are often used on gables. Turned wood porch columns are common, with trim of elaborately sawn wood lacy spandrels. Porch railings have beaded or turned balusters. Ornamented attic vents or windows are often found. Windows may be leaded glass, and transoms and sidelights enhance front entries. A Queen Anne window, of small square glass panes surrounding a large central pane, is common.

Queen Anne Cottage

The Queen Anne Cottage grew out of the Queen Anne style. One or one and one-half stories in height, it usually has a hip and gable roof, corbelled interior chimneys, and sawn wood ornamentation. The Queen Anne Cottage has a large front porch, with wooden columns which may be turned, chamfered or rounded. Sawn brackets, sawn wood or louvered attic vents, and spindle or turned balustrades are often found. Windows are double hung sash, with either two over two or one over one panes. There may be transoms and sidelights, with leaded or stained glass. Wall coverings are usually weatherboard. There may be patterned wood shingles in gables, with sawn wood barge board at the roof peaks. A Cottage window, an early form of the picture window, is often found in Queen Anne cottages. It consists of a large fixed pane with fixed or moveable transoms and narrow side windows. The side windows and transoms often are made of stained glass.

Eastlake

The Eastlake style was used at the same time as the Queen Anne style and is similar. Developed by Charles Eastlake, it is most frequently associated with interior design. It is more vertical than the Queen Anne style, with more massive wood trim, usually

formed by a chisel or gouge. Rows of spindles and beaded trim are common.

Shotgun

The term "shotgun" refers to a room arrangement in which the rooms of the house open in succession from front to rear without a hallway between them, and the doors to each room are lined up. The term "shotgun" comes from the description that a shotgun could be fired in the front door and all of the shot would exit through the rear doorway without hitting any intervening walls. Front gable roofs are common on the shotgun house, which has a full or three-quarter front porch. The houses were usually worker housing. Trim is not elaborate, and may be either from the Victorian era or from the later Craftsman period. Window pane configuration reflects the style of trim applied to the house.

Folk Victorian

This is another "non-pure" style present in the Edgewood Land and Improvement Company Historic District. Folk Victorian houses usually feature a front gable and trim derived from the Queen Anne style. Full length porches with chamfered or turned posts are common, as are double-hung windows. Folk Victorian houses usually are simpler in massing and roof design than the Queen Anne houses or cottages that they imitate.

EARLY-TWENTIETH CENTURY STYLES

After 1900, the style of buildings gradually began to change from the elaborate Victorian-era designs to simpler designs. Some of these were revival styles, based on earlier historic precedents.

Particularly popular were Colonial and Neoclassical Revivals, but an interest in history also encouraged styles drawn from the Spanish Colonial, Dutch Colonial, Tudor, and Italian Renaissance periods. Another design emphasis involved the Prairie, Bungalow, and Craftsman designs. These later designs evolved as some of the first purely American architectural styles.

Craftsman and Bungalow

Buildings of this style have low-pitched gable roofs with wide eave overhangs. Roof rafters are visible. Decorative beams and knee braces are widely used on Craftsman houses. Porches usually stretch across all or most of the front facade, with a roof supported by tapered or square columns, or by posts resting on piers or a balustrade. Dormers are used extensively. Weatherboard is a common wall surface material. Windows are usually double hung. The upper sash has three, four, or more panes, while the lower sash has one.

American Four Square

This house style was used from the 1900s until the 1920s, and is recognized by its square appearance and often hipped, pyramidal roof. Front dormers are often used. It is almost always two or two-and-one-half stories in height, and the interior spaces are arranged into four square or nearly square, rooms. A full front porch is most common in these buildings. Detailing on the house may be from any of the styles common in the early twentieth century. Sidelights and transoms are often used on an American Four Square front entry, and these may be of leaded, stained or beveled glass. Double-hung windows are common, and they may have a patterned upper sash or may be in a one over one configuration.

Tudor Revival

This style mimics or interprets medieval European design. Walls are primarily clad in either stone, stucco, or brick. Stone patterns are often square cut ashlar or dressed stones, and may be laid in either a random or broken range course. Stucco is either toweled into a smooth, lightly mottled pattern or a leaf pattern. Other exterior wall surface materials include weatherboard, wood shingles and applied half timbering. Decorative half timbering involves using horizontal, vertical and curvilinear wood members with either brick or stucco infill. Tudor Revival houses commonly feature steeply pitched roofs, often with side gables or multiple gables. Roofs and gable ends may feature a bell cast curve. Brick chimneys may be patterned. Stone quoin-like projections and voussoirs are common around door and window openings. Windows are usually casement or double hung, with diamond shaped panes often used as a design element. Other features may include castellated parapets, board-and-batten doors, and small entry porticos.

Colonial Revival

This revival style reflects a number of architectural features which first gained popularity in America in the 17th and 18th centuries. Colonial Revival houses typically have symmetrical facades and floor plans. Porticos commonly are used to emphasize the front entrance, and usually feature pilasters or supporting columns. Entries often have distinctive sidelights and fanlights, and decorative door crowns and pediments. Double hung windows with multiple panes are standard, and usually placed in a balanced design.

Common exterior materials include brick, stucco, and weatherboard. Side gabled and hipped roofs are typical on Colonial Revival residences, and often include a series of dormers or one continuous shed dormer. Historic roofing materials were usually slate, asphalt or wood shingle. Other elements that may appear as part of Colonial Revival houses include: full-width

front porches, side porches, recessed entry doors, cast concrete sills, end chimneys, string courses, decorative cornices, and one-story wings.

Neoclassical

Facades of Neoclassical houses may feature columns the full height of the two-story building; however, one-story cottages are also common. Houses usually have a full or partial-width porch with columns. Symmetrical front facades and multiple-pane glazing in double-sash windows are used, especially on the front facade.

SITE AND SETTING

Design elements like fencing and landscaping may not be subject to a Certificate of Appropriateness if they do not require a building permit. Yet, they can strongly affect the historic character of Edgewood-Park City. The suggestions below are included to assist property owners who want to make appropriate changes to their houses. HZC staff is also available to advise property owners.

Landscaping

Hedges were frequently used to mark the edge of lots. When planning foundation plantings, or considering removing overgrown ones, please remember that foundation plantings were not used the way they are now. Shrubbery planted close to the houses can harm foundations, which are usually built of soft brick and mortar. Shrubbery can also prevent wood members from drying properly after wet conditions. To avoid the necessity for expensive siding, brick, and foundation repairs, foundation plantings should be kept several feet from the base of the house, with the ground sloped away from the house, and shrubbery should be kept trimmed so air can circulate freely.

STRENGTHENING THE EDGES OF THE DISTRICT

The Edgewood-Park City Historic District does not extend to the commercial and industrial area west of the district, or to Magnolia Avenue. Both of these areas are important to the district, however, because they introduce the district and can help identify and enhance it. Fortunately, on Washington Avenue west of Winona, commercial development has used existing buildings and rehabilitated them. East of Winona, surface parking and commercial construction are visual intrusions to the historic district. Working with property owners there, and in other commercial areas near the district to develop landscaping and encourage maintenance and beautification could cultivate a positive image for Edgewood-Park City.

If additional commercial development occurs near the historic district, the edges of the development should be intensively landscaped with a mixture of evergreen and deciduous trees in order to form an edge and buffer adjacent residential development.

Any redesign of the interstate system bordering the neighborhood should create a minimum of intrusion to the neighborhood, and sound barriers and landscaping should be encouraged.

Public Improvements

Public improvements are not regulated by the HZC. However, the changes made in public improvements have a substantial impact on the historic district. Several distinctive public features survive from the earliest days of the neighborhood. These include brick, stone curbs, and the "diamond chip" sidewalks that can be found throughout the neighborhood. These features should be retained.

Street lighting can also have a significant impact on the district. Modern lighting, with high intensity fixtures on tall poles, is not appropriate to the historic district and is often intrusive. The height of the modern fixtures means that the light from them is often level with second-story windows, and shines directly into the houses.

The Edgewood-Park City Historic District was built as a pedestrian neighborhood. Every attempt should be made to retain its pedestrian character through the design and maintenance of sidewalks, planting and landscaping, and lighting. The active use of the neighborhood by its residents adds to its character, and makes retaining its original pedestrian scale a part of its continued enhancement.

Fourth and Gill

BRIEF HISTORY OF THE DISTRICT

The Fourth and Gill Historic District is an excellent example of the neighborhoods that flourished in Knoxville during the last quarter of the 19th century. This was the period of the city's greatest economic boom, which was fueled by manufacturing and the railroads. The railroads also helped Knoxville become one of the leading wholesale centers in the South. These economic successes were based primarily on the notions of unrestrained capitalism and urban growth. Known as New South Urbanization, this ideology encouraged such things as urban transit, better public facilities, and the concept of suburbia.

The City of North Knoxville, which historically contained the Fourth and Gill Historic Overlay District, thrived under these new urban ideals. The Fourth and Gill area evolved into a tree-lined streetcar suburb, made up of a series of separate subdivisions. These subdivisions were designed in a grid pattern with either narrow lots for greater density, or larger tracts more befitting the desires of the city's middle and upper classes. As the subdivision streets met each other, sometimes at odd angles, they formed an almost medieval street pattern. Although the size of the houses was fairly consistent within each area, the lot shapes often were not.

Its unique architecture and distinctive urban design are significant in understanding Knoxville's historical and architectural evolution. The architectural styles present in the Fourth and Gill district are a good representation of the residential architecture popular in America between the 1880s and the 1940s. The southern portion of the district was primarily developed in the late 19th century and the north section in the 20th century. The district is irregularly shaped, covering approximately 72 acres. The area included in the Fourth and Gill district includes buildings centered on the 700 b lock of Morgan Street, Deery Street, Luttrell Street to three parcels south of the old Brownlow Elementary School, Eleanor Street (beginning at East Fourth Avenue), and the cross streets of Third Avenue, Lovenia Avenue, Gill avenue, Caswell Avenue, Haynes Place, Wells Avenue, and Camp Avenue. There is also a cluster of seven buildings north of Gill Avenue on North Fourth Avenue.

The Fourth and Gill district features over 280 residential structures, including single-family house, duplexes, and apartment buildings .The district also contains one school and three churches. The houses are primarily of frame construction, with large porches and complex rooflines. Most of the masonry veneer and load-bearing construction occurred in the 20th century. Although a number of different styles exist in the Fourth and Gill district, the majority are Queen Anne and Craftsman styles.

Many of the houses were designed by some of Knoxville's most notable architects, including George F. Barber and Joseph Bauman. Bauman designed several houses for his extended family, and Lovenia Street is named for one of his sisters. Several Queen Anne houses in the Fourth and Gill district are attributed to Barber, who gained national fame through his mail-order designs. Other houses reflect the influence of the area's Appalachian culture, as well as new design ideas from the post-World War I era. Overall, the size, styles, and lot placement of the houses within the district reflect the diversity of the neighborhood. Historically the area was made up of a varied group of people. Professionals and laborers, families and transients, blacks and whites all lived in close proximity to one another. The neighborhood was home to merchants, mayors and a governor, Robert L. Taylor.

Knoxville annexed the City of North Knoxville in 1897, around the time the automobile was invented. With the decline of the American economy, and Knoxville's economy, in the late 1920s and 1930s, many of the larger single-family residences were converted to duplexes to supplement the income of the property's owners. The real decline of the neighborhood began in force after World War II, when returning soldiers and their families sought new lifestyles in the brand new auto-oriented suburbs. More single-family residences were converted into multiple units or small apartments, in part to meet the demands of the growing study body of the University of Tennessee. However, the real blow to the neighborhood came with the construction of the interstate system in the early 1960s. Interstate 40-East was placed on the southern edge of Fourth and Gill, doing damage to houses in its path and creating noise

and air pollution. Its presence continues to cause problems for the neighborhood.

Within the last several decades, the neighborhood has begun to reclaim much of its former glory. The district's name reflects this effort, being derived from the location of a converted house that serves as the neighborhood center. Owners who could foresee the positive social value of cooperative inner-city living have attractively restored many distressed properties to comfortable, modern standards. It is the intention of these guidelines, with the support of the community, to continue and strengthen these revitalization efforts. Adherence to these guidelines can help Fourth and Gill residents maintain and enhance the neighborhood's historic character by encouraging new construction and renovation to be sensitive to the unique architectural resources that exist there. The history of our neighborhood will continue to grow. By guiding the evolution of the neighborhood's architectural style and detail toward harmonious visual balance, the quality of life of all Fourth and Gill residents will benefit. The Fourth and Gill district has a proud past. With good planning and thoughtful design, the neighborhood has the potential for an equally illustrious future.

ARCHITECTURAL STYLES OF THE DISTRICT

Fourth and Gill contains distinctive architectural styles that date from the late 19th and early 20th centuries. As is true with most of the historic architecture in Knoxville, there are very few "pure" styles. Instead, the styles found in the Fourth and Gill Historic Overlay District draw characteristics from several styles to form an eclectic mix. Styles most representative of the neighborhood are discussed in this section, with drawings that illustrate that style's characteristics.

LATE NINETEENTH CENTURY STYLES

The last half of the 19th century saw a shift from the restrained, classical designs of Georgian, Federal, and Greek Revival to the textured, varied designs of the Victorian era. By the time houses were being designed and built in Fourth and Gill, in the late 1800s, these Victorian designs were well established.

Gothic Revival

The Gothic Revival style began in England in 1749. Alexander Jackson Davis designed the first documented American example in 1832. Davis' friend Andrew Jackson Downing brought the style into mainstream American through his popular pattern books. Most Gothic Revival houses were constructed between 1840 and 1870, although a few later examples do exist. Features of the style include steeply-pitched roofs, usually with side gables and cross gables that are centered or paired, decorated barge boards at eaves, and one-story porches with arched trim.

Italianate

Italianate houses are typically two-to-three-story houses with a rectangular floor plan and a formal balance in design. A low-pitched hip roof with a cupola or tower is among the style's most defining features. These roofs commonly have overhanging eaves with large decorative brackets. Central one-bay porches or long porches commonly feature elaborate detailing such as Corinthian columns, chamfered posts, and paired brackets. Other common details of this style include stringcourses, quoins, tall segmental or fully rounded arched windows, eyebrow lintels, crowns, and window hoods. Doors, often in the same shape as the windows, are commonly paired. Andrew Jackson Downing also popularized the Italianate style in his pattern books of the 1840s and 1850s.

East Tennessee Vernacular

Although not a nationally-recognized style, there is a distinctive style found in several counties in East Tennessee. The houses that exhibit it are two stories in height, three bays in width, and two rooms deep with a central hall. End chimneys flank each side of a gable end roof. A wide (usually two-thirds) front porch with a shed or hip roof appears on the front elevation over the front door and windows. A one-story addition, usually two-thirds the width of the front section is located to one side of the house and is accessed through a rear door. The addition includes a porch that runs the length of the ell. These houses appear to be a refinement of the symmetry and massing of Georgian or Federal design, with simple transoms, and little or no decorative ornamentation original to the structure; replacement porches may exhibit Folk Victorian or Craftsman ornamentation. The construction dates of these houses range from about 1840 through the early 1900s.

Queen Anne

The Queen Anne style was popularized by 19th century architect Richard Norman Shaw, but has nothing to do with the time of Queen Anne's reign in England, which was from 1702-1714. The first American example of Queen Anne style is thought to be the Watts Sherman house in Newport, Rhode Island, built in 1874. By 1880, architectural pattern books were spreading the style throughout the country. The expanding railroads helped to popularize it by making pre-cut architectural details widely available.

The Queen Anne style contains varied, exuberant architectural elements. Details from many other styles are reinterpreted and captured in Queen Anne design. Queen Anne house have irregular floor plans, large porches, and elaborate decoration on exterior surfaces.

Roofs are steeply pitched. Some have coverings of colored slate, patterned oversize asphalt shingles or terra cotta tiles. Ornamental wood shingles, with a diamond, square or fish-scale pattern, are often used on gables. Turned wood porch columns usually have trim of elaborately sawn wood, lacy spandrels, spindle work, beaded balusters, and ornamental attic vents, bargeboards, or windows.

Windows may be leaded and stained glass, and transoms and sidelights are often found. A Queen Anne window of small square stained glass panes surrounding a large central pane is common. The Queen Anne window may be one or both sashes of a double-hung window.

Queen Anne Cottage

The Queen Anne Cottage grew out of the Queen Anne style. It could have been either a product of an architect's design or designed by a builder. One or one-and-one-half stories in height, it usually has a hip and gable roof, corbelled interior chimneys, and sawn wood ornamentation. The Queen Anne Cottage has a large front porch. Wood columns that may be turned, chamfered, or rounded usually support the porch roof. Brackets, sawn wood, or louvered attic vents and spindle work balustrades are often found. Windows are double-hung, either two-over-two or one-over-one. There may be transoms and sidelights, with leaded or stained glass. Wall coverings are usually weatherboard. There may be patterned wood shingles in gables, with wood louvered or sawn wood attic vents and sawn wood bargeboard. A cottage window, an early form of the picture window, is often found in Queen Anne Cottages. It consists of a large fixed pane with fixed or movable transoms and narrow side windows that have double-hung sashes. The transoms and side windows are made of smaller panes, sometimes using stained or beveled, leaded glass.

Eastlake

The Eastlake style was also used at the same time as the Queen Anne and is similar to it. Developed by Charles Eastlake, it is often associated with interior design. It is more vertical than Queen Anne style, with more massive wood trim, usually formed by a chisel or gouge. Rolls of spindles and beaded trim are common. Roof shapes, materials, windows, and massing are typical of the Queen Anne style, with design details differentiating the two.

Shotgun

The term "shotgun" refers to a floor plan arrangement in which the rooms of the house open in succession from front to rear without a hallway. The term "shotgun" comes from the description that a shotgun could be fired in the front door and all of the shot would exit through the rear doorway without hitting any intervening walls. Front gable roofs are common on the shotgun house, which has a full or three-quarter front porch. The houses were usually worker housing. Trim is not elaborate, and may be either from the Victorian era or from the later Craftsman period. Window pane configuration reflects the style of trim applied to the house.

Folk Victorian

This is another "non-pure" style present in the Fourth and Gill Historic District. Folk Victorian houses usually feature a front gable and trim derived from Queen Anne styles. Full-length porches with chamfered or turned posts are common, as are double-hung windows.

EARLY-TWENTIETH CENTURY STYLES

After 1900, the style of buildings gradually began to change from the elaborate Victorian-era designs to simpler designs. Some of these were revival styles, based on earlier historic precedents.

Particularly popular were Colonial and Neoclassical Revivals, but an interest in history also encouraged styles drawn from the Spanish Colonial, Dutch Colonial, Tudor, and Italian Renaissance periods. Another design emphasis involved the Prairie, Bungalow, and Craftsman designs. These later designs evolved as some of the first purely American architectural styles.

Craftsman and Bungalow

Buildings of this style have low-pitched gable roofs with wide eave overhangs. Roof rafters are visible. Decorative beams and knee braces are widely used on Craftsman houses. Porches usually stretch across all or most of the front facade, with a roof supported by tapered or square columns, or by posts resting on piers or a balustrade. Dormers are used extensively. Weatherboard is a common wall surface material. Windows are usually double hung. The upper sash has three, four, or more panes, while the lower sash has one.

Tudor Revival

Tudor Revival was a common revival style in the Knoxville area. Walls are primarily clad in stone, stucco, or brick. Stone patterns are often square cut ashlar or roughly squared and dressed, and are often laid in either a random or broken range course. The stucco may be trowelled into a smooth, or a more distinctive pattern. Other exterior wall surface materials included weatherboard, wood shingles, and applied half-timbering. Half-timbering uses horizontal, vertical, or curvilinear wood members with either brick or stucco infill, to emulate the construction techniques of 16th century England. Tudor Revival houses commonly feature steeply-pitched roofs, often with side gables or multiple gables. Roofs and gable ends may feature a bell cast curve. Chimney brickwork is often patterned. Stone quoin-like projections and

voussoirs are common around door and window openings. Windows are usually casement or double hung, with diamond shape quarrels often used as a design element. Other features may include dormers, castellated parapets, board-and-batten doors, and small entry porticos.

American Four Square

The house style was used from the 1900s until the 1930s, and is recognized by its square appearance and often hipped, pyramidal roof. Front dormers are often used. It is almost always two or two-and-one-half stories in height, and interior spaces are often arranged into four main, square or nearly square, spaces. A full front porch is common in these buildings. Detailing on the house may be from any of the styles common in the early-twentieth century. Sidelights and transoms are often used on an American Four Square, and these may be of leaded, stained, or beveled glass. Double-hung windows are used, and they may have a patterned upper sash or may be in a one-over-one configuration.

Colonial Revival

This revival style reflects a number of architectural features that first gained popularity in America in the 17th and 18th centuries. Colonial Revival houses typically have symmetrical facades and floor plans. Porticos are used to emphasize the front entrance, and usually feature pilasters or supporting columns. Entries often have distinctive sidelights and fanlights, and decorative door crowns and pediments. Double-hung windows with multiple panes are standard, with their placement typically reflecting a balanced design.

Common exterior materials include brick, stucco, and weatherboard. Side-gabled and hipped roofs are typical on Colonial Revival residences, and often include a series of dormers or one continuous shed dormer. Historic roofing materials were usually slate or wood shingles. Other elements that may appear as part of Colonial Revival houses include full-width front porches, side porches, recessed entry doors, cast concrete sills, end chimneys, string courses, decorative cornices, and one-story wings.

Dutch Colonial Revival

Dutch Colonial Revival shares most of the characteristics of Colonial Revival, with the exception of one major feature. Gambrel roofs, with either a full or partial second story, are a defining architectural feature. The roof configuration is typically front, side, or cross-gabled. A mix of exterior materials is more common than in Colonial Revival, such as combining stone and wood shingles or stucco and weatherboard.

Neoclassical

Facades of Neoclassical houses may feature columns the full height of the two-story building; however, one-story cottages are also common. Houses usually have a full or partial-width porch with columns. Symmetrical front facades and multiple-pane glazing in double-sash windows are used, especially on the front facade.

Mediterranean Revival

Perhaps the most common feature on Mediterranean Revival style buildings is a low-pitched, ceramic tile hipped roof. The roofs often have boxed eaves with bracketing. Some apartment and institutional buildings have flat roofs. Exteriors are masonry and are either light or dark brick, smooth cut stone, or stucco. Arches above porches, doors, and first-story windows are very common. Upper-story windows are usually less elaborate. Typically facades are symmetrical, and feature recessed porches and balconies, with entrances having small columns or pilasters.

Stylistic features are derived from buildings of the Italian Renaissance and also from the buildings of southern France and Spain. Most of the buildings of this style in the Fourth and Gill Historic District are from the early-20th century and are considered part of the Second Renaissance Revival.

SITE AND SETTING

Design elements like fencing and landscaping may not be subject to a Certificate of Appropriateness if they do not require a building permit. Yet, they strongly affect the appearance of houses in the Fourth and Gill Historic District. The recommendations given below should be helpful to property owners who are interested in making sympathetic changes to their houses. HZC staff is also available to advise property owners if they so desire.

Landscaping

Hedges were often used to mark the edges of building lots. Foundation plantings were not used in the way they are used now, at least in the early history of Fourth and Gill, in part because shrubbery plated close to the houses could harm them. It blocked the movement of light and air on the foundation, and invasive roots could harm the masonry. By the early 20th century, massive foundation plantings had become more common. Building materials were also more durable and better able to withstand the constant moisture they held do the foundation. It is still preferable, at least for the maintenance of the building, that very large foundation plantings be kept several feet out from the base of the house. If the house is one of the oldest ones, which uses softer mortar and brick in its foundation, large plantings should be removed from the foundation so the house can dry out properly after it rains. If there is shrubbery at the foundation it

should be small when it is mature and not obscure the foundation or block the windows of the structure.

Shade trees were also common in Fourth and Gill. They may have been planted in an informal design, but they may also have been street trees, planted at regular intervals along the curbs. Over time, many of the trees in the neighborhood have died or been cut down because of age and disease, and have not been replaced.

The residents of Fourth and Gill are urged to replant the trees, using native varieties such as oak or maple species and taking care that their mature height will not interfere with the houses or utility lines in the area.

Driveways and Paving Materials

Some driveways existing in the Fourth & Gill Historic District, and sidewalks also provide paved surfaces in the neighborhood. The original designs, materials, and placement of these features should be preserved if possible. New curb cuts and parking lots should be kept to a minimum. The addition of curb cuts results in removing historic sidewalks, curbs, or retaining walls. Access through alleys is preferable to adding curb cuts, or allowing front yard parking. Traditional driveway paving materials include smooth concrete or the "diamond chip" paving prevalent in Knoxville in the late 1890s.

STRENGTHENING THE EDGES OF THE DISTRICT

The Fourth and Gill Historic District does not extend to the major streets of Broadway or Fifth Avenue. Yet, the appearances of those streets is important to the neighborhood. Their appearance introduces the neighborhood to travelers in the area, and can help the visitors identify the history resource. The appearance of those streets can also enhance the property values and appearance of the historic district.

Areas along Broadway and Fifth Avenue are already developed, and the development pattern can be enhanced to the benefit of the commercial enterprises and the neighborhood. Also, where commercial development abuts the neighborhood, it is important that a "wall" or edge be developed, through landscaping or other improvements, so that the residents are protected from noise and visual intrusions.

If additional commercial development occurs adjacent to the historic district, the back edges of the development should be intensively landscaped with a mixture of evergreen and deciduous trees in at least a twenty-foot strip in order to form a firm edge and buffer for adjacent residential development.

Any redesign of the interstate system bordering the neighborhood should create a minimum of intrusion to the neighborhood. Design options such as a depressed roadway, extensive landscaping to buffer adjacent residential areas from traffic noises and fumes, sound barriers to protect residents from the noise emanating from expressway traffic, sympathetic to the design of adjacent historic buildings, and fencing compatible in design with the historic character of the adjacent residences should be significant considerations.

Public Improvements

The HZC does not regulate public improvements. The following are suggestions for public agencies making such improvements. They are included because changes may in the public right-of-way of the neighborhood have a significant impact on the historic district.

Several distinctive public features survive from the earliest days of the neighborhood. These include sidewalks of brick laid in a herringbone pattern, stone curbs, brick gutters, and the "diamond chip" sidewalks that can be found throughout the neighborhood.

There is also, in front of 1028 Luttrell, a shield-shaped bronze plaque embedded in the sidewalk with lettering denoting "Walter E. Aurin - Real Estate Home on Easy Terms - Knoxville." All of these features should be retained.

In addition, street lighting can have a significant impact on the historic district. More modern lighting, with high intensity fixtures on metal standards or tall wood poles, is not appropriate to the design of the neighborhood and may be intrusive. The height of the modern fixtures means that the light from them is often level with second-story windows and shine directly into the houses.

Fourth and Gill was built as a pedestrian neighborhood. Every attempt should be made to retain its pedestrian character through the design and maintenance of sidewalks, plantings and landscaping, and lighting. In this case, the active use of the neighborhood by its residents also adds to its character. Encouraging that use through retaining the pedestrian scale is an important part of retaining the neighborhood's history.

Recommendations

Retain and replace the brass street name markers and concrete corner street name markers that were originally located throughout the neighborhood.
Repair or replace the original sidewalks that can now be found in the neighborhood with material that duplicates the historic material.
Retain and repair all brick gutters and sidewalks, and stone curbs that can be found in its original locations.
Consider installing Victorian-era street lamps as replacements for existing lighting.

Mechanicsville

BRIEF HISTORY OF THE DISTRICT

Mechanicsville's name comes from the large number of factories that were located near the area during the late 19th and early 20th centuries. The factories employed "mechanics" who lived in Mechanicsville. The neighborhood was settled around 1880.

The area of present day Mechanicsville that contains the most intact number of historic structures was developed originally as three subdivisions, Deaderick's Addition, J.W. Swann's Addition, and Moses Fairview Addition. This area contains the larger Queen Anne and Italianate houses built for factory owners and area businessmen and smaller cottages built for factory workers.

By 1883, Mechanicsville had a population of over 2,000 people. The fire station in the area, Fire Station No. 5, was built in 1909. A February 4, 1883, newspaper article in The Tribute described a bustling atmosphere with factories, handsome residences, small but comfortable cottages, three churches, two schools, six grocery and general stores, a greenhouse, and four stores. Mechanicsville was annexed to the city in 1883. At that time the neighborhood had the largest number of manufacturers in Knoxville. Among the industries located there were the Knoxville Iron Company, which probably manufactured many of the wrought iron fences still seen in Mechanicsville, a planning mill, and brewery.

Mechanicsville has changed over time. There were years of deterioration in the community. In the 1980's a group of "Urban pioneers" began moving into Mechanicville and once dilapidated buildings were brought back to life.

The neighborhood still contains churches, small commercial business, nonprofit organizations, gas stations, and a large grocery store. In 2007 "new" Victorian structures were built where there once stood empty lots. Across from Fire Station No. 5, a community park (Olde Mechanicsville Park) was developed by its residents, local businesses, and the City of Knoxville.

Mechanicsville is significant for its history, its people, and its architecture and presents an important picture of growth and development in early 20th century Knoxville.

ARCHITECTURAL STYLES OF THE DISTRICT

Old Mechanicsville contains distinctive architectural styles that date from the late 19th and early 20th centuries. As is true with most of the historic architecture in Knoxville, there are very few "pure" styles. Instead, the styles found in the Old Mechanicsville H-1 Historic Overlay District draw characteristics from several styles to form an eclectic mix. Styles most representative of the neighborhood are discussed in this section with drawings that illustrate that style's characteristics.

Craftsman/Bungalow

Buildings of this style have low-pitched gable roofs with wide eave overhangs. Roof rafters are visible. Decorative beams and knee braces are widely used on Craftsman houses. Porches usually stretch across all or most of the front facade, with a roof supported by tapered or square columns, or by posts resting on piers or a balustrade. Dormers are used extensively. Weatherboard is a common wall surface material. Windows are usually double-hung. The upper sash has three, four, or more panes, while the lower sash has one.

Eastlake

The Eastlake style was developed by Charles Eastlake as a furniture style and is often associated with interior design. It was also used at the same time as the Queen Anne and is similar to it. It was quickly seized on by the era's builders and architects. It is more vertical than the Queen Anne style, with more massive wood trim, usually formed by a chisel or gouge. Rows of spindles and beaded trim are common. Roof shapes, materials, windows, and massing are typical of the Queen Anne style, with design details differentiating the two.

Folk Victorian

Another style present in the Old Mechanicsville Historic District is Folk Victorian, which usually highlights a front gable and trim derived from Queen Anne style. Full length porches with chamfered or turned posts are common, and double-hung windows are prevalent. In some instances, a style thought of as Folk Victorian may have been classified as a more elaborate Queen Anne in its original design. Over the years, as trim decayed and was removed, the building's style has been simplified so what remains is perceived to be Folk Victorian.

Italianate

Italianate houses are typically two- to three-story houses with a rectangular floor plan and a formal balance in design. A low-pitched hip roof with a cupola or tower is among the style's most defining features. These roofs commonly have overhanging eaves with large decorative brackets. Central one-bay porches or long porches commonly feature elaborate detailing such as Corinthian columns, chamfered posts, and paired brackets. Other common details of this style include stringcourses, quoins, tall segmental or fully rounded arched windows, eyebrow lintels, crowns, and window hoods. Doors often in the same shape as the windows, are commonly paired. Andrew Jackson Downing also popularized the Italianate style in his pattern books of the 1840's and 1850's.

Neoclassical

Facades of Neoclassical houses may feature columns the full height of the two-story building; however, one-story cottages are also present. Houses usually have a full or partial-width porch with columns. Symmetrical front façades and multiple-pane glazing in double sash windows are used, especially on the front façade.

Queen Anne

The Queen Anne style was popularized by 19th century architect, Richard Norman Shaw, but has nothing to do with the time of Queen Anne's reign in England, which was from 1702-1714. The first American example of Queen Anne style is thought to be the Watts Sherman house in Newport, Rhode Island, built in 1874. By 1880, architectural pattern books were spreading the style throughout the country. The expanding railroad system helped to popularize it by making pre-cut architectural details widely available.

The Queen Anne style contains varied, exuberant architectural elements. Details from many other styles are reinterpreted and captured in Queen Anne design. Queen Anne houses have irregular floor plans, large porches, and elaborate decoration on exterior surfaces. Roofs are steeply pitched. Some have coverings of colored slate, patterned oversized asphalt shingles, or terra cotta tiles. Ornamental wood shingles, with a diamond, square, or fish-scale pattern, are often used on gables. Turned wood porch columns usually have trim of elaborately sawn wood, lacy spandrels, spindle work, beaded balusters, and ornamental attic vents, bargeboards, or windows.

Windows may be leaded and stained glass, and transoms and sidelights are often found. A Queen Anne window of small square stained glass panes surrounding a large central pane is common. The Queen Anne window may be one or both sashes of a double-hung window.

Queen Anne Cottage

The Queen Anne Cottage grew out of the Queen Anne style. It could have been either a product of an architect's design or designed by a builder. One or one-and-one-half stories in height, it usually has a hip and gable roof, corbelled interior chimneys, and sawn wood ornamentation. The Queen Anne Cottage has a large front porch. Wood columns that may be turned, chamfered, or rounded usually support the porch roof. Brackets, sawn wood or louvered attic vents, and spindle work balustrades are often found. Windows are double sash, with either two over two panes or one over one. There may be transoms and sidelights with leaded and/or stained glass. Wall coverings are usually weatherboard. There may be patterned wood shingles in gables, with wood louvered or sawn wood attic vents, and sawn wood bargeboard. A Cottage window, an early form of the picture window, is often found in Queen Anne Cottages. It consists of a large fixed pane with fixed or movable transoms and narrow side windows that are double-hung sashes. The transoms and side windows are made of smaller panes, sometimes using stained, beveled, or leaded glass.

Shotgun

The term "shotgun" refers to a floor plan arrangement in which the rooms of the house open in succession from front to rear without a hallway. The term "shotgun" comes from the description that a shotgun could be fired in the front door and all of the shot would exit through the rear doorway without hitting any intervening walls. Front gable roofs are common on the shotgun house, which has a full or three-quarter front porch. They were usually worker housing. Trim is not elaborate and may be either from the Victorian era or from the later Craftsman period. Window pane configuration reflects the style of trim applied to the house. In Old Mechanicsville, it is appropriate to refer to the shotgun in connection with styles of the Victorian era because the trim and ornamentation of most of these houses are reflective of that period.

Old North Knoxville

A BRIEF HISTORY OF THE DISTRICT

Old North Knoxville was developed as part of the incorporated city of North Knoxville. Its growth was a result of the expansion of the streetcar system, Knoxville's booming economy and growing population after the Civil War, and other technological advances that made suburban living desirable. The long straight streets of Old North paralleled the streetcar line. The automobile did not have a major influence on Knoxville until the 1920s so there are only a few driveways or garages in the neighborhood; most of them were built after 1920. Some carriage houses remain behind the oldest houses, but most people did not own a horse and carriage. They depended on the streetcars for transportation and used neighborhood sidewalks to reach the streetcar lines.

Several original subdivisions make up the current Old North Knoxville Historic Overlay District. Within each of these subdivisions, streets are laid out in a grid pattern, usually parallel with the nearest major street (Broadway or Woodland) where a streetcar could be found. Old North is a typical streetcar suburb, with a strong pedestrian orientation guiding its design. Most of its residents walked to their homes from the streetcar stop. The blocks were rectangular with parallel streets and service alleys. Interesting angles were formed where the streets met.

The town of North Knoxville was incorporated on January 16, 1889. Larger than the current Old North Knoxville neighborhood, it was a series of speculative real estate expansions that reinforced the image of a desirable residential area. The town grew rapidly. The city of North Knoxville provided a central water supply touted as superior to the neighboring Knoxville's water. It had improved streets (unlike some areas of Knoxville), fire protection, a city hall, and a school for approximately 100 students. Electric lights were installed in 1899. City gas lines and a sewer system were planned, but not built before Knoxville annexed North Knoxville in 1897.

The architectural styles in the neighborhood reflect economic conditions and living customs of the late 19th and early 20th centuries. The houses range from the large middle and upper-class areas developed along Oklahoma, Scott, Glenwood, and Armstrong Avenues to the smaller homes found on some sections of Oklahoma, Harvey Street, and other locations. The smaller homes are worker housing that emerged during Knoxville's industrial revolution, some of it tied to the Brookside Knitting Mill then located on Baxter Avenue, and some located in the neighborhood because the streetcar lines were available. Many late-19th century neighborhood residents worked for the Southern Railway. There are particularly good examples of Victorian-era shotguns and cottages located on Harvey Street.

Architects probably designed many of Old North Knoxville's houses, but most of the information that credits their design has not been discovered. However, it is known that homes by George Barber, his son, Charles Barber, and David Getaz are located in the neighborhood. Most of the buildings are distinctive architecturally with a high degree of ornamentation.

The buildings of Old North Knoxville make a unified statement about Knoxville's history and architectural development. Although changes have occurred to the neighborhood since its establishment, the houses and public improvements remain very intact. Efforts of Old North Knoxville, Inc., the neighborhood association, have been instrumental in creating a climate for restoration and rehabilitation activities, and in publicizing the neighborhood and its attributes. Designation of Old North Knoxville as a local historic district has reinforced past activities in the neighborhood, helping to create a strong, viable residential section that contributes to Knoxville's progress while symbolizing its history.

ARCHITECTURAL STYLES OF THE DISTRICT

Old North Knoxville contains distinctive architectural styles that date from the late 19th and early 20th centuries. As is true with most of the historic architecture in Knoxville, there are very few "pure" styles. Instead, the styles found in Old North Knoxville's Historic Overlay District draw characteristics from several styles to form an eclectic mix. Styles most representative of the neighborhood are discussed in this section, with drawings that illustrate that style's characteristics.

LATE NINETEENTH CENTURY STYLES

The last half of the 19th century saw a shift from the restrained, classical designs of Georgian, Federal, and Greek Revival to the textured, varied designs of the

Victorian era. By the time house were being designed and built in Old North Knoxville, in the late 1800s, these Victorian designs were well established.

Queen Anne

The Queen Anne style was popularized by 19th century architect Richard Norman Shaw, but has nothing to do with the time of Queen Anne's reign in England, which was from 1702-1714. The first American example of Queen Anne style is thought to be the Watts Sherman house in Newport, Rhode Island, built in 1874. By 1880, architectural pattern books were spreading the style throughout the country. The expanding railroads helped to popularize it by making pre-cut architectural details widely available.

The Queen Anne style contains varied, exuberant architectural elements. Details from many other styles are reinterpreted and captured in Queen Anne design. Queen Anne house have irregular floor plans, large porches, and elaborate decoration on exterior surfaces. Roofs are steeply pitched. Some have coverings of colored slate, patterned oversize asphalt shingles or terra cotta tiles. Ornamental wood shingles, with a diamond, square or fish-scale pattern, are often used on gables. Turned wood porch columns usually have trim of elaborately sawn wood, lacy spandrels, spindle work, beaded balusters, and ornamental attic vents, bargeboards, or windows.

Windows may be leaded and stained glass, and transoms and sidelights are often found. A Queen Anne window of small square stained glass panes surrounding a large central pane is common. The Queen Anne window may be one or both sashes of a double-hung window.

Queen Anne Cottage

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Eastlake

The Eastlake style was also used at the same time as the Queen Anne and is similar to it. It was developed as a furniture style, and quickly seized on by the era's builders and architects, so it is often thought of first with interior design. It was developed by Charles Eastlake. It is more vertical than the Queen Anne style, with more massive wood trim, usually formed by a chisel or gouge. Rolls of spindles and beaded trim are common.

Shotgun

The term "shotgun" refers to a floor plan arrangement in which the rooms of the house open in succession from front to rear without a hallway. The term "shotgun" comes from the description that a shotgun could be fired in the front door and all of the shot would exit through the rear doorway without hitting any intervening walls. Front gable roofs are common on the shotgun house, which has a full or three-quarter front porch. The houses were usually worker housing. Trim is not elaborate, and may be either from the Victorian era or from the later Craftsman period. Window pane configuration reflects the style of trim applied to the house. In Old North Knoxville, it is appropriate to refer to the shotgun in connection with the styles of the Victorian era, because the trim and ornamentation of most of these houses is reflective of that era.

Folk Victorian

Another style present in the Old North Knoxville Historic Overlay District is Folk Victorian, which usually highlights a front gable and trim derived from Queen Anne styles. Full-length porches with chamfered or turned posts are common, and double-hung windows are prevalent. In some instances, a style thought of as Folk Victorian may have been classified as a more elaborate Queen Anne in its original design. Over the years, as trim decayed and was removed, the building's style has been simplified so that what remains is perceived to be Folk Victorian.

EARLY-TWENTIETH CENTURY STYLES

After 1900, the style of buildings gradually began to change from the elaborate Victorian-era designs to simpler designs. Some of these were revival styles, based on earlier historic precedents.

Particularly popular were Colonial and Neoclassical Revivals, but an interest in history also encouraged styles drawn from the Spanish Colonial, Dutch Colonial,

Tudor, and Italian Renaissance periods. Another design emphasis involved the Prairie, Bungalow, and Craftsman designs. The Craftsman design particularly used exposed rafters and structural elements. These stylistic influences are particularly notable in the porch designs of Old North Knoxville. Many houses that are obviously derived from Victorian-era styles in their interior massing, room arrangements, and trim details exhibit Neoclassical or Colonial porches that were altered after the beginning of the 20th century. A collection of houses on Grainger Avenue and Leonard Place were originally designed as Queen Anne Cottages with Craftsman detailing on their porches. Others were designed initially with interior and exterior designs reflecting the early-20th century styles.

Neoclassical

Facades of Neoclassical house may feature columns the full height of the two-story building; however, one-story cottages are also present. Houses usually have a full or partial-width porch with columns. Symmetrical front facades and multiple-pane glazing in double-hung sash windows are used, especially on the front facade.

French Eclectic

This style is based on precedents provided by French domestic architecture. The style may be symmetrical, asymmetrical, or towered, usually displays brick, stone, or stucco wall cladding, flared eaves, and a tall, steeply-pitched hipped roof. Doors may be in arched or flat openings. Windows may be either double-hung or casement windows. If they are casement sashes, they may have small leaded panes. French doors are often used.

Minimal Traditional

This style was dominant after the 1920s and has a conservative, simple form of detailing. Eaves are usually small or flush, roof shapes are low-pitched (6/12 to 8/12) and porch hoods or covered porticos are common. Windows are usually double-hung, with multiple lights in each sash. Facades may be either symmetrical or asymmetrical.

Colonial Revival, Tudor Revival, and Dutch Colonial Revival

These styles were used in the same time period, and have many universal characteristics. Steeply-pitched roofs, usually gabled, characterize the Tudor Revival style, which also uses half-timbering, tall, narrow windows, and massive chimneys. Stucco or masonry is often used as a wall covering material, along with weatherboard. Dutch Colonial Revival buildings use a mansard roof, while Colonial Revival styles use a gable end roof. All may use six-over-six, double-hung windows and details such as dentil molding. Entry porticos supported by slender columns, or front stoops, were common.

Craftsman and Bungalow

Buildings of this style have low-pitched (8/12 or lower) gable roofs with wide eave overhangs. Roof rafters are visible, and decorative beams and knee braces are widely used on Craftsman houses. Porches usually stretch across all or more of the front facade, with a roof supported by tapered or square columns, or by posts resting on piers or a balustrade. Dormers are used extensively. Weatherboard is a common wall surface material. Windows are usually double-hung, although casement windows are becoming more prevalent. The windows have upper sashes with three, four, or more lights, while the lower sash has one. Bungalows differ from Craftsman styles in having much simpler ornamentation, with a more limited use of exposed rafters and exposed trusses or braces.

American Four Square

Like the Shotgun house discussed previously, a description of this form has more to do with the massing of the house and the stylistic changes demanded by that massing than with the exterior trim details found on the building. It was used from the 1900s through the 1930s and is recognized by its square appearance and often hipped, pyramidal roof. Front dormers are often used. The house is almost always two or two-and-one-half stories in height, and interior spaces are arranged into four main, square or nearly square spaces. A full-length front porch is most common in these buildings. Detailing on the house may be from any of the styles common in the early 20th century. Sidelights and transoms are often used on an American Four Square, and these may be of leaded, stained, or beveled glass. Double-hung sash windows are usually used, and they may have a patterned upper sash or may be in a one-over-one configuration.

SITE AND SETTING

Every attempt should be made to retain the neighborhood's pedestrian character through the design and maintenance of sidewalks, plantings and landscaping, and lighting. In this case, the active use of the neighborhood by its residents also adds to its character. Encouraging use through retaining the pedestrian scale is an important part of retaining the neighborhood's history.

Landscaping

The HZC does not require Certificates of Appropriateness for the installation of landscaping in the yards of the district. However, there are considerations that property owners should keep in mind because of their appropriateness for the buildings, and because improperly installed landscaping can endanger the structural integrity of buildings.

Large foundation shrubbery should not be planted or maintained near houses. It can create damp conditions around the foundation that can harm the structure. If there is shrubbery at the foundation it should be small when it is mature and should not obscure the foundation or block the windows of the building. Shade trees were common in the district. They may have been planted in an informal design, but they may also have been street trees, planted at regular intervals along the curbs. Over time, many of the trees in the neighborhood have died or been cut down because of age and disease, and have not been replaced.

Residents are urged to replant trees, using native varieties such as oak or maple and taking care that their mature height will not interfere with the utility lines in the area, or endanger the houses.

Street Lighting

Street lighting can have a significant impact on the historic district. The neighborhood has made progress in securing and installing replicas of Victorian era streetlights. More modern lighting, with its high intensity fixtures on metal standards or tall wood poles, is inappropriate to the design of the neighborhood. The height of modern fixtures, which was designed for subdivisions of one-story houses, means that the light from them is often level with the second-story windows and shines directly in the bedrooms located there.

Paving Materials

Paving materials and their design should respect the historic precedents found in the historic overlay district (H-1). Asphalt and gravel are unacceptable materials for driveway pavement and walkways, and residents installing driveways should consider retaining or reinstituting a grass strip separating the two paved concrete treads.

The concrete mix originally used for sidewalks and streets in the neighborhood has been called "diamond chip" material. Two features distinguish this paving material: 1) the sand used in the mix was river sand, which was not a whitish-gray color, and 2) the aggregate was made of materials remaining from the process of East Tennessee marble, and was gray, white, pink, or soft brown in color, rather than the tans and browns found in gravel mined from streams. While the aggregate material is no longer available, the river sand is, and any paving in the neighborhood should use a mix that relies on river sand rather than washed builder's sand.

Another distinctive feature that may be found in the public right-of-way includes "singing pavement" or "Granitoid" pavement, originally located on many neighborhood streets. This paving material should be retained, and should be installed as new street paving. Brick sidewalks, with brick laid in a herringbone pattern, and brick gutters and stone curbs were once more common in the neighborhood than they are now. Brass street markers remain embedded in many of the sidewalks. They should be retained in the event of street repaving, and should be replaced where they are missing.

STRENGTHENING THE EDGES OF THE DISTRICT

The Old North Knoxville Historic District does not in most cases extend to the major streets of Broadway, Woodland, and Central. Yet the appearance of those streets is important to the neighborhood. An attractive streetscape can serve to identify the neighborhood and help to enhance property values in the area. The neighborhood has recognized this potential and has installed entrance signs and neighborhood banners.

Areas along Broadway and Central have been developed with many surface parking lots. This pattern can be improved only gradually as infill construction is proposed. In areas where commercial development abuts the residential neighborhood, it is important that an edge be developed through landscaping or other improvements to screen out noise and visual intrusions.

RECOMMENDATIONS

Public lands along First Creek, the public housing development bordered by Armstrong, Baxter, and Anderson, and the Sears Building/Knox County Archives would benefit from landscaping to form an attractive edge along abutting residential areas. The First Creek Greenway has been an asset to residents of the district as well as to other Knoxvillians. The

neighborhood should continue to linkage with other greenways.

New commercial development should be intensively landscaped with a mix of evergreen and deciduous trees within a twenty-five foot strip (minimum) in order to form a firm edge and buffer for adjacent residential development.

Any redesign of the interstate system bordering the neighborhood should be minimally intrusive. Design options such as a depressed roadway, extensive landscaping, sound barriers to buffer the adjacent residential areas from traffic noise and fumes, and fencing or wall design that is compatible with the district should be significant considerations.

Central Avenue

- From Broadway to Oklahoma Avenue, where commercial and light industrial development of both large and small scale occur, use landscaping to the rear of the buildings to establish an edge and buffer the adjacent residential neighborhood from commercial activity.
- Plant street trees along Central from Broadway to Woodland Avenue where they do not exist.
- From Oklahoma Avenue to Scott Avenue, landscape the front yards of residential-scale development. Retain the front setback for new construction in that block.
- From Oklahoma Avenue to Woodland Avenue, install landscaping to enhance the front yards of residential-scale development.
- At the northwest corner of Scott Avenue and Central Street, install a landscaped "island" near the curb to reinforce this major entrance to the district.

Woodland Avenue

- Retain the current residential setback the entire length of Woodland Avenue. Install landscaping and street trees to form an edge and buffer along the residential neighborhood.

Broadway

- Install street trees from Central Street to one-half block north of Grainger Avenue.
- Retain a residential setback that mimics the setback of existing buildings from Central Street to one-half block north of Grainger Avenue.

Historic District Design Guidelines

Historic Materials and Architectural Features

1. **Retain and preserve historic building materials.**
   A. Protect historic building materials and features from deterioration.
   B. Maintain protective coatings on historic materials.
   C. Provide adequate drainage to limit standing water on horizontal surfaces.
   D. It is not appropriate to remove historic materials that are intact or repairable.
   E. It is not appropriate to introduce new features and details that are not part of the building historically and for which there is no physical, photographic, or documentary evidence.

2. **Use the gentlest means possible when cleaning historic materials.**
   A. Clean historic materials only when necessary to stop deterioration or remove graffiti, heavy soiling, or biological growth. General cleaning should otherwise be avoided so as not to unnecessarily introduce moisture into materials.
   B. Start with a low pressure water washing and a soft, natural bristle brush when cleaning is necessary.
   C. It is not appropriate to use abrasive cleaning methods such as high pressure water washing or sandblasting, which can easily damage historic materials and lead to additional deterioration.

3. **Repair deteriorated but repairable historic materials before considering replacement.**
   A. Repair deteriorated materials by using accepted preservation treatments.
   B. Match repairs to original materials in appearance, profile, texture, and finish.
   C. If disassembly of a historic building feature is necessary in order to complete a repair or avoid inadvertent damage to surrounding features, document the configuration of the feature and reassemble accordingly once finished.
   D. It is not appropriate cover historic materials instead of appropriately repairing them.

4. **When necessary, replace historic materials in-kind.**
   A. Replace only the portions of a feature that are deteriorated beyond repair. Avoid wholesale replacement of otherwise intact features or materials.
   B. Replace deteriorated or damaged materials with replacement materials that match the original in dimension, detail, profile, texture, and finish.
   C. Use replacement designs based on historical, photographic, and/or physical evidence.
   D. Alternative materials will be considered on a case-by-case basis in consideration of the building feature and the proposed material's durability and compatibility.
   E. Alternatives to traditional materials other than wood may be utilized on new construction, additions, and contributing historic structures if the Historic Zoning Commission determines that the alternative material adequately simulates the traditional or original material. Faux wood-grained finishes on alternative materials do not adequately simulate wood.

5. **Consider removal of replacement materials and finishes that cover historic materials.**
   A. Repair uncovered historic materials in accordance with the guidelines.
   B. If removing paint, stain, stucco, or other claddings, select a localized area to test the removal process to ensure that materials will not be damaged.

6. **Ensure compatibility when replacing missing features.**
   A. Use a design based on historical, photographic, and/or physical evidence and documentation to recreate missing components.
   B. In the absence of appropriate documentation, utilize a simple design that is compatible to the house in scale, profile, materials, and finish.

Masonry

1. **Protect and maintain original masonry surfaces and features.**

   A. Maintain the original color and texture of masonry materials.

   B. Provide positive drainage away from foundations to move water away from the foundation wall.

   C. Maintain clear distances between plantings and the foundation wall in order to limit the potential for moisture to be trapped against the wall by vines or vegetation.

   D. Maintain protective paint coatings where historically present.

   E. It is not appropriate to paint or stucco historically-exposed masonry surfaces.

   F. It is not appropriate to remove protective patinas that evolve over time and are part of the building's character.

   G. It is not appropriate to sandblast or use abrasive methods to clean masonry materials.

2. **Repoint deteriorated mortar joints.**

   A. Repoint mortar joints only where there is evidence of moisture problems, material breakdown, or sufficient erosion to allow standing water in the joint.

   B. Prepare joints by using hand tools, removing ½" to 1" of old mortar to provide sufficient space to bond new mortar.

   C. Repoint mortar with materials matching the original in composition, color, and texture. High lime mortars and hydraulic cements are generally preferred for repointing historic masonry.

   D. Match the size and profile of the repointed joint to the original joint.

   E. Using inflexible mortars with high amounts of Portland cement, which are incompatible with historic soft mortars that accounted for expansion and contraction of masonry materials, is not appropriate.

3. **Replace deteriorated or missing masonry units or features in kind.**

   A. Replace only the sections of historic masonry that are missing or deteriorated.

   B. Use new or recycled masonry materials that match the original as closely as possible in size, shape, color, and texture.

   C. If a historic masonry feature is missing, replace it with a new feature that, based on photographic documentation or comparable features elsewhere on the building, matches the original in size, material, texture, and scale.

   D. Replacing large sections of intact masonry materials is not appropriate.

   E. It is not appropriate to use materials such as artificial stone or apply a brick veneer as a substitute for appropriate replacement of deteriorated masonry.

MASONRY SEALANTS

Applying waterproof or water repellent coatings to masonry is generally not appropriate. Not only can they alter the appearance of masonry, but sealing a foundation can also prohibit the natural movement of moisture through masonry, ultimately trapping it and causing additional deterioration. Sealants are not to be used as a substitute for appropriately repairing deteriorated materials. Sealants are only to be applied in rare circumstances where moisture can be demonstrated to be uncontrollably infiltrating masonry and when the method of infiltration is understood.

In instances where use of a sealant is determined appropriate, coat only the masonry that is affected. It is not appropriate to unnecessarily seal masonry that has no demonstrated infiltration. Apply sealants only on dry masonry. Treating masonry will damp can unintentionally trap damaging moisture inside the masonry.

Wood

1. **Identify, retain, and maintain historic wood siding, shingles, trim, and architectural features.**
   A. Protect wood surfaces and features from deterioration by providing a protective, weather-resistant coat of paint or stain.
   B. Identify, evaluate and treat the causes of wood deterioration, including faulty flashing, leaking gutters, cracks and holes in siding, deteriorated caulking at seams, plant material or insect or fungus infestation.
   C. Apply chemical preservatives to historically exposed wood features such as ends of beams or rafters.
   D. Remove deteriorated protective coatings to the next sound layer by hand scraping and then repaint. It is not appropriate to use damaging methods such as a propane torch to remove paint.
   E. Stripping surfaces to bare wood or applying a stain where surfaces were historically painted is not appropriate.
2. **Repair deteriorated wood elements as character-defining features.**
   A. Repair deteriorated wood surfaces by patching, consolidating, splicing, or otherwise reinforcing deteriorated sections.
   B. Match repairs to original materials in appearance, profile, texture, and finish.
   C. When patching or splicing deteriorated wood components, use timber that matches the grain and density of existing materials.
   D. When repairing deteriorated components, retain unique details such as beaded edges, bevels, or fish scale patterns.
3. **Maintain compatibility when replacing wood features that are deteriorated beyond repair.**
   A. Repair materials and features with components that match the original in material, dimension, detail, profile, and texture.
   B. Use only wood siding in the replacement of deteriorated claddings on wood frame buildings. Artificial brick or stone, asphalt shingles, vinyl siding, and other such materials are not appropriate.
   C. Atlantic White, poplar, and cedar are preferred materials for replacement siding.
   D. Use of fiber cement board as a replacement material is generally not appropriate on historic primary buildings. See sections of the guidelines for use on outbuildings and new construction.
   E. Use a replacement siding with a 4" reveal to match the profile of historic materials.
   F. Paint all six sides of new siding in order to provide a consistent protective coating.
   G. Replace missing wood features with elements based on historical, photographic, or physical evidence of the original feature. In the absence of such evidence, use a design that is compatible with the building in scale, size, material, and texture.

SALVAGED TIMBER

When completing repairs or replacing deteriorated sections of wood features, using salvaged timber goods is a viable, sustainable option in many circumstances. Salvaged timber of old growth materials can be found in some architectural salvage yards and can be reclaimed for reinstallation, reducing the impact of timber harvesting and embracing embodied energy in previously cultivated goods. To prepare salvaged timber, remove all paint and finishes and sand to a smooth, feathered edge. Fill any holes or hairline cracks with epoxy filler and then finish to match existing finishes.

THE SIMPLE TRUTH ABOUT VINYL SIDING

Under no circumstances is the installation of vinyl replacement siding an appropriate solution as part of a rehabilitation project. Not only is vinyl an extremely environmentally unfriendly project, but it significantly detracts from the historic character of the building to which it is applied, as well as the district as a whole. Furthermore, vinyl siding is not a cure-all, despite what marketing materials often claim. The truth is that "maintenance-free" claddings such as vinyl siding are not actually maintenance free. Rather, maintenance free means that the material is not easily repairable, which is just one of many problems with the material:

Vinyl siding traps moisture. Artificial claddings such as vinyl siding are considered a non-permeable material. While this means that moisture cannot penetrate the material, it also means that any moisture that gets behind the cladding will be trapped and unable to dry out to the surface. As water runs along the building materials behind siding, it will look for areas to penetrate into the building.

Vinyl siding cannot be repaired. Just like every other material, vinyl siding deteriorates. It can dent, warp, crack, discolor, sag, or fade. While timber and masonry elements can be patched and repaired on a localized basis as needed, vinyl siding cannot be easily repaired. When a piece fails, the entire piece must be replaced.

Vinyl siding masks deterioration. Installing vinyl siding may hide underlying deterioration of wood or masonry, but it will not make the problem go away. Often times, it will actually cause the problem to worsen, and, with the problem out of sight, it has the effect of causing the homeowner to forget about the deterioration while it continues behind the siding. Should the homeowner decide to eventually correct the problem, vinyl siding prohibits easy access to the materials below.

Vinyl siding changes the character of a building and the district. Significantly, vinyl siding destroys the visual integrity of a historic building. Scale, textures, profile, and colors are all altered when vinyl siding is installed. Furthermore, architectural features and details are often lost, concealed, or removed by the installation of vinyl siding, which results in less visual interest within the district.

PAINT COLORS

The HZC does not regulate paint color in historic districts. Although paint colors are very significant in creating a unified appearance for a historic district, they are also reversible. The HZC is most concerned about changes to the architectural fabric of buildings that can alter or diminish their historic significance. The explanation given here is to assist owners of historic properties who wish to enhance the appearance of their buildings.

When the houses in the district were new, they were often painted with darker historic colors. Many houses used several different colors in their paint scheme. The houses may have been repainted with white paint later. Since the white color is what most people remember, they may assume that white was the original color.

A paint analysis can be made to determine the original color of the home. This is true whether you are considering changing the color or not. To conduct the analysis, look for samples of the original color behind shutters or trim, or in a protected corner. These areas usually show the original colors because they have not been exposed to weather and the elements, and have not been scraped to bare wood. If the original colors cannot be determined, or if you wish to change from those colors, it is appropriate to assume that three or four colors were used in the original paint scheme of the earlier Victorian-era house. Later revival styles may have only used a two-color scheme, and white was very common with that style. Darker paint colors were used on Craftsman and Bungalow designs. It is appropriate to paint trim, window sashes, porch columns, doors, shutters, and shaped wood brackets in colors contrasting with the house siding. Window sashes were usually painted the darkest color.

Before deciding to use more than three or four colors, or to use non-historic colors, the homeowner should try to discover what colors are appropriate. Many paint companies now manufacture paint colors that replicate historic colors. Before selecting paint colors, you should consider using these historic color selections. Most importantly, if you change the color, leave an un-scraped patch in a protected place so a record of the original paint layers remains on the house. Future owners of the house, who may be interested in recreating the original color scheme, will be grateful to you for that record.

Historic houses were usually painted with a lead base, and later alkyd, paint. This paint is generally glossier than latex paint. If you decide you want to use a latex paint on the house, you should first install a good coat of primer manufactured to mask the old oil paint so that the new coat of latex paint will adhere properly. You should also use a glossy finish latex paint to more nearly replicate the original appearance of the house.

Metals

1. **Retain and preserve historic architectural metal features.**
   - A. Maintain historic architectural metals such as copper, tin, and wrought iron used in architectural details and ornamentation.
   - B. Maintain protective paint coatings, where historically present, on metal surfaces.
   - C. Clean soft metals such as copper with chemical solutions, starting by testing localized areas. It is not appropriate to use abrasive methods such as grit blasting.
   - D. Clean hard metals such as cast and wrought iron with the gentlest means possible, starting with hand scraping and wire brushing.
   - E. Repair deteriorated metal features by patching or reinforcing the original fabric.
2. **Replace deteriorated or missing features to maintain architectural integrity.**
   - A. If a portion of an architectural metal feature is deteriorated beyond repair, replace only the missing or deteriorated section rather than the entire component.
   - B. Match replacement pieces in-kind in terms of design, dimension, and texture.
   - C. If an architectural metal feature is missing, replace it with a new feature based on accurate documentation of the original design or with a new design that is compatible in scale, size, material, and color.
   - D. When replacing metal elements, avoid contact between two different types of metals as this can cause a chemical reaction that will accelerate corrosion.

Roofs

The roof shape and pitch help distinguish the architectural character of a building. Whether gabled, hipped, or a complex arrangement of multiple forms, roofs directly influence our perception of a building and play a role in defining a building's massing, volume, and presence along the streetscape. A roof can be further distinguished by any number of features, including chimney, dormers, cornices, turrets, finials, and eaves, which further contribute to the character of a building and provide variety within the district. Historically, roofing materials were also a common distinguishing feature of a roof, including standing seam metal, slate, wood or metal shingles, and terra cotta tiles, but many roofs have been re-clad with modern asphalt shingles. Retaining the original roof shape and pitch, as well as associated features, should be a priority of any rehabilitation project as changes to the roof can significantly alter the appearance of a building.

1. **Retain original roof shapes, materials, and associated characteristics.**
   - A. Maintain roofs by routinely removing debris, trimming branches that overhang the roof, and addressing damage.
   - B. Retain and preserve decorative and functional features of the roof such as dormers, finials, cresting, and built-in gutters.
   - C. Retain cornices and eaves.
   - D. It is not appropriate remove, cover, or wrap original eaves or cornices.
   - E. It is not appropriate to remove original dormers on primary facades.
2. **Retain and maintain original chimneys.**
   - A. Retain original chimneys, particularly those that are visible from the public right-of-way.
   - B. Maintain chimneys in working order to take advantage of their ventilating properties.
   - C. In instances where a chimney cannot be used, install a chimney cap to protect the chimney. Install the cap so that it does not diminish the original design of the chimney, require removal of decorative features, or damage historic materials.
   - D. If rebuilding a chimney is necessary, use historically appropriate materials such as brick or stone. It is not appropriate to use substitute materials that simulate masonry.
   - E. Altering the character of a chimney by painting, parging, or otherwise covering historically-exposed masonry materials is not appropriate.
   - F. Removing a chimney on the front slope or a visible side slope is not appropriate.
3. **Repair original roofing materials and features unless substantial deterioration warrants replacement.**
   - A. Repair original specialty materials such as tile, slate, and metal by replacing only deteriorated sections unless more than 35% of the total surface is deteriorated.
   - B. Use in-kind materials when repairing localized areas of deteriorated roofing.
   - C. Repair deteriorated flashing by installing new to match the existing. Unfinished metal flashing is not appropriate.
   - D. It is not appropriate to remove or replace original features that are deteriorated but repairable.

E. Shortening or removing original chimneys when they become deteriorated is not appropriate, particularly when readily visible from the public right-of-way. Repair deteriorated masonry in accordance with the guidelines.

4. Replace deteriorated roofing materials with compatible counterparts.

A. Preserve the original roof shape and configuration when installing new cladding materials.

B. Replace deteriorated roofing with in-kind materials, matching original materials in appearance, pattern, color, and composition.

C. Compatible substitute materials may be used if determined an appropriate match for traditional roofing materials. Low-profile asphalt or fiberglass shingles in dark shades are considered the best substitute.

D. Where large sections of specialty materials such as slate or tile are deteriorated on primary slopes, consider consolidating intact units from the rear slope for use in the deteriorated area.

E. Replace specialty roofing materials with in-kind materials. If in-kind materials are not feasible, consider alternative materials such as metal roofing or concrete shingles that mimic the appearance of traditional materials.

F. Consider salvaging intact units of specialty cladding materials when replacing roofs in order to reduce landfill waste and promote reuse of historic fabric.

G. It is not appropriate to install tar paper as a finished roof or patch roofing materials with tar.

5. Utilize gutters and downspouts that are non-intrusive to the design of the building.

A. Maintain traditional systems such as box or built-in gutters where present.

B. Replace deteriorated original gutters and downspouts in-kind, matching the material and profile of the original system.

C. Retain the original configuration of eaves when installing new gutters.

D. When installing new gutters, use half-round or box profiles in consideration of the building's historic character. Use round downspouts.

E. Scale gutters to the size of the eave.

F. Unless new gutters are of copper, select a finish with an enamel or baked-on coating or paint exposed gutters and downspouts the same color as the house's trim, first using a galvanized steel primer to prepare the surface. Unpainted aluminum gutters are not appropriate.

G. It is not appropriate to add fascia or cornice boards or enclose exposed rafters in order to accommodate modern gutters.

H. It is not appropriate to install new gutters in a manner that damages or obscures significant architectural features.

6. Minimize the impact of rooftop additions or changes.

A. Retain the original roof configuration when making additions or changes.

B. When adding an original feature that is missing, such as a chimney or dormer, base the reconstruction on historical, photographic, and/or physical documentation.

C. Design new roof additions such as dormers so that they will be inconspicuous from the public right-of-way. Rear elevations are preferred but side elevations may also be considered.

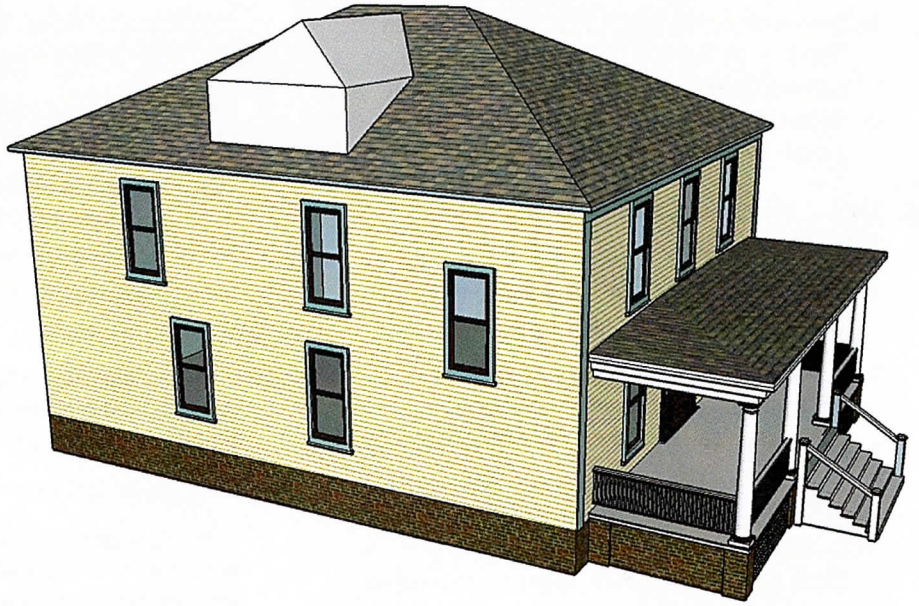
D. New dormers are to be scaled to the massing of the house and other dormers present on similar structures in the district.

E. Skylights are to be flat; bubble-profile skylights are not appropriate.

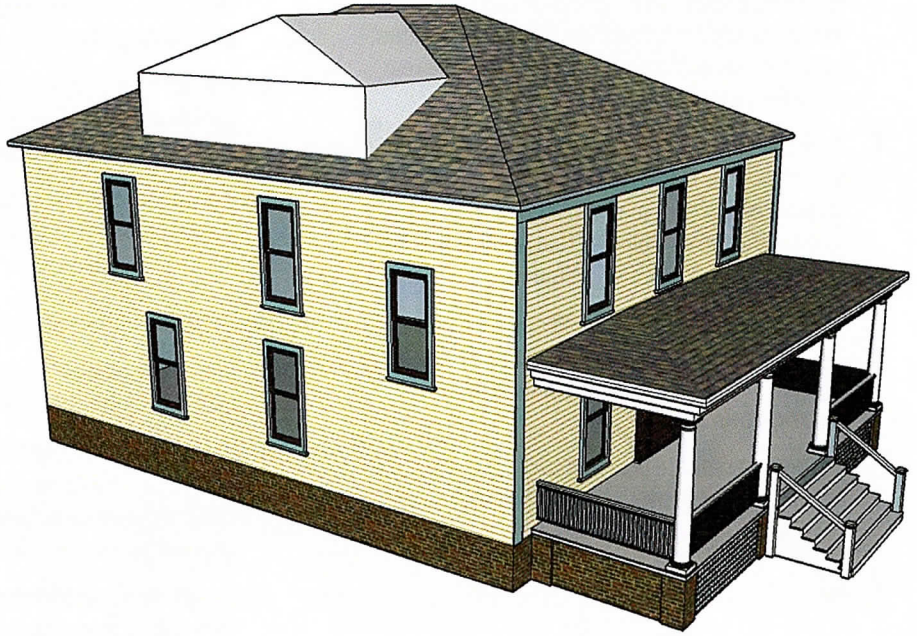
F. It is not appropriate to add dormer windows, skylights, or other architectural features to a roof if they detract from the overall character of the building as perceived from the public right-of-way.

EXAMPLE OF A DORMER ADDITION

Appropriate Scale



Inappropriate Scale



SLATE AND TILE ROOFS

Specialty roofing materials such as slate and tile require careful consideration when replacement is necessary. While replacement with in-kind materials is preferred, allowances are made for substitute materials in consideration of the broad range of roofing changes within the district. In general, the following options may be considered:

- **In-kind replacement:** Existing slate and tile roofs should be maintained as necessary in order to maximize their useful life. When deteriorated, selective repair or replacement is preferred over wholesale replacement. If replacement is necessary, consideration should be given to installing a new slate or tile roof that matches the characteristics of the original.

- **Imitation slate or tile:** In many instances, replacement of an existing roof with a new slate or tile roof may prove infeasible. In such instances, replacement of the roof with a modern material (such as metal shingles or concrete tiles) that replicates the appearance of the original material may be considered. When reviewing such materials, the HZC will consider the cost, texture, pattern, durability, and dimension of the replacement material.

- **Asphalt or fiberglass shingles:** If replacement with an in-kind or imitation roof material is not appropriate, replacement with a dimensional fiberglass or asphalt shingle may be appropriate. Dimensional shingles are preferred over standard 3-tb shingles; color, texture, and profile of the single should be evaluated against the original material.

ROOFTOP SOLAR COLLECTORS

The HZC recognizes the importance of allowing the property owner to reduce energy consumption by incorporating mechanisms that take advantage of renewable resources. One such mechanism is the installation of rooftop solar collectors, either as solar panels or solar shingles, which translate the sun's energy into usable power for the home. Installation of such features is permissible and encouraged where it can be accomplished without diminishing the historic character of the building. Use these guidelines when considering rooftop solar collectors in order to limit the potential for them to affect the aesthetic of the building:

- Ensure that the roof structure can support the weight of added collectors.
- Install solar collectors on rear roof slopes so that they are inconspicuous from the public right-of-way.
- If a house's orientation limits the utility of solar collectors on a rear roof slope, a somewhat visible location on a secondary elevation may be considered. Appropriateness will be considered regarding the size of the installation, panel arrangement, and material finish.
- Consider positioning solar collectors behind features such as dormers or chimneys in order to minimize their visibility from the public right-of-way.
- Consider installation of solar panels on secondary buildings at the rear of the lot rather than on primary structures.
- Install solar collectors so that they lay parallel to the roof surface.
- Collectors are to lay flat on the roof surface. Solar collectors are to be, at maximum, within 6" of the roof surface.
- Install solar collectors in a manner that they do not cause irreversible damage to the roof structure or require the alteration or removal of character defining-features such as chimneys, dormers, or cornices.
- Select solar collectors that are similar in color to roofing materials in order to minimize their appearance.

PORCHES

Porches are both a historically significant aesthetic and functional component of a house, and the many neighborhoods are defined by the rhythm of porches along the streetscape. Porches on the facade of the house help distinguish its street presence and help define its architectural character, whether featuring simple brick columns or intricate scrollwork. Porches also tie a building into the landscape, connecting a house to its larger setting. Porches were also historically a form of air conditioning and provided a buffer between interior and exterior temperature fluctuations. Porches also historically performed a social function, often serving as the location for the gathering of neighbors.

Porches are composed of many individual elements - columns or posts, railings and balusters, wood ceilings and floors, and decorative features - that work together to define the character of the porch. Changes to any one component of a porch can significantly alter its appearance, and, if not appropriately completed, severely detract from the overall aesthetic of the house. As such, original fabricate need to be maintained and preserved, and any changes to a porch or its components should be carefully evaluated for their potential impact on the character of the house and district.

1. **Retain and preserve original porches, including individual components.**

   A. Maintain all porches that contribute to the historic character of the building, including individual components such as railings, balusters, steps, and ornamentation.

   B. Maintain paint and stain on wood components in order to provide a weather-resistant protective coating.

   C. Retain the location and character of front porch steps.

   D. Maintain open porches on the facade. Porches at the rear of secondary elevations or on the rear elevation may be enclosed with full-height glass and minimal framing in order to retain a sense of transparency.

   E. Reopening previously-enclosed porches on primary elevations is encouraged.

   F. It is not appropriate to remove or significantly alter (including enclosing) a character-defining porch.

2. **Repair or replace deteriorated or missing porch components on an individual bases as needed.**

   A. Repair or replace only the deteriorated or missing section of a porch component. Wholesale replacement of intact components such as railings is not appropriate when only a small section is deteriorated.

   B. Repair deteriorated porch components with in-kind materials finished to match existing components.

   C. Repair deteriorated materials in accordance with the guidelines for those respective materials.

   D. Where materials are determined to be deteriorated beyond repair, use existing fabric as the basis for selecting replacement components.

   E. Where components are missing, use historical, photographic or physical evidence as the basis for replacement components. In the absence of such evidence, reference porches on nearby structures of similar style and vintage.

   F. Pressure treated wood is not appropriate on porches visible from the public right-of-way except where it comes into contact with the ground and is concealed from view. Pressure treated lumber may be used on rear porches.

   G. It is not appropriate to stock materials that do not match the character of existing fabric.

   H. It is not appropriate to replace a wood porch floor or steps with concrete.

3. **Adding a new porch must not disrupt the character or integrity of the structure.**

   A. Add a new front porch only when there is documentary or physical evidence that one historically existed, or when there is precedent in the district for porches on buildings of similar style and vintage.

   B. Select a design for reconstructed porches based on historical or pictorial evidence. In the absence of sufficient documentation, select a simplified design that is compatible with the house in terms of scale, material, and detail.

   C. New porches at the rear of secondary elevations or on the rear elevation may be constructed; however, they must not diminish the architectural character of the building as perceived from the public right-of-way.

   D. Distinguish new porches on secondary or rear elevations from the original building so that it does not create a false sense of historical appearance. Porches of a simple design are most appropriate.

   E. Select a roof shape and materials that are compatible with the overall style of the building.

   F. It is not appropriate to add a new front porch where there is no precedent for it.

INDIVIDUAL PORCH COMPONENTS

COLUMNS, POSTS, AND PIERS

A porch roof may be supported by full-height columns or posts or a short column set on a masonry pier; full-height columns may be either wood or masonry. Replacement columns and posts are to match the original component in material, profile, and texture. Non-original components are to be replaced based on photographic documentation of the original design. It is not appropriate to replace full-height columns with short columns set on piers.

RAILINGS/BALUSTRADES

Balustrades may be composed of either wood or masonry components. When replacing original wood components or reconstructing missing features, consider the following:

Newel Posts

- Match the profile (square or round) to that of the balusters unless historically different.
- Only use turned newel posts where historically present. Using turned newel posts where square or round profiles were originally present is not appropriate.
- Unless the top rail extends across the top of the newel post, finish the post with either a flat or decorative cap based on documentation and/or precedent within the district.

Balusters

- Match the profile of original balusters when selecting replacement components.
- Where constructing a missing element, base the design on documentation or employ a simple design scaled to the house.
- Spacing of balusters must meet building code.
- Balusters are to span the entire area between the top and bottom rail.

Rails

- Match the profile of the top rail when replacing deteriorated components.
- Use photographic documentation when reconstructing missing elements. In the absence of detailed documentation, use a simple profile.
- The bottom rail is to be consistent with the design of the top rail. It should be suspended at least two and no more than five inches above the porch floor.

Where masonry is utilized, repoint mortar and repair deteriorated masonry in accordance with the material guidelines. The configuration of masonry components are not to be altered. Replacing original masonry components with wood is not appropriate.

CEILINGS

Maintain original porch ceilings, including soffits and any trimwork. Enwrapping wood soffits or removing historic tongue-and-groove or beadboard ceilings is not appropriate.

FLOOR

Maintain original porch floors. Deteriorated wood components should be selectively repaired or replaced. Entire replacement of a wood porch floor is not appropriate when individual pieces can be addressed. Where a concrete floor is present, do not stain, paint, or otherwise permanently cover it.

STEPS

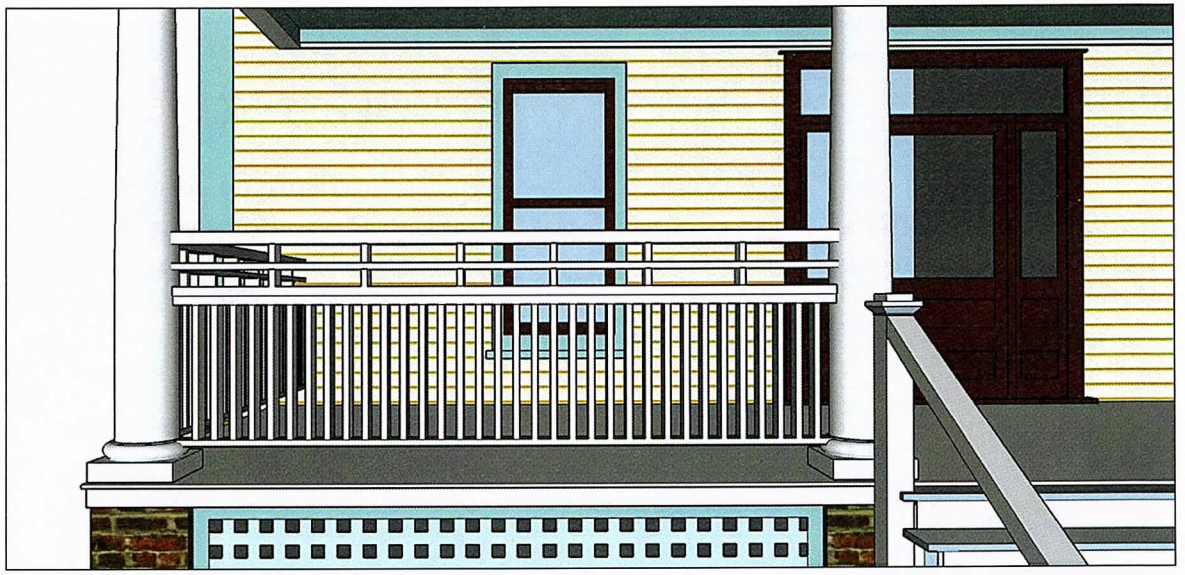
Retain and maintain original porch steps, whether wood or masonry. As with the porch floor, only deteriorated sections should be repaired or replaced as necessary. Where new wood steps are constructed, use closed risers and maintain a scale appropriate to the porch and house.

Replacing wood steps with masonry counterparts is not appropriate. Where masonry steps are deteriorated, repair with in-kind materials. Utilizing pre-cast concrete as a replacement material is not appropriate unless it was historically present.

BALUSTRADE HEIGHT

The City of Knoxville's building code provides specific regulations for the installation of balustrades on residential porches. However, certain exceptions are made for properties within historic overlay districts (H-1) in order to retain historic balustrades at lower heights than is required by current code. When working on a balustrade, remember the following criteria:

- A balustrade may be reinstalled at its existing lower height if it is removed only temporarily for repairs.
- A balustrade may be installed at a previously existing lower height if documentation can be provided to indicate the earlier lower height.
- When an entire existing balustrade is to be replaced and no documentation exists to indicate an earlier balustrade of lower height, and when any landing is 30 inches or more above ground, the new balustrade must meet building code.
- When an entire new balustrade is to be installed and when no landing is 30 inches or more above ground, the new balustrade is not required to meet building code.



HANDRAILS

Historically, very few porch steps had handrails. However, handrails may be necessary in some instances in order to accommodate safety or ease of access. Where determined necessary, handrails should be designed to be as non-intrusive as possible to the original design of the porch. Handrail designs will be reviewed on an individual basis, but the following criteria should be used:

- If the porch and steps are wood, new handrails are also to be wood and mounted on wood posts. Select a handrail with a simple profile and paint to match existing trim.
- If the porch and steps are masonry, new handrails may be either wood or metal. Select a handrail with a simple profile.

ALTERNATIVE MATERIALS

Porch components are common targets for the use of alternative materials such as full or partial composites and fiberglass. The HZC will review proposed alternative materials on an individual basis in consideration of the visibility of the element proposed for replacement and texture, reflectivity, finish, and durability of the proposed replacement material. In no instance are vinyl components appropriate as a replacement material. In all instances, regardless of the material selected, the replacement feature must match the original in profile, dimensions and texture.

Entrances and Doors

Entrances are one of the most distinctive features of a historic building, varying widely from one property to the next in style, configuration, and embellishments. The front door in particular is often a character-defining feature and can help cony a building's architectural style. The front door, as the primary passageway into the house for visitors and guests, also can affect one's perception of the home and provides the connection between interior and exterior spaces. While typically of less focus, secondary entries on side elevations still usually reflect the architectural style of the home and may feature ornate doors and associated features such as transoms. Service entries at the rear of the house are typically simple in detail.

1. Retain the location and character of door openings.

A. Retain the location, size, and shape of original door openings.

B. Consider restoring previously altered door openings on the primary facade.

C. It is not appropriate to reduce, enlarge, or enclose original door openings visible from the public right-of-way.

D. It is not appropriate to board over door openings.

E. It is not appropriate to alter primary entrances by adding details not historically present.

F. It is not appropriate to alter secondary or service entries to make them appear more formal by adding elaborate doors, transoms, sidelights, or other elements.

ENERGY CONSERVATION

Historic solid-core wood doors are great insulators. If the homeowner wishes to further minimize heat loss and improve energy efficiency, the most important step is to reduce air leakage around the door. Such can be accomplished by installing weather-stripping along the frame and at the base of the door, ensuring that the door is properly fitted to the jamb and threshold, and securing glazing putty around any glazing in the door. Energy efficiency can be further addressed by installing a properly fitted, sealed storm door.

2. Retain and maintain original doors and associated features.

A. Preserve and maintain original entry doors and components such as hardware, trim, casings, transoms, and sidelights.

B. Maintain protective surface coatings. Carefully scrape, prime, and repaint deteriorated coatings to provide a weather-resistant coating.

C. Maintain and repair original storm and screen doors.

D. It is not appropriate to remove historic leaded, art, stained, or prismatic glass in transoms.

E. It is not appropriate to enclose transoms or sidelights.

3. Improve the energy efficiency of historic doors.

A. Maintain doors in weather-tight condition in order to maximize energy efficiency by ensuring that doors are hung squarely in their openings.

B. Install weather-stripping, ensuring all joints are tight and sealed, to reduce air infiltration.

C. Low-e or other light-absorbing coatings are only appropriate on door glazing when it can be demonstrated that there will be no significant change in the original appearance of the glass.

D. Enhance energy efficiency by installing storm doors.

- Full-light, wood doors are the most appropriate option. Doors with excessive ornamentation or framing members that obscure the primary door are not appropriate.
- Select storm doors with fully-transparent glass. Frosted or patterned glass is not appropriate.

4. Repair deteriorated but repairable historic materials before considering replacement.

A. Repair rather than replace original door components that are deteriorated yet still serviceable unless.

B. Repair original hardware.

C. Use only clear glass when repairing damaged glazing. Frosted, tinted, reflective, opaque, or patterned glass is not appropriate unless historically present.

5. **Select a replacement door compatible with the character of the house.**

   A. Replace historic doors only when they are determined to be deteriorated beyond repair.

   B. Select replacement hardware that is simple, unobtrusive, and compatible with the style of the building.

   C. Replacement doors on the facade are to be wood unless it can be demonstrated that another material was historically used. Vinyl, vinyl-clad wood, and metal doors are not appropriate replacement materials for wood.

   D. Replace deteriorated doors on the primary facade with a new door that matches the original in style, profile, configuration, glazing, and material.

   E. Replace deteriorated doors on secondary elevations with a new door that matches the original. Alternative designs compatible with the character of the house may also be appropriate on secondary elevations.

   F. It is not appropriate to enlarge or partially enclose an original opening to accommodate the installation of a replacement door.

   G. It is not appropriate to use an undistinguished flush door on elevations visible from the public right-of-way.

6. **Consider replacing non-original doors that are not compatible with the character of the building.**

   A. Employ a design based on historical, photographic, or physical evidence if available.

   B. In the absence of documentation, select a design that is compatible with the style and period of the building and district.

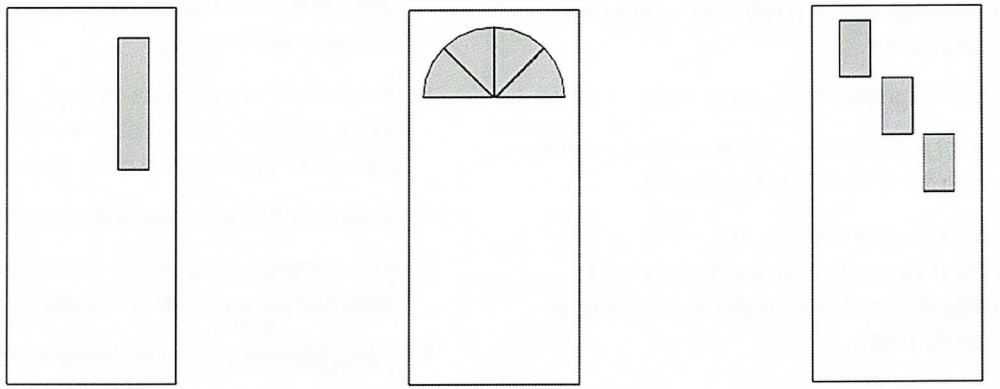
7. **Design new door openings to be as inconspicuous as possible to the original design of the house.**

   A. Where creation of a new door opening is considered necessary, limit openings to the rear quarter of a side elevation or on the rear elevation away from the public right-of-way.

   B. Select doors that are compatible with existing doors on the house in size and proportion.

   C. It is not appropriate to cut new openings into the facade or secondary elevations visible from the public right-of-way.

Inappropriate Doors



Single-lite Vertical | Fanlight | Three-lite Diagonal

Windows

Windows are one of the most significant features of a historic building. Not only do they help define a building's character but they can also provide clues about its construction. Distinctive features of any building, windows come in a variety of sizes and configurations, whether a tall, narrow double-hung sash found on an Italianate residence or a multi-lite Craftsman-influenced window on a bungalow. Patterned, beveled, leaded, and stained glass further adds to the variety of windows that define our historic building stock.

As character-defining features, windows should not be altered. Inappropriate changes to windows can severely detract from the overall character of a building. As such, preserving historic windows should be a priority of any rehabilitation project. While the most common argument against historic windows is that they are not energy efficient, it is a proven fact that an appropriately weather-sealed historic wood window with a storm window is just as, if not more, energy efficient than a new insulated window. In addition, historic windows of old growth wood are more stable and resistant to deterioration and, if properly maintained, can be easily repaired and last for hundreds of years.

1. **Retain the character and arrangement of window openings.**
   - A. Retain original openings and their location, pattern, and size, particularly when visible from the public right-of-way.
   - B. Consider restoring previously altered window openings on the primary facade.
   - C. It is not appropriate partially or completely enclose or enlarge window openings that are visible from the public right-of-way.
   - D. It is not appropriate to board over window openings.
   - E. In rare instances where original window openings are to be filled in on a side elevation or at the rear of a building, maintain the outline of the original opening by placing infill material back from the plane of the building. Leave original sills and lintels in place.

2. **Retain and maintain original windows and associated features.**
   - A. Retain original windows, including all functional and decorative elements such as the sash, hardware, and casing, as well as any decorative moldings or hoods.
   - B. Maintain protective surface coatings. Carefully scrape, prime, and repaint deteriorated coatings to provide a weather-resistant coating.
   - C. Maintain and repair original storm and screen windows.
   - D. It is not appropriate to remove historic leaded, art, stained, or prismatic glass.
   - E. Burglar bars, security grilles, and other visually-intrusive elements are not appropriate.

3. **Improve the energy efficiency of intact original windows rather than replacing them.**
   - A. Maintain caulk and glazing putty in good condition, providing weather-tight seals.
   - B. Maintain windows in good working condition. Keep moveable surfaces free of debris and paint buildup, allowing for smooth operation and limiting the potential for sashes to become stuck.
   - C. Apply weather-stripping, ensuring all joints are tight and sealed, to reduce air infiltration.
   - D. Low-e or other light-absorbing coatings are only appropriate on the primary facade when it can be demonstrated that there will be no significant change in the original appearance of the glass.
   - E. Enhance energy efficiency by installing storm windows.
     - Align storm windows within the original opening. Altering an opening to accommodate a storm window is not appropriate.
     - Wood storm windows are preferred, but baked-on enamel-finished or anodized aluminum is also acceptable if the finish color matches that of the house's trim. Bare aluminum sashes are not appropriate.
     - Storm windows that do not allow for a full-view of the primary window or have a meeting rail that aligns with that of the primary window are not appropriate. Storm windows are to have no other divisions.
     - Interior storm windows are encouraged but should be installed in a manner that limits the potential for damaging condensation to form on the primary window. Incorporating air-tight gaskets, ventilating holes, and/or removal clips is recommended.

4. **Repair deteriorated but repairable historic materials before considering replacement.**
   - A. Repair rather than replace original window components that are deteriorated yet still serviceable.

B. Repair only the deteriorated section of a window, removing as little historic material as possible.

C. If necessary, remove a sash from its frame before repairing. Identify and record the components of the window before dismantling for repair.

D. Use only clear glass when repairing damaged units. Tinted, reflective, opaque, or patterned glass is not appropriate unless historically present.

5. When necessary, replace historic materials in kind.

A. Replace window sashes only when they are determined to be deteriorated beyond repair.

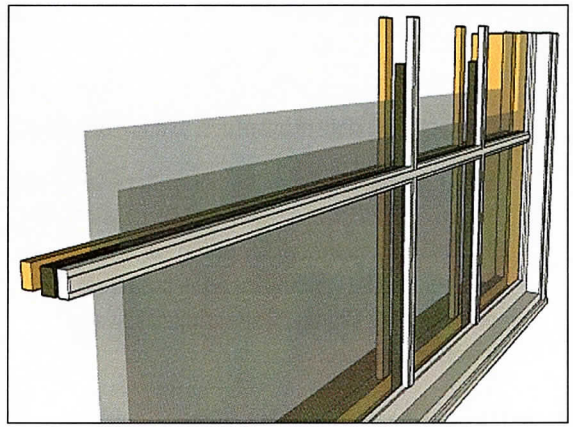
B. Replace only the deteriorated component of a window (such as the sash) rather than replace the entire assembly. Needlessly replacing intact elements is not appropriate.

C. Properly recess new window sashes within the opening to protect the window, maintain water runoff, and preserve historic profiles.

D. It is not appropriate to enlarge or enclose an original opening to accommodate the installation of a replacement window.

E. Replacement windows are to match the operation (e.g., double-hung) of the original window.

F. Replacement windows are to be wood unless it can be demonstrated that another material was historically used. Vinyl, vinyl-clad wood, and metal windows are not appropriate replacement materials for wood. Aluminum or fiberglass-clad wood windows may be considered on elevations obscured from the public right-of-way.



Simulated Divided Light Window

G. Replace deteriorated sashes on elevations visible from the public right-of-way with true divided light sashes or simulated divided light sashes with dimensional muntins permanently affixed to the exterior of the glass. Snap-in grids and internal muntins sandwiched between panes of glass are not appropriate.

H. Maintain the original glazing configuration, muntin profiles, trim dimensions, and depth of reveal when installing replacement sashes.

I. Double pane glass can be used when as long as it does not alter the reflective quality or color of glazing characteristic of the original window.

6. Consider replacing non-original windows that are not compatible with the character of the district.

A. Employ a design consistent with the remaining original windows on the house.

B. In the absence of other intact windows on the house, reference window designs on similar properties within the district.

7. Design new window openings to be as inconspicuous as possible to the original design of the house.

A. Where creation of a new window opening is considered necessary, limit openings to the rear quarter of a side elevation or on the rear elevation away from the public right-of-way.

B. Select windows that are compatible existing windows on the house in scale, proportion, materials, and detail.

C. Install new windows to converted attic spaces at secondary or rear elevations only. Size these windows to be appropriate to the scale of space to which they are being added.

D. It is not appropriate to cut new openings into the facade or secondary elevations visible from the public right-of-way.

STEPS FOR CONSIDERING REPLACEMENT WINDOWS

Replacing historic windows with inappropriate counterparts can significantly detract from the historic character of a building. As such, a property owner must practice diligence in developing an approach for the replacement of historic windows and their components.

1. **Prepare an inventory of windows and their conditions:** The first step in developing a window replacement project is completing an inventory of your windows and their existing conditions, which can be used to make evaluations regarding appropriate treatment strategies. Such an inventory should also be included in your COA application.
2. **Consider what needs to be replaced:** When evaluating your windows and treatment options, carefully consider what exactly it is that needs to be replaced and why. In some instances, you may find that the window simply needs to be re-sealed while in others you find replacement is in fact necessary. Rarely does the entire window assembly need to be replaced. It is typically only the sash.
3. **Gather physical and/or photographic evidence for your project:** Once you have evaluated your windows and the actions necessary, gather documentary evidence depicting the condition of the window(s) to be replaced in support of your COA application in order to demonstrate your project needs. Without such evidence, the HZC cannot appropriately comment on your project.
4. **Find a suitable replacement:** The final step in preparing your materials for your window replacement project is finding an appropriate replacement component, whether that is just the sash or an entire assembly. Replacement components on the facade and elevations visible from the public right-of-way are to match existing original windows in kind.

MAKE SUSTAINABLE DECISIONS

While we typically think of engaging sustainability as a large endeavor, there are also small things that can go a long way to promote energy efficiency and sustainable approaches in window projects.

- Maintain and preserve existing old growth wood windows to the extent possible, which also limits the necessity to harvest new timber and eliminates landfill waste.
- When using wood for repair or in replacement windows, choose timber from sustainably managed forests.
- Lock your windows. Doing so not only provides increased security but also helps create a tight seal between sashes and reduces air infiltration.
- Maintain glazing putty and sealants in good condition in order to minimize air and moisture penetration. Adding weather-stripping can reduce infiltration by as much as 50%.
- Installing storm windows provides a tremendous boost in energy efficiency. In fact, the combination of a historic wood window and a properly sealed storm window can, in many instances, provide better value than a brand-new double-pane sash.

REPLACEMENT WINDOW MATERIALS

Windows on the primary facade or on character-defining secondary elevations that are determined to be deteriorated beyond repair are to be replaced with wood counterparts matching the original design unless it is proven to be technically or economically infeasible to do so. In instances where alternative materials (such as aluminum-clad or fiberglass-clad wood) are proposed for window replacement, the HZC will consider them on an individual basis in reference to the following criteria:

- Appearance (texture, finish, profile) of the material
- Architectural and historical compatibility with the building and district
- Degree of significance and visibility of the windows proposed for replacement
- Material durability and performance

In such instances, the burden is on the applicant to demonstrate that the proposed window replacement will not detract from the historic character and integrity of the building or district.

Mechanical and Utility Equipment and Energy Retrofit

Supporting continued use of historic buildings by making allowances for modern systems is an important goal. Such systems include heating, ventilation, air conditioning, and plumbing systems, satellite dishes and antennas, as well as energy conservation and green technologies. It is equally important, though, to make sure that the installation of modern systems does not compromise the architectural character or integrity of a historic building or disrupt the aesthetic of the district. Particularly important is the recognition that systems should work in concert with original building and site features such as shade trees, porches, and operable windows designed to regulate air flow and temperatures, not replace them.

1. **Enhance rather than replace or remove original materials and features of historic buildings and their sites to maximize energy conservation.**
   - A. Retain mature shade trees, porches, awnings, operable windows, transoms, breezeways and other such historic features.
   - B. Retain and preserve existing energy efficient features such as porches, breezeways, transoms, and operable windows.
   - C. Enhance the energy efficiency of existing features by installing weather stripping and maintaining tight seals by caulking.
   - D. Introduce features such as storm windows and doors in accordance with the guidelines to maximize the energy efficiency of historic features.
   - E. Insulate attic spaces.
   - F. Install draft plate sealers to electrical outlets and switches.
   - G. Seal around holes in foundations and walls used for service lines.
   - H. Fill electrical, plumbing, and ventilation chases with insulation.

2. **Place modern systems and equipment in locations that minimize aesthetic impacts.**
   - A. Place ground-mounted equipment such as air-conditioning units at the rear of the house.
   - B. Screen ground-mounted equipment from view along the public right-of-way with appropriately scaled landscaping or fencing.
   - C. Locate new utility systems such as water, gas, and electric maters at the rear of the house.
   - D. Locate antennae and satellite dishes at the rear of secondary roof slopes or on the rear roof slope.
   - E. Consider screening antennae and satellite dishes from view by placing behind chimneys or dormers.
   - F. Consider painting equipment to blend with the house or landscape.
   - G. Installing runs of ducts, pipes, or cables on the exterior of a building is not appropriate.
   - H. The installation of communication towers within the boundaries of the historic district is not appropriate.
   - I. It is not appropriate to install window air-conditioning units on the facade or secondary elevations visible from the public right-of-way.

3. **Install modern systems and equipment in a manner that avoids or minimizes damage to historic materials and features.**
   - A. When installing roof-mounted systems, use methods that do not damage historic fabric or require removal of character-defining features.
   - B. Install equipment in such a way that it can be easily removed in the future without damaging historic fabric.
   - C. It is not appropriate to cut holes in features such as decorative cornices or rake boards.

4. **Install passive energy collection systems in a manner that does not diminish the character of the building.**
   - A. Install freestanding or detached solar collectors in areas that minimize visibility from the public right-of-way.
     (see roof guidelines for roof-mounted systems)
   - B. Consider locating passive systems in secondary locations such as rear wings or additions, on secondary structures, or in the rear yard.
   - C. Paint or select a finish for exposed hardware, frames, and piping that is consistent with the character of the house.
   - D. It is not appropriate to install framing systems with reflective surfaces. Matte finishes of black, brown, and gray are appropriate.

Accessibility and Safety

Accommodating modern accessibility and safety needs in historic buildings can sometimes be a challenging task. First and foremost, all work must meet the requisite code requirements. Secondary to the meeting of code requirements, careful planning is key to ensuring that work minimizes the impact on the historic fabric of a building within the district.

1. **Minimize the impact of health and safety features on the visual qualities of the district.**
   - A. Locate ramps and other means of access along secondary elevations.
   - B. Scale the feature to the historic building to which it is being added.
   - C. Use wood ramps that have simple, non-intrusive detailing.
   - D. Handrails, balusters, and other accessibility elements should be simple in character and finish.
   - E. Select finishes that blend with the building or landscape.
   - F. Consider using temporary or portable ramps as an alternative to constructing permanent ramps.
2. **Minimize the impact of health and safety features on the historic fabric of a building.**
   - A. Design and install ramps so that they do not require removal of character-defining features.
   - B. Design and install ramps so that they can be removed in the future without damaging historic fabric.
   - C. It is not appropriate to install ramps or other means of access that require changes to the original entry or porch.
   - D. In instances where installation requires construction over an existing stoop, retain the stoop below.
   - E. In instances where original entry doors are proposed to be widened to accommodate access, give primary consideration to widening entries on secondary elevations rather than those on the front facade.

Accessory Structures

Outbuildings and accessory structures may include carriage houses, garages, or sheds and traditionally helped define how a property was used. They also influence the relationship of open to occupied space on a property. Historic accessory buildings should be preserved, repaired, and rehabilitated as necessary in order to promote their continued use as significant features of a site. The same standards that apply to historic accessory structures.

In some instances, it may be necessary to construct a new accessory structure in order to maximize use of a property. Newly constructed accessory structures should be designed in consideration of the total property, as well as the district, and be compatible with the character, massing, and scale of the primary building on a lot.

1. **Retain and preserve historic secondary structures and accessory buildings.**
   - A. Maintain and repair historic outbuildings in their original locations.
   - B. Maintain historic materials and configuration, including massing, scale, roof shape and pitch, and placement of doors and windows.
   - C. Maintain and repair historic sidings, doors, and windows, using in-kind materials where repair is necessary.
   - D. Preserve and repair historic doors (particularly garage or carriage doors) and windows on accessory structures. Replace elements that are deteriorated beyond repair with new units that are compatible with the design and vintage of the outbuilding.
   - E. Altering the design of historic outbuildings to be inconsistent with their original character is not appropriate.
   - F. Removing or relocating historic outbuildings is not appropriate.
2. **Consider adapting historic outbuildings for current needs by adding an addition rather than demolishing and replacing.**
   - A. Design additions that are subordinate to the original mass of the accessory structure.
   - B. Select a design that is simple in character.
   - C. Locate additions below the roof ridge of the original mass and use a roof shape consistent with the original mass.
   - D. Locate additions so that they are not visible from the public right-of-way.
   - E. Set back additions from the facade of the secondary structure.
   - F. Addition designs that are larger than the original mass are not appropriate.
3. **Design new accessory structure to be compatible with the primary building on the lot and adjacent structures.**
   - A. Choose new construction that is visually compatible with the property and the district in terms of scale, size, design, and materials. Simplified designs are preferred.
   - B. Utilize a roof shape and pitch that is consistent with outbuildings historically found in the district or with that of the primary building.
   - C. Select exterior wall and roof materials that are compatible with historic materials found in the district. Fiber cement board may be used as an alternative for wood siding on new accessory structures.
   - D. Choose windows and doors that are proportionately consistent with the size of the outbuilding.
   - E. Accessory structures that are out of scale with the primary building on the site are not appropriate.
   - F. It is not appropriate locate generic, prefabricated outbuildings in the district.
4. **Respect the character of the site when designing a new outbuilding.**
   - A. Retain the historic relationship between the primary building, open lawn, and landscape features when locating a new outbuilding.
   - B. Locate new outbuildings in rear yards unless precedent exists for other locations.
   - C. Placing new accessory buildings in side or front yards is not appropriate.
   - D. Limit new curb cuts for driveways.

CONSIDERING THE APPROPRIATENESS OF NEW ACCESSORY STRUCTURES

In evaluating the appropriateness and compatibility of proposed new accessory structures within the district, the HZC will review the application to determine if the proposed building conforms to the general characteristics of the neighborhood and can be constructed without diminishing the character-defining qualities of the particular lot and neighborhood:

Location: Does the location of the proposed outbuilding respect the character of the site and the relationship of existing buildings to green space?

Demolition: Does the proposed outbuilding require demolition of existing buildings or removal of significant site features such as mature landscaping or historic fencing?

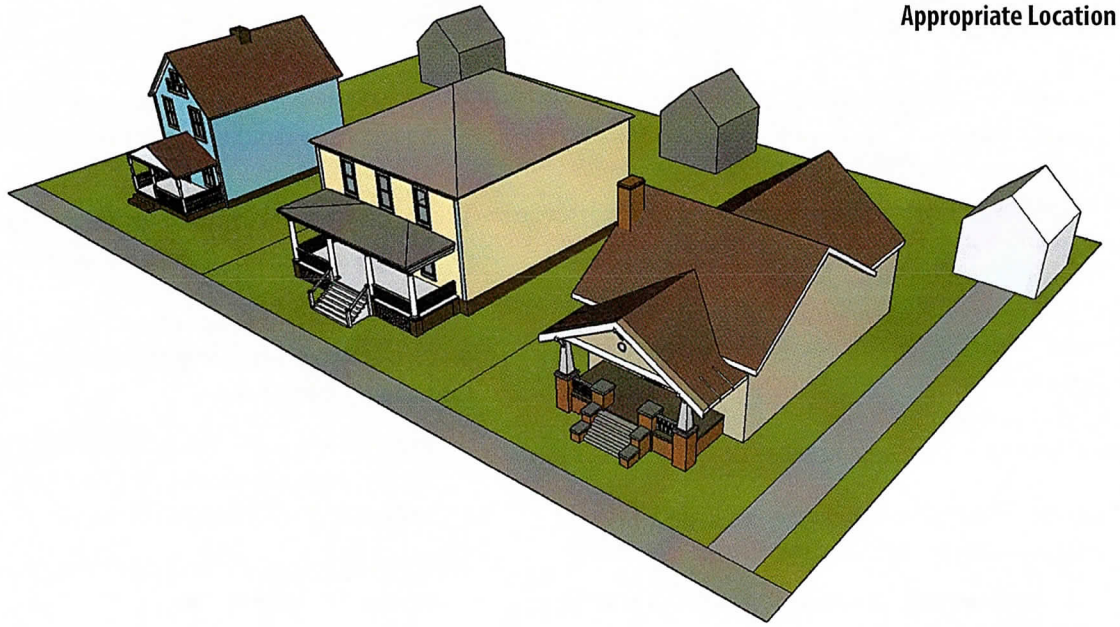
Height: Is the height of the proposed outbuilding compatible with the surrounding area?

Orientation: Is the proposed outbuilding oriented square to the lot line?

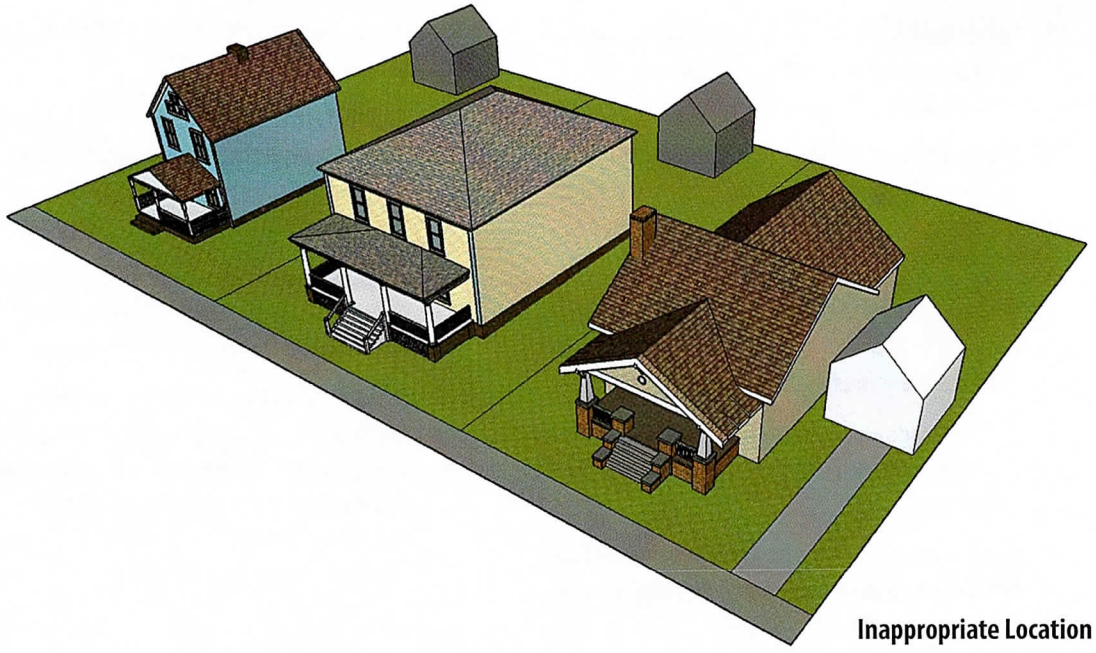
Character: Does the proposed accessory building utilize a simple, non-intrusive design that is neither overtly modern nor falsely historic?

Materials: Are traditional materials or compatible alternative materials proposed?

At its discretion, the HZC may also request samples of garage door material in order to verify the type of finishes that the manufacturer is able provide.



Appropriate Location



Inappropriate Location

Additions

During the long life of a building, there may be a need to adapt a building to provide additional space in order to meet current needs. While many buildings can readily accept a new addition, critical consideration must be given to the character and location of a proposed addition. With proper planning and consideration of the historic qualities of the primary building an addition can both provide needed space and be compatible with the district. On the other hand, failing to give proper consideration to the effect an addition can have on a building can result in an irrecoverable loss of historic character.

1. **Locate additions to minimize visual impact on the original building mass and the district.**
   - A. Place new additions on the rear elevation or at the rear quarter of a side elevation.
   - B. Locate new additions so that they do not conceal or destroy character-defining features of the original mass.
   - C. Locate a new addition so that significant landscape features (such as mature trees) and historic accessory buildings are not damaged or removed.
   - D. Locate additions so that they can be removed in the future, if so desired, without causing damage to the character-defining features of the original mass.
   - E. Design an addition so that it does not dramatically alter the relationship of open to occupied space on a property.
   - F. It is not appropriate to construct an addition that requires removal of a character-defining feature.
   - G. It is not appropriate to construct an addition that significantly alters the original structural system of a building.
   - H. It is not appropriate to construct an addition that changes the orientation of the primary entry.
2. **Employ a building form that respects the massing and scale of the original building and surrounding structures.**
   - A. Design an addition so that it is compatible with the size, scale, setback, and massing of the building to which it is attached.
   - B. Design an addition so that it is subordinate to the volume of the primary mass.
   - C. Limit the size of an addition so that it does not diminish or visually detract from the building or district.
   - D. Additions that exceed one-third of the building's original footprint are not appropriate. Design an addition with walls that are setback from those of the primary mass in order to differentiate the two.
   - E. Consider separating a large addition from the primary mass by a small linking corridor that distinguishes the two forms from one another.
   - F. Design an addition with reference to the roof shape, pitch, and complexity of the original mass. The roof of an addition should not result in changes to the shape of the primary roof.
3. **Select a design that is compatible with the character and materials of the original building and surrounding structures.**
   - A. Design an addition so that it is compatible with the general character of the primary mass but so that it stands as a product of its own time and it is clear what is historic and what is new. Subtle changes in setback, material, and architectural motif are appropriate methods that may be employed.
   - B. Simplified details that reference the character of the primary mass are appropriate.
   - C. Employ door and window openings that conform to the proportion, size, and rhythm of those on the primary mass.
   - D. Exposed foundation lines are to be generally consistent with those on the primary mass, differentiated with only a minor jog.
   - E. Use materials historically found on the primary mass or compatible alternative materials that are consistent in color, texture, and scale.
   - F. It is not appropriate to incorporate duplicate details on original buildings, thus creating a false sense of historical development.
   - G. Designs that starkly contrast the original mass and call undue attention to the addition are not appropriate.

4. **Carefully consider the location and character of rooftop additions to minimize visual impacts.**

   A. Appropriate rooftop additions are generally limited to dormers.

   B. Limit the location of dormers and rooftop additions to places where they were historically present on buildings of similar design and vintage. Rear and side slopes are preferred.

   C. Set back a rooftop addition to reduce its prominence and impact on the original mass.

   D. Scale rooftop additions to the primary mass so that they are proportionately consistent.

   E. Large rooftop additions that dramatically alter perception of the original mass are not appropriate.

   F. It is not appropriate remove or conceal character-defining features of the roof, such as finials, chimneys, or cresting, when adding a rooftop addition.

REUSING HISTORIC FABRIC

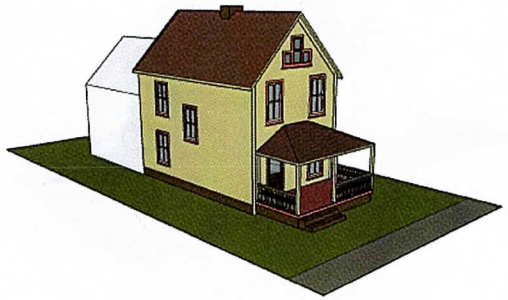
While every effort should be made to limit the amount of historic fabric and features removed when constructing an addition, make sustainable decisions with the materials, features, and details that need to be removed. If the removed materials are sound or repairable, retain them for future projects or consider donating them to someone else who might be able to use them on another project. Doing so continues to make use of the embodied energy captured in existing materials and limits landfill waste resulting from the project.

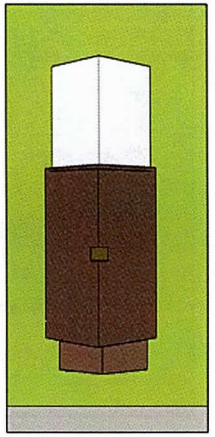
CONSIDERATIONS WHEN PLANNING AN ADDITION

When planning to construct an addition, it is important to be aware of the factors that the HZC will consider in its review of the appropriateness of the proposed addition. Questions that the HZC will consider include:

- How visible is the addition from the public right-of-way?
- Does the addition diminish one's ability to interpret the character and vintage of the original mass?
- Does the addition disrupt one's perception of the adjacent properties?
- Does the addition require significant alterations or removal of character-defining features?
- Does the addition require structural changes to the original building?
- Is the addition's massing subordinate to the original mass?
- Is the addition setback from the original mass to provide differentiation?
- Is the design of a simple design that is compatible with the character of the original mass and surrounding properties?
- Are high-quality design and materials proposed for the addition?
- Could the addition be removed in the future without causing irreversible damage to the original mass?

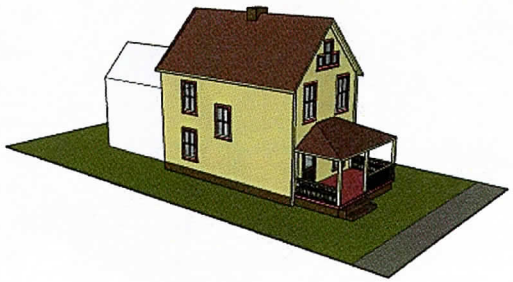
Appropriate Addition

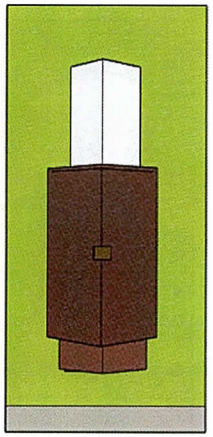


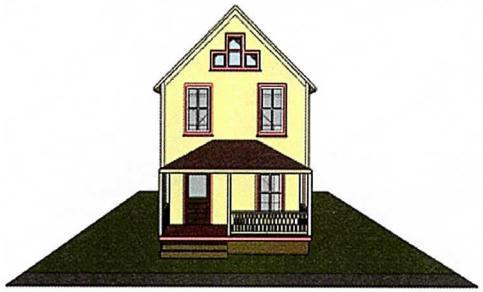


LARGE REAR ADDITION

Appropriate Addition

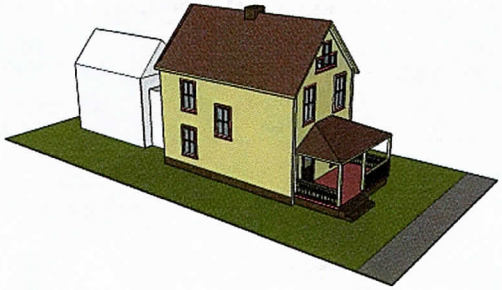


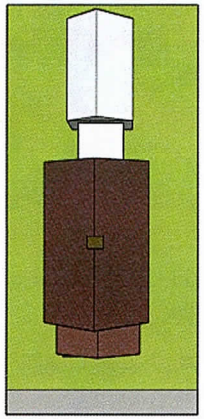




REAR RECESSED ADDITION

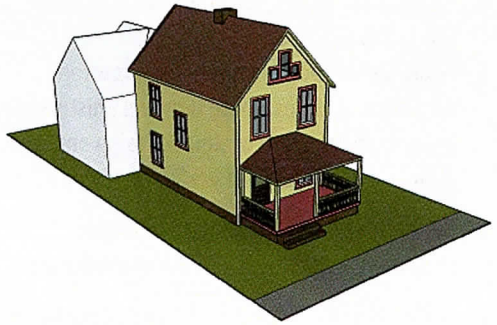
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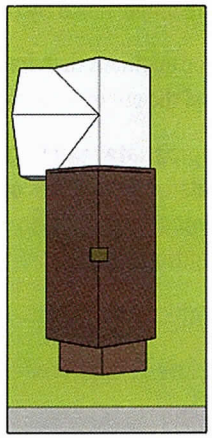




REAR RECESSED WITH CONNECTOR ADDITION

Appropriate Addition

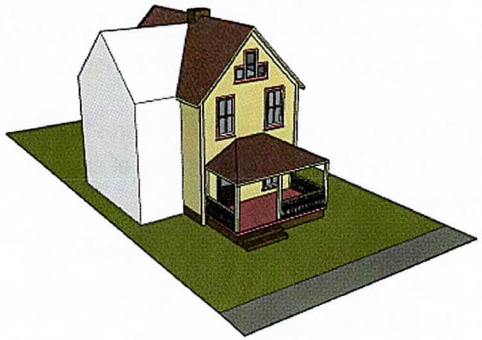


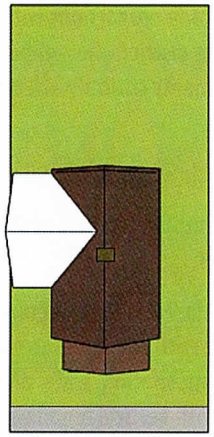


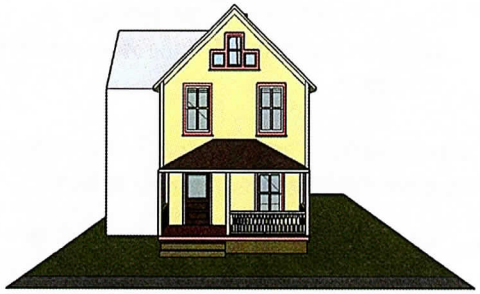


LARGE REAR CROSS PROFILE ADDITION

Inappropriate Addition







LARGE SIDE ADDITION

Infill Construction

Designing a new building to fit within a historic district requires careful planning and an inherent understanding of the district's architectural character in order to determine the basic features that reinforce the district's sense of place. The intent is not to influence a design that replicates historic buildings but rather to relate the new building to the essential characteristics of the district while allowing for a contemporary design that differentiates it from its historic counterparts. The following elements are particularly critical in considering the design of a new construction within the district: location, setback, form, scale, massing, height, and roof shape.

1. **Design infill construction that is compatible with the existing site.**
   - A. Retain site features such as mature trees that are important to the overall character of the historic district.
   - B. Significantly altering the existing topography of a site to accommodate a new structure is not appropriate.
   - C. Consolidating lots in to a larger property in order to accommodate a larger structure disrupts the pattern of properties within the district and is not appropriate.

2. **Locate infill construction in a manner that is compatible with established precedents of building placement within the district.**
   - A. Retain the historic relationship between buildings, landscape features, and open space within the district by basing the location of a new building on patterns of existing setbacks, orientation, spacing, and distance of buildings.
   - B. Maintain the existing spacing of front and side yard setbacks along a block.
   - C. Orient the front entrance toward the street.
   - D. Design a building so that it is parallel to existing lot lines.
   - E. Design new sidewalks, entrances, steps, and porches to be consistent with the rhythm present in the district.
   - F. Locate related accessory buildings at the rear of the lot consistent with existing structures in the surrounding district.

3. **Design infill construction so that its size, scale, and massing is compatible with existing buildings in the district.**
   - A. Maintain the established height and scale of the street by designing buildings to be within the typical range of heights and forms.
   - B. Design a building with massing similar to those traditionally found within the district.
   - C. Use floor-to-ceiling heights that are consistent with those seen on existing structures within the district.
   - D. Choose a building form that has a similar complexity to those elsewhere in the district.
   - E. Break up large masses through vertical and horizontal articulation in order to reduce its visual dominance within the district.
   - F. The rear of a new building may be taller than the traditional precedent within the district if it will not be perceivable from the public right-of-way.

4. **Design infill construction with features that fall within the rhythm and proportions of existing features in the district.**
   - A. Employ a human scale in the design of new buildings by including pedestrian-oriented features such as porches.
   - B. Balance facade proportions with those historically found in the district. The composition and scale of facade elements critically affect the aesthetic of the district.
   - C. Use materials with traditional dimensions.
   - D. Maintain traditional ratios of solid wall spaces to openings.
   - E. Utilize window and door openings that are compatible with those on surrounding buildings in placement, spacing, scale, proportion, and size. Windows with vertical emphasis are preferred.
   - F. Use traditional scales for elements such as porches, which help define the overall aesthetic of the district.

5. **Select a roof form and pitch that is compatible with established precedents within the district.**
   - A. Use roof forms similar to those traditionally present in the district, relating roof pitch and shape to the scale of the building.

B. Use contemporary interpretations of traditional features such as cornices, rake boards, and chimneys to establish visual interest.

6. Design infill construction to be compatible in character with existing structures but also as a product of its own time.

A. Employ contemporary interpretations of historic designs or use a simple contemporary design that conforms to general characteristics such as massing, scale, and proportions.

B. Include architectural details or building articulation such as cornices, lintels, brackets, and chimneys. Contemporary interpretations of traditional details are encouraged, but avoid oversimplified, bland buildings that stand in stark contrast to the rich architectural variety within the district.

C. It is not appropriate to duplicate historic styles within the historic district, which creates a false sense of history.

7. Employ traditional materials or alternative materials that are compatible in scale, profile, texture, and finish to those found on nearby buildings within the district.

A. Select materials and textures that are compatible with the surrounding area, promote a sense of human scale, and have proven durability.

B. Where wood siding is installed, the use of trim boards, which show depth and reflect high-quality construction, is encouraged.

C. Use masonry that is compatible with the character of traditional masonry materials in size, texture, and color.

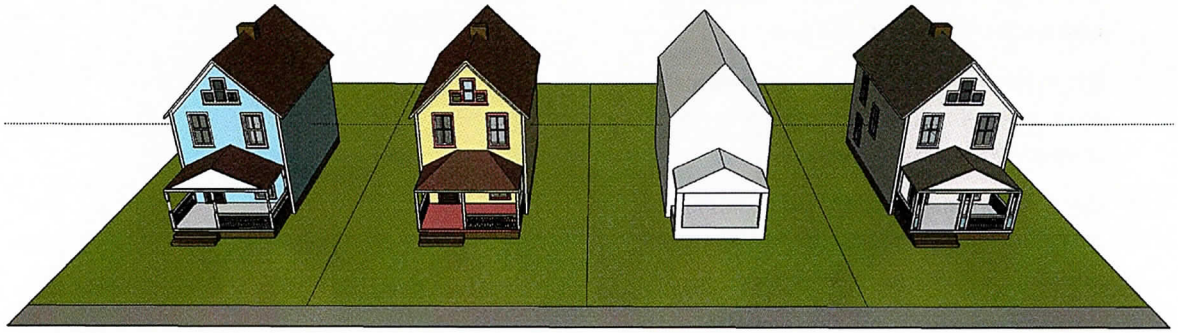
D. Alternative materials such as fiber cement board and cast concrete are appropriate for new construction where maintaining compatibility with traditional materials is a priority.

E. Where fiber cement board is the selected material, use a smooth-finish and maintain a 4" reveal compatible with historic details.

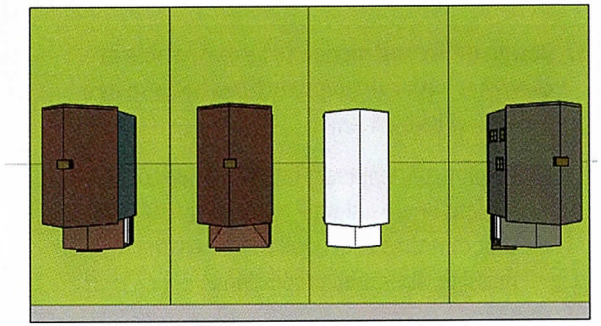
F. Using oversize masonry materials or finishes that are not consistent with the historic character of the neighborhood is not appropriate.

G. It is not appropriate to use fiber cement board that has a faux wood grain.

INFILL SPACING

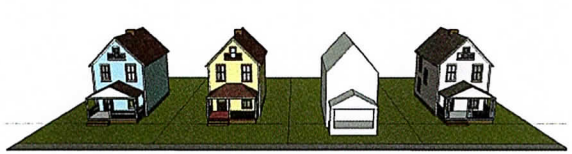


Appropriate

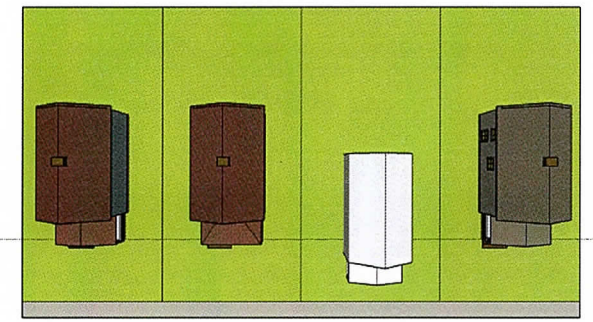


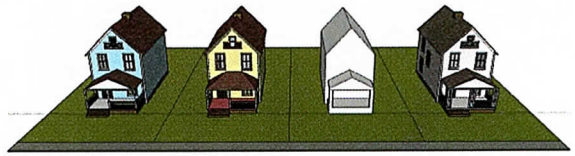
Inappropriate

INFILL SETBACK

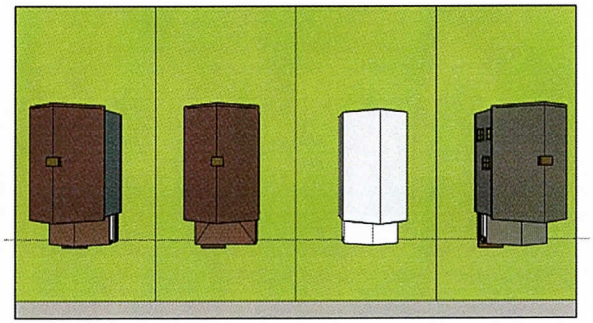


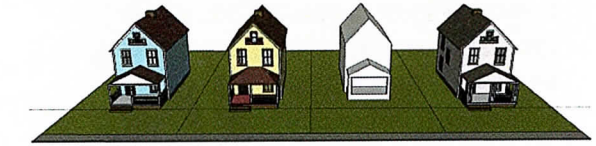
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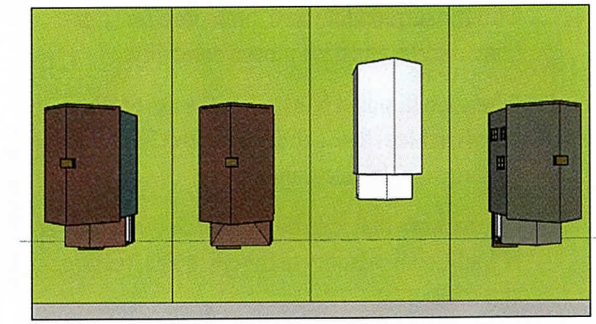


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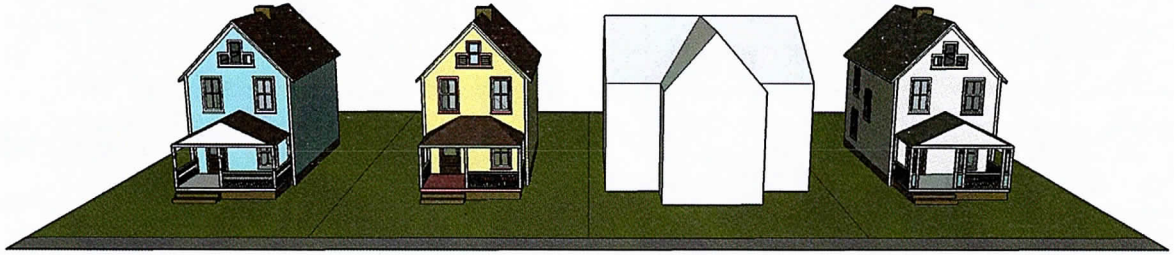




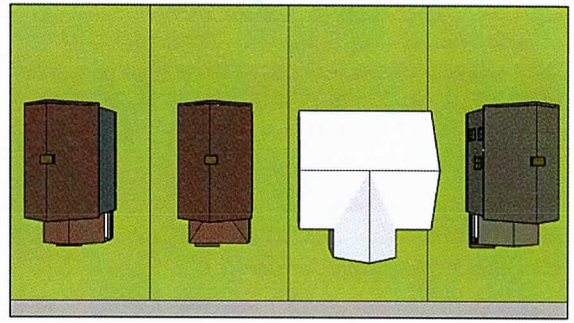
Inappropriate



INFILL MASSING

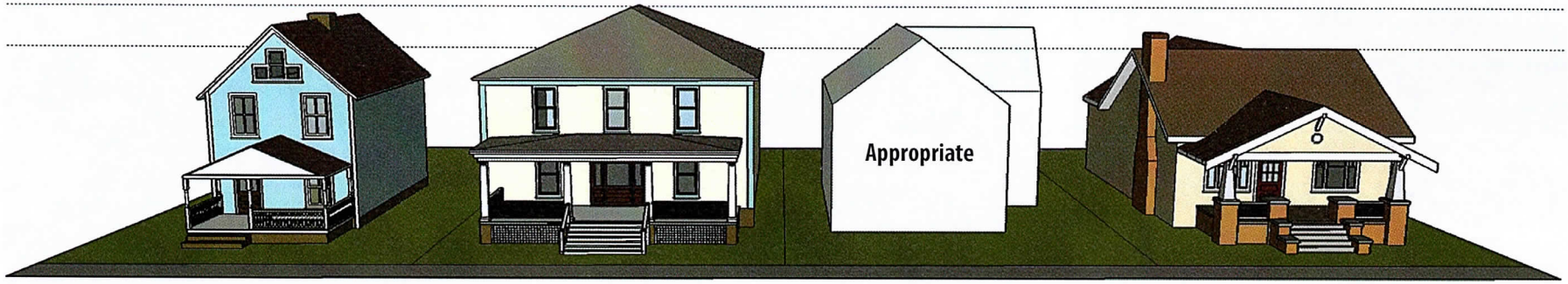


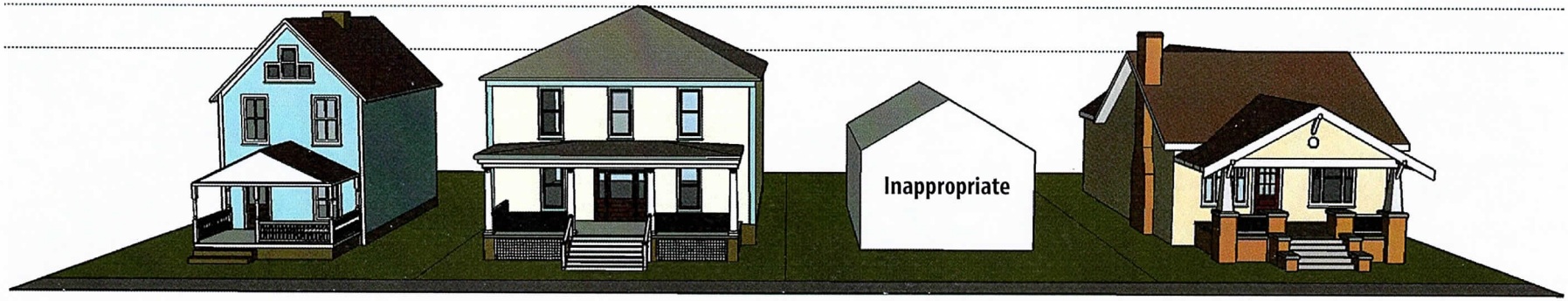
In-Appropriate



Inappropriate

INFILL HEIGHT





APPLYING THE GUIDELINES

Guidelines for new construction are not intended to define a specific level of detail or style for new buildings. Rather, they are intended to promote an understanding of the general characteristics that are important to consider in ensuring that a new building is compatible with the surrounding district and does not detract from the unity of the whole of the community. The HZC will utilize the guidelines to answer the following questions:

- Does the building maintain the street plan?
- Does the building fall within the established rhythm established along the street?
- Is the building orientation and setback consistent with the district?
- Is the front entrance oriented to the street?
- Do roof forms and building massing fall within the established range of the district?
- Does the front facade incorporate human-scale elements?
- Is the ratio of solid to openings, particularly on the facade, consistent?
- Is the complexity of the building form appropriate within the context of the district?
- Does the roof shape and pitch conform to those within the district?
- While fenestration varies from house to house, is it unified throughout the structure?
- Are materials scaled to the building and appropriate traditional materials or modern counterparts with proven durability?
- Is the building appropriately articulated by architectural details that recall historic forms but stand as a product of their own time?

ENVIRONMENTAL STEWARDSHIP

Just as with rehabilitating historic buildings, carefully plan the construction of infill buildings to include a sustainable approach and maximize energy efficiency:

- Maintain site features such as mature trees that provide natural shade.
- Site a building to take advantage of passive solar gain in the winter and deflection in the summer.
- Incorporate features such as porches where there is historic precedent.
- Use locally-sourced or recycled materials that are compatible with traditional materials in the district.
- Consider roof forms that allow for the installation of solar collectors at the rear of secondary elevations or on the rear elevation.
- Design and locate gutter systems that allow for the harvesting of runoff.

CONFLICTS WITH BASE ZONING

It is a recognized fact that historic precedents of setback, height, lot coverage, and massing may conflict with the base zoning of any particular area. However, the application of the historic zoning overlay (H-1) provides a mechanism for addressing such conflicts and, through the design guidelines, allows the neighborhood to retain its significant character by setting standards for new construction that are compatible with the historic character of the district.

In accordance with the enabling ordnance for the overlay, lot sizes, setback, and height are to be governed by the design guidelines where specific guidance is provided. In the absence of specific guidance, base zoning is applicable.

It is important that the applicant coordinate early with HZC staff in order to work through applicable zoning issues prior to advancing too far in a project in order to determine if an adjustment or variance may be required for your particular project.

Fences and Walls

Fences were historically very common in the historic districts. They were used to separate the front yard from the public sidewalk and street, and to separate side yards from each other. The fences were constructed of wrought iron or wood, with shaped pickets and often elaborate gates. Fences facing the street, including side streets, were typically not more than three feet tall.

Many houses in the neighborhood have a front yard ending at a masonry retaining wall of stone or shaped block. This wall marks the separation of the public sidewalk from the private yard space.

1. **Utilize wood or wrought iron for fence construction.**

   A. Opaque or solid board fences and chain link fences are not appropriate unless they are not visible from any public right-of-way, or totally obscured by foliage.

   B. In some cases, it may be appropriate for a fence to have a stone or brick foundation.

2. **Limit the height of fences along streets (including side streets) to three feet in height.**

   A. Taper the fence down in height in transition from the back yard to the front yard.

   B. Tie taller back-yard fences into the side facade behind the front plane of the house.

   C. Retain and repair historic masonry retaining walls along sidewalks and streets.

Relocation

Moving a building is a last resort to save it from demolition. Although relocation may destroy the original context and compromise its significance, the results can be beneficial. Some of the vacant lots in the district may be appropriate locations for the relocation of historic buildings. Significant buildings in Knoxville have been saved from demolition and successfully moved with benefits to the community and the buildings.

Because moving a building is expensive and complex, every aspect of the move should be checked and considered. Is there a threat of demolition other than through neglect? Is relocation the only alternative? Does the building's significance justify the move? Will the structure survive the move and adapt to its new site?

1. **Choose relocation only as a last resort to demolition.**
2. **Document the building as well as the original site through drawings and photographs before moving an historic building.**
3. **Plan the relocation route thoroughly and contact utility companies and city officials to secure necessary permits. Coordinate efforts to ensure minimum delays.**
4. **Protect the structure to be moved from vandalism or weather damage before, during and after the move.**
5. **The structure to be moved should be architecturally compatible with the adjacent buildings within the receiving historic district.**
6. **Choose a site that corresponds to the size and proportion of the structure to be moved. Orient the building to the street and ensure the setback and lot coverage is compatible to and harmonious with the existing structures on the block.**
7. **Ensure that the shape, mass and scale of the building to be moved conforms to the existing structures on the block.**
8. **Protect important site features of the original site, the new site and the route of the move during relocation. Ensure move will not entail the destruction of mature trees, vegetation and outbuildings.**
9. **Move a building as a single, intact unit or in sections to prevent the unnecessary loss of historic building fabric. Partial or complete disassembly is acceptable only when necessary. This may be considered only as a last resort as it may result in a substantial loss of building material.**

Demolition

Demolition creates a permanent change in and loss to the historic district, reducing the neighborhood's historic and architectural significance. Demolition should be considered only when all other alternatives have been explored.

1. **Before demolition is considered, provide documentation of any public health and safety issues.**
2. **Evaluate the historic and architectural significance of the building and the impact of the proposed demolition on the overall character of the historic district and the adjacent buildings.**
3. **Work with the Historic Zoning Commission (HZC) to identify alternatives to demolition.**
4. **Document significant structures through photographs and/or drawings prior to relocating or any partial demolition.**
5. **Work with the HZC and interested groups to salvage usable architectural materials if demolition is approved.**
6. **During demolition, ensure the safety of any adjacent properties and historic resources. Protect trees and other site features from damage from moving equipment.**
7. **Demolition may be considered if the HZC determines that the building or structure does not contribute to the historical or architectural character of the district.**

Appendix A:
Frequently Asked Questions About the Design Review Process

Does my project require design review?
If you are proposing exterior work to your building located within a historic overlay district (H-1), and the work requires a building permit or drive-way permit, then a Certificate of Appropriateness (COA) is required. Interior work does not require design review unless it will affect the exterior appearance of the building (such as enclosing a window opening from the inside).

Where do I begin the review process?
You can obtain preliminary information on the design review process, fees, application forms and design guidelines at the Knoxville Knox County Metropolitan Planning Commission (MPC) website at www.knoxmpc.org. The primary contact for the design review process is the historic preservation planner at the MPC, who serves as staff to the Historic Zoning Commission. MPC staff can provide information on the process and guidance on your proposed project.

When is the best time to begin coordination with MPC staff?
In order to avoid unnecessary delays and expenses, you should contact the designated MPC staff as early as possible in your design process. MPC staff can verify that you are on the right track with your project.

How much does the design review process cost?
The HZC charges a fee for a Certificate of Appropriateness scaled to the nature of the proposed work. The latest information on fees associated with COAs can be obtained from the MPC website at www.knoxmpc.org or from MPC staff.

How can I get through the design review process more quickly?
The design review process is guided by a set calendar that allows for consistent meeting dates and submittal deadlines. Providing all the information outlined in the application checklist is important to ensure that projects are reviewed efficiently. The best way to speed up the process is to coordinate early with MPC staff to ensure that you submit appropriate, complete materials for your project.

Do I need to hire a professional?
Not all projects necessitate hiring a design professional or contractor to assist with the design review process. For example, replacing a front door will not require the use of a professional. However, for complex projects such as additions, that require the submission of scaled drawings or renderings, retaining the services of a professional will lessen the chances that the project will be sent back to the drawing board for revisions. You are the one responsible for "selling" the HZC on your project.

Can I begin work after receiving a COA?
Usually, going through the design review process and receiving a COA is just the first step of the process necessary to begin work on a project. Check with the Building Inspector to ensure that you have all necessary permits prior to beginning work. Note that you cannot receive a building permit without first obtaining an approved COA.

What if an emergency repair is needed?
If a building within a historic district requires an emergency repair due to unforeseen events such as a tree collapse, fire, or weather event, the Building Inspector can choose to issue an emergency work permit without review by the HZC.

Appendix B:
Glossary of Architectural Terms

A

Aluminum Siding:
Sheets of exterior wall covering fabricated from aluminum to resemble wood siding. Aluminum siding was developed in the 1940s and was popular into the 1950s and 1960s.

Appropriate:
Suitable for, or compatible with, a property, based on accepted standards and techniques for historic preservation.

Arch:
A curved and sometimes pointed structural member used to span an opening.
A rounded arch represents classical or Romanesque influence whereas a pointed arch generally denotes Gothic influence.

Architrave:
The lower part of a classical entablature, resting directly on the capital of a column, the molding around a window or door.

Art Deco:
A style of decorative arts and architecture popular in the 1920s and 1940s, characterized by geometric forms and exotic motifs.

Asphalt Shingle:
A shingle manufactured from saturated roofing felts, rag, asbestos or fiberglass coated with asphalt and finished with mineral granules on the side exposed to weather.

Awning:
A roof-like cover of canvas or plastic over a window or door to provide protection against sun, wind or rain.

B

Balustrade:
A series of balusters or uprights connected on top by a handrail and sometimes on the bottom by a bottom rail to provide an ornamental and protective barrier along the edge of a stair, roof, balcony, or porch.

Bargeboard (also verge board):
A sometimes richly ornamented board placed on the verge (incline) of the gable to conceal the ends of rafters; typically seen in the picturesque styles of the nineteenth century such as the Gothic Revival and the Queen Anne.

Battered Column:
A column that is thicker at the bottom than at the top.

Bay:
(1) An opening or division along a face of a building; for example, a wall with a door flanked by two windows is three bays wide. (2) The space between principle structural members, as in a timber frame, the space between posts. (3) A projection from the facade of a building, such as a bay window.

Beveled glass:
Glass panels whose edges are ground and polished at a slight angle to form a beveled border; used for entrance doors and ornamental work.

Brick Bond:
The pattern in which masonry, particularly brickwork, is laid to tie together the thickness of the wall.

Bracket:
Projecting support members under eaves or other overhangs; plain or decorated. Often called console brackets, they are characteristic of the Italianate style.

Bulkhead:
The area below the display window on the front facade of a commercial storefront.

Bungalow:
A house type and architectural style popular in the early 20th century. Typically defined as a relatively modest, one-story dwelling of informal character, the bungalow traced its origins to British colonial India, as well as to the Arts and Crafts movement of the 19th century.

C

Capital:
The top member of a column, usually decorated or molded. Each classical order —Doric, Ionic, Corinthian, Composite — has its characteristic capital.

Casement:
A window with sash hung vertically, which opens inward or outward.

Casing:
The finished visible framework around a door or window.

Chamfer:
A beveled edge on the corner of a post, wall, etc. May take the form of a flat surface, or a more elaborately molded surface. Edges so beveled are said to be chamfered.

Character-defining-features:
Individual physical elements of any structure, site, street, or district which contributes to its overall historic or architectural character, and for which it is recognized as historically or architecturally significant.

Clapboard:
Long horizontal boards with one edge thicker than the other, overlapping to cover the outer walls of framed structures; also known as weatherboard.

Classical:
The architecture of ancient Greece and Rome, and architecture using forms derived from ancient Greece and Rome.

Colonial Revival (1870-1950):
An architectural style that drew freely on motifs associated with the American past, including elements of the Colonial period. Features of the style include a balanced facade; the use of decorative door crowns and pediments, sidelights, fanlights and porticos to emphasize the front entrance; double hung windows with multiple panes in one or both sashes; and the frequent use of string courses or decorative cornices.

Composite Order:
A classical order that incorporates the large volutes (spirals) of the Ionic Capital with the lush foliage of the Corinthian Capital.

Coping:
The top course of a masonry wall or parapet which projects beyond the wall surface to throw off the rain.

Corbel:
A small projection built out from a wall to support the eaves of a roof or some other feature.

Corinthian order:
A classical order distinguished by the capitals, which are ornamented with stylized acanthus leaves.

Cornice:
In classical architecture, the upper projecting section of an entablature; projecting ornamental molding along the top of a building or wall. The term is loosely applied to any horizontal molding forming a main decorative feature such as a molding at the junction of the walls and ceiling.

A raking cornice extends along a slanting (raking) side of a gable or pediment.
A boxed cornice is a simple treatment with a vertical fascia and a horizontal soffit board enclosing the ends of the ceiling joists where they project at the eaves.

Course:
A horizontal row of bricks, stones, or other masonry units.

Craftsman (1905-1930):
The Craftsman style, which originated in southern California, was inspired primarily by the work of Greene and Greene, two brothers who practiced architecture in Pasadena (the style was also influenced by the English Arts and Crafts movement). Characteristics include low pitched gable roofs with exposed rafters; recessed porches; tapered columns; heavy stone foundations and windows with multi-pane top sash.

Cresting:
Ornamental ironwork used to embellish the ridge of a gable roof or the upper cornice of a mansard roof.

Cross Gable:
A gable which is set parallel to the ridge of the roof.

Cupola:
A small domed structure, usually polygonal, built on top of a roof or tower.

D

Deck:
A roofless porch, usually at the rear of a building, popular in contemporary residential architecture.

Dentils:
Small, closely placed blocks set in a horizontal row used as an ornamental element of a classical cornice.

Doric Order:
The oldest of the classical Greek orders, characterized by heavy fluted columns with no base, simple unadorned capitals supporting a frieze of vertically grooved tablets or triglyphs set at intervals.

Dormer:
A vertical window projecting from the slope of a

roof; usually provided with its own roof; used to light rooms in a half story.

Double-hung Window:
A window with two sashes, each movable by means of sash cords and weights.

Downspout:
A pipe that carries water from the gutters to the ground, or to a sewer connection.

E

Eaves:
The projecting overhang at the lower edge of a roof.

Elevation:
A scaled drawing which illustrates the view of a side of a building.

Ell:
A wing or extension of a building, often a rear addition, positioned at right angles to the principal mass.

Engaged Column:
A column that is in direct contact with a wall; at least half of the column projects beyond the surface of the wall to which it is engaged. Sometimes called a pilaster

English Bond:
A method of laying brick wherein one course is laid with stretchers and the next with headers.

Entablature:
The horizontal part of a classical order, above the columns; consists of architrave, frieze and cornice.

Etched Glass:
Glass where the surface has been cut away by a strong acid, creating a decorative pattern.

F

Facade:
An exterior side of a building.
Fanlight: A semicircular or fan-shaped window with a radiating glazing bar system usually found over entrance doors.

Fascia:
The flat member of the architrave in classical architecture. A fascia board is a flat board used to cover the ends of roof rafters.

Fenestration:
The arrangement of windows in other exterior openings of a building.

Finial:
An ornament at the top of a spire, gable or pinnacle.

Folk Houses:
Houses built with local materials to provide basic shelter. More influenced by geography and local tradition than by architectural styles.

Foundation:
The supporting portion of a structure below the first floor construction, or below grade.

Frieze:
In classical architecture, the member between the architrave and cornice. Also, any plain or decorative band, or board, on the top of a wall immediately below the cornice.

G

Gable:
A triangular wall segment at the end of a double pitched or gabled roof.

Galvanize:
To coat steel or iron with zinc.

Gambrel Roof:
A roof having a double slope on two sides of a building.

Gazebo:
A small summerhouse or other space with a view; usually found in a garden or yard.

Georgian Style (1700-1780):
The prevailing architectural style of the 18th century in Great Britain and the North American colonies; characterized by symmetry of floor plan and facade, heavy classical moldings, raised panels and classically derived ornament.

German Siding:
A type of siding characterized by overlapping boards; the upper part of each board has a concave curve.

Gothic Revival (1840-1880):
This style, which came from England, is distinguished by the pointed arch which in public buildings and churches could be combined with towers, buttresses and steep gables. The first documented houses in this style were designed by Alexander Jackson Davis and were asymmetrical in plan to allow for flexibility of rooms and create a picturesque silhouette.

Greek Revival (1825-1860):
The mid-nineteenth century revival of the forms and ornamentation of the architecture of ancient

Greece. The style is characterized by a low pitched gable or sometimes hipped roof, a pedimented gable, a portico, six-over-six double hung windows, and a four panel door flanked by side lights with a transom window above.

H I J K

Headers:
Bricks laid with their ends toward the face of a wall.

Hipped Roof:
A roof formed by four pitched roof surfaces.

Ionic Order:
A classical order characterized by a capital embellished with opposing volutes.

Italianate (1840-1880):
An architectural style characterized by the following: two or three stories, low pitched hipped roofs, cross hipped or cross gabled with wide eaves supported by large brackets; a cupola or tower is sometimes featured. There are many sub-types.

Jerkin Head Roof:
A roof form in which the top of the gable is cut off by a secondary slope forming a hip.
Keystone: The wedge-shaped stone found at the center of an arch.

L

Latticework:
Openwork produced by interlacing or crossing lath or thin strips of iron or wood; often used at the base of a porch.

Lean-to:
A small addition to a house with a single pitched roof.

Light:
A pane of glass.

Lintel:
A horizontal structural member that supports a load over an opening.

Louver:
A small lantern or other opening, often with wood slats, used for ventilating attics or other spaces.

Lunette:
A small round or arched-top window in a vaulted or covered ceiling or roof.

M

Mansard Roof:
A roof that has two slopes on all four sides.

Masonry:
Work constructed by a mason using stone, brick, concrete blocks, tile, or similar materials.

Molding:
A continuous decorative band; serves as an ornamental device on both the interior and exterior of a building or structure.

Mortar:
A mixture of plaster, cement, or lime with a fine aggregate and water used for pointing and bonding bricks or stones.

Mullion:
A large vertical member separating two casements and forming part of the window frame.

Muntin:
One of the thin strips of wood used for holding panes of glass within a window; also called sash bar or glazing bar.

N

Neoclassical Revival (1900-1940):
Used to define the revival of architecture based on Greek and Roman forms around the turn of the 20th century; characterized by a two story pedimented portico supported by colossal columns (usually with Ionic, Corinthian or Composite capitals). More modest versions of the style are common.

Newel Post:
The post supporting the handrail at the top and bottom of a stairway.

O P

Order:
A style of column and its entablature (i.e., the section resting on the top of the column). In classical architecture, order refers to the specific configuration and proportions of the column including the base, shaft, capital and entablature. See: Composite order, Corinthian order, Doric order, Ionic order, and Tuscan order.

Pane:
A single piece of window glass.

Panel:
A sunken or raised portion of a wall, ceiling, mantel or door with a frame-like border.

Parapet:
A low wall or protective railing often used around a balcony or along the edge of a roof.

Patio:
A usually paved and shaded area adjoining or enclosed by the walls of a house.

Pediment:
A wide low-pitched gable surmounting the facade of a classical building; also used over windows, doors and niches.

Pergola:
An arbor or passageway with a trellis roof on which climbing plants can be trained to grow.

Pilaster:
A shallow pier attached to a wall, often decorated to resemble a classical engaged column.

Pointing:
The final filling and finishing of mortar joints that have been left raw or raked out.

Porte-cochère:
A large covered entrance porch through which vehicles can drive.

Portico:
A major porch, usually with a pedimented roof supported by classical columns.

Portland Cement:
A hydraulic binder for concrete; made by burning a mixture of clay and limestone.

Public Right of Way:
Publicly owned and maintained streets and walkways.

Q

Queen Anne (1880-1910):
An eclectic late 19th century architectural style, influenced by the work of English architect Robert Norman Shaw and characterized by irregularity of plan and massing, variety of color, texture and window treatment, multiple steep roofs, porches with decorative gables and the frequent use of bay windows.

Quoin:
Large stones, or rectangular pieces of wood or brick, used to decorate and accentuate the corners of a building.

R

Rehabilitation:
Rehabilitation means "making habitable or useful again." It may include new elements that are non-historical or some restoration or, on the other hand, changes to the building.

Rake:
The slope of a gable, pediment, stair, string, etc.

Repointing:
Raking out deteriorated joints and filling them with a surface mortar to repair the joint.

Restoration:
The act or process of accurately recovering the form and details of a property and its settings as it appeared at a particular time by removing later work, or replacing missing earlier work.

Retaining Wall:
A wall that bears against an earthen backing.

Return:
The continuation of a molding from one surface onto an adjacent surface.

Roof Ridge:
The horizontal line formed when two roof surfaces meet.

Rustication:
Rough-surfaced stonework.

S

Sandblasting:
An abrasive way of cleaning brick, masonry or wood by directing high powered jets of sand against the surface.

Sash:
A frame for glass to close a window opening.

Segmental Arch:
An arch formed by the segment of a circle.

Shingle:
A wedge-shaped piece of wood as used in overlapping courses to cover a roof or an outside wall surface.

Shingle Style (1880-1915):
A picturesque style that evolved from the Queen Anne style characterized by uniform wall covering of wood shingles, hip or gable roofs with dormer windows, irregular roof line, small paned windows, and no corner boards. The style is generally associated with New England.

Shutter:
An extra closure for a window or door, usually of wood, paneled, and of a pair hinged at the outside jambs.

Sidelight:
One of a pair of narrow windows flanking a door.

Sill:
The framing member that forms the lower side of an opening, such as a door sill. A window sill forms the lower, usually projecting, lip on the outside face of a window.

Soffit:
The exposed underside of an arch, cornice, balcony, or beam.

Spall:
To split off from the surface, as stone that is bearing undue pressure near its face or is acted on by weathering.

Spandrel:
The triangular space between the shoulder of an arch and the triangular framework that surrounds it; the space between two adjacent arches; the triangular space between the outer string of a stair and the floor.

Stringcourse:
A continuous horizontal band of brick, stone, or wood on the exterior wall of a building; used for decorative purposes, or to break up a large expanse of wall surface.

Stool:
A casing or molded piece running along the base of a window and contacting the bottom rail on the inside of a building.

Stucco:
An exterior wall covering consisting of a mixture of Portland cement, sand, lime, and water.

Surround:
An encircling border or decorative frame.

T

Terra Cotta:
A fine-grained fired clay product used ornamentally on the exterior of buildings, may be glazed or unglazed, molded or carved.

Tongue-and-groove:
A projecting rib along the edge of a member fit into a corresponding groove in an adjacent member.

Transom:
An opening over a door or window, usually for ventilation, and containing a glazed or solid sash.

Trellis:
A light frame or latticework used as a screen, or as a support for vines.

Trim:
The finish material on a building, such as a molding applied around door and window openings or at the floors and ceilings of rooms.

Turret:
A small tower usually corbelled at the corner of a building.

Tuscan Order:
One of the classical orders, resembling the Doric but of greater simplicity. The columns are unfluted, the capitals are unornamented and the frieze lacks the triglyphs that are part of the Doric order.

U V

Underpinning:
The system of supports, such as rough walls or piers, beneath the ground floor.

Valley:
The depressed angle formed at the meeting point of two roof slopes.

Veranda or Verandah:
A roofed space attached to the exterior wall of a house and supported by columns, pillars, or posts; commonly used in Britain to describe an open porch.

Volute:
A spiraling scroll-like ornament. In classified architecture, the dominant feature of the Ionic Capital (but also focused on Corinthian and Composite Capitals).

W X Y Z

Water Table:
A plain or molded ledge or projection, usually at the first floor level, that protects the foundation from rain running down the wall of a building.

Weatherboard:
Wood siding consisting of overlapping horizontal boards, usually thicker atone edge than the other.

Weatherstrip:
A piece of wood, metal, or other material installed around window and door openings to prevent air infiltration and moisture penetration.

Wrought Iron:
Pig iron that is puddled and rolled or hammered into shape, never melted or cast.

Appendix C:
New Construction Checklist

The following checklist may be used by applicants or HZC members as a reminder of the features and elements to be considered when proposing new construction.

SITE

Walkways and Driveways
- ☐ Location
- ☐ Dimensions
- ☐ Materials/Finish

Fences
- ☐ Location
- ☐ Scale/Height
- ☐ Materials/Details
- ☐ Meet zoning requirements

Mechanical and Utilities Screening
- ☐ Location
- ☐ Visibility from public right-of-way

BUILDINGS

Building Placement
- ☐ Distance to street (setback)
- ☐ Oriented to primary street
- ☐ Respects existing pattern of spacing between buildings

Size
- ☐ Massing relates to existing buildings
- ☐ Complexity of form is compatible with surrounding buildings
- ☐ Height is within 10 percent of adjacent buildings
- ☐ Width is within 10 percent of surrounding buildings

Roof
- ☐ Compatible pitch and form
- ☐ Materials are compatible with historic precedents
- ☐ Chimneys, dormers, and other features are of appropriate scale

Windows and Doors
- ☐ Compatible ratio, spacing, and proportions
- ☐ Window material and casing compatible with historic precedents
- ☐ Door style and finish are compatible with historic precedents
- ☐ True-divided- light or simulated- divided-light
- ☐ Storm windows and doors painted and conform to openings and window/door divisions
- ☐ Shutters (if included) are scaled to the opening and include hinge hardware

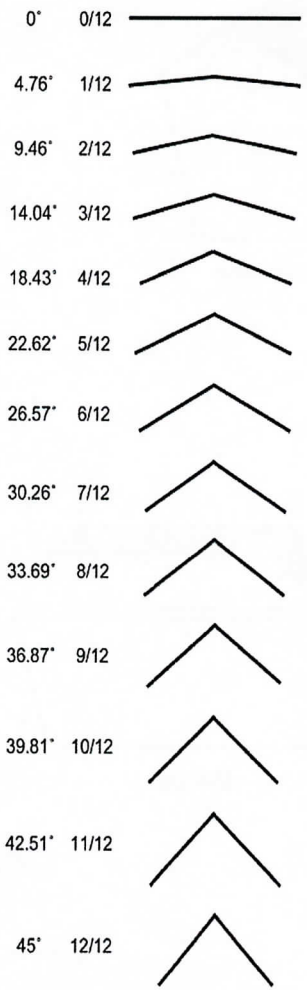
Porches
- ☐ Compatible to the scale and style of surrounding houses
- ☐ Design respects materials, proportions, and placement of surrounding houses

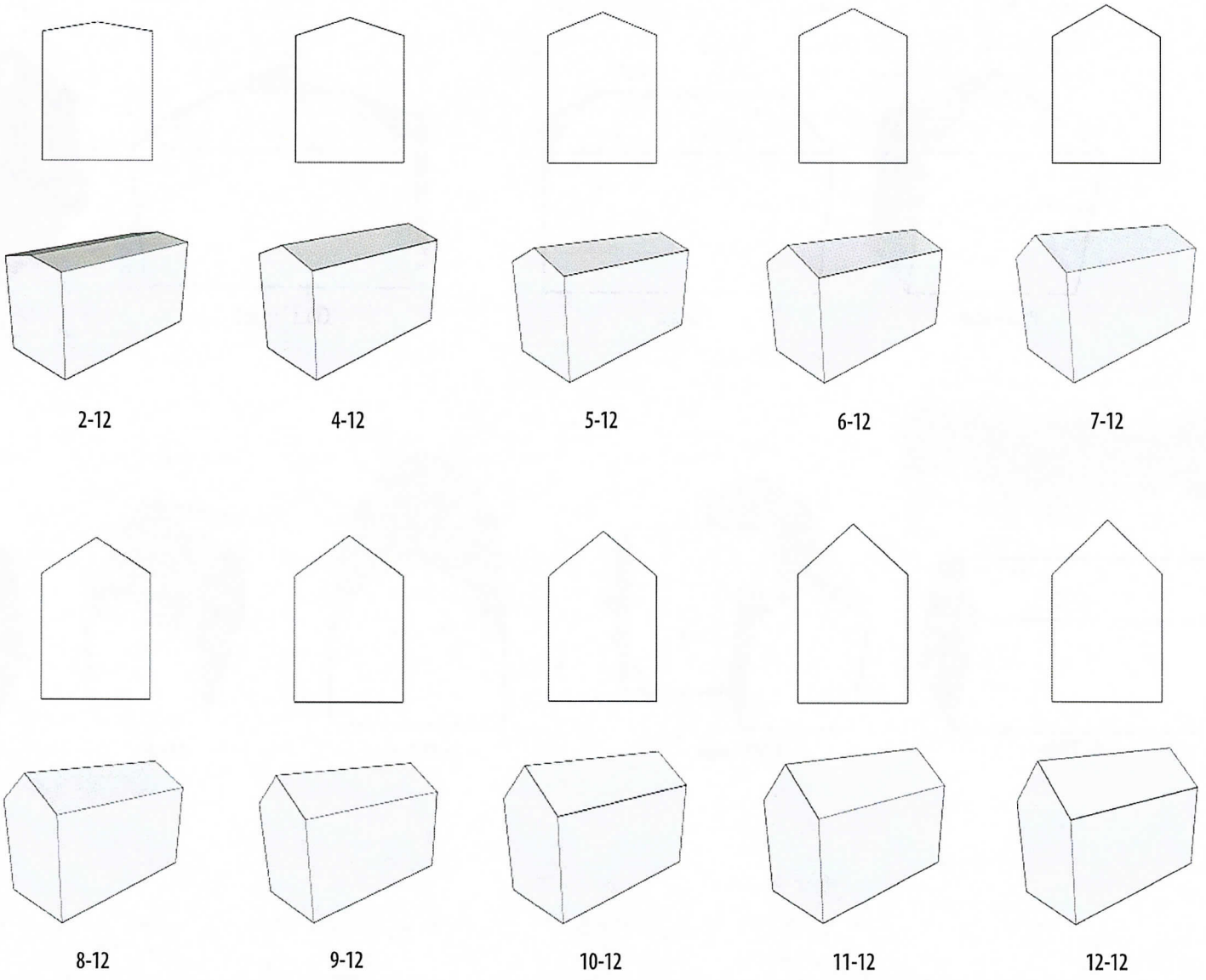
Materials and Details
- ☐ Traditional materials
- ☐ Alternative materials that adequately simulate the authentic material

Appendix D:

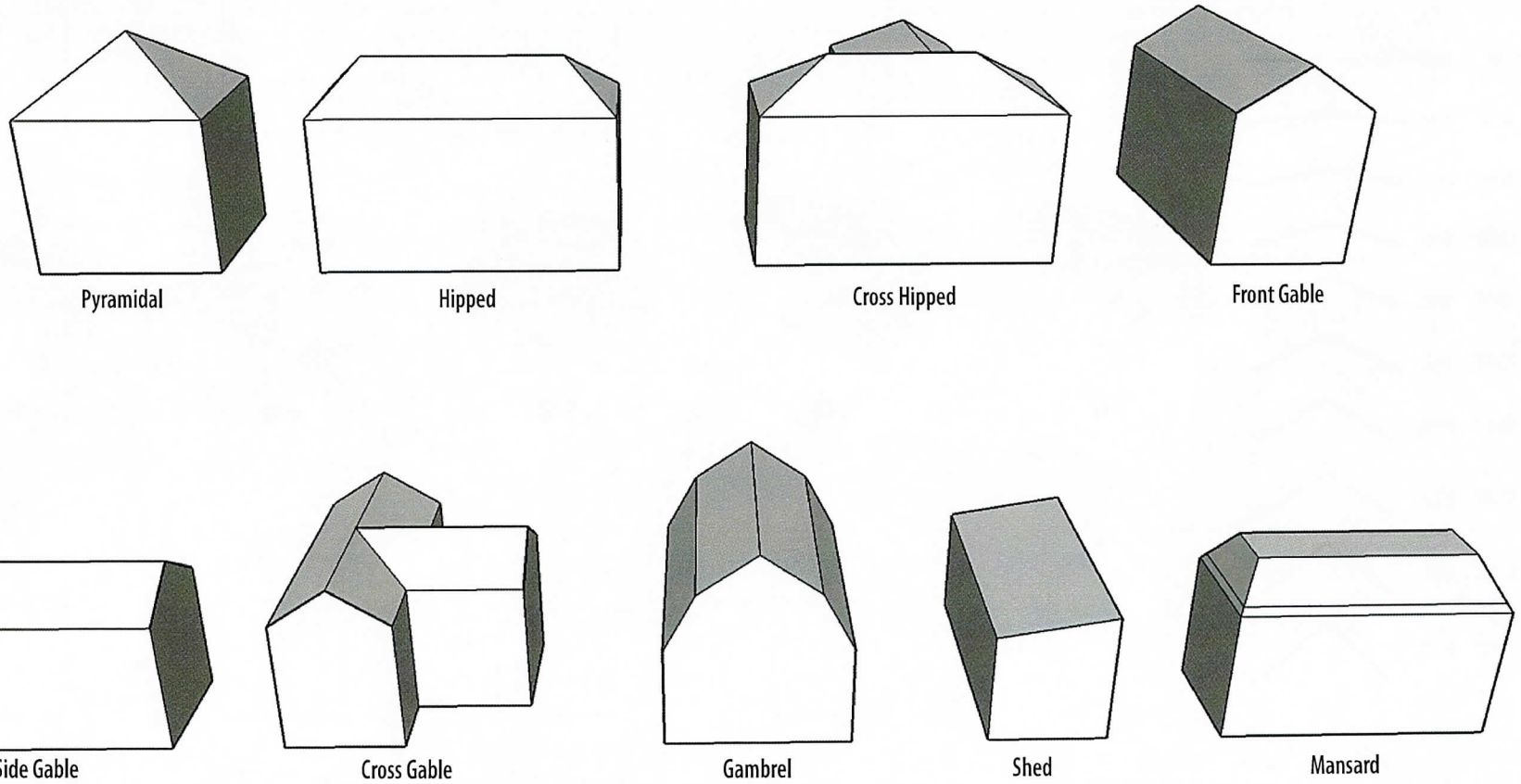
Roofs

Roof Pitches

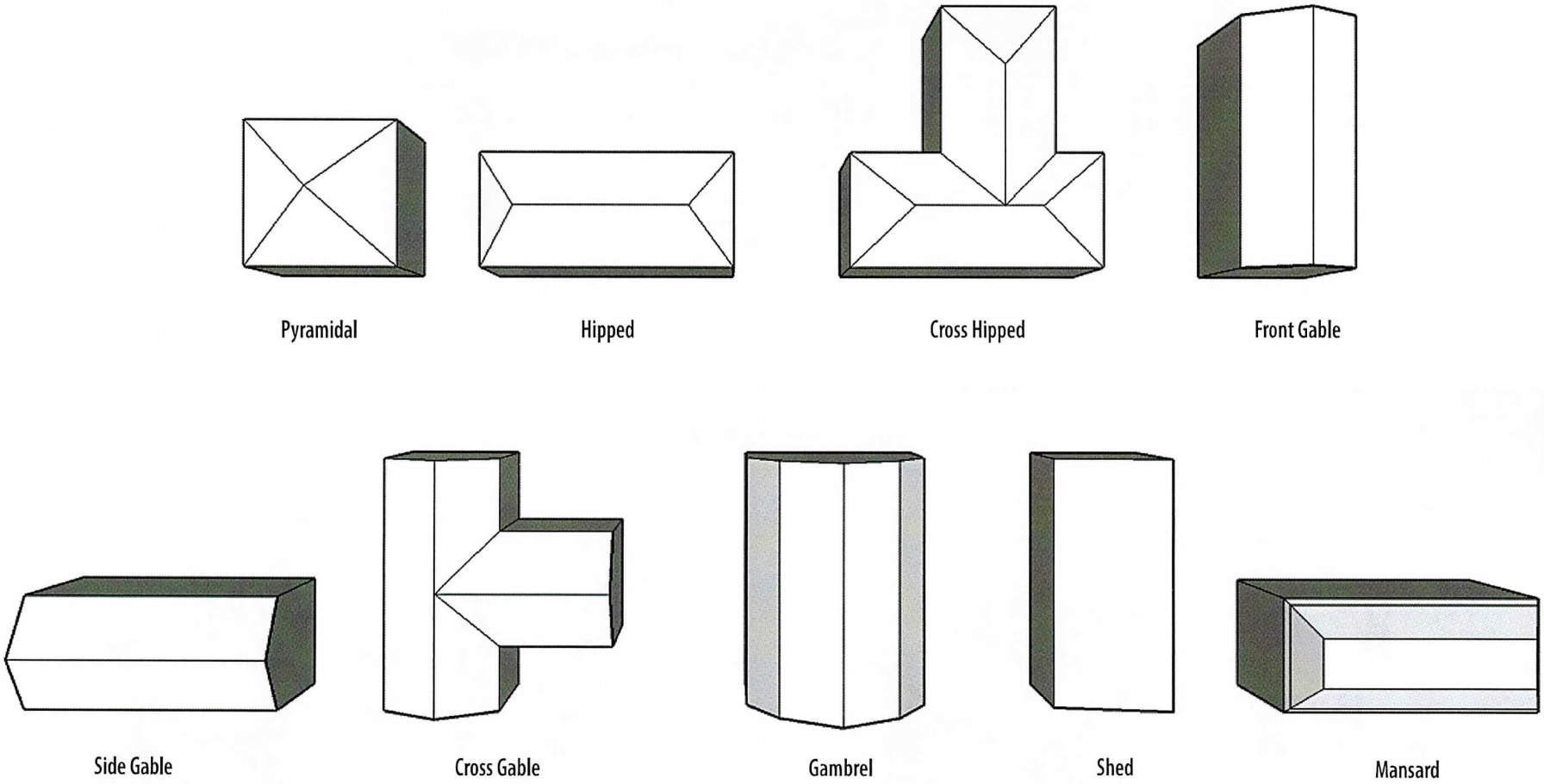




Roof Styles

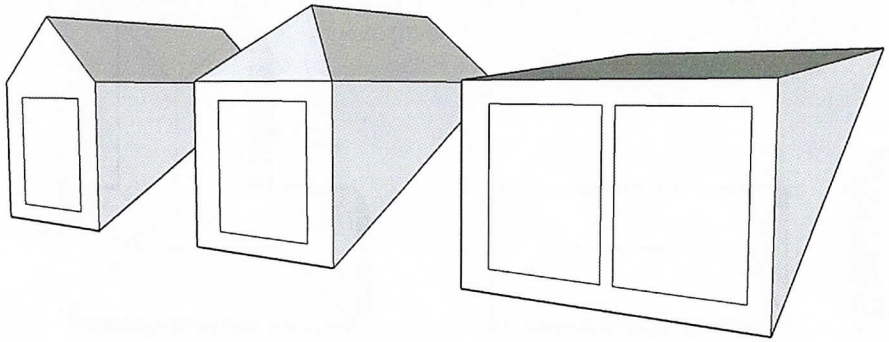

Pyramidal
Hipped
Cross Hipped
Front Gable
Side Gable
Cross Gable
Gambrel
Shed
Mansard

Roof Styles

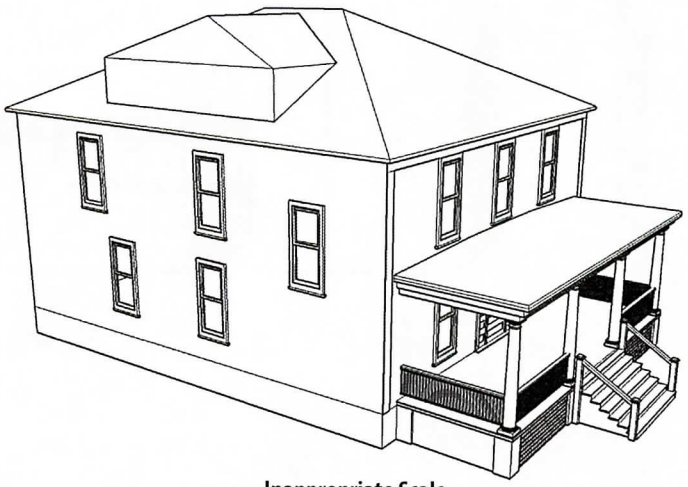

Pyramidal
Hipped
Cross Hipped
Front Gable
Side Gable
Cross Gable
Gambrel
Shed
Mansard

Dormers

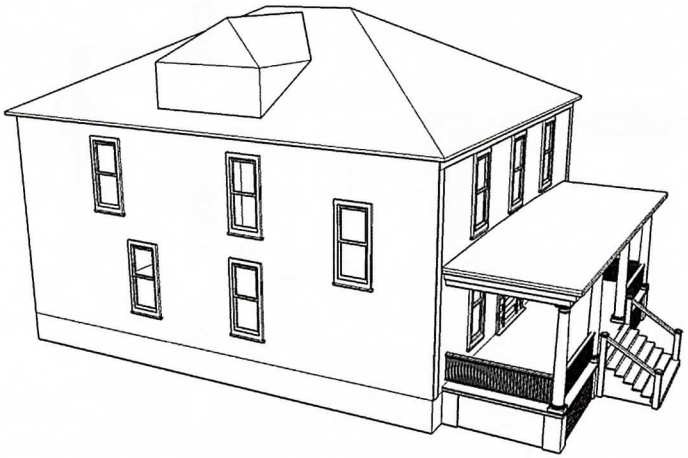
EXAMPLE OF DORMER SHAPES



EXAMPLE OF A DORMER ADDITION



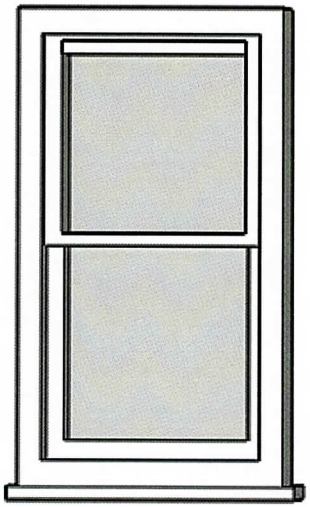
Inappropriate Scale



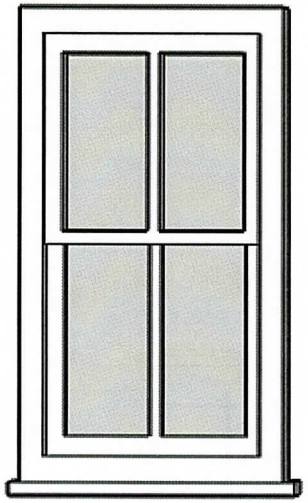
Appropriate Scale

Appendix E:
Windows

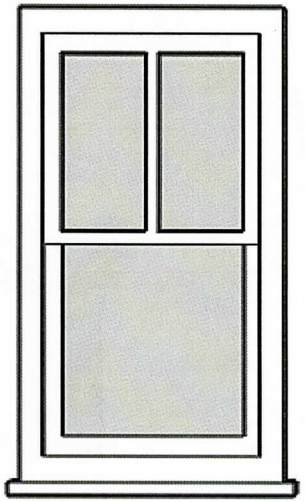
Window Styles



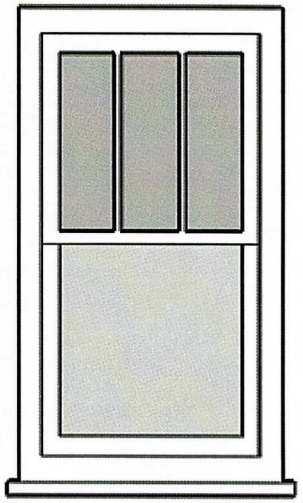
1-1



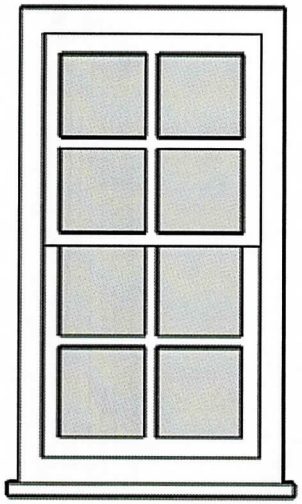
2-2



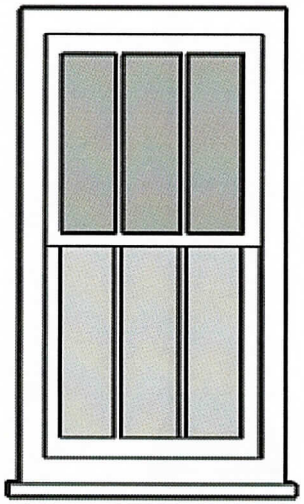
2-1



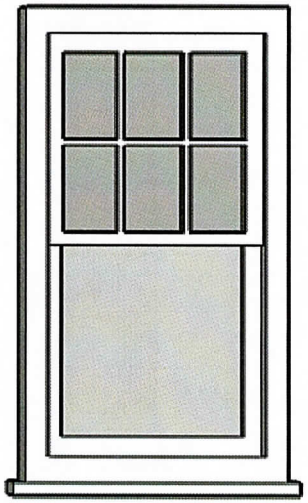
3-1



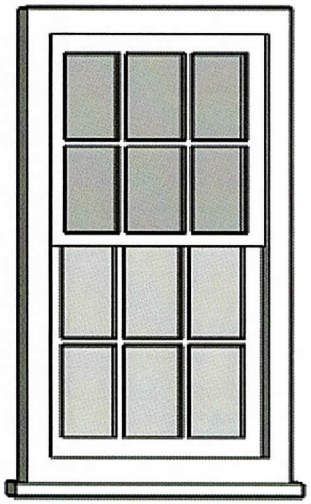
4-4



3-3



6-1

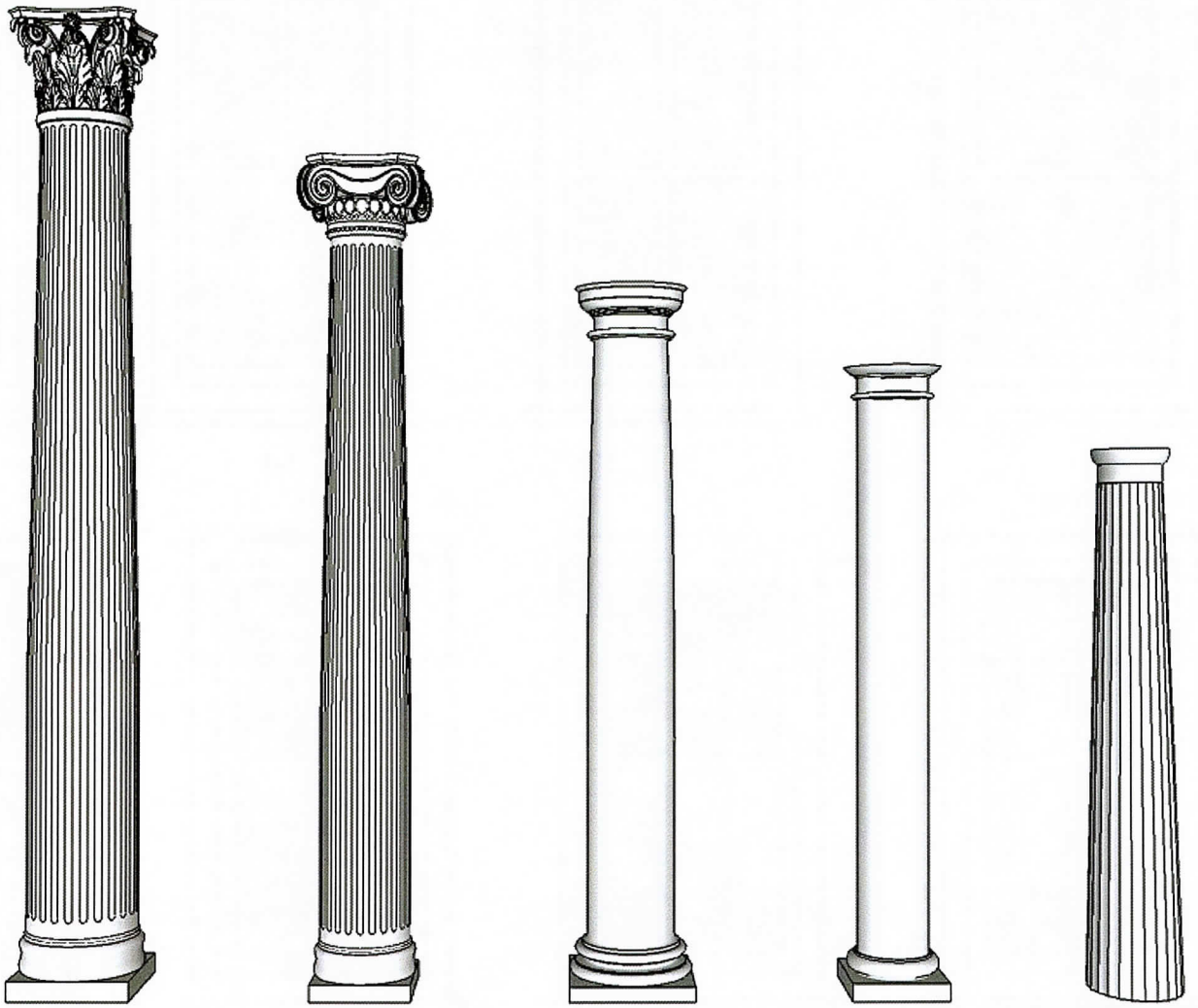


6-6

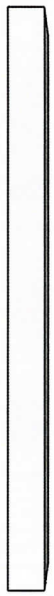
Appendix F:

Columns and Posts

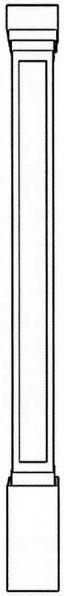
Column Orders



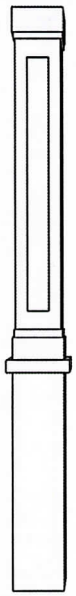
Types of Columns & Posts



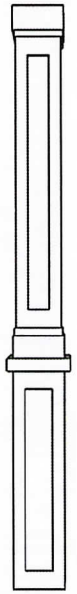
Square Post



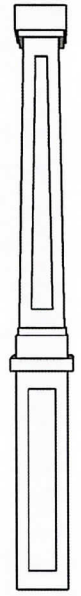
Full Box with Panels



Box on Pier with Panels



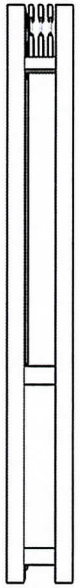
Box on Pier with Double Panel



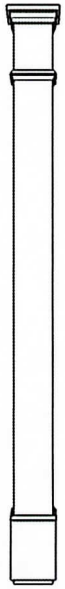
Tapered Box on Pier with Panel



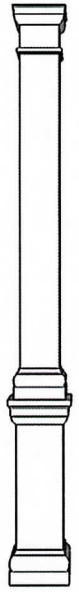
Turned Post



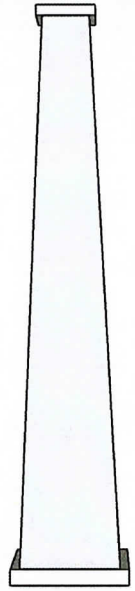
Double Post



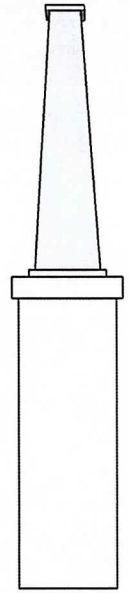
Simple Box



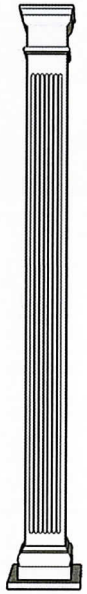
Box on Pier



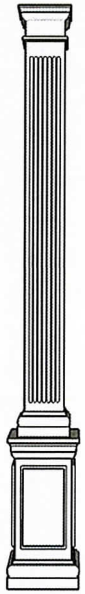
Full Tapered



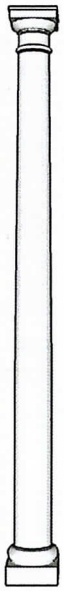
Tapered Column on Pier



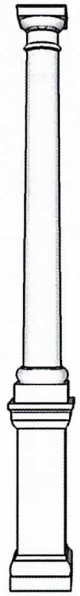
Fluted Box



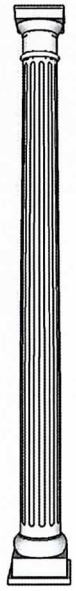
Fluted Box on Pier with Panel



Full Column



Column on Pier



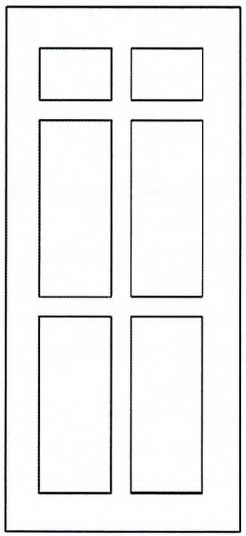
Full Column Fluted



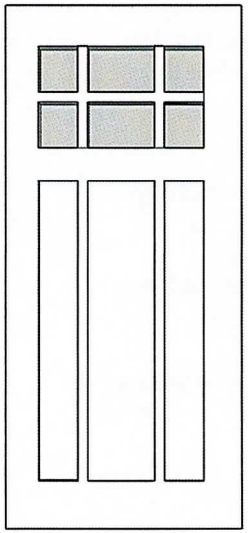
Fluted Column on Pier

Appendix G:

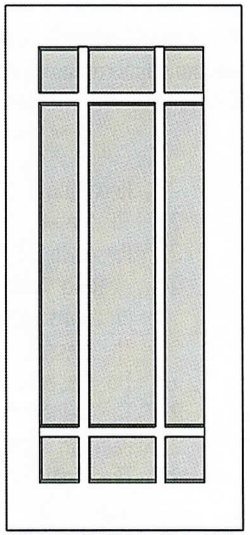
Doors



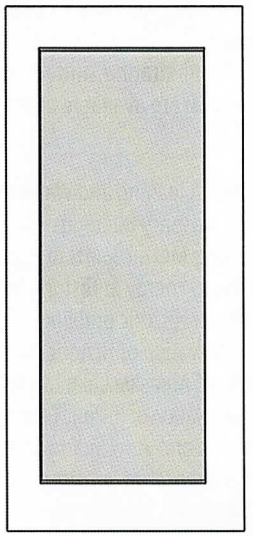
6-Panel Vertical



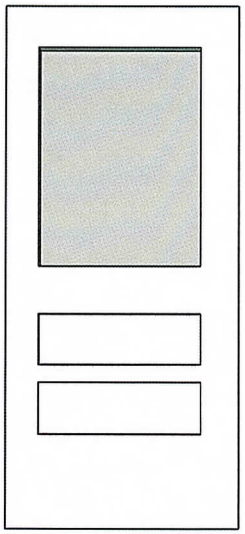
Craftsman 6-Lite & Panel



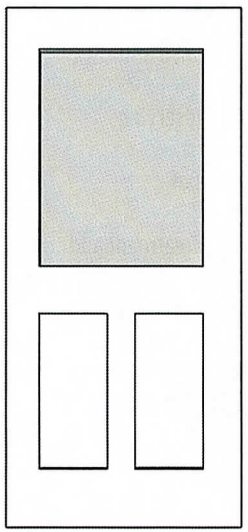
Craftsman 9-Lite



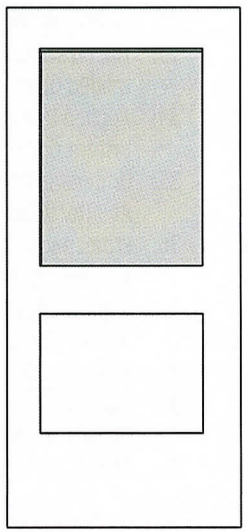
Full-lite



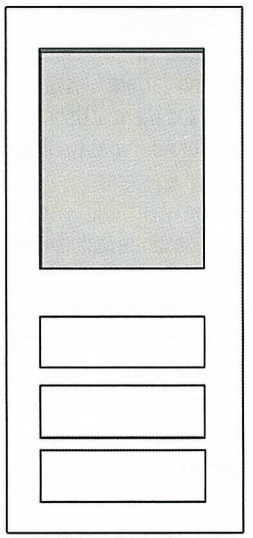
Half- lite Double Panel Horizontal



Half- lite Double Panel



Half-lite Single Panel



Half-Lite Triple Panel

Appendix H:

Resources and Technical Information

National Park Service Preservation Briefs

The National Park Service Technical Preservation Services division provides a set of user-friendly guidance documents on preserving, rehabilitating, and restoring historic buildings and individual components. Preservation briefs include the following, which are available at http://www.nps.gov/tps/how-to-preserve/briefs.htm.

01: Assessing, Cleaning and Water-Repellent Treatments for Historic Masonry Buildings
02: Repointing Mortar Joints in Historic Masonry Buildings
03: Conserving Energy in Historic Buildings
04: Roofing for Historic Buildings
05: The Preservation of Historic Adobe Buildings
06: Dangers of Abrasive Cleaning to Historic Buildings
07: The Preservation of Historic Glazed Architectural Terra-Cotta
08: Aluminum and Vinyl Siding on Historic Buildings: The Appropriateness of Substitute Materials for Resurfacing Historic Wood Frame Buildings
09: The Repair of Historic Wooden Windows
10: Exterior Paint Problems on Historic Woodwork
11: Rehabilitating Historic Storefronts
12: Preservation of Historic Pigmented Structure Glass (Vitrolite and Carrara Glass)
13: The Repair, and Thermal Upgrading of Historic Steel Windows
14: New Exterior Additions to Historic Buildings: Preservation Concerns
15: Preservation of Historic Concrete
16: The Use of Substitute Materials on Historic Buildings Exteriors
17: Architectural Character – Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character
18: Rehabilitating Interiors in Historic Buildings – Identifying Character-Defining Elements
19: The Repair and Replacement of Historic Wooden Shingle Roofs
20: The Preservation of Barns
21: Repairing Historic Flat Plaster – Walls and Ceilings
22: The Preservation and Repair of Historic Stucco
23: Preserving Historic Ornamental Plaster
24: Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches
25: The Preservation of Historic Signs
26: The Preservation and Repair of Historic Log Buildings
27: The Maintenance and Repair of Architectural Cast Iron
28: Painting Historic Interiors
29: The Repair, Replacement, and Maintenance of Historic Slate Roofs
30: The Preservation and Repair of Historic Clay Tile Roofs
31: Mothballing Historic Buildings
32: Making Historic Properties Accessible
33: The Preservation and Repair of Historic Stained and Leaded Glass
34: Applied Decoration for Historic Interiors: Preserving Historic Composition Ornament
35: Understanding Old Buildings: The Process of Architectural Investigation
36: Protecting Cultural Landscapes: Planning, Treatment and Management of Historic Landscapes
37: Appropriate Methods of Reducing Lead-Paint Hazards in Historic Housing
38: Removing Graffiti from Historic Masonry
39: Holding the Line: Controlling Unwanted Moisture in Historic Buildings
40: Preserving Historic Ceramic Tile Floors
41: The Seismic Retrofit of Historic Buildings: Keeping Preservation in the Forefront
42: The Maintenance, Repair and Replacement of Historic Cast Stone
43: The Preparation and Use of Historic Structure Reports
44: The Use of Awnings on Historic Buildings: Repair, Replacement and New Design
45: Preserving Historic Wooden Porches
46: The Preservation and Reuse of Historic Gas Stations
47: Maintaining the Exterior of Small and Medium Size Historic Buildings

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ONLINE RESOURCES

National Park Service Technical Preservation Services
http://www2.cr.nps.gov/tps/index.htm

Illustrated Guide for Rehabilitating Historic Buildings
http://www2.cr.nps.gov/tps/tax/rhb/index.htm

Illustrated Guidelines on Sustainability for Rehabilitating Historic Buildings
http://www.nps.gov/tps/sustainability.htm

The Secretary of Interior's Standards for Rehabilitation
http://www2.cr.nps.gov/tps/tax/rehabstandards.htm

National Park Service Preservation Briefs
http://www2.cr.nps.gov/tps/briefs/presbhom.htm

National Register of Historic Places
http://www.cr.nps.gov/nr/



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