DESIGNING HISTORICALLY SENSITIVE AFFORDABLE INFILL HOUSING

IN MUNCIE’S OLD WEST END HISTORIC DISTRICT

A CREATIVE PROJECT

SUBMITTED TO THE GRADUATE SCHOOL

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE

MASTER OF SCIENCE IN HISTORIC PRESERVATION

BY

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The Old West End Historic District is one of the most significant neighborhoods in the city of Muncie, Indiana. Most notable for its Late Victorian residential architecture, the neighborhood's development was sparked by the natural gas boom era that began in Muncie in 1886. Unlike Muncie's predominately upper-class east end, the west end was a mixture of working class, old established Muncie families, and gas boom industrialists. Throughout the course of the gas boom era, Muncie and the neighborhood thrived and grew. However, the unreserved use of the natural gas led to its quick depletion and by 1910 the gas boom era had ended. By the 1930s, Muncie moved away from its industrial roots and began to be known for its university, Ball State.

With fewer industries to keep residents in the downtown area, many of the families in the Old West End were drawn to suburban college town living and moved across the river into new housing developments near the university. As the established families moved out, students, low-income families, and transients moved into the neighborhood. After WWII, many American cities experienced rapid decline in their downtown districts and neighborhoods as a result of the movement towards building new homes in the suburbs and suburban living. Muncie and the Old West End Historic District were no exception and experienced rapid decline in the post WWII era. Many homes fell into disrepair and were demolished. There are a total of three hundred and four properties in the district, of which two-hundred and seventy-eight are
some type of housing. There are currently a total of thirty-three vacant lots in the neighborhood and fifteen additional homes set to be demolished. Once demolished, the homes were not replaced and now all that remains is a vacant lot. If homes continue to be demolished without being replaced by a new home, the neighborhood will continue to decline.

The development of infill housing can help revitalize the neighborhood by filling vacant lots and restoring the neighborhood's density and character. However, developing new housing in an historic district presents many issues, most notably, compatibility between the existing buildings and the new. The Old West End does not currently have design guidelines for the proposal of infill housing. This creative project presents a set of design guidelines for new infill housing in the Old West End Historic District to ensure that new housing is compatible with the neighborhood and does not detract from its existing historic character. These guidelines are based on the recommendations in *The Secretary of Interior's Standards for the Treatment of Historic Properties*. Also, as many residents in the neighborhood are in low-income households, this creative project presents considerations and recommendations for developing new infill as affordable housing. Affordable housing is defined as “housing that costs no more than 30 percent of a household's monthly income.”¹ This project proposes owner-occupied infill that meets the affordability requirements for residents who make 80% of the area median income.

To exemplify how the design guidelines and the affordability recommendations can be applied to create successful infill design, this creative project presents several infill designs for the neighborhood. The design guidelines, affordability recommendations, and the infill design examples can be used by historic preservationists, architects, and the community to create

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affordable infill housing designs for the Old West End National Register District that meet The Secretary of the Interior’s Standards.

**Literary Review**

There is a significant amount of literature that discusses infill design and affordable housing. However, there is not one document that specifically lays out guidelines for developing infill in historic neighborhoods. There are also several literature sources that discuss the issues of compatible design in historic neighborhoods. Views on compatibility range from replicating historic designs to creating contemporary, yet compatible designs.

The book, *The Architecture of Additions: Design and Regulation*, by Paul Spencer Byard, proposes that contemporary additions can be successfully added to historic buildings through sensitive and thoughtful designs. He argues that new buildings and additions should express the architecture of their own time and not copy the existing historical architecture. He provides many examples of what he considers to be successful and unsuccessful additions to existing historic fabric. Through these examples he describes criteria he believes will help protect the public interest in great historic buildings. While most of the examples in this book are additions to buildings and not infill to districts, many of these criteria still apply to my project. The same arguments and criteria of what are compatible additions to historic buildings can apply to infill projects in historic neighborhoods. However, Byard’s theories on new construction in historic settings are not the only point of view.


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Semes argues that the current preservation theory of "the new work shall be differentiated from the old", allows modernists to create radically contrasting, and what he considers to be unsympathetic, designs. Semes argues that these contrasting designs destroy the existing urban fabric. He believes that successful additions and infill should create visual wholeness and architectural continuity and that the best way to achieve this is by implementing new traditional architecture. Like Byard, Semes makes his argument through a series of examples from which he derives criteria for evaluating new architecture in historic settings. He breaks down the possible approaches into four categories: literal replication, invention within a style, abstract reference to historical style, and intentional opposition. While he insists that one approach is not better than the other, he believes the first three can enhance historic settings, while the fourth creates a rupture in the historic fabric and should not be used unless the addition is to a modernist setting.

Semes also proposes a new conservation ethic that emphasizes environmentally sustainable construction, accommodation of the physical, social, and spiritual needs of inhabitants, and the healing power of beauty. Through this new conservation ethic he hopes to create a single set of values that applies to all cultural resources regardless of style, where the surrounding context dictates the design of the addition or infill. The Byard and Semes books present the two main opposing theories on additions and infill in historic settings. One theory cannot be proven to be better than the other. Both provide compelling arguments for each approach. Examples and criteria from both books can be used to inform my designs and determine which approach is more appropriate for the Old West End neighborhood.

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Another book that discusses the issue of compatibility in historic neighborhoods is *Design and Historic Preservation: The Challenge of Compatibility*, edited by David Ames and Richard Wagner. This book compiles a series of essays from the “Third National Forum on Preservation Practice: A Critical Look at Design in Historic Preservation” conference held at Goucher College. The essays are written by various professionals including architects, planners, preservationists, engineers, landscape architects, and historians. The essays are divided into four categories: Melding Contemporary and Historic Design, Design Standards for Changing Environments, Modernism and Post Modernism in Preservation Design, and Engineering and Preservation Design. Each category has three or four essays that discuss issues and approaches related to the category. This book provides many examples of the various views on design compatibility from several different professional stand points. This book can inform my project and designs with the concerns of design compatibility in the preservation field.

*Design and Development: Infill Housing Compatible with Historic Neighborhoods*, by Ellen Beasley, is an information booklet produced by the National Trust that details their approach to developing successful infill housing. It discusses the major issues of developing infill housing in historic neighborhoods such as relating the new design to the existing surrounding context, exact duplication of historic designs vs. contemporary designs, and the process needed to complete successful infill design. It also details the various types of potential infill construction and how to get neighborhood groups to participate in infill projects.

The remainder of the booklet discusses the case study of the Historic Edgefield Neighborhood in Nashville, TN. It details the process, solutions, successes, and problems that

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5 Beasley.
the neighborhood faced in developing new infill housing. It also details the effect of the infill housing on the neighborhood after ten years and the resulting neighborhood stabilization and growth. The booklet is helpful to my project as it details a successful process for developing infill housing in historic neighborhoods according to the National Trust. I can use this booklet as a guide for developing successful infill housing in the Old West End neighborhood and use the Nashville, TN example as a case study of successful infill design.

*Developing Successful Infill Housing*, by Diana Suchman, covers the topics related to infill housing without specific regard to historic neighborhoods. It details many of the issues regarding decline in downtown neighborhoods and the social and economic problems that cause it. The ideas of smart growth, reusing existing buildings, redeveloping existing neighborhoods, and the need for infill housing are discussed. It also details strategies for implementing successful infill housing through financing, legal issues, community involvement and desirability, obtaining resources, and development and design. The second half of the book includes several case studies of successful affordable housing that detail the costs, designs, and overall strategies of the projects. The book generally focuses on large scale, multi-unit, urban projects rather than the smaller scale type projects that would more directly apply to the Old West End. However, it is helpful to my project in that it provides strategies for developing affordable housing that can be applied to smaller scale projects.

The other main component to my project is affordable housing. The book *Affordable Housing: Designing an American Asset*, by Suzanne Corcoran, et. al., provides several valuable

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resources for developing successful affordable housing. The book presents the history of affordable housing in the United States and the socio-economic factors that have led to the development of what it is today. It discusses the current needs for affordable housing and various methods for creating it. It also discusses the strategies and limitations for successful design and development of affordable housing. The second half of the book presents eighteen successful affordable housing case studies. This book is beneficial to my project in that it provides data on the current needs for affordable housing and how to best plan for its design and development. The case studies are also beneficial because they show various types and strategies for developing successful affordable housing as well as the cost breakdowns for each project.

Chasing the American Dream: New Perspectives on Affordable Homeownership, edited by William M. Rohe and Harry L. Watson, discusses many issues regarding affordable homeownership in America. The sections of the book most helpful to my project are the chapters on design and planning perspectives, economic perspectives, and social perspectives. The chapter on design and planning perspectives detail several strategies for developing successful affordable housing including the use of prefabricated housing and the flexibility of floor plans. The economic and social perspectives address the positive effects homeownership can have on low-income households. These effects include increased wealth producing potential, financial returns of homeownership, and increased pride in the community and the neighborhood. This is helpful to my project in providing strategies and examples for designing

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affordable housing. It also shows the potential positive effects on the Old West End neighborhood through the implementation of affordable housing.

**Methodology**

Several neighborhoods were considered for this infill design project. The Old West End was selected because of its lack of existing design guidelines and its need for affordable infill housing and revitalization efforts. Literature on developing successful infill housing, infill housing in historic neighborhoods, and affordable housing was reviewed for strategies, concepts, guidelines, and case studies to inform the design process. Because the Old West End is a National Register historic district, *The Secretary of Interior's Standards for the Treatment of Historic Properties*\(^9\) was consulted. The set of guidelines from this document that are most appropriate for the development of infill housing is *The Secretary of the Interior's Standards for Rehabilitation* (See Appendix B).

The neighborhood's existing conditions were surveyed and analyzed based on housing conditions, number of vacant lots, and historical character and fabric. Research was conducted on the history of the neighborhood to determine its historical significance. The neighborhood’s National Register nomination form, historic maps, and historic photographs were consulted for historical information. Research was also conducted through the U.S. Census Bureau on the neighborhood's current socio-economic conditions to determine the types of housing currently needed in the neighborhood. The information gathered from the literature, historic research,

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and neighborhood analysis was then combined to develop infill guidelines and designs for compatible affordable housing.
History and Significance of the Old West End Historic District

The Old West End Historic District is located on the west edge of downtown Muncie, Indiana. The district consists of roughly twenty-eight city blocks and is mainly residential with some commercial and religious uses interspersed. The district is significant because its residential architecture reflects the impact of the gas boom era on one of the city's predominately middle class neighborhoods. The area was originally wooded, with a large glacial mound located near the vicinity of where Mound Street and Howard Street now intersect. The northern portion of the district is part of the original 1827 plat of Munseetown. Goldsmith Gilbert, who is credited as the founder of Muncie, donated the land.

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11 Ibid.
12 Ibid.
The remainder of the district was largely farmland and developed slowly throughout the mid-nineteenth century. The earliest surviving homes in the district date from this mid-century era. The rapid development of the neighborhood was fueled by the discovery of natural gas and the resulting gas boom era that occurred in Muncie between 1886 and 1910. During this period the district experienced a boom of homes constructed for some of the city's oldest families, the expanding middle and working classes, and the gas boom "nouveau riche". As a result, the district has an outstanding variety of homes representing architectural styles dating

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13 Richard A. Green, *Birdseye View of Muncie*, 1872, Spurgeon-Greene Photographs Collection, Archives and Special Collections, Ball State University, Muncie, IN.
14 Muncie Community Development Department, 18.
from the late nineteenth and early twentieth centuries. It also contains the largest concentration of Late Victorian residential architecture in the city.

Delaware County was established on January 26, 1827, and shortly thereafter, Munseetown was designated the county seat. David Gharkey had platted most of the land by 1837, but, mainly because of poor transportation routes, the population had only grown to 320 residents by this time. The arrival of the Indianapolis and Bellefontaine Railroad in 1852 helped double Muncie's population and established Muncie as an agricultural trading center and two years later, in 1854, Muncie was incorporated as a city.\textsuperscript{15} In the post Civil War era Muncie began to industrialize and move away from agriculture as its main source of revenue. By 1880, forty factories had been built in the city and were manufacturing a wide variety of products.\textsuperscript{16} It was during this early industrial era that the portion of the district south of Charles Street was platted. The earliest surviving homes in the district are located in this area.

The Muncie Business and Manufacturing Association was founded in 1885 to recruit new business to Muncie. The discovery of natural gas in 1886 led to rapid growth and development of the city as natural gas was considered, at the time, to be an unlimited supply of cheap energy.\textsuperscript{17} The discovery of natural gas and the association's recruitment led several prominent businesses to be established in Muncie. The Ball Brothers brought their company to Muncie in 1888 and quickly became one of the leading employers in Muncie. Midland Steel, Indiana Iron Works, Muncie Wheel Company, and the Indiana Bridge Company also established offices in Muncie during this time.\textsuperscript{18} These businesses employed both corporate and labor

\textsuperscript{15} Ibid.  
\textsuperscript{16} Ibid.  
\textsuperscript{17} Ibid.  
\textsuperscript{18} Ibid.
positions and members of both of these groups were attracted to the west end because of its close proximity to downtown and the White River. As a result, a wide variety of grand, stately homes, as well as small worker’s cottages, were built along the west end’s tree lined streets.

Some of the prominent styles found in the neighborhood include Queen Anne, Free Classic, Italianate, Second Empire, Dutch Revival, and Craftsman. For the purpose of description, the neighborhood can be broken down into four different areas: the river area, bound by the White River to the north and Jackson Street to the south, the "boom area" bound roughly by Jackson, Liberty, Howard, Proud and Mound Streets, the worker’s cottage area, bound by Charles, Mound, Proud, Howard, and Elliot Streets and Kilgore Avenue, and Orchard Place,

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19 Sanborn Map & Publishing Co., Limited, *Muncie, Ind. Sanborn Map, 1887, Sheet 01*, 1887, Muncie Sanborn Fire Insurance Maps Collection, Archives and Special Collections, Bracken Library, Ball State University, Muncie, IN.
20 Sanborn Map Company, *Muncie, Ind. Sanborn Map, 1911, Key Map*, 1911, Muncie Sanborn Fire Insurance Maps Collection, Archives and Special Collections, Bracken Library, Ball State University, Muncie, IN.
which includes the homes on the Orchard Place cul-de-sac. This sequence of zones also represents the progression of the neighborhood's development.

Figure 4: Old West End Historic District Map showing the four neighborhood areas: Red: River Area, Yellow: Boom Area, Blue: Worker’s Cottage Area, Green: Orchard Place

The majority of the district’s most notable homes are located within the boom area, where many prominent industrial families constructed their homes. C. Matlin Kitselman, who served as treasurer of Indiana Steel and Wire, built his Free Classic style home at 805 West Charles Street. The Kitselmans were a prominent industrialist family who worked in the wire and steel industry. The grand, two and a half story home, built in 1908, was designed by

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21 Muncie Community Development Department, edited by Author.
22 Muncie Community Development Department, 19.
Arthur Glazer and is a testament to the Kitselman family's wealth. Another prominent home connected to the Kitselman family is the Vandercook-Kitselman House, located at 521 West Adams Street. Michael E. and Alice Vandercook built the home between 1891 and 1895. Alva Kitselman, who served as president of Indiana Steel and Wire, purchased the home from the Vandercooks. He then passed the home to his son, Harry, who served as treasurer at Indiana Steel and Wire. This large, two and a half story home is an outstanding example of Queen Anne architecture. Another outstanding example of the Queen Anne style, the Parson-Stewart House, is located next door to the Vandercook-Kitselman House at 517-519 West Adams Street. James H. and Minnie A. Parson built the two and half story home in 1900. Mr. Parson was a salesman for Little and Oakley and had also worked as a clerk for Delamore Hardware.

Robert and Ida Ball built their Queen Anne style home, located at 822 West Charles Street, in the district in 1891. Mr. Ball was a local entrepreneur and came to Muncie with his family to start a wire fence manufacturing business. Mr. Ball and his brothers also served as prominent officers in Indiana Steel and Wire, Muncie Gas and Engine and Supply Company, and Kitselman Brothers. Joseph G. Leffler purchased the home from the Balls in 1897. Mr. Leffler started his law practice in Muncie and was active in Republican politics. He was elected judge of Delaware County Circuit Court in 1898. Henry C. and Margaret Haymond constructed their Free Classic style home, located at 814 West Charles Street, in the district in 1897. Mr. Haymond served as vice president and president of the Delaware County National Bank of Muncie. He was also president of the Commercial Club and served on the Muncie City Council.

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23 Historic Architecture in the Old West End of Muncie, Indiana. (Muncie, IN: Muncie Public Library).
24 Muncie Community Development Department, 19.
25 Historic Architecture in the Old West End.
26 Muncie Community Development Department, 19.
and city school board.\textsuperscript{28} The two and a half story brick home has been designated a local landmark.

![Figure 5: Historic Photograph of the Haymond House (right) and the Ball-Leffler House (left)\textsuperscript{29}](image)

John H. Smith was another industrialist who moved his business from Bluffton, Indiana to Muncie in 1885. The J. H. Smith & Company manufactured carriage woodwork and later merged with Pioneer Pole and Shaft Company. Mr. Smith and his family lived in two locations within the west end. The family first lived at 507 South Council Street but later moved into a large Tudor style home, located at 611 West Howard Street, which Mr. Smith had constructed in 1902.\textsuperscript{30} Beecher Bennett, who owned the B. W. Bennett Brick Company, built his home in the

\textsuperscript{28} Historic Architecture in the Old West End.

\textsuperscript{29} Vertical Files, Drawings and Documents Archives, College of Architecture and Planning, Ball State University, Muncie, IN.

\textsuperscript{30} Muncie Community Development Department, 19.
district in 1905. The unique Free Classic style home, located at 508 West Charles Street, was designed by noted Muncie architect Cuno Kibele.\textsuperscript{31}

The Hunter-Glascock House, located at 47 Orchard Place, is one of the few remaining Second Empire homes in the city and is the only house of this style in the Old West End Historic District. Ira Hunter built the house in 1865. Mr. Hunter came to Muncie from Newton, Massachusetts to establish Ira Hunter and Company, a meat-packing house. The house was originally located at 500 Liberty Street but Katherine Glascock had it moved to its current location on Orchard Place in 1906.\textsuperscript{32} The home has been designated a local landmark by the city. John C. Eiler, a lawyer, built his home, located at 403 West Charles Street, in the district in 1881. Mr. Eiler was president of Muncie Savings and Loan Company, was the founder of the \textit{Sunday Morning Times}, serving as both editor and publisher, and was the appointed postmaster of Muncie.\textsuperscript{33} The two-story Italianate Style home has also been designated a local landmark by the city.

The district was also a popular place to live for many of the decedents of Muncie's oldest families. George R. Andrews, a grandson of Goldsmith Gilbert, resided in the residence located at 422 West Charles Street. Andrews worked as a physician and was the manager of L. P. Lake Company.\textsuperscript{34} Orlando Lotz was another member of a prominent Indiana family who lived in the district. He was listed as living at 511 West Charles Street in 1881. Lotz's father had been appointed to the U.S. Treasury by President Lincoln in 1861. Mr. Lotz was appointed to be judge of the 46th Judicial Circuit in 1882 by Indiana Governor Gray. Lotz served in this position until

\textsuperscript{31} \textit{Historic Architecture in the Old West End.}
\textsuperscript{32} Ibid.
\textsuperscript{33} Ibid.
\textsuperscript{34} Muncie Community Development Department, 19.
1892 when he was elected to the 4th district Appellate Court, where he served until his death in 1902.  

Judge Walter March was another prominent figure who once lived in the district at 441 West Howard Street. March first worked as a prominent attorney and was admitted to the Indiana bar in 1841. He served as the first judge of the Court of Common Pleas and was elected as a member of the State Constitutional Convention for Grant and Delaware counties. While serving with this convention, he assisted in revising the Constitution of the State of Indiana. The first legislature of the new constitution appointed Mr. March to a committee to develop a code of conduct for attorneys. Mr. March was also an abolitionist and worked to alleviate the unfairness against African-Americans in legal practices. Mr. March was elected to the State Senate in 1856 and served as the chairman of the Judiciary Committee. He went on to be elected to the Indiana House of Representatives in 1878.  

While not much is known about the individuals who lived in the workers cottage area, it is an integral part of the district. Most of the structures in this area are much smaller and less grand than the other homes in the district. These homes were generally built and lived in by the working class, which brought a unique dynamic to the neighborhood that was not found in the city’s predominately upper class east end. While the appearance of this area of the district is slightly different, it maintains the same density and continuity as the rest of the neighborhood.  

A notable home in this area is the Baughn House, located at 417 South Elliott Street. Frank and Stella Baughn built this Queen Anne Cottage in 1913. Mr. Baughn was a veteran of WWI and department manager of Kitselman Brothers Corporation, which later became Indiana

35 Ibid.  
Steel and Wire Company.  Another notable home in this area is the Queen Anne Cottage located at 413 South Elliott Street. This home is located next door to the Baughn House and is identical to it and was likely constructed around the same time. Unfortunately, most of the other homes in this area have been so severely altered that they have lost their historic integrity.

The increase in the demand for housing in the early twentieth century also led to the construction of several apartment complexes within the district. Curtis Rector, a descendent of a Muncie pioneer family, built the Rector Apartments across the street from where he lived in the Vandercook-Kitselman house. The Whittmore Apartments, located at 424 West Main Street, and the Charles Apartments, located at 325 W Charles Street, are also notable turn of the century apartment buildings in the district. Duplexes were also commonly built in the district throughout its development.

In addition to its outstanding residential architecture, the district is also notable for several outstanding public structures designed by notable architectural offices. Temple Beth-El, located at 525 W Jackson Street, was built in 1922 and was designed by the local firm of Smenner and Houck. The First Church of Christ Scientist, located at 326 West Charles Street, was built in 1929 and was designed by Cuno Kibele. Kibele designed several other notable structures in Muncie, including the P. K. Morrison residence located at 714 East Washington Street. He and Carl W. Garrard also designed the Masonic Temple located at 520 East Main Street.

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37 Historic Architecture in the Old West End.
38 Muncie Community Development Department, 19.
39 Ibid, 18.
40 Ibid, 18-19.
Another notable religious structure is the Friends Memorial Church, located at 418 West Adams Street, which was built between 1906 and 1908 and was designed by the Fort Wayne firm of Wing and Mahurin. The firm also designed Muncie’s Carnegie Library and the Goddard grocery warehouse. Joseph Goddard was another early entrepreneur in Muncie. He came to the city in the 1870s and opened a wholesale grocery business. The warehouse designed by Wing and Mahurin was built in 1906 and still stands at 215 West Seymour Street. Goddard and his wife were both active members of the Friends Memorial Church and it was through his influence that Wing and Mahurin were selected to design the church. Muncie's first hospital was established in the Old West End in the large brick building located at 515 South Council Street. The private hospital was established in 1890 by the husband and wife team William D. and Emmer A. Whitney.

By the 1930s, the prosperous gas boom era had ended and the neighborhood began to change. The draw of the college town feel led many of the neighborhood’s prominent families to move out and build larger homes across the river near the university. The development of new neighborhoods near the university and the movement of housing trends towards suburban living caused many families to favor new homes over downtown living in the west end. Between the 1940s and the 1960s many of the large homes in the district were divided into multi-family units and the neighborhood became popular for students, low-income families, and transients because of its low cost housing. As the neighborhood changed, it also declined, and many homes fell into disrepair. However, there have been some efforts to revitalize the neighborhood and restore it to the vibrancy it once had. There are several examples of homes

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41 Ibid, 19.
42 Ibid, 20.
that have been restored and preserved throughout the neighborhood. Yet, these efforts have had little effect on improving the district's overall condition.

The Old West End Historic District has been integral to Muncie's history since the early nineteenth Century. While it is most notable for its development as a residential hub during the gas boom era, it also dates back to Muncie's earliest settlement. It is also notable for its variety of housing styles and types and the diversity of its population. Today the district still remains largely residential. It has suffered some loss of density but it is still a notable district and important to Muncie's past and future. However, if efforts are not made to revitalize the neighborhood, it will continue to experience decline and many of its most notable structures will be threatened.

**Current Conditions of the Old West End Historic District**

The current conditions of the buildings in the district range from very poor to very good. While the neighborhood still retains its significance and much of its historic character, many of the homes in the district have fallen into disrepair or suffered incompatible and unsympathetic alterations. The new residents of the neighborhood no longer have a need for the large stately homes as single-family residences and many are now broken up into multi-family housing. Many dilapidated and abandoned homes have been torn town and a total of fifteen additional homes are currently slated to be demolished, including the Vandercook-Kitselman House.\(^{43}\) Many of the residents in the neighborhood today are low-income or living below the poverty level. The thirty-three vacant lots and the large number of residents in need of affordable

housing both provide an excellent opportunity for implementing affordable infill housing in the neighborhood.

Figure 6: Old West End Historic District map showing vacant lots

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Infill and Affordable Housing in Historic Neighborhoods

Infill Housing

Infill land is defined as "vacant parcels that are already served by utilities and are surrounded by urban development." However, it can also apply to small, even rural, towns. Infill is different from other types of development in that its design must relate to its surrounding context. Infill projects can vary greatly from single-family dwellings built on various scattered lots within a neighborhood, to large mixed-use developments covering several city blocks. There are many reasons for interest in infill development including but not limited to:

- A private developer sees potential for profit.
- An individual homeowner wants a new home in an old neighborhood.
- Preservationists want to demonstrate a compatible infill project.
- A local housing authority seeks to create affordable housing and revive a deteriorating neighborhood.
- A city wants to put vacant lots back on the tax roll.
- A city wants to construct new housing that uses the existing infrastructure.
- Historic residential neighborhoods accommodate a mix of household incomes.
- Rehabilitation of the neighborhood spurs additional rehabilitation.

Beasley, Design and Development, 1.
With all of these different reasons for wanting to implement infill design, the greatest challenge for infill in historic neighborhoods is creating designs that are compatible with the existing context, particularly in historic neighborhoods. The development of design guidelines for infill construction in historic neighborhoods is essential in insuring that the neighborhood maintains its historic integrity and its distinctive character. This is important to preserve the sense of place in the historic district. By creating a series of compatibility factors for the design of new infill construction, incompatible infill can be avoided. If done properly, infill housing can be a vehicle for successful reinvestment in the neighborhood. Infill housing helps improve a city’s image and living environment, provides homeownership opportunities within the city, helps attract and retain middle- and upper-middle-income residents, creates additional jobs and revenue, and provides new housing opportunities for downtown workers.\textsuperscript{46} The development of infill housing can also help strengthen and preserve the historic character of the city.

\textbf{Affordable Housing}

The most common challenge working American families face today is access to affordable and decent housing. Despite rising salaries and increased incomes, 95 million Americans are burdened by housing costs beyond their means, or live in crowded or inadequate conditions.\textsuperscript{47} The U.S. Department of Housing and Urban Development (HUD) defines "affordable" as housing that costs no more than 30 percent of a household's monthly income. This means that a worker who makes the current minimum wage of $7.25 an hour should not pay more than $348 per month for rent and basic utilities. However, nearly one-third of all

\textsuperscript{46} Suchman, 4.
\textsuperscript{47} Suzanne Corcoran et. al., 25.
American households spend at least 30 percent of their income on housing and 13 percent spend 50 percent or more.\textsuperscript{48}

Housing problems generally affect low- to moderate-income households. These households can be divided into four income categories: extremely low-income (ELI), making less than 30 percent of the area median income (AMI); very low-income (VLI), making between 30 and 50 percent of the AMI; low-income (LI), making between 50 and 80 percent of the AMI; and moderate-income (MI), making between 80 and 120 percent of the AMI. "Workforce housing" generally describes housing for those who are in the moderate income bracket.\textsuperscript{49}

The Federal government currently has several programs in place that help with the creation of affordable housing that are crucial to alleviate the affordable housing problem. HUD directly and indirectly oversees most of the federally sponsored housing projects in the United States. The mission of HUD is to increase homeownership, support community development, and increase access to affordable housing, free from discrimination. HUD oversees several programs including the HOME Investment Partnerships program and Community Development Block Grants (CDBGs). The HOME Investment Partnership program helps acquire, produce, or rehabilitate rental housing units and the CDBGs provide funds for neighborhood redevelopment projects. The low-income housing tax credit program is also available to help finance affordable rental units.\textsuperscript{50} Individual states, non-profit organizations, and for-profit organizations also offer help and incentives for developing affordable housing.

\textsuperscript{48} Ibid.
\textsuperscript{49} Ibid.
\textsuperscript{50} Ibid, 26.
The census tract data for Muncie provides valuable information about the housing needs of the current residents in the neighborhood. The majority of the Old West End District is located within Muncie’s census tract 6. The small sliver of the neighborhood located to the East of Liberty Street is included in Muncie’s census tract 1. Most of the structures within the census tract 1 area are non-residential, so the analysis of the neighborhood’s residential demographics will be based on the data for census tract 6. The census tract 6 data includes the remainder of the neighborhood and is bounded by the White River to the North, Liberty Street to the East, the railroad tracks to the South, and Tillotson Avenue to the West.

Figure 7: Map of Muncie’s Census Tract 6


52 Ibid.
According to the 2000 census data, there are a total of 1,331 housing units in census tract 6, of which, 1,044 are occupied. Of these occupied units 807 are renter-occupied and 237 are owner-occupied. The overall vacancy rate for the neighborhood is approximately 4.64%. An acceptable vacancy rate for owner-occupied housing is 4% and 7% for renter-occupied housing. As the majority of the housing in the neighborhood is rental, the vacancy rate for the neighborhood is likely acceptable, or even potentially a little low. Some vacancy is needed to allow household movement, or filtering, to occur through the neighborhood. There are currently thirty-three vacant lots within the historic district. The large number of vacant lots and the potential need for additional housing in the neighborhood, both indicate the neighborhood has a need for infill housing. Infill housing is also a means to support neighborhood stability by promoting community reinvestment and rehabilitation, both of which are needed in the Old West End neighborhood.

The census data also indicates a need for more affordable housing in the neighborhood. Households that spend 30% or more of their income on housing costs are considered moderately burdened. Households that spend 50% or more are considered severely burdened. For renters in the neighborhood, 150 (18.6%) households are moderately burdened and 206 (25.5%) households are severely burdened. A total of 366 renter households are listed as being below poverty level. For owner occupied housing, twenty-nine (22.3%) households are at least moderately burdened by housing costs. According to this data, nearly half of all renters and nearly a quarter of all homeowners are at least moderately burdened by housing costs. This indicates a strong need for more affordable housing, particularly rental housing, in the neighborhood.

53 Ibid.
54 Ibid.
The median value of owner occupied homes in the neighborhood is $40,700. The median income for homeowners is $27,026 and the median income for renters is $12,039. The collective household area median income is $17,194.\textsuperscript{55} Based on the AMI of $17,194, households that make less than $5158.20 are ELI, households that make between $5158.20 and $8597 are VLI, households that make between $8597 and $13,755.20 are LI, and households that make between $13,755.20 and $20,632.80 are MI. The highest percentage of the population in the neighborhood (33.9\%) is ELI or VLI, making less than $10,000 per year. Based on the collective AMI of $17,194 per year, or approximately $1,432.83 a month, an affordable monthly housing cost would be $429.85. Individually, an affordable monthly housing cost would be $300.98 for renters and $675.65 for homeowners. The data overwhelmingly shows there is a need for affordable housing in the Old West End neighborhood. Infill housing provides a great opportunity to develop affordable housing and promote the revitalization of the neighborhood.

**Designing for Affordability**

Affordable housing must rely on design and the efficient use of space, materials, and energy to be successful. Good design is an important tool to change the public's generally negative view towards developing affordable housing in their neighborhoods. If people living in affordable housing are proud of where they live, they are more likely to take care of their homes, and the better the housing looks, the more likely neighbors are to accept it into their neighborhood.\textsuperscript{56} There are several methods to reduce costs in affordable housing. These include:

- Higher densities could lower soft costs and land costs per unit.

\textsuperscript{55} Ibid.
\textsuperscript{56} Corcoran et. al., 31.
Energy efficient design, materials, and appliances help minimize costs to the homeowner.

Prefab fabricated elements could speed the building process while relying on more cost effective factory labor.

Smaller more efficient dwellings can save materials and speed construction, which lowers cost.

Better insulation to conserve energy.

Flexible floor plans to allow for different needs and preferences of low-income households.\textsuperscript{57}

Mortgage rates and household income also largely affect housing affordability, so it is difficult to cut costs from these measures alone. Because of this, federal and local funding are essential in developing affordable housing.

The overall planning of the neighborhood is also an important factor in making affordable infill housing successful. Developing flexible zoning that allows for mixed-use development and/or flexible live/work options allows low-income residents to rely less on personal transportation. Living near where they work also minimizes transportation costs. Having successful public transportation also allows low-income residents access to the amenities they need outside of the neighborhood. Having a wide variety of local work opportunities, such as working from home, gives low-income residents a convenient means of generating income. Flexible floor plans can enable residents to have a home office for their personal business. Or, if the space is not needed for an office, it can be rented out for additional income. Improved incomes benefit not only the residents, but the community as a whole and help it become more

\textsuperscript{57} Ibid.
stable by decreasing missed rent payments and mortgage defaults and increasing the buying power of the residents.

Developing affordable housing in existing neighborhoods also helps eliminate blight. Currently, nearly 85 percent of new housing is targeted to middle and upper class families, according to the National Association of Counties.58 Developing mixed-income communities helps stabilize and revitalize communities and neighborhoods. As stated by developer Suzanne Corcoran, "the key to success for affordable housing is to offer attractive design and amenities and to treat all residents the same, whether their monthly rent is $500 or $2500."59 Infill design often helps spur revitalization in neighborhoods by attracting middle and upper-middle class residents. Many people in this demographic are moving back into the city and often buy and rehabilitate houses in up and coming neighborhoods. The development of affordable infill housing promotes a mixed-income community and helps eliminate the concentration of poverty often found in blighted neighborhoods, while avoiding gentrification, where the higher income residents force out the lower income residents.

Affordable housing should take into account the distinctive histories, contexts, sites, and populations of the community and neighborhood. The National Buildings Museum's exhibition Affordable Housing: Designing an American Asset presented eighteen affordable housing projects that exemplified the various types of affordable housing and the various groups of people who need it, including families with small children, single adults, the elderly, farm workers, the developmentally disabled, the formerly homeless, and more. The exhibit also

58 Ibid, 37.
59 Ibid.
aimed to show that affordable housing can meet high standards of design. The curators used five criteria to guide their design analysis:

1. Are the grounds (landscape) clearly marked in such a way as to indicate ownership and use?
2. Does the sequence of continuum help the transition from public space to private space?
3. Do the different sides of the buildings help create and define how the different spaces are used?
4. How do the units differ in their relation to their location in the project?
5. How flexible is the layout of the units and of the project as a whole?\(^{60}\)

These criteria are excellent guidelines to follow when developing affordable housing infill in order to insure its success.

**Design Guidelines for the Old West End Historic District**

Any new construction in the district should meet a series of compatibility factors. These compatibility factors are based on *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings*. New construction will be compatible with existing structures in terms of its spacing, scale, proportions of the facade openings, height, relationship of materials, textures, and colors, rhythm of entrances and porch projections, setbacks, windows and doors, roof pitch and shape, and lot allocation and orientation. New buildings should complement existing ones without copying historic styles or features. Designs that respect the massing, scale, foundation height, setbacks, and lot allocation and orientation of the historical structures are preferred.

\(^{60}\) Ibid, 42-44.
Building details and ornaments that imitate historical elements should not be used. Site features, such as sidewalks, landscaping, and garages should match the existing fabric in size, location, and scale. Multi-family housing will be compatible with adjacent structures in terms of height, proportion, and massing. For further definition and explanation of the compatibility factors, see Appendix D.
Compatibility

Design and compatibility are critical and central issues in historic preservation. A building, district, or landscape is often described by the arrangement of its parts based on the principles of design. These principles are applied in terms of scale, proportion, and massing, as well as texture and color of the materials. Compatible design is defined as “capable of existing together in harmony.”\textsuperscript{61} There are often two approaches to creating infill design in historic neighborhoods. These approaches are matching the new to the old and contrasting the new and the old. In the matching approach, buildings are made to look indistinguishable from the adjacent historic properties as much as possible. This approach often appeals to the members of the community and civic organizations. The contrasting approach believes that new housing should be contemporary in design and be clearly identifiable from the old. Architects often prefer this approach as it allows for more freedom of expression in design.

The Secretary of the Interior’s Standards reject both approaches. The Standards argue that new infill which is designed to match the existing structures undermines the integrity and significance of the historic structures. However, The Standards also argue that because of too much differentiation the contrasting approach also undermines the integrity and significance of the historic structures. The Standards stipulate “the new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and

\textsuperscript{61} Ames and Wagner, xiii.
massing to protect the integrity of the property and its environment. So what approach should we take when designing infill in historic neighborhoods?

The “Third National Forum on Preservation Practice: A Critical Look at Design in Historic Preservation” held at Goucher College in March, 2002, raised many questions regarding infill and design guidelines in discussions on design and historic preservation. These questions included: How much does a successful project hinge on the approach taken and how much on the skill of the designer? Must new design be subservient to existing fabric to be compatible? What enrichment does a contrasting new design bring to a district? To what degree do the specific attributes and character of a historic district or property affect the nature of new design? How can design avoid pitfalls and “themes,” which is sometimes the result of compatibility? Do guidelines stifle or encourage creative design? How flexible should design guidelines be? What are the virtues of highly specific guidelines? What are the virtues of general guidelines? How specific should guidelines be to a community or district? How can guidelines avoid fostering inaccurate, historicizing treatments? What are the most effective ways to address the use of historical versus substitute materials? As exemplified in these questions, the issues of compatibility and historic vs. contemporary designs and how design guidelines should address these issues in historic neighborhoods is very complex.

The difficulty of designing quality infill buildings is rooted in the question of what constitutes compatibility. The public typically favors historicizing designs, developers wish to maximize return on their investment by building the largest possible structure, preservationists promote the notion of compatibility, and architects typically favor contemporary designs. As seen in the contrasting arguments between Semes and Byard in the literary review, cases can be

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62 Grimmer and Weeks, 62.
made for both the contemporary and the historicizing approaches, while *The Secretary of Interior’s Standards* stipulate that the designs should simply be compatible. However, designs that are on the extreme ends of either approach are rarely successful. Exact replication of historic building forms and ornamentation that make the infill appear historic when it is not and an extremely contemporary infill building that does not acknowledge that it has a context, are both often considered to be unsuccessful and incompatible in historic neighborhoods. The best approach to compatibility is to create a building which acknowledges the surrounding context and is easily identifiable as new construction, regardless of whether it is more historical or contemporary in its design.

Generally, what determines whether the historical or contemporary approach is taken, are the opinions of the community and the developer or architect and the neighborhood’s design guidelines and historical significance. The developer or architect generally prefers a contemporary approach while the community generally prefers an historical approach. As a result, guidelines are commonly written to favor a more historical approach to infill design. However, many historic neighborhoods are now shifting towards allowing more contemporary designs to be built. There are many successful cases of both historical infill and contemporary infill in historic neighborhoods. Successful design guidelines should allow for both types of infill to be constructed so that the community can choose to construct the type of infill that best suits the neighborhood based on such factors as the neighborhood’s history, context, and preferences.

There are several guidelines that should always be followed to insure that any infill, whether it is historical or contemporary, will fit in with the existing neighborhood. These features are massing, scale, foundation height, setbacks, and lot allocation and orientation.
Regardless of whether the infill design is historical or contemporary, these are the basic design guidelines that will insure that the new infill will be compatible with the neighborhood. Also, it is important that the new infill fits in with the other houses on its block, as that is the immediate context that it will be associated with, rather than just the neighborhood as a whole.

This is best accomplished by requiring that the new infill be compatible with the other homes on its block based on the guidelines above. These guidelines are accomplished by requiring that the new infill should be similar to the existing homes on the block in height, first floor level, and the overall size. The new infill should also be about the same distance from the street as the existing homes on the block. The massing of the new infill should be such that it sits on the lot in a similar manner as the existing homes on the block and that the front of the house should be facing the same direction as the other houses on the block. In any type of infill these are the basic guidelines that should be followed to ensure that the new infill will be compatible with the existing houses and will not detract from the existing context.

The design guidelines I have created for the Old West End Historic District allow for flexibility in the types of infill that can be created in the district. The district is most significant for its connection with the gas boom era and its rapid development during that time. However, the district is also significant for its various housing types, styles, and sizes. The housing in the neighborhood is widely varied and represents several different periods of time and development. Because of the neighborhood’s history of a diverse mix of styles and eras, it would be appropriate for various styles of new infill to be constructed in the neighborhood that would be compatible in terms of the neighborhood’s history and context.
The infill solutions I am proposing for the Old West End follow an historical approach on the exteriors and a contemporary approach on the interiors. This approach was taken for several reasons. First, as previously stated, much of what determines which approach is taken is the preference of the designer. I prefer a more historical approach because it is the easiest method for achieving visual compatibility. While contemporary designs can certainly be successful as well, this is much more difficult to achieve. By designing an historical approach on the exterior, it allowed me to focus more of my efforts on designing several different floor plan options for each proposed infill design in order to accommodate a wide variety of low-income households and maximize affordability.

The historical approach also relates the proposed infill back to the neighborhood’s history and its most significant structures that were constructed during the gas boom era. The neighborhood is most notable for the architecture from this period and its history of mixed income development. The rapid development of the area as a working class and industrialist neighborhood resulted in a mixture of high and low style architecture and various house and lots sizes. The neighborhood also has the highest concentration of Late Victorian architecture in the city. Because of the large variety of lots sizes and house scales and styles, a more historical approach can relate to a wider variety of architectural styles within the neighborhood. It also ensures that the proposed infill maintains the neighborhood’s historical significance by being compatible with the historical context as well as the physical context.

Another factor that contributed to the decision to create more historical infill designs is that contemporary designs and affordable housing are both not typically favored in historic communities. Affordable housing is often faced with the “not in my back yard” dilemma, where people in the community do not want it constructed next to their house because of the negative
connotations of low-income families and low-income housing design. Communities also
typically do not want contemporary designs put into their historic neighborhoods because they
can detract from the neighborhood’s historical character and significance. By designing the infill
in an historical approach, one factor that may contribute to the community’s resistance of
affordable infill housing is eliminated. This will help insure that the affordable housing infill is
accepted into the neighborhood.

The exteriors of the infill designs I’m proposing are designed to follow the most
significant compatibility issues of massing, scale, foundation height, setbacks, and lot allocation
and orientation. Each of the three designs is similar to the existing houses on their block in
terms of these design guidelines. This was done to insure that the proposed infill designs would
be compatible with and maintain the shared character of their respective blocks. However, I
also believed that the infill designs should be distinguishable from the historic homes in the
neighborhood. This was accomplished in several ways. First, the forms of the proposed infill
were simplified by eliminating common features found on the historic homes in the
neighborhood such as bays, projections, and complex forms and roofs. The ornamentation of
the proposed infill homes was also simplified by eliminating the heavy ornamentation features,
such as spindle work and decorative trim and brackets, commonly found on the historic homes.
These design approaches were also taken to maximize affordability. By simplifying the design
and eliminating these complex features, the homes are more efficient in regard to construction
time and cost.

The use of modern materials on the exterior of the proposed infill also distinguishes the
design from the historic properties. The material I am proposing for the exteriors is cement
fiber board siding. This material is inexpensive and comes in a variety of colors, sizes, and styles.
Because the forms of the proposed infill were more historical, the configuration and design of the windows and doors followed this approach so that the overall design of the infill would be cohesive. The designs of the exterior spaces and outbuildings were also simplified to maximize affordability. Many homes in the neighborhood have garages in the rear of the properties. However, garages are not proposed for the affordable infill designs because they add too much to the construction costs.

While the designs of the proposed infill’s exteriors take an historical approach, the designs of the interiors are more contemporary. This was done for several reasons. How people live in their homes has changed greatly from the time when most of the historic homes in the Old West End were constructed. The rooms in historic homes are typically separated by walls and doorways. However, most people today prefer open, connected rooms. In all three of the proposed designs, the kitchen, living, and dining rooms, are open to one another and connected to accommodate modern ways of living. In order to maximize affordability, kitchens and baths are designed to be efficient and extra conveniences, such as master baths and basements, were eliminated. The floor to ceiling heights were kept at 8’-0” to minimize the amount of construction materials and the electrical, mechanical, and plumbing that has to be run throughout the home. The appliances and materials that are used in the houses should be energy efficient, cost effective, and durable to minimize homeownership and construction costs and maximize the life cycle of the homes.

There are three different proposed infill designs to allow for the compatible placement of appropriately scaled and massed homes into the neighborhood’s four different areas. The interior designs of the proposed infill are also flexible to allow for different options based on the homeowner’s needs. The smallest of the three proposals is designed to serve the worker’s
cottage area, where the homes are typically small, one story, single-family dwellings. This home has 1056 sq. ft. and two bedrooms. This home also has the option of a 412 sq. ft. studio-type granny flat on the rear, which can be rented out as a source of income for the homeowner.

The medium sized home is designed to fit on the smaller lots in the remaining areas of the district. This home has 1535 sq. ft. and three bedrooms and also has the option of a 385 sq. ft. studio-type granny flat on the rear. The largest of the three homes is designed to fit on the larger lots in the district. This home has the widest variety of layout options. It can serve as a duplex or a triplex, where the owner can live in one unit and then rent the other one or two units for income. In the duplex option each unit has two or three bedrooms and 1402 or 1565 sq. ft. respectively. In the triplex option the owner side of the home has the same layout as the two or three bedroom duplex option and the other side has one 735 sq. ft. one bedroom apartment on the first floor and one 782 sq. ft. one bedroom apartment on the second floor (see Appendix E for proposed infill designs’ drawings and renderings).
Conclusion

The goal of my creative project was to design historically sensitive affordable infill housing in Muncie's Old West End Historic District. My study was to determine whether a contemporary or historical design strategy is most appropriate for creating the most design efficient, cost effective, and historically sensitive affordable infill based on The Secretary of the Interior's guidelines and affordable housing requirements. Through my research I determined that contemporary and historical infill design strategies can be successful in historic districts, but that the most successful for the Old West End Historic District is an historical approach.

New infill design guidelines should be flexible to allow for various interpretations of compatible design and should be based on the neighborhood's history, context, needs, and preferences. It is important that the guidelines regulate the most significant compatibility issues of scale, massing, foundation height, lot allocation and orientation, and setbacks. If new infill follows these key compatibility components, whether the design is contemporary or historical, it should be successful in the neighborhood. Each historic neighborhood is unique and is significant for different historical reasons. When creating infill design guidelines for historic neighborhoods the history and significance of the neighborhood should be considered to create the best guidelines for that specific neighborhood. Infill housing is beneficial in that it helps improve a city's image and living environment, provides homeownership opportunities within the city, helps attract and retain middle- and upper-middle-income residents, creates additional
jobs and revenue, and provides new housing opportunities for downtown workers. Infill housing is also a means to support neighborhood stability by promoting community reinvestment and rehabilitation, both of which are needed in the Old West End neighborhood.

I concluded that the most appropriate infill design strategy for single family affordable infill housing in the Old West End Historic District is an historical approach. This approach is most successful for several reasons. First, the historical approach relates the proposed infill back to the neighborhood’s historical context of the gas boom era and the architecture that was constructed during that time. This helps to maintain the historical significance of the neighborhood. I also prefer this approach because I believe it is the easiest method for achieving visual compatibility for the overall streetscape. At the same time, it allowed me to focus my efforts on the design of several floor plan options in order to achieve greater flexibility for low-income households. In essence, it promotes a historic container for the wide variety of living plans – maintaining the exterior compatibility of the neighborhood while maximizing lifestyle options. This approach is also more successful for affordable design strategies because it promotes its acceptance into the community and helps eliminate the “not in my backyard” mentality towards affordable infill housing. While the exterior designs are historical approaches, strategies to differentiate the new infill from the historical homes were also taken to ensure that the designs followed The Secretary of the Interior’s guidelines.

The most common challenge working American families face today is access to affordable and decent housing. The demographic data for the Old West End Historic District indicates a strong need for affordable housing in the neighborhood. When designing affordable infill housing in historic districts, the same set of basic design guidelines should be followed as well as additional strategies that ensure affordability. These strategies include: plan flexibility
to allow the affordable infill housing to have many options that can suit the wide variety of needs that low-income households have; efficient affordable housing designs to help reduce construction time and material quantities, which help reduce construction costs; and energy efficient appliances, materials, and designs to help reduce the cost of homeownership for the low-income households that will own the affordable infill housing.

Developing affordable infill housing in the Old West End Historic District maintains the historic significance of the neighborhood in several ways. The neighborhood is most significant for its rapid growth and development during the gas boom era, its density and proximity to the downtown area, and its combination of upper-middle class and working class homes. Creating new affordable infill housing promotes the redevelopment of the neighborhood into the thriving mixed-income neighborhood it once was. The development of infill housing can help restore the population and housing density of the neighborhood. This can help spur reinvestment in the neighborhood, which brings new middle-income households into the area. The development of affordable housing also insures that if new middle-income residents move into the neighborhood, the low-income residents are less likely to be displaced.

The downtown location of the neighborhood is also beneficial to low-income development because of the access to public transportation and the walk-ability to the downtown. The existing infrastructure, such as streets, sidewalks, sewers, and electricity, is already in place in the neighborhood, which reduces the cost of creating new infrastructure in suburban areas. The social infrastructure, such as schools, civil services, employment offices, government offices, shops, and potential jobs, is also already in place around the neighborhood. Also, many low-income residents already live in inner city locations. This is evidenced in the census data for the Old West End neighborhood. New affordable infill housing serves a variety
of low-income residents including single mothers, families with small children, single adults, the elderly, minorities, the developmentally disabled, and the formerly homeless. By developing new infill housing in their existing communities it serves them in place and does not force them to move out of their established neighborhoods in order to have access to affordable housing. All of these factors give low-income residents better access to work and the amenities they need. Better access to jobs helps improve incomes, which benefits not only the residents, but the community as a whole. Ultimately the development of infill housing, specifically affordable infill housing, fills the gaps in the neighborhood and brings the neighborhood back to the thriving community it once was.
Appendix A: Old West End Historic District Map

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63 Muncie Community Development Department.
Appendix B: The Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings

When evaluating proposals for changes within the Old West End Historic District, The Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings should be consulted. The function of these guidelines is to maintain the character and the historic architectural and cultural value of the neighborhood.

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

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

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

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

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

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

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

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work shall be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.\textsuperscript{64}

\textsuperscript{64} Ibid.
Appendix C: Identifying Residential Styles in the Old West End Historic District

**Italianate (1840 - 1885)**

Italianate Style homes are commonly two or three stories and are typically rectangular or square shaped. They are also characterized by low-pitched roofs with widely overhanging eaves that have decorative brackets beneath. Other common features to this style include tall, narrow windows that are commonly arched or curved above and have elaborated crowns, paired or tripled windows, one or two story bay windows, one-story porches, and square cupolas or towers.

**Second Empire (1855 - 1885)**

The most notable feature of Second Empire Style homes is the mansard roof with dormer windows. Molded cornices typically bound the lower roof slope both above and below and decorative brackets are usually found beneath the eaves. Other common features of this style are typically similar to the Italianate Style including tall, narrow windows with elaborate crowns, paired windows, one or two story bay windows, and one-story porches.

**Queen Anne (1880 - 1910)**

The Queen Anne Style is the most common style found in the Old West End Historic District. This style is characterized by steeply pitched roofs of irregular shape that usually have a
dominant front-facing gable and patterned shingles. Other notable features of this style include cutaway bay windows and other architectural devices to avoid flat surfaces and an asymmetrical facade with a partial or full-width porch, which is usually one-story in height and runs along one or both sides. Queen Anne Style homes also commonly feature heavy ornamentation found in the gable ends, corner brackets, and delicate spindle work on porches.

**Free Classic (1890 - 1910)**

The Free Classic Style is a sub-type of the Queen Anne Style and is typically more simply ornamented than the Queen Anne Style. The Free Classic Style employs classical columns and simple railing, rather than the delicate spindle work of Queen Anne Style homes, on the porch. The columns are either the full height of the porch or raised on a pedestal to the level of the porch railing. The columns are also commonly grouped together in units of two or three. The other common features of this style are Palladian windows, a shallow rectangular window over the main window, bay windows, and cornice-line dentils.

**Dutch Colonial (1890 - 1955)**

The Dutch Colonial Style is a sub-type of the Colonial Revival Style. It is most notable for its gambrel roof. Other notable features include paired, multi-paned windows, accentuated front door, normally with a decorative pediment supported by pilasters or extended forward and supported by slender columns to form an entry porch, fanlights or sidelights around the front door, and a typically symmetrical front facade.
**Tudor (1890 - 1940)**

The Tudor Style is characterized by a steeply pitched roof, which is usually side-gabled with one or more prominent cross gables on the front facade. Other notable features include decorative half-timbering, tall, narrow, multi-paned windows that are usually in groups of multiples, large chimneys with decorative chimney pots, patterned brick or stonework, battlements, one or two story oriel and bay windows, and cast stone trim.

**Craftsman (1905 - 1930)**

The Craftsman Style is characterized by a low-pitched, gabled, or sometimes hipped, roof with wide, unenclosed overhanging eaves. The roof rafters are usually exposed beneath the eaves and decorative beams or braces are often added under the gabled ends. Porches are either full or partial width of the facade and the roof is supported by tapered square columns that usually extend to the ground. Other notable features include stone exterior chimneys, gabled or shed dormers, window boxes or balconies, multi pane sash over sash with one large glass pane windows, transoms above windows, triangular braced supports, and a sloping (battered) foundation.
Appendix D: Design Guidelines for New Infill Construction

Setbacks

The front yard space and the distance from the front porch to the street are generally consistent throughout the neighborhood. Maintaining the setback spacing in new infill is important in maintaining the rhythm and character of the neighborhood. Porches are also common throughout the neighborhood and are typically located on the front, with some wrapping around to the side. For more information on porch depth and style refer to page four of this appendix.

New Construction Infill Guidelines

- The distance of the new house from the street should be consistent with the existing houses on the block.
- Porches should be about the same distance from the street as the existing houses on the block.
- A pathway should be provided from the sidewalk or street to the front door. The pathway should match the pathways to the existing houses on the block and should be perpendicular to the street.
Lot Allocation and Orientation

Lot size varies greatly throughout the neighborhood. Generally, however, the lots are narrower than they are wide. The houses generally reflect this and have more depth than width. Because of this the houses are generally close together with small side yards and are typically located in the center of the lot. The lots are laid out on a grid street pattern with the front doors facing the street.

New Construction Infill Guidelines

- New housing should be proportional to the dimensions of the lots and the existing houses on the block.
- The long side of the house should never face the street.
- The front door should face the street.
- Side entrances are acceptable but should not be considered the public entrance.
- The house should be centered on the lot and not placed to either side to keep the rhythm and spacing of the block consistent.
- In cases of multiple consecutive vacant lots, the house should be centered on its own lot with additional lots remaining empty.
- Lots should not be combined for the use of one property.
- In cases of corner lots, the house should face the same street as the other existing houses on the block.
Alleyways, Parking, and Services

The majority of the homes in the neighborhood have access to rear alleyways. Many of the existing homes have detached carriage houses and garages that are accessed by the alleyway. The garages and carriage houses range in size from smaller one car space structures to larger three car space structures. Some of the older carriage houses are two stories and the second story has been converted into a rental unit. Alleyways should serve for the accommodation of utility services and garbage collection and access to off-street parking, including garages and driveways.

New Construction Infill Guidelines

- Parking should not be in front yards.
- Alleyway access should be used for garage or parking locations.
- On lots without alleyway access, garages or parking should be located at the rear of the house with access limited to one lane from the street.
- On lots with alleyway access, driveways are not permitted from the front of the house.
- On corner lots, a driveway to the garage may be provided off the side street.
- Garage height will not exceed the primary structures on the lot.
- Garages may have granny flats on the second story when the height of the garage will not exceed the primary structure on the lot.
- Attached garages are permitted on the rear of the house.
Scale, Mass, and Foundation Height

Houses in the Old West End Historic district are either one, one and a half, two, or two and a half story structures. Size and massing depends greatly on the location of the home within the neighborhood. However, homes along the same street are typically consistent in foundation height, proportions of first floor elevations, and sizes and shapes of roofs.

New Construction Design Guidelines

- The height of new houses’ foundations and first floor levels should be similar to the existing houses on that street.
- The front facade of new houses should be about the same width as other houses on that street.
- The general size and shape of the new infill should be similar to existing houses on that street.

Porches

Porches were most popular between the mid-1800s to the 1930s. Nearly all homes within the Old West End Historic District have porches. Most porches go across the entire facade with some wrapping around to the side. The porches are typically at least 6’ deep.

New Construction Design Guidelines

- The design and style of the new porches should be consistent with the new house.
- In the case of accessible housing, ramps should be constructed of materials appropriate to the new house and should be easily removable.
Windows and Doors

Every architectural style has distinguishing window and door shapes and locations. For example, windows on Victorian homes are tall and narrow, while windows on Craftsman homes tend to be broader with a multiple paned sash over a one pane sash. The Old West End has a wide variety of architectural styles, which are mixed together throughout the neighborhood.

New Construction Design Guidelines

- Side windows and doors should be placed with respect to the privacy of adjacent houses.
- Modern window and door materials may be used.
- Attention should be paid to window placement and the ratio of solid (the wall) to void (window and door openings) so that it is consistent with the existing homes on the block.
- The windows and doors on the front facade of an infill house should be located in similar proportion and position as the historic houses on the block.

Roof Shapes and Materials

Steep roof pitches and darker shingles are common to most historic homes. The homes in Old West End Historic District have a wide variety of roof shapes and features. Gabled and hipped roofs are common and are often combined. Homes also commonly feature dormers and turrets.
New Infill Design Guidelines

- New roofs should have a similar pitch or height as the historic housing on the block.
- Darker asphalt shingles are the most common and appropriate roofing material.

Siding Materials

Wood clapboard and brick are the most common historical siding found in the neighborhood. Modern materials, such as vinyl siding, are also common in the neighborhood.

New Infill Design Guidelines

- Siding should be appropriate to the design and style of the new housing.
- Modern materials may be used when appropriate.
- Material colors should be similar to the existing homes in the neighborhood.

Multi-Unit Housing

Many of the homes in the neighborhood have been divided up into multi-family units. If new multi-family infill is needed, it should be designed in scale and context with the existing historic architecture of the neighborhood. Consecutive vacant lots are ideal for this type of infill.

New Infill Design Guidelines

- Multi-unit housing should have similar front yard space and set back from the street as the existing houses on the block.
- The height of the multi-unit housing should be similar to the existing housing on the street.
• Multi-unit housing should be designed to continue the architectural rhythm of the block. The breaks in the front facade should be made to mimic the breaks between the historic homes on the street. This should be achieved by dividing the building into separate sections which are proportionally similar to the existing houses on the block.

• Parking should be provided behind the building with access from the alley.

• Multi-unit housing should be placed in areas with large scale and massed housing.

Landscape and Other Considerations

In the Old West End Historic District shade trees were typically planted along the street to provide shade and cover near the sidewalks in the front yard. Some houses historically had low and decorative fences around the front yard.

New Infill Design Guidelines

• At least one native or naturalized shade tree should be planted on infill lots.

• Fences and hedges should not exceed 42 inches in height in front yards.

• Chain link and privacy fencing is not appropriate for front yards. These types of fencing should be no less than 5 feet behind the front facade.
Appendix E: Proposed Infill Designs
Map of Proposed Infill Sites

Yellow: 439 S Proud Street
Red: 701 W Charles Street
Blue: 507 W Main Street
701 W Charles Street
507 W Main Street
Bibliography


Historic Architecture in the Old West End of Muncie, Indiana. Muncie, IN: Muncie Public Library.


