

DESIGN-BASED REGULATIONS FOR  
MANUFACTURED URBAN INFILL HOUSING

by

CHARLES BRENT RUNYON

(Under the Direction of Pratt Cassity)

ABSTRACT

Maintaining a “sense of place” involves preserving the cultural, historical, and visual relationships of an area. Gentrification occurs because existing residents cannot find affordable housing. Manufactured houses are the best housing value, but they are excluded from residential neighborhoods due, in part, to their appearance. Zoning which discriminates against this housing type is particularly harmful to and promotes gentrification in lower income neighborhoods.

This thesis attempts to prove that inclusionary regulations could be used to ensure compatibly-designed manufactured housing. This thesis considers the factors that contribute to compatibility and uses historic resource surveys of a predominantly African-American, working-class neighborhood to identify characteristic attributes of its historic houses. The attributes are then examined to determine whether a standard manufactured house could be modified to create a compatible design.

INDEX WORDS: Affordable housing, Compatible infill, Design guidelines, East Athens, Exclusionary zoning, Gentrification, Historic preservation, Land-use regulations, Manufactured housing

DESIGN-BASED REGULATIONS FOR  
MANUFACTURED URBAN INFILL HOUSING

by

CHARLES BRENT RUNYON

A Thesis Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment  
of the Requirements for the Degree

MASTER OF HISTORIC PRESERVATION

ATHENS, GEORGIA

2005

© 2005

CHARLES BRENT RUNYON

All Rights Reserved

DESIGN-BASED REGULATIONS FOR  
MANUFACTURED URBAN INFILL HOUSING

by

CHARLES BRENT RUNYON

Major Professor: Pratt Cassity

Committee: John C. Waters  
Jorge Horacio Atilas  
Chrissy Marlowe

Electronic Version Approved:

Maureen Grasso  
Dean of the Graduate School  
The University of Georgia  
August 2005

## DEDICATION

This thesis is dedicated to my friend Scott Johnson whose time in Beaufort, SC, is the reason I discovered historic preservation. He has been my morning coffee every day for two years. Thank you for listening and paying attention, especially when it was “all about me,” which it almost always was.

## ACKNOWLEDGEMENTS

Overwhelming thanks go to my advisor, Pratt Cassity, for helping me define my topic, guiding my research and never letting me doubt myself too much. Dr. Jorge Atilas and Anne Sweaney at UGA, and Chrissy Marlowe at DCA helped focus my research by prompting me to find answers to questions I hadn't even thought to ask. Kay Stanton at the ACHF and Jerry Haynes at Cavalier Home Builders provided assistance at just the right time.

I also want to thank my mother and sister for their support throughout this second round of school. And special thanks goes to my grandmother, Mary Runyon, my best friend whom I lost halfway through. Thank you for your unwavering support of me. I will always love and miss my Number One Grandma.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS .....	v
LIST OF TABLES .....	ix
LIST OF FIGURES .....	x
CHAPTER	
1 INTRODUCTION .....	1
Purpose of the Study.....	1
Theoretical Framework .....	3
Terminology .....	3
2 LAND-USE REGULATIONS AND THE COMMUNITY CHARACTER.....	5
Conventional Zoning and Design.....	5
Designing the Regulations.....	7
Other Land-use Regulatory Tools .....	9
Form-based Codes .....	10
Design Guidelines .....	12
Development Briefs.....	14
Zoning and Gentrification .....	15
3 AFFORDABLE HOUSING .....	19
The Need for Affordable Housing.....	20
Affordable Housing Options .....	21

4	MANUFACTURED HOUSING .....	24
	Definition.....	24
	Post-War Evolution .....	25
	Current Trends.....	26
	Facts and Myths.....	27
	Georgia Statutes .....	32
	Design History.....	39
5	ELEMENTS OF DESIGN .....	41
	The Importance of Architectural Harmony .....	41
	Defining Compatibility.....	43
	The Common House.....	49
	Characteristics of the Bungalow.....	52
	Characteristics of Manufactured Housing.....	53
	Creating Compatibility.....	59
	Gray Areas.....	63
6	CASE STUDY: EAST ATHENS .....	65
	Historical Development.....	65
	Data Review .....	67
	Neighborhood Character .....	70
	Demographic Information .....	74
	Compatible Infill Housing Design .....	75
	Application of Design Attributes .....	81
	Meeting the Challenge.....	85



7	HISTORIC PRESERVATION ISSUES.....	90
	Preserving a Sense of Place.....	90
8	CONCLUSION AND RECOMMENDATIONS .....	94
	Conclusion.....	94
	Recommendations for Athens-Clarke County and Other Local Governments .....	95
	Recommendations for Historic Preservation and Advocacy Professionals .....	96
	Recommendations for Manufacturers .....	97
	Recommendations for Future Study.....	97
	SOURCES CONSULTED.....	99
	APPENDIX.....	108
	LETTER TO CAVALIER HOME BUILDERS.....	108

## LIST OF TABLES

	Page
Table 4.1: Median home value by county.....	30
Table 6.1: Construction date ranges.....	72
Table 6.2: Design compatibility characteristics.....	79
Table 6.3: An evaluation of two housing types in East Athens .....	80

## LIST OF FIGURES

	Page
Figure 4.1: Model Code Graphic 1 .....	37
Figure 4.2: Model Code Graphic 2 .....	38
Figure 4.3: Pacemaker .....	40
Figure 5.1: A small, inexpensive cottage.....	52
Figure 5.2: Typical manufactured home roof.....	54
Figure 5.3: “Shotgun” Type Mobile Home.....	55
Figure 5.4: “Miesian” Type .....	57
Figure 5.5: “Wrightian” Type.....	57
Figure 5.6: Ventoura’s “houseslike” exterior.....	58
Figure 5.7: Tilt-up Roofs .....	60
Figure 5.8: Demonstration Home 1 .....	62
Figure 5.9: Demonstration Home 2 .....	62
Figure 6.1: Map of East Athens .....	66
Figure 6.2: The Neighborhood.....	68
Figure 6.3: Proposed National Register Districts .....	69
Figure 6.4: Typical side-gable house with front-gable portico.....	71
Figure 6.5: Typical side-gable house with wide shed porch.....	71
Figure 6.6: Typical front-gable house with front-gable portico .....	72
Figure 6.7: Vacant properties.....	73

Figure 6.8: Incompatible scale.....	77
Figure 6.9: Incompatible ornament.....	78
Figure 6.10: Incompatible garage .....	78
Figure 6.11: Compatible infill.....	82
Figure 6.12: Compatible corner infill .....	82
Figure 6.13: Cavalier Home Builder’s Model E6368-1 Elevation .....	86
Figure 6.14: Cavalier Home Builder’s Model E6368-1 Floor Plan.....	86
Figure 6.15: Cavalier Home Builder’s Model E5301-S Elevation.....	88
Figure 6.16: Cavalier Home Builder’s Model E5301-S Floor Plan.....	88

## CHAPTER 1

### INTRODUCTION

#### Purpose of the Study

In 2003, Lucy Jenkins drafted a set of “Mobile/Manufactured Home Standards” for Chattooga County, Georgia. The intended goal of the standards was to “ensure compatibility of manufactured homes with adjacent single-family residences and other land uses through the application of architectural compatibility standards.”<sup>1</sup> According to the document, the county would accrue certain benefits after implementing the set of standards, which “improves the aesthetics and protects the charm of the community” and “eliminates incompatibility with other single-family homes.”

There are many reasons for prejudice against manufactured housing, but one study found that “perceptions about the condition and appearance of manufactured homes played a significant role in the . . . level of acceptance for the location of both single- and double-section manufactured homes in their neighborhoods.”<sup>2</sup> The study generally focused on prejudices against manufactured housing in rural Virginia, but its conclusion serves to illustrate the main point of this thesis, which is that their appearance affects their acceptability. For many communities in Georgia, “Zoning restrictions on manufactured housing are just manifestations of

---

<sup>1</sup> Lucy Jenkins, *Mobile/Manufactured Home Standards* (2003), Draft code provisions for inclusion in the Chattooga County, Georgia, zoning ordinance.

<sup>2</sup> Jorge Horacio Atilas, “Manufactured Housing: An Assessment of Community Attitudes” (Ph.D. diss., Virginia Polytechnic Institute and State University, 1995), 133.

deep-rooted NIMBYism.”<sup>3</sup> They are often excluded from residential areas that are not rural or exclusively set aside for manufactured homes.

This thesis will show that the land-use regulations that now exclude manufactured housing could be used to regulate its form and therefore help improve its level of acceptance in existing neighborhoods. There is a discussion in Chapter 2 about the fact that by zoning manufactured housing out of existing neighborhoods, planners are creating exclusionary zoning, which effectively drives up the cost of housing and promotes gentrification in lower income neighborhoods.<sup>4</sup> Chapter 3 makes the case for affordable housing. Chapter 4 includes the evolution of manufactured housing design and its current treatment in Georgia land-use regulations. Chapter 5 discusses various tools used to identify and regulate compatible design. Chapter 6 consists of a case study of East Athens, including a demographic profile, design characteristics, and the application of design guidelines to manufactured housing. The final chapters comprise the historic preservation issues, recommendations for future study, and the conclusion. Interspersed throughout the document, issues such as social acceptance of manufactured housing, housing costs, and gentrification are addressed in order to support the theoretical framework, which is presented below.

The author hopes that this thesis will be useful to local governments, historic preservation professionals, affordable housing advocates, and housing manufacturers who want to identify methods to include manufactured housing as an option for affordable housing infill in historic neighborhoods.

---

<sup>3</sup> Kevin Jewell, *Raising the Roof, Raising the Floor: Raising Our Expectations for Manufactured Housing*, Public Policy Series, vol. 6, no. 5 (Austin: Consumers Union Southwest Region, 2003), 17.

<sup>4</sup> Frederik Heller, “Field Guide to Inclusionary Zoning,” [article on-line], National Association of Realtors, April 2004; available from <http://www.realtor.org/libweb.nsf/pages/fg806#topica>; Internet; accessed 6 June 2005.

## Theoretical Framework

The theoretical framework for this study includes the following assumptions.

- Maintaining a sense of place is a worthwhile endeavor. This includes preserving and perpetuating architectural harmony of the built environment and retaining the people who have historical relationships to a place.
- Manufactured housing is the best housing value. According to the Manufactured Housing Institute, this housing type is the lowest cost for the highest quality.
- There are many reasons for the prejudice against manufactured housing. Some of these are incorrect and some are debatable stereotypes. This thesis deals with the very real issue that most manufactured houses have a noticeably different appearance than site-built houses.
- Private, for-profit builders are not satisfying the demand for affordable housing.
- Gentrification happens. This change in the population of a neighborhood has both benefits and harmful effects. The harmful effects must be mitigated to maintain a sense of place.
- Conventional zoning that excludes manufactured housing is socially-unjust. A land-use regulatory tool based on community input should be used to regulate neighborhood aesthetics.

## Terminology

The term manufactured housing used in this thesis refers to a single-family house constructed entirely in a controlled factory environment, built to the federal Manufactured Home

Construction and Safety Standards.<sup>5</sup> Manufactured housing is also referred to in current literature and zoning ordinances as mobile homes or trailers, although some differentiation is occasionally made. Manufactured housing, as used in this thesis, does not include other factory-built or industrialized housing types, including modular, pre-cut, panelized, pre-fabricated, kit, and dome homes. The terms “housing” and “home” will be used interchangeably in this thesis to indicate a structure and are not meant to embody a place with any personal association by the residents.

---

<sup>5</sup> “Manufactured Home Construction and Safety Standards” [article on-line] (United States Department of Housing and Urban Development, updated May 16, 2002); available from <http://www.hud.gov/offices/hsg/sfh/mhs/mchss.cfm>; Internet; accessed 8 May 2005.



## CHAPTER 2

### LAND-USE REGULATIONS AND THE COMMUNITY CHARACTER

#### Conventional Zoning and Design

Protecting the community aesthetic or character has not always been under the purview of the government. The earliest involvement of the federal government was its protection of the Gettysburg battlefield from development. In 1888 and 1904, height restrictions were placed on buildings in New York and Baltimore, respectively, partially as a way to protect the character of its neighborhoods.<sup>6</sup> The courts upheld these provisions as reasonably related to the public welfare and in the 1950s the courts specifically held that “states and cities may enact land-use regulations or controls to enhance the quality of life by preserving the character and the desirable aesthetic features of a city.”<sup>7</sup> However prevalent the practice of regulating aesthetics may be, the general practice of zoning is far more prevalent. Yet this practice only incidentally addresses community character.

Although “design occurs whenever policies or land-use regulations, that is, governmental action that determines the type and limitations of use and structures that will be sited upon the land in a community, affect space in a town,”<sup>8</sup> conventional zoning ordinances are generally created by planners with little design expertise. Zoning was “originally written primarily to

---

<sup>5</sup> Christopher J. Duerksen and R. Matthew Goebel, *Aesthetics, Community Character, and the Law* (Chicago: American Planning Association, 1999), 6.

<sup>7</sup> *Ibid.*, 7.

<sup>8</sup> Paula M. Craighead, ed., *The Hidden Design in Land Use Ordinances: Assessing the Visual Impact of Dimensions Used for Town Planning in Maine Landscapes* (Portland, ME: University of Southern Maine, New England Studies Program, March 1991), 6.

assure city dwellers of adequate light and air [but has] since been used to control the location of different sorts of land use, to separate commercial, industrial, and residential uses.”<sup>9</sup>

Zoning is a police power used to protect the safety and welfare of the citizens and it can influence design to a limited extent. Typical zoning guidelines that influence design include maximum height, setback, minimum square footage, maximum lot coverage, and density per acre. Design manipulation occurs even though design controls are rarely intentionally written into land-use guidelines.<sup>10</sup> Planners rely on numbers, statistics, and data and are able to plan entire areas without experiencing them personally.

Planning experts agree that zoning is a design tool. Smith notes that “zoning is important because of the intangible community amenities which it may help to induce.” He continues:

We are very much in danger of building a world of mediocrity. We need to think about our standards of quality. We need to think about the character of development whether it be from the standpoint of design or the organization of structures upon the land. “Character” is not mere happenstance. It stems from ideas, from intelligent foresight exercised by individuals and groups. Zoning is a most favorable tool for any who have this capacity, and this concern.<sup>11</sup>

Since modern zoning practice began, there have been proponents and opponents alike. Many believe that “without some regulation and restriction in this complicated society of ours, we would continue to exploit and destroy.”<sup>12</sup> Yet there are opponents to zoning, citing decreased personal property rights as a major drawback. Misconceptions about what zoning is and misperceptions of how it has been implemented elsewhere often raise concerns in places that have never had land-use regulations.<sup>13</sup> In cities where such zoning practice originated and was implemented, most of the resistance to the practice has already been overcome. Many rural areas

---

<sup>9</sup> Joslyn Green, ed., *Good Neighbors: Building Next to History* (Colorado Historical Society, 1978), 5.

<sup>10</sup> Herbert H. Smith, *The Citizen's Guide to Zoning* (West Trenton, NJ: Hermitage Press, 1965), 146.

<sup>11</sup> *Ibid.*, 25-26.

<sup>12</sup> *Ibid.*, 147.

<sup>13</sup> Sherrie Voss Matthews, “Missouri Rejects Planning Again, Again, and Again,” *Planning* 70, no. 8 (August/September 2004): 41.

are experiencing zoning for the first time and Craighead suggests that “in order to make planning acceptable in rural areas, the term ‘zoning’ must be replaced by ‘land-use regulation’ in local ordinances.”<sup>14</sup> Changing the terminology could help the regulation gain acceptance, but changing the type or scope of the regulation may be more beneficial. Zoning is only one of a handful of land-use regulatory tools, including form-based codes, development briefs, and design guidelines. It is possible that one of these may be more appropriate than zoning for regulating the appearance of manufactured housing.

### Designing the Regulations

Crafting land-use regulations that include specific guidelines for design can be difficult. When the Varsonianians set about to rebuild their great city after its demolition during World War II, they were faced with innumerable momentous decisions. Rebuilding the city in the form it had during the period of Polish self-government required that they reconstruct the buildings to be “as precise a copy as possible, down to the finest detail.” Tung continues:

But buildings that truly looked old could not be created using modern construction technology, because different methods of fabrication result in a different finished aesthetic character. Old handmade glass is uneven and refracts eccentric glimmers of light, whereas modern manufactured glass is a uniform flat plane. Old wrought iron has less strict geometric perfection, but is more artfully shaped in curves, volutes, and decorations than machine-made ironwork. Traditional masonry is often laid in thin, even lines of mortar, while modern brickwork tends toward thicker, clumsier joints due to a loss of craftsmanship.

Even at a glance, the eye sees all these slight differences in material, texture, color, and workmanship. Old buildings look old because of an aura of “handmadeness” exuded by historic architecture in many dimensions and facets.<sup>15</sup>

Warsaw’s success ultimately depended on the regulations imposed on the design of reconstructed buildings by the planners and decision-makers of that day. Conscious design decisions required

---

<sup>14</sup> Craighead, 7.

<sup>15</sup> Anthony M. Tung, *Preserving the World’s Great Cities: The Destruction and Renewal of the Historic Metropolis* (New York: Clarkson Potter, 2001), 87.

a great deal of cooperation with architects, designers, planners, policy makers, advocates, and residents. The effort required was monumental – but then so was the task.

Smaller tasks such as maintaining the character of an existing neighborhood are less daunting, but still require complex regulations. Well-written regulations may help avoid conflict in the future. “When there is no intentional effort to control space and materials, something will fill the void. Space in a community is going to change if the natural and built elements that define space . . . change in any way.”<sup>16</sup> It is often unplanned changes, such as building a parking garage in a public square or demolishing a community landmark, that can create conflict.

The character of a neighborhood can be maintained if regulatory tools include proper design criteria for new buildings. It is, however, complicated to regulate even such a seemingly simple factor as height.

Height is critical to the scale of a village or town. Urban scale is different from rural and village scale. . . . Where a person perceives the height of a building is a factor in determining where the height is measured. At greater setback, the ridge line is viewed, but at a closer range, only the eave defines height. The measuring point chosen may also generate a response by the marketplace to create varying roof pitch. The height to width ratio along a street creates the quality of space experienced by pedestrian and motorist alike.<sup>17</sup>

Other design elements are less complicated. The requirements pertaining to the location of the building on a lot in any zone can be described for regularly-sized lots in a given neighborhood and a graphical plan view can show how a new building would be sited under the requirements.<sup>18</sup>

Depicting a variety of lots in the regulations would ease the inclusion of new buildings in an existing neighborhood. They would serve as a guideline to the footprint of the building.<sup>19</sup> The

---

<sup>16</sup> Craighead, 6.

<sup>17</sup> Ibid., 16.

<sup>18</sup> Smith, 38.

<sup>19</sup> A building footprint is defined as the two dimensional impervious building foundation which defines the outermost boundary of the structure. City of Issaquah Code Definition [on-line zoning ordinance]; available from <http://www.mrsc.org/mc/issaquah/Issaq18/issluc1802.html#18.02.080>; Internet; accessed 2 May 2005.

few design factors typically found in zoning ordinances severely limit their ability to effectively regulate design. Lewis writes that “planning is not zoning, and zoning is not planning. Conventional zoning generally has failed as an effective planning tool for creating balanced growth, good urban design, beautiful cityscapes, or affordable housing.”<sup>20</sup> Perhaps newer land-use regulatory tools would be more effective.

### Other Land-use Regulatory Tools

The modern form of zoning regulations has changed little since 1916, when New York City adopted a zoning code to regulate the shape of skyscrapers to maximize light and air onto the street.<sup>21</sup> All of the standards and requirements were originally included in the written zoning text. Later, the concept that the regulations could be user-friendly prompted “the technique of extracting from the text as much as possible of the statistical and numerical requirements and placing them in a simplified schedule.”<sup>22</sup> A landowner in a particular zone can now use a table of requirements for height, setback, side yard, minimum floor area, etc. The requirements may also include certain other guidelines specific to the district. The few changes to the zoning form have allowed it to be widely used and widely disparaged. Critics of the form say that “it is written in arcane language, with complex mathematical formulas. Even worse, zoning focuses so narrowly on protecting us from bad development that it ends up thwarting healthy mixed-used communities in our time.”<sup>23</sup> Many planners are embracing newer regulatory forms, such as form-based codes.

---

<sup>20</sup> Roger K. Lewis, “Traditional Zoning Can’t Meet the Challenge of Modern Development” *Washington Post*, 24 July 2004, F04 [article on-line]; available from <http://www.washingtonpost.com>; Internet; accessed 24 February 2005.

<sup>21</sup> Andrew S. Dolkart, “The Architecture and Development of New York City” [article on-line]; available from <http://nycarchitecture.columbia.edu>; Internet; accessed 3 May 2005.

<sup>22</sup> Smith, 37.

<sup>23</sup> Neal Pierce, “Zoning: Ready to be Reformed?” [article on-line]; available from <http://www.postwritersgroup.com>; Internet; accessed 24 February 2005.

### Form-based Codes (FBCs)

The term “form-based coding” is only 2 ½ years old, but the concept of regulating form has existed under other names, such as performance zoning and district-based zoning.<sup>24</sup> “Form-based coding seeks to regulate the form of the built environment”<sup>25</sup> in order to capture the vitality of the community.<sup>26</sup> New Urbanist planners and advocates champion this tool as an alternate to zoning. “Form Based Codes work well in established communities because they effectively define and codify a neighborhood’s existing ‘DNA.’ Vernacular building types can be easily replicated, promoting infill that is compatible with surrounding structures.”<sup>27</sup> The appeal of New Urbanism depends principally on the environments created by form-based codes, which are championed by Andres Duany and others.

Katz believes that FBCs have certain advantages that make them superior in some ways to conventional zoning and design guidelines. He writes:

FBCs obviate the need for design guidelines, which are difficult to apply consistently, offer too much room for subjective interpretation, and can be difficult to enforce. They also require less oversight by discretionary review bodies, leading to a less politicized planning process that can deliver huge savings in time and money and reduce the risk of takings challenges.<sup>28</sup>

FBCs sometimes include architectural standards and do not go to great lengths to specify type of use.<sup>29</sup> Katz presents the fact that “In contrast, conventional zoning primarily seeks to control land-use and density, but is largely silent on matters of form beyond the most basic - height, floor-area, and setback limits for individual buildings.”<sup>30</sup> The optional “dress code” in the FBC

---

<sup>24</sup> Megan Lewis, “Form-Based Zoning” (27 April 2004) [article on-line]; available from <http://www.denvergov.com>; Internet; accessed 24 February 2005.

<sup>25</sup> Peter Katz, “Form First: The New Urbanist alternative to conventional zoning,” *Planning* 70, no. 10 (November 2004): 16.

<sup>26</sup> Lewis.

<sup>27</sup> Katz, 18.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid., 17.

<sup>30</sup> Ibid., 16.

“controls exterior colors, materials, and construction techniques. Particular emphasis is given to cladding, doors, windows, stairs, and roofs.”<sup>31</sup> FBCs also “specify a minimum building height in order to maintain a proper street wall.”<sup>32</sup>

Duany contends that “conventional zoning based on the segregation of land uses was never intended to deal with physical form, and that the ‘band-aid’ measures (including design guidelines) that planners cobble onto existing ordinances to address this deficiency just make matters worse.”<sup>33</sup> He believes that FBCs are a way to shape a “high-quality public realm (a presumed public good) that, in turn, promotes healthy civic interaction.”<sup>34</sup> He also maintains that FBCs are superior to both design guidelines and zoning because they are “interwoven with a community visioning process,” rather than the creation of planners or a consultant.<sup>35</sup>

Unlike zoning, FBCs have not gained almost universal acceptance among planners. One in Maryland points out that FBCs have drawbacks:

FBCs stretch the police power established in conventional zoning, and they are strongly reminiscent of private covenants. In focusing on fine-grained urban design, they include little technical content and virtually no procedural elements. Further, they allow only a single design paradigm, making them a static blueprint.<sup>36</sup>

He goes further to say that FBCs are one tool among many that he is glad to have. The Congress for the New Urbanism (CNU), on the other hand, believes that the conventional codes must be repealed in order to allow FBCs to work.<sup>37</sup> There is a dichotomy in where and how the two forms are used and accepted; developers can capitalize on the appeal of “new urbanist” development strategies, including FBCs, in new towns and subdivisions, while existing

---

<sup>31</sup> Ibid., 17.

<sup>32</sup> Ibid., 18.

<sup>33</sup> Ibid., 16.

<sup>34</sup> Ibid., 18.

<sup>35</sup> Ibid., 19.

<sup>36</sup> Henry H. Zhang, “Letter to the Editor,” *Planning* 70, no. 11 (December 2004): 41.

<sup>37</sup> Congress for the New Urbanism, “Frequently Asked Questions” [document on-line]; available from [http://www.cnu.org/about/\\_disp\\_faq.html](http://www.cnu.org/about/_disp_faq.html); Internet; accessed 3 May 2005.

neighborhoods may be locked into conventional zoning as the primary land-use regulatory tool. Their usefulness in specifying compatible infill design and replicating vernacular building forms may prove to be useful for the manufactured housing industry.

### Design Guidelines

Like FBCs, design guidelines focus heavily on design elements. They are used to “help reinforce the character of a historic area and protect its visual aspects” in existing neighborhoods or districts with definable design characteristics, such as an historic district with Victorian-era architecture or a row of shotgun houses. They also “preserve the integrity of a historic area by discouraging the construction of buildings that imitate period styles.” They do not guarantee that “all new construction will be compatible with a historic setting” since they are only a guide and leave “the final results in the hands of the people responsible for following the directions they set.”<sup>38</sup>

Deadwood, South Dakota, uses design guidelines to protect the visual aspects of its town. It was a gold mining town from 1876 until World War II and the form it has today was essentially established by 1890.<sup>39</sup> Deadwood compiled its design guidelines as a reaction to a building boom that occurred after the town instituted limited gaming in 1989, the first town in the nation to do so.<sup>40</sup> Preserving the form of a gold rush town came to be important during the period of increased building. Its guidelines were created to enable the Historic District Commission to determine whether alterations to structures in the historic district were

---

<sup>38</sup> Green, 6.

<sup>39</sup> Community Services Collaborative, *Deadwood Downtown Design Guidelines* (Boulder: Community Services Collaborative, 1991), 13.

<sup>40</sup> *Ibid.*, 1.



appropriate. The goal of the guidelines is to preserve the appearance of late-nineteenth century gold rush town.<sup>41</sup>

They are also used to create a consistent look for new development. A good example is Santa Fe, New Mexico, which in 1957 adopted its first historic district ordinance, regulating “new construction, additions, renovations, and demolition in Santa Fe’s five historic districts.”<sup>42</sup> Since that time, the “Santa Fe Style,” which draws many tourists each year, has been used by builders in newer parts of town. The look of Santa Fe was preserved and enhanced through the use of design guidelines.

Design guidelines are similar to FBCs in that their success lies in the buy-in of many disparate concerns (i.e. policy makers, residents, builders, etc.). Gaining approval and educating local stakeholders during the development phase can lessen the probability that new developments will challenge the guidelines, but their usefulness goes beyond simply providing guidelines. They can be combined with a historic district ordinance “to delay issuance of a building permit when a proposed project does not meet guidelines standards.”<sup>43</sup> A delay often grants enough time to organize an alternate design by the builder or another interested party.

Unlike zoning and FBCs, design guidelines are voluntary unless combined with another ordinance (i.e. zoning or historic district ordinance). They are most effective, of course, when they are compulsory. Compulsory guidelines can be implemented by amending a zoning ordinance or creating a new ordinance that includes the principles espoused in the design guidelines.<sup>44</sup> If combined with an ordinance that allows manufactured housing in historic

---

<sup>41</sup> Ibid.

<sup>42</sup> City of Santa Fe Planning Division, *Historic Districts Handbook: A Guide to Historic Preservation and Design Regulations in Santa Fe* (Santa Fe: City of Santa Fe Planning Division, ca. 1996), 1.

<sup>43</sup> Green, 6.

<sup>44</sup> Ibid.

districts, design guidelines could easily be used to control the design of manufactured or any type of housing.

### Development Briefs

The development brief is a regulatory tool used in the United Kingdom. It attempts to skirt the logistics of passing zoning ordinances by including “a non-statutory written statement and site plan, sometimes with supporting maps and illustrations, indicating a local authority’s policies and aspirations towards a specific site, or clutch of related sites.”<sup>45</sup> Development briefs expedite the approval process for developers who meet the guidelines.

Development briefs usually include a graphical representation of the desired development. Depending on the site, the brief may contain a few sketches and maps or it may refer to a separate set of design guidelines. They are usually drawn up with regard to town center development schemes, but a number of housing development briefs have been produced. These non-statutory guidelines are most useful where the local government has control over the land, but they also can be useful in guiding the form and content of privately held land. A developer may more easily gain public buy-in because the development brief contains graphical depictions of how the development will affect the surrounding area.

Ratcliffe writes that development briefs should contain:

*Development control standards:* such as building heights, materials, distance between dwellings, . . . [and] *Design standards:* such as elevational treatment, roof pitches, disposition of building groups, open space, landscaping, integration of surrounding buildings, focal views, access points, highway standards, and reference to any relevant design guides.<sup>46</sup>

He offers that they can be a useful planning aid by clarifying to local developers the type of development that is acceptable to the planning board or preservation commission. Development

---

<sup>45</sup> John Ratcliffe, *An Introduction to Town and Country Planning*, 2d ed., Built Environment Series (London: Hutchinson Education, 1981), 387.

<sup>46</sup> *Ibid.*, 390.

briefs can more effectively control design than conventional zoning because they contain more complete graphical representations of desirable design characteristics.

One disadvantage to development briefs is the staffing required to create them. For rural to mid-size towns, where manufactured houses are likely to be located, the planning staff will be small to non-existent so the creation of development briefs may require outside consultants.

Development briefs can also be too specific to accommodate a changing marketplace. They may be very useful in the short term for a commercial area, but less useful after several years. For example, in the 1980s, enclosed malls were particularly fashionable. Twenty years later, malls are less desirable compared to lifestyle centers, which include closer-in parking, boutique stores, and better landscaping.<sup>47</sup> In areas that are still developing, the development brief would only be useful as a dynamic document that changes as tastes for a particular land use or architectural style change. In historical areas, where the residents want to maintain and enhance the existing aesthetic, the development brief could serve as a useful tool, being very specific to a neighborhood and citing certain requirements for infill structures.

### Zoning and Gentrification

Conventional zoning, which separates uses without really addressing neighborhood character, may do more than ignore poor design. It may lead to gentrification. The term “gentrification” is “commonly used to refer to alterations in land-use patterns and changes in the composition of the neighborhood populations resulting in new social organizational patterns in inner cities . . .”<sup>48</sup> The causes for gentrification are widely debated and zoning is not a sole

---

<sup>47</sup> Parija Bhatnagar, “Not a mall, it’s a lifestyle center,” *CNNMoney*, 12 January 2005 [article on-line]; available from [http://money.cnn.com/2005/01/11/news/fortune500/retail\\_lifestylecenter](http://money.cnn.com/2005/01/11/news/fortune500/retail_lifestylecenter); Internet; accessed 18 January 2005.

<sup>48</sup> J. John Palen and Bruce London, “Some Theoretical and Practical Issues Regarding Inner-City Revitalization,” *Gentrification, Displacement and Neighborhood Revitalization*, eds. J. John Palen and Bruce London (Albany, NY: State University of New York Press, 1984), 4.

cause. Social scientists believe that gentrification is caused by “a reaction to social change in American life, the movement is driven by a wave of nostalgia and seeking a sense of place.”<sup>49</sup> Palen and London observed that children of first-generation suburbanites are moving into older neighborhoods near the urban center. Smith and LeFaivre studied neighborhoods undergoing gentrification and offer definitions for “neighborhood” and “community.” They write that “While a community is both a social and material entity, the neighborhood is a purely material (spatial) product of the land and housing markets.” They go on to say that the social relationships that create a community are “more concentrated at the neighborhood level than they are with the more spatially mobile middle class.”<sup>50</sup>

Presumably, they are differentiating a stable, but poor neighborhood where the residents tend to remain over time from a highly mobile middle class neighborhood where there is a high turnover in residents. They support this argument by pointing out that “this was particularly true . . . in the past [when] exclusionary covenants in land titles [were legal and] more recently by denying mortgages or refusing to rent to these groups” was standard practice.<sup>51</sup>

The benefits and costs of gentrification are sharply delineated along class lines, according to Smith and LeFaivre.<sup>52</sup> The capitalist class, “Those who own and control capital for the purpose of investing it for profit or interest,” benefits, while the costs fall on the “individuals, families, and entire communities”<sup>53</sup> that are being gentrified. They further define those who absorb the costs of gentrification as “almost entirely low-income members of the working class

---

<sup>49</sup> Irving L. Allen, “The Ideology of Dense Neighborhood Redevelopment,” *Gentrification, Displacement and Neighborhood Revitalization*, eds. J. John Palen and Bruce London (Albany, NY: State University of New York Press, 1984), 35.

<sup>50</sup> Neil Smith and Michelle LeFaivre, “A Class Analysis of Gentrification,” *Gentrification, Displacement and Neighborhood Revitalization*, eds. J. John Palen and Bruce London (Albany, NY: State University of New York Press, 1984), 45.

<sup>51</sup> *Ibid.*

<sup>52</sup> *Ibid.*, 54.

<sup>53</sup> *Ibid.*

and the unemployed.”<sup>54</sup> There are several costs that are incurred. They write that “Displacement is only the most severe effect of gentrification. Others include the destruction of community, the increased squeeze on housing availability, [and] higher rents.”<sup>55</sup>

Another viewpoint has it that gentrification is driven by the free market system and does more good than harm. Freeman found that improved services, safety, and jobs are benefits that encourage existing residents to remain in the neighborhood. He states that “Gentrification drives comparatively few low-income residents from their homes. Although some are forced to move, there isn’t much more displacement in gentrifying neighborhoods than in non-gentrifying ones.”<sup>56</sup> He concludes that the reason neighborhoods change so dramatically is that when low income residents move, they are replaced by people with more income and education rather than more poor people. His rationale is that low income residents move often so this attrition is natural.

While some families may choose to stay in gentrifying areas, there are many who do not or cannot. Nyden and Wiewel bring these two disparate viewpoints together:

Gentrification has usually been associated with good outcomes, for example, economic development, neighborhood improvement, stabilization of the tax base, rejuvenation of neighborhoods, and revitalization of the city . . . However, improvement for one family may not be an improvement for another, particularly if it means being forced to move out of a neighborhood and not being invited to share in the benefits of community revitalization.<sup>57</sup>

Regardless of the ultimate benefits accrued, there is no doubt that gentrification can destroy communities which have often existed for generations. By the very definition given at the start

---

<sup>54</sup> Ibid., 56.

<sup>55</sup> Ibid., 58.

<sup>56</sup> Rick Hampson, “Studies: Gentrification a boost for everyone,” *USA TODAY*, 19 April 2005 [article online]; available from [http://www.usatoday.com/news/nation/2005-04-19-gentrification\\_x.htm](http://www.usatoday.com/news/nation/2005-04-19-gentrification_x.htm); Internet; accessed 3 May 2005.

<sup>57</sup> Philip W. Nyden and Wim Wiewel, eds., *Challenging Uneven Development: An Urban Agenda for the 1990s* (New Brunswick, NJ: Rutgers University Press, 1991), 10.

of this section, gentrification causes “changes in the composition of the neighborhood populations.”<sup>58</sup>

Sagalyn and Sternlieb attribute exclusionary land-use controls, such as the prohibition of mobile homes, as a cause of increased housing costs. They define exclusionary land-use controls as “those controls which appear to interfere seriously with the availability of low and moderate-income housing where it is needed.”<sup>59</sup> Crawford points out that “mobile homes have a number of characteristics which justify special treatment by zoning ordinances.”<sup>60</sup> The Office of Policy Development and Research found that:

Any government regulation that adds to the cost of urban housing is especially significant because of the concentration of low-income households in central cities. Unlike subdivision areas where large-scale new development is taking place, the regulatory problems in cities involved either the rehabilitation of older properties or new infill construction to provide affordable housing for families of limited means.<sup>61</sup>

Chapter 6 will show that affordable infill housing is not being built in a poor, predominantly African-American, Athens, Georgia, neighborhood, contributing to the dearth of affordable housing available to the long-time residents of the area, and to the gentrification of the area.

---

<sup>58</sup> Palen and London, 4.

<sup>59</sup> Lynn B. Sagalyn and George Sternlieb, *Zoning and Housing Costs: The Impact of Land-Use Controls on Housing Price* (New Brunswick, NJ: Rutgers University Press, 1973), 45.

<sup>60</sup> Clan Crawford, Jr., *Handbook of Zoning and Land Use Ordinances – With Forms* (Englewood Cliffs, NJ: Prentice-Hall, 1974), 39.

<sup>61</sup> “*Why Not In Our Community?*” *Removing Barriers to Affordable Housing*, An Update to the Report of the Advisory Commission on Regulatory Barriers to Affordable Housing [report on-line] (Washington, D.C.: United States Department of Housing and Urban Development, Office of Policy Development and Research, February 2005); available from <http://www.huduser.org>; Internet; accessed 11 May 2005, 22.

## CHAPTER 3

### AFFORDABLE HOUSING

By constraining overall supply and the market's ability to respond to demand, housing prices and rents in many markets are inflated. Regulations that restrict market rate and affordable housing options, such as higher density housing, multifamily rental housing, accessory units, and manufactured homes, further exacerbate the problem by limiting or excluding many affordable housing options.<sup>62</sup>

Affordable housing is defined as “housing for which the occupant is paying no more than 30 percent of gross income for total housing costs, including rent, mortgage payments, condominium fees, utilities, taxes, and insurance, as applicable for rental or owned housing units.”<sup>63</sup> Housing advocates also place a high priority on “safe and decent” housing, believing that substandard housing “should not be counted as a unit of affordable housing.”<sup>64</sup> According to the National Low Income Housing Coalition (NLIHC), 95 million people in the United States had housing problems in 2001 (e.g. high cost burden,<sup>65</sup> overcrowding, poor quality, or homelessness). They further explain:

The true extent of the affordable housing crisis in America has not been made explicit because it is usually measured by the number of households that have housing problems. Households are composed of individual people. When all the people who live in households with housing problems are counted, we learn that the affordable housing crisis affects far more people than some other social problems that get more media and political attention.<sup>66</sup>

---

<sup>62</sup> *Why Not In Our Community?*, 3.

<sup>63</sup> “Glossary of Terms,” [document on-line] (Raleigh, NC: North Carolina Housing Coalition); available from <http://www.nlihc.org>; Internet; accessed 24 January 2005.

<sup>64</sup> *Creating Inclusive Communities in Florida* [report on-line] (Florida Housing Coalition and 1000 Friends of Florida, 2002); available from <http://www.1000fof.org/PUBS>; Internet; accessed 24 January 2005.

<sup>65</sup> High cost burden occurs when a household pays more than 50 percent of its gross annual income for housing costs. *America's Neighbors: The Affordable Housing Crisis and the People it Affects* (National Low Income Housing Coalition, February 2004), 1.

<sup>66</sup> *America's Neighbors: The Affordable Housing Crisis and the People it Affects* (National Low Income Housing Coalition, February 2004), 1.

Low-income households are not the only victims of the affordable housing crisis. Moderate income housing is also lacking in some communities. The NLIHC says that “Some describe affordable housing for moderate-income families as America’s workforce housing.”<sup>67</sup> They ask why the community’s policemen, teachers, and nurses are not able to live in the very communities they serve.

### The Need For Affordable Housing

More affordable housing is needed in cities like Athens, Georgia. The data and conclusions presented here are specific to Athens-Clarke County or the area specified and the author cautions against applying the conclusions to other areas of the United States.<sup>68</sup>

It costs more to live in Georgia than many two-worker households can afford. Thirteen percent of Georgians and 26 percent of Clarke County residents live in poverty.<sup>69</sup> Based on 2003 data, two full-time (40 hours per week) workers earning minimum wage (\$5.15 per hour) can afford monthly rent of no more than \$536 without being cost burdened.<sup>70</sup> The Fair Market Rent for a two-bedroom unit is \$734, which would require two workers earning \$7.06 per hour at a full time job to afford.<sup>71</sup> In lieu of a wage increase, those workers would have to work 55 hours a week each or find a subsidized or lower quality housing unit to rent.

---

<sup>67</sup> *Why Not In Our Community?*, 1.

<sup>68</sup> National, state, and State Service Delivery Region 5 data were analyzed by the Department of Community Affairs, the National Low Income Housing Coalition and the Housing and Demographics Research Center at the University of Georgia. Service Delivery Region 5 is defined as twelve counties in Northeast Georgia: Clarke, Barrow, Elbert, Greene, Jackson, Jasper, Madison, Morgan, Newton, Oconee, Oglethorpe, and Walton.

<sup>69</sup> *Dismantling Persistent Poverty in Georgia: Breaking the Cycle* [report on-line] (Athens, GA: Carl Vinson Institute of Government, April 2000); available from <http://www.cviog.uga.edu>; Internet; accessed 11 May 2005, 17.

<sup>70</sup> *Out of Reach: 2004* [database on-line] (Washington, D.C.: National Low Income Housing Coalition, 2004); available from <http://www.nlihc.org>; Internet; accessed 24 January 2005.

<sup>71</sup> *Ibid.*



The growth of households in Georgia grew at a faster pace than the number of households in the United States from 1994 - 2003 (33.8% and 36.1%, respectively).<sup>72</sup> The demand for decent affordable housing outpaced the supply, leading to overcrowding (5.1% of units in Clarke County, 4.8% in Georgia<sup>73</sup>), higher real estate values and rents, and the need for more public housing units. In 2003, Clarke County had 12.68 public housing units per 1000 people, which is double the ratio of Georgia.<sup>74</sup>

Among households with very-low incomes (less than 50% of AMI), 23 percent of homeownership growth between 1993 and 1999 came from manufactured housing.<sup>75</sup> Although it is one of the most affordable housing options, current Clarke County zoning ordinances exclude manufactured housing from most residential zones. Before the exclusionary zoning went into effect, the number of mobile homes as a percent of housing units in Clarke County was only 6.5 percent of all housing units.<sup>76</sup> In Georgia, that number was 12.1 percent. Although State Service Delivery Region 5 had a higher ratio of manufactured housing shipments to residents than the state,<sup>77</sup> Clarke County had only one manufactured home placement for every 2,000 persons, the lowest rate in the region.<sup>78</sup>

### Affordable Housing Options

Traditional neighborhoods that are composed primarily of single-family detached housing can often accommodate some amount of infill housing. Site-built, manufactured, modular, and pre-fabricated infill housing types vary significantly in terms of customization as

---

<sup>72</sup> Karen Tinsley and Brenda Cude, *Georgia: State of the State's Housing: Service Delivery Region 5* [report on-line] (Athens, GA: Housing and Demographics Research Center, July 2003); available from <http://www.fcs.uga.edu>; Internet; accessed 29 January 2005, 39.

<sup>73</sup> *Ibid.*, 44.

<sup>74</sup> *Ibid.*, 46.

<sup>75</sup> "Understanding Today's Manufactured Housing" [booklet on-line] (Arlington, VA: Manufactured Housing Institute); available from <http://www.manufacturedhousing.org>; Internet; accessed 27 September 2004, 4.

<sup>76</sup> Tinsley and Cude, 41.

<sup>77</sup> *Ibid.*, 51.

<sup>78</sup> *Ibid.*, 52.

well as price, but they all allow the resident to have a sense of ownership and individuality. Site-built homes are the most customizable type of housing, but often carry the highest price tag.

Recent industry developments have created greater opportunities for customization of manufactured housing, with a related price increase. Pre-fabricated and modular housing exist somewhere between site-built and manufactured housing in terms of customization and price.

The cost difference between a modular house and a manufactured house can be quite significant. Even when identical in appearance, the sales price for an installed modular house can be twice as much as an installed manufactured house.<sup>79</sup> The price difference is mostly in the installation method. Both are pulled to the site in one or more sections behind a large truck. A manufactured house is pulled into place and can be fitted to a permanent foundation after detaching the hitch and removing the wheels (or not). A modular home must be lifted from the truck bed by a large crane before affixing it to a foundation, adding an additional and very expensive step to the installation process.<sup>80</sup>

According to the Manufactured Housing Institute, manufactured housing provides homebuyers with the best housing value and quality.<sup>81</sup> Its ancestor, the trailer, was touted as an option for affordable housing as early as 1939, when Tomfohrde reported to the Massachusetts State Planning Board that “the trailer may offer inspiration to builders and architects in meeting the demands of the low-cost housing market, a market which has been almost completely ignored in the past.”<sup>82</sup> The mobile home continued to be a popular affordable housing option in the 1970s. Jakle, Bastian, and Meyer observed:

---

<sup>79</sup> Kirk Peppers, Care Free Homes Housing Consultant, interview by author, Athens, Georgia, 27 April 2005.

<sup>80</sup> Sandy McLendon, “FutureHouse,” *Jetsetmodern.com* (1 April 2003) [article on-line]; available from <http://www.jetsetmodern.com>; Internet; accessed 24 February 2005.

<sup>81</sup> “Understanding Today’s Manufactured Housing,” 1.

<sup>82</sup> Allan D. Wallis, *Wheel Estate: The Rise and Decline of Mobile Homes* (New York: Oxford University Press, 1991), 67.

Manufactured housing . . . appears to be an appropriate dwelling with which to house people attracted by post-1960 growth, but also serves to fill a void where a traditional building industry is dormant. In addition, the mobile home serves as a starter home for lower class and lower middle class families with limited financial resources.<sup>83</sup>

In Seattle, where the median home price in 2001 was more than \$350,000, nonprofits are using manufactured homes to create affordable housing with prices ranging from \$155,000 to \$250,000. Tony To, deputy director of HomeSight, a nonprofit developer, found that “A comparable three-bedroom stick-built [home] would cost us 10 to 15 percent more.” He elaborated:

With stick-built [homes], you are essentially building stripped-down units that can barely make the market; but with manufactured housing, you get nicer features for less. In other words, manufactured housing allowed us to do these things and still keep within our price range.<sup>84</sup>

Today, housing advocates, planners, government officials, and homeowners should realize that “At approximately one-half the construction cost per square foot of conventionally site-built homes, mobile/manufactured housing is quite popular. It represents an important housing option for low-income households and is the primary form of unsubsidized affordable housing in the country.”<sup>85</sup> The manufactured house should be considered a viable option by both public officials and affordable housing advocates.

---

<sup>83</sup> John A. Jakle, Robert W. Bastian, and Douglas K. Meyer, *Common Houses in America's Small Towns: The Atlantic Seaboard to the Mississippi Valley* (Athens, GA: University of Georgia Press, 1989), 102.

<sup>84</sup> Kami Watson, “A Solution to the Affordable Housing Crisis,” *Journal of Housing & Community Development*, May/June 2002, 22.

<sup>85</sup> Tinsley and Cude, 32.

## CHAPTER 4

### MANUFACTURED HOUSING

#### Definition

The difference between manufactured homes and other types of factory-built homes is important. People and organizations can have different definitions depending on the level of understanding and source of the information. The Department of Housing and Urban Development (HUD) defines a manufactured home as “a single-family house constructed entirely in a controlled factory environment, built to the federal Manufactured Home Construction and Safety Standards,” also known as the HUD Code.<sup>86</sup> The standards, which are administered by HUD, went into effect 15 June 1976, due to rising concerns over the quality of mobile homes. The HUD Code is the only federally-regulated national building code; other building codes are regulated by regional, state, or local authorities, which govern additions to manufactured homes, such as garages, porches, and decks.

The industry’s leading trade group, the Manufactured Housing Institute uses the following definitions for other factory-built homes. The differences derive from how they are built, shipped, and installed.

- **Modular** homes are built to state, local, or regional codes where the home will be located. Modules are transported to the site and installed by crane.

---

<sup>86</sup> “The Definition of a Manufactured Home” [article on-line] (Arlington, VA: Manufactured Housing Institute, 2004); available from <http://www.manufacturedhousing.org>; Internet; accessed 9 September 2004.

- **Panelized** homes are factory-built homes in which panels are transported to the site and assembled. These panels include whole walls with windows, doors, wiring, and exterior siding.
- **Pre-Fabricated** homes include homes where building materials are factory-cut to design specification, transported to the site and assembled. These include kit, log, and dome homes. These homes must also meet local, state, or regional building codes.
- **Mobile** homes are factory-built homes produced prior to 15 June 1976. Prior to 1970, these homes were built to voluntary industry standards that were eventually enforced in 45 of the 48 contiguous states.<sup>87</sup>

The HUD Code was also created to change the nomenclature for the industry and to signify that the federal government would administer inspections. Almost thirty years after the HUD Code went into effect, however, the term “manufactured home” is still not widely understood. The term “mobile home” is used in the industry, in the media, and by the general public. Even in official government documents, such as the Census, “mobile home” is included as a housing option, without a definition, whereas “manufactured home” is not.

#### Post-War Evolution

Manufactured homes differ greatly from mobile homes, from which they evolved. In fact, manufactured homes have continuously evolved since their origins as travel coaches in the 1920s. These small, mobile coaches met the demand of travelers who wanted a ready-made place to sleep at night. During World War II, travel coaches housed workers hired to meet the demand for factory labor. They were then used after the war to help meet the incredible demand

---

<sup>87</sup> Ibid.

for affordable housing by veterans. As inexpensive site-built homes appeared in new subdivisions all over the country, the travel coach industry created trailers that were large enough for a small family and met the twin demands of affordable housing and mobility.<sup>88</sup>

The industry introduced the modern manufactured housing form, the mobile home, in the 1960s when consumers demanded more amenities and larger spaces. The mobile home was popular with families who desired nice looking, affordable housing. The HUD Code clearly defined mobile homes as buildings, rather than vehicles, for the first time. The Housing Act of 1980 officially created the term “manufactured housing,” which would be used in all HUD documents for homes built since 1976.<sup>89</sup>

Also in 1980, the American Planning Association supported a classification proposal. This new system addressed construction standards and appearance levels and grouped homes into six classes. The first five classes are pertinent to today’s manufactured homes.

- **Class A** is a new double wide house with a 3:12 roof pitch.
- **Class B** is a new single wide home.
- **Class C** is a single wide built to a code prior to 1980.
- **Classes D and E** are older single wide units built to a prior code or no code.<sup>90</sup>

#### Current Trends

The manufactured housing industry continually refines and develops their products in cooperation with HUD. Research and development opportunities were recently identified in the report *Technology Roadmapping for Manufactured Housing*.<sup>91</sup> Among the several areas of focus

---

<sup>88</sup> “The History of the Manufactured Home” [article on-line] (Arlington, VA: Manufactured Housing Institute, 2004); available from <http://www.manufacturedhousing.org>; Internet; accessed 9 September 2004.

<sup>89</sup> Ibid.

<sup>90</sup> Wallis, 243-244.

<sup>91</sup> *Technology Roadmapping for Manufactured Housing* (New York: Manufactured Housing Research Alliance, March 2003), 29.

is “Design for an Evolving Marketplace,” which includes the goal of meeting the demand for affordable housing, but doing so in new markets, such as “housing for seniors, new Americans and urban infill.”<sup>92</sup> The focus of the design challenges includes:

- Developing and deploying hybrid home designs that combine manufactured and site-built components.
- Analyzing and creating prototype designs for specific housing applications, e.g. attached single-family, urban infill.
- Creating more upscale designs of high-quality homes.<sup>93</sup>

The industry predicts that the middle class home market will continue to involve more manufactured housing. “To serve these markets, industry will perfect two- and three-story house construction methods and foundation designs. In particular, more emphasis will be placed on innovations in the designs of the floor system, the vertical connection between home sections, and tilt up roof systems. The trend toward multi-story homes will lead to the use of manufactured homes in older, redeveloping communities.”<sup>94</sup>

### Facts and Myths

Manufactured housing accounts for 30 percent of new homes nationwide, according to the 2000 Census. In spite of the widespread use of manufactured homes, the housing type is still greatly misunderstood by both planners and the general public.

There are many stereotypes of manufactured housing that have arisen out of historical issues more attributable to mobile homes and trailers. Wallis points out that many public concerns “over appearance, safety, and mobility often are surrogates for concern about conventionality. In this sense, the mobile home is not a threat because it is ugly, but because it is identifiably different.”<sup>95</sup> This prejudice could explain why unattractive site-built housing is often

---

<sup>92</sup> Ibid.

<sup>93</sup> Ibid., 30.

<sup>94</sup> Ibid., 31.

<sup>95</sup> Wallis, 21.

more desirable than well-designed manufactured housing. This section discusses the myths that surround manufactured housing.

### Taxation

The myth that a manufactured home does not contribute its fair share of taxes to the community in which it is located is often cited by public officials who rely on a large tax base to provide necessary municipal services. This myth is based in the reality that manufactured homes are usually valued less than a site-built home by the property or tax appraisers, based on recent purchase price, and therefore contribute less to the tax roles.<sup>96</sup> A manufactured home that is valued as real estate and on the potential market value, rather than as personal property and on the recent sales price, will have a higher value and contribute higher taxes.

### Property Values

There is a myth that manufactured housing automatically declines in value. As discussed in the previous section, many factors affect property value, including how it is assessed by the property appraiser. Values of real estate or real property, which are fixed to the land, tend to rise over time. The value of personal property, which is not fixed to the land, tends to decline. This fact is recognized by Federal Housing Administration (FHA), which requires that homes be valued as real property to qualify for an FHA home loan.<sup>97</sup> Valuing manufactured homes as personal property, or chattel, removes the legal classification that most homes have. When valued as real property, the owner is brought into the world of real estate markets and finance; personal property is rarely accepted as collateral.<sup>98</sup>

---

<sup>96</sup> Kelly Thomas, Athens-Clarke County Real Property Appraiser, interview by author, Athens, Georgia, 4 May 2005.

<sup>97</sup> "Appraisal and Property Rights," *Manufactured Homes: Eligibility and General Requirements - Title II* [handbook on-line] (Washington, DC: United States Department of Housing and Urban Development, 4 December 2001); available from <http://www.hud.gov>; Internet; accessed 4 May 2005.

<sup>98</sup> Richard Genz, "Why Advocates Need to Rethink Manufactured Housing," *Housing Policy Debate* 12, iss. 2 (2001): 408.



Although it has been reported that “mobile homes don’t appreciate in value [and] . . . can’t build equity . . .,” at least one-third of manufactured homes have “held their value or appreciated.” Several studies establish the simple fact that “some manufactured homes increase in value, and some decline,”<sup>99</sup> which is true for any type of housing. All homes are subject to the same factors: market preferences, location, stability of the neighborhood, the local economy, supply and demand for homes, and the maintenance and upkeep of the home.<sup>100</sup>

Georgia’s Department of Community Affairs (DCA) compared the median values of all owner-occupied units with mobile homes in Region 5 counties (see Table 4.1). Specific information is not given as to the age or condition of the units valued in the study, but in general, the data shows that mobile homes have much lower values than specified owner-occupied units. The reasons for this include county valuation, lower initial cost, and retained value.

### Quality

The quality of manufactured housing is not debatable. They are built entirely in a controlled factory environment, use the same materials as site-built houses, and are subject to the strict HUD Code. Genz summarizes:

*Consumer Reports* says that “manufactured housing can last as long as site-built housing,” and one expert concluded that recently built units have a useful life of 55.8 years. Harvard’s Joint Center for Housing Studies is more conservative, placing the life expectancy in the range of “30 to 40 years or even longer,” depending on maintenance.<sup>101</sup>

The HUD Code regulates the construction of the home to a detail that no construction foreman on a site could. HUD inspects each step of the construction process at the factory and on-site if the home is not complete when it leaves the factory, as when a chimney block is built

---

<sup>99</sup> *Ibid.*, 406.

<sup>100</sup> “Frequently Asked Questions” [article on-line] (Arlington, VA: Manufactured Housing Institute, 2004); available from <http://www.manufacturedhousing.org>; Internet; accessed 9 September 2004.

<sup>101</sup> Genz, 397.

Table 4.1: Median home value by county<sup>102</sup>

County	Mobile homes <sup>103</sup>	Specified owner-occupied units <sup>104</sup>
Barrow	\$53,200	\$103,400
Clarke	20,300	111,300
Elbert	36,300	66,600
Greene	34,100	87,100
Jackson	53,100	102,900
Jasper	68,600	81,000
Madison	47,700	87,300
Morgan	60,200	99,700
Newton	40,300	101,300
Oconee	39,900	151,600
Oglethorpe	41,900	87,500
Walton	41,200	113,300
GEORGIA	\$33,600	\$111,200

<sup>102</sup> United States Census Bureau. Census of Population and Housing Summary File 3; 1990, 2000, quoted in Karen Tinsley and Brenda Cude, *Georgia: State of the State's Housing: Service Delivery Region 5* [report on-line] (Athens, GA: Housing and Demographics Research Center, July 2003); available from <http://www.fcs.uga.edu>; Internet; accessed 19 March 2005, 27.

<sup>103</sup> Mobile Home is a term used in the census. The respondent is given no definition when asked if he/she lives in a mobile home. U.S. Census Bureau.

<sup>104</sup> Specified owner-occupied units is a term used in the census to indicate one-family houses on less than 10 acres without a business or medical office on the property since excessive land or commercial or medical activities may distort the value of the property. The data for "specified units" does not include mobile homes. U.S. Census Bureau.

after jacking up the roof.<sup>105</sup> The HUD Code monitors the “strength and durability, transportability, fire resistance, energy efficiency, and overall quality. It also sets standards for the heating, plumbing, air-conditioning, thermal and electrical systems.”<sup>106</sup>

The manufactured housing industry maintains that the HUD Code is “on balance . . . comparable . . .” to local and state building codes.<sup>107</sup> However, the HUD Code is more restrictive in such situations as ventilation, flame spread, and structural loads.<sup>108</sup> Local and state codes are more restrictive in other instances, but the differences are minute. Local and state codes are prescriptive; the HUD Code is performance-based, allowing the manufacturer to use materials that meet the requirements, rather than requiring certain size wire or lumber to be used. This effectively allows the industry to create less expensive housing, as every ounce of material is used as efficiently as possible.

### Safety

There are many concerns about the safety of manufactured housing under severe weather conditions, especially tornadoes and hurricanes, which the industry maintains are not based upon meteorological or scientific data. One explanation for the many reports of damage to manufactured homes from tornadoes is that they are largely found in rural and suburban areas where tornadoes are most likely to occur.<sup>109</sup> Manufactured housing now has to conform to the most stringent regional and national building codes for site-built homes in high wind zones, such as along coastlines where hurricanes are more likely to occur. Proper installation and anchoring of the home determine how well a manufactured home will perform in severe weather

---

<sup>105</sup> Jerry Haynes, Cavalier Home Builders Sales Manager, interview by author, telephone, 5 May 2005.

<sup>106</sup> “Frequently Asked Questions.”

<sup>107</sup> Ibid.

<sup>108</sup> “Understanding Today’s Manufactured Housing,” 4.

<sup>109</sup> “Frequently Asked Questions.”

situations.<sup>110</sup> *Consumer Reports* has found that “today’s double-wide units, bolted to a foundation, can perform comparably to site-built houses.”<sup>111</sup> The Florida Manufactured Housing Association claims that “Every factory-constructed manufactured home sold in Florida not only matches the strength of site-built homes, but actually exceeds them by as much as 25%.”<sup>112</sup>

Manufactured homes are statistically safer than site-built homes with regard to fire safety. A national fire safety study by the Foremost Insurance Company showed that site-built homes are more than twice as likely to experience a fire as manufactured homes.<sup>113</sup> The HUD Code has strict requirements “for fire retardation and smoke generation in materials, large windows in all bedrooms, smoke alarms, and at least two exterior doors which must be separate from each other and reachable without having to pass through other doors that can be locked. Site-built homes are required to have only one exterior door and no ‘reachability’ requirement.”<sup>114</sup>

### Georgia Statutes

Chapter 3 demonstrated the need for affordable housing in Georgia. Yet many municipalities and counties in Georgia increasingly zone manufactured housing out of existing neighborhoods that are composed primarily of site-built homes. Municipalities can have slightly different definitions of manufactured housing which do not always agree with the HUD Code, but some ordinances do not differentiate between manufactured and modular homes, essentially guaranteeing that only site-built homes will be allowed in certain neighborhoods. There have been no published studies on inclusionary zoning in Georgia for manufactured housing and some

---

<sup>110</sup> Ibid.

<sup>111</sup> McLendon.

<sup>112</sup> “How Our Homes Are Built” [article on-line] (Florida Manufactured Housing Association, 2004); available from <http://www.builtstronger.com/engineering.html>; Internet; accessed 8 May 2005.

<sup>113</sup> “Understanding Today’s Manufactured Housing,” 8.

<sup>114</sup> “Frequently Asked Questions.”

communities do not address manufactured housing as a separate housing type. This is a representative sampling of how Georgia governments treat manufactured housing.

### Bainbridge

The City of Bainbridge defines a mobile home as “a detached single family unit, designed for long-term occupancy, which has been prefabricated and then transported to its site . . . usually on its own wheels . . . and requires only minor work before occupancy such as connection to utilities or to a foundation.”<sup>115</sup> The City of Bainbridge allows mobile homes only in “a homogeneous environment,”<sup>116</sup> such as a mobile home park or a subdivision. The City does not differentiate between manufactured and mobile homes.

The legitimacy of this exclusionary zoning was tested when the City became a defendant in a seminal case in Georgia. A resident placed a manufactured home in an R-2 zoning district, from which they were excluded, and sued when ordered to remove it. According to the City, the zoning ordinance against manufactured housing is “designed to regulate the quality of housing and advance general safety concerns.”<sup>117</sup> A Georgia planner was relieved that “On March 10, we got our manna from heaven in the form of *King v. City of Bainbridge, Ga.*, 577 S.E.2d 772 (2003).”<sup>118</sup> This ruling clarified that, with proper justification, towns in Georgia can legally exclude manufactured housing from any residential zone.

### Rome/Floyd County

The Unified Government of Rome/Floyd County includes restrictions regarding manufactured homes in their land-use plan. The plan excludes new manufactured and mobile

---

<sup>115</sup> City of Bainbridge, Georgia, *Zoning Ordinance* (17 June 2003).

<sup>116</sup> *Ibid.*

<sup>117</sup> Frank E. Jenkins, III, “Goodbye, Cannon v. Coweta County: New Rules on Manufactured Home Legislation,” *Georgia Planner*, June 2003 [newsletter on-line]; available from [http://www.georgiaplanning.org/stuff/newsletters/june-2003\\_33361.pdf](http://www.georgiaplanning.org/stuff/newsletters/june-2003_33361.pdf); Internet; accessed 7 May 2005, 6.

<sup>118</sup> *Ibid.*, 1.

homes from being placed on any property in the city limits without a special use permit. They are relegating manufactured housing to strictly “Agricultural Residential and Suburban Residential zones, min 20,000 sq ft lots, but not in higher density single family zones.”<sup>119</sup>

### Albany

Albany does not differentiate between mobile and manufactured homes. They include a single definition:

MOBILE HOME: A structure designed as a movable dwelling; built upon its own permanent chassis; transported on its own chassis (normally by towing) in one or more sections; occupiable with or without a foundation; and contains within all of the normal utility systems: plumbing, electrical, and heating and cooling.<sup>120</sup>

Mobile homes are allowed in certain residential districts (R-4 zones) but may be allowed in other areas “when such application is based on medical or financial hardships” and after the hardship condition is substantiated.”<sup>121</sup>

### Athens-Clarke County

In the two-year period between 1 January 2000, and 31 December 2002, Athens-Clarke County (A-CC) issued building permits for 22 manufactured homes in Agricultural (AR) zones and 143 in Residential Subdivision (RS) zones.<sup>122</sup> In 2003, a moratorium was placed on new manufactured home permits in the county.

Today, manufactured housing is allowed in A-CC, but not in urban neighborhoods. Class A homes are allowed “on individual lots that are part of ten or more lots that have a common subdivision scheme on file in the Athens-Clarke County Planning Department where

---

<sup>119</sup> “General Information and Check Sheets: Manufactured (Mobile) Homes” [article on-line] (Rome, GA: City of Rome Building Inspection, 2003); available from <http://www.rome.ga.us/departments/bldginsp/mobilehome.asp>; Internet; accessed 7 May 2005.

<sup>120</sup> “Title I: General Provisions,” *Zoning Ordinance, City of Albany and Dougherty County* (Albany, GA: Planning Department) [ordinance on-line]; available from [http://www.albany.ga.us/Plannning\\_Community Dev/documents/zoning.pdf](http://www.albany.ga.us/Plannning_Community Dev/documents/zoning.pdf); Internet; accessed 11 May 2005, I-14.

<sup>121</sup> *Ibid.*, III-38.

<sup>122</sup> “Class A’ Manufactured Homes” (12 October 2003); personal file of Bruce Lonnee, Athens-Clarke County Planner.

60 percent or more of the existing dwellings are either Class A or Class B manufactured homes.”<sup>123</sup> Class B homes are allowed only in mobile home parks. Other classes of homes are disallowed.

Besides location requirements, A-CC also has separate manufactured housing standards, some of which affect the design. Class A Manufactured Housing is the only type allowed as infill in existing residential neighborhoods. The requirements that affect design are as follows:

- It “shall be multi-sectional, no less than 24 feet in width, and have a minimum enclosed floor area of 1,000 square feet.”
- The pitch of its roof shall have a 3:12 ratio.
- The siding must consist of “wood, wood-product, or vinyl siding.”
- The roof must be composed of “composition or metal roofing.”
- The foundation must be “fully skirted in masonry” and be fully enclosed.<sup>124</sup>

These very basic requirements dictate design to a very limited degree, but do not address appropriate design for individual neighborhoods. Other sections in the zoning ordinances dictate set-back, minimum front yard, and other lot requirements.

#### *Department of Community Affairs*

In 2002, the Georgia Department of Community Affairs (DCA) completed *Alternatives to Conventional Zoning*, a model zoning code. The self-described “purpose of the ‘Alternatives’ project was to provide Georgia's local governments a set of relatively simple tools, both old and new, they could use to address land use and development issues in their communities.”<sup>125</sup> The

---

<sup>123</sup> “Chapter 9-7. Single-Family Residential (RS) Districts,” *Zoning and Development Standards* (Athens-Clarke County, Georgia: Planning Department), supp. no. 16, 966.26.

<sup>124</sup> *Ibid.*, 966.28.

<sup>125</sup> “Program Description,” *2004 Model Code: Alternatives to Conventional Zoning* (Atlanta: Georgia Department of Community Affairs, December 2003) [report on-line]; available from

model code is primarily intended to assist mostly rural towns and counties with land-use planning, so the section on Manufactured Housing is included in the “Agricultural/Rural Land” section and is intended to ensure “architectural compatibility of manufactured homes with adjacent single-family residences and other land uses through the application of architectural compatibility standards.”<sup>126</sup>

DCA gives three situational scenarios from which to choose: 1) near a major highway or other geographical feature; 2) within 500 feet of two or more site-built houses; and 3) adjacent to and nearby site-built homes and other land uses where architectural harmony is desired. Each type of compatibility standard has a different level of design control (See Figures 4.1 and 4.2). DCA has the best intention with the model code. It will allow a community with few resources to influence, to a certain extent, its visual character. The Type 3 Compatibility Standard defines three major design elements as important for compatibility: width (i.e. 20 feet minimum width); covered porch (i.e. full width and 10 feet minimum depth); and additional architectural features (i.e. window shutters, 6 inch eaves, and one other architectural feature that will provide equal compatibility with surrounding resources).<sup>127</sup> DCA recognizes that the appearance of manufactured housing is primarily what has caused the intense prejudice and the resultant exclusionary zoning against it. This model code will give local authorities, rather than manufacturers, design control over this housing type.

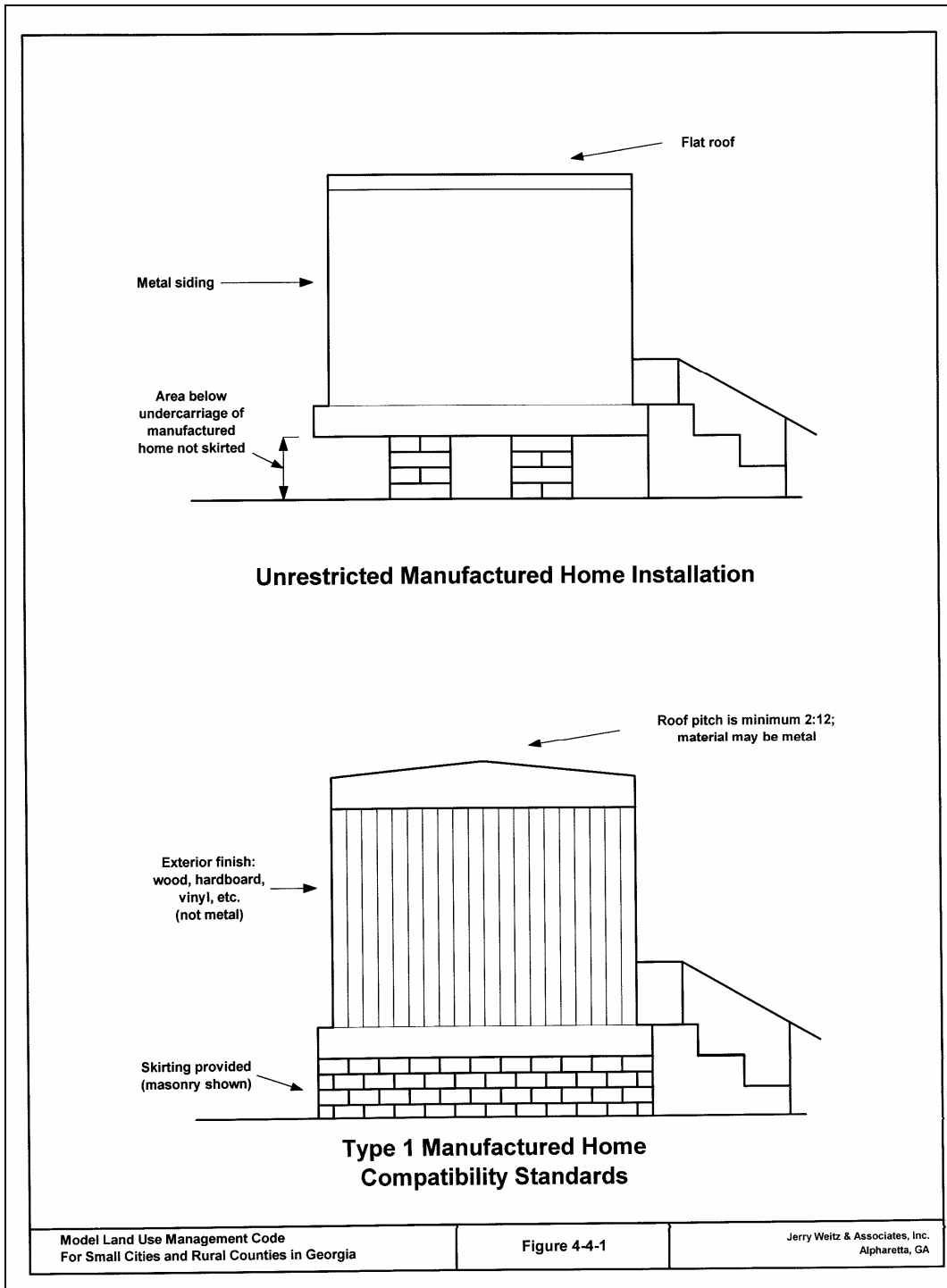
---

<http://www.dca.state.ga.us/development/PlanningQualityGrowth/programs/modelcode.asp>; Internet; accessed 9 May 2005.

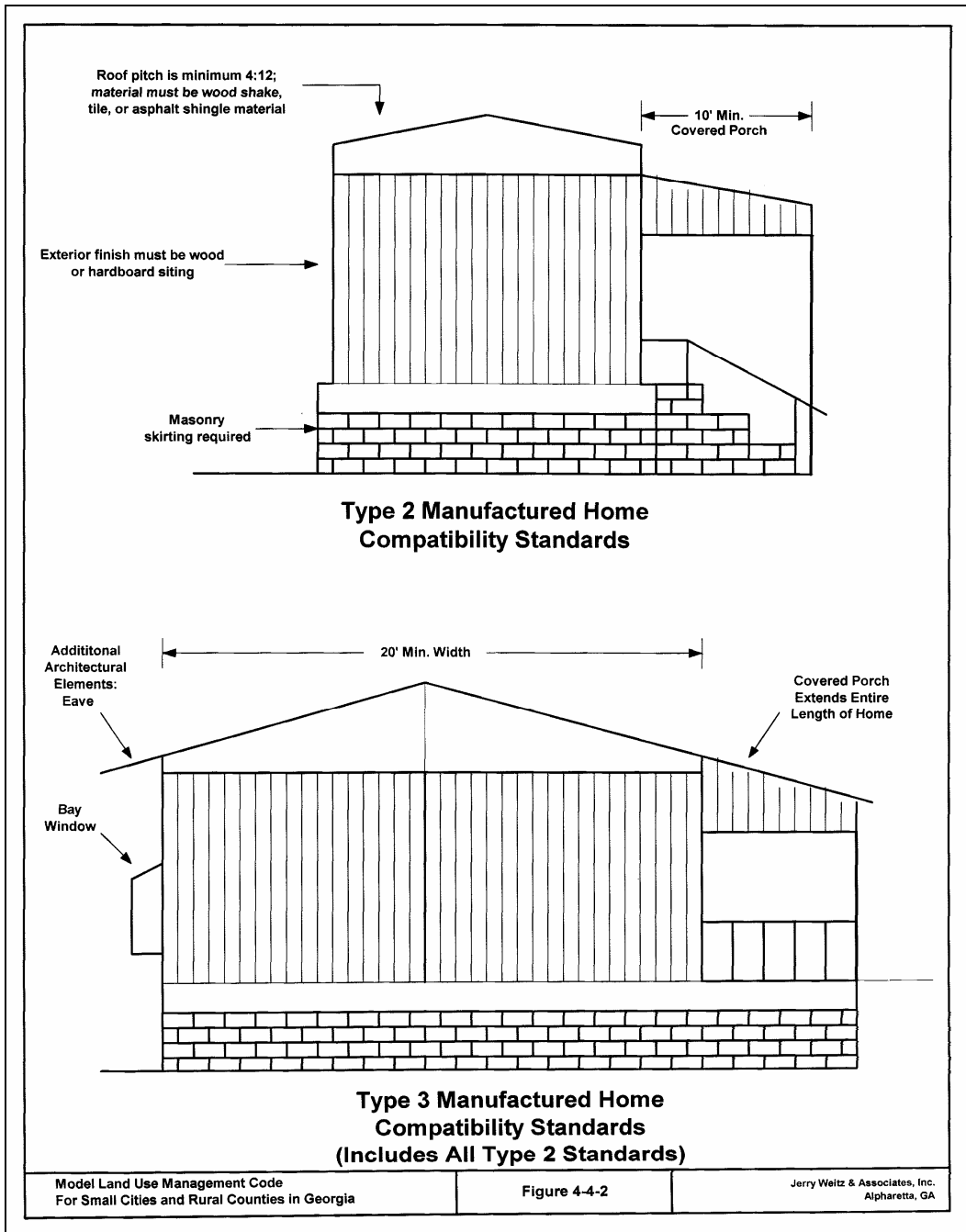
<sup>126</sup> “Part 4: Provisions for Agricultural/Rural Land,” *2004 Model Code*, sec. 4-4-1 .

<sup>127</sup> *Ibid.*, sec. 4-4-7.





*Figure 4.1.* Model Code Graphic 1 - Showing design changes based on the DCA's Model Code (Model Code, 4-4-5)



*Figure 4.2.* Model Code Graphic 2 - Showing design changes based on the DCA's Model Code (Model Code, 4-4-6)

## Design History

Developers of an early “mobile home” recognized that both institutional and public acceptance would “be conditional on the product’s appearance.”<sup>128</sup> They preferred to employ conventional housing forms in their designs for manufactured housing. Some architects and designers were advancing the idea that an “object produced by advanced factory technology should reject the site-built aesthetic of the traditional house,”<sup>129</sup> but the prevailing ideology was that “The public is not going to accept anything new or revolutionary.”<sup>130</sup>

The manufactured housing industry was at odds about how to marry form and function, an important consideration for architects in the twentieth century. It was also recognized by many proponents of the manufactured house that they must avoid the opposition of regulators and a tradition-bound public. An MIT professor said in 1953 what is still true:

Today it is principally the houses of unconventional materials such as steel and aluminum and those of unconventional architectural appearance that are apt to arouse suspicion and opposition. . . . In regard to appearance, there has been a strong tendency to make the prefabricated house indistinguishable from the conventional house and to abandon flat roof and battens.<sup>131</sup>

Wallis writes that “In 1954, most states specified that house trailers could not be more than 12 ½ feet high, 8 feet wide, and 35 feet long. . . . Since the trailers were still highly mobile . . . the minimum dimensions became the standard.”<sup>132</sup> To reduce drag, most common ceiling heights became 6 ½ to 7 feet, even though 8 feet would have been within the limitation. It is within these parameters that designers had to work. The requirement for ease in hauling trumped the stylistic tastes of designers of that era. It would be over forty years later before the manufactured and site-built housing industries used common materials. The next challenge

---

<sup>128</sup> Wallis, 68.

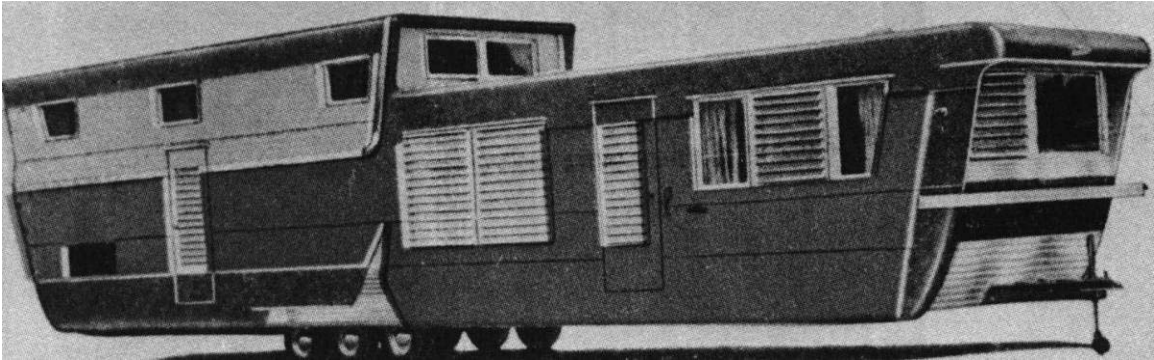
<sup>129</sup> Ibid.

<sup>130</sup> Ibid., 134.

<sup>131</sup> Ibid.

<sup>132</sup> Ibid., 126.

would be the form of the house. Chapter 6 addresses the challenges of designing a manufactured house that would resemble an historic site-built house, a task that has not always a goal for this housing type (see Figure 4.3).



*Figure 4.3.* Pacemaker - The exterior of the bi-level Pacemaker featured “action lines,” a feature no site-built house ever had. (Wallis, 127)

## CHAPTER 5

### ELEMENTS OF DESIGN

Supposing, for instance, a man were to wear a gown of red plush exquisitely embroidered with lace. In criticising him, we would not be calling into question the intrinsic beauty of the gown. In such a case, we should not only ask whether the gown is beautiful, but whether it accords with the general scale and convention of costumes worn by other people.<sup>133</sup>

#### The Importance of Architectural Harmony

When noted architectural critic Trystan Edwards wrote about the “gown of red plush,” he was considering the proclivity of architects to design buildings that were beautiful, but had less than gracious manners toward their neighbors. Half a century later, the issue of architectural compatibility still exists. Cassity wrote that “The process for determining visual compatibility is one of those things that confounds, aggravates, and annoys.”<sup>134</sup> Why is this process necessary? Is it perhaps that society itself has changed in the past 100, 50 or even 20 years so that there must be rules in order to preserve visual harmony and architectural tradition? Writing in the late twentieth century, Brolin presents one possible answer to this question:

Persisting social customs, limitations on the availability of materials and standardized construction methods all helped to make some degree of visual integration inevitable in the pre-industrial world. The designer’s own preferences, however, often seem to have been the deciding factor. While we seldom think of them in this way, each of the styles we now know as historical was, in its own time, modern. . . . Skilled designers chose to make sympathetic visual connections between their buildings and older ones so that conflicts between potentially antagonistic styles seldom materialized.<sup>135</sup>

---

<sup>133</sup> A. Trystan Edwards, *Good & Bad Manners in Architecture*, 2d ed. (London: John Tiranti, 1946), 15.

<sup>134</sup> Pratt Cassity, “How to Determine Compatibility for New Structures in a Relatively (Visually) Consistent Historic District,” *Alliance Review* (January/February 2005): 15.

<sup>135</sup> Brent C. Brolin, *Architecture in Context: Fitting New Buildings With Old* (New York: Van Nostrand Reinhold, 1980), 19.

Brolin's comment is directed against the modernist philosophy which perhaps perpetuated the substantial break in the "social customs" which prevailed in the late nineteenth century. If the break demands that there must be a set of guidelines if traditions are to continue, then one must question whether continuing social traditions is important.

Architectural theorist Lewis Mumford wrote in the early twentieth century about the importance of architecture:

The heights of rooms, the amount of window openings, the rhythm of open spaces and closed spaces, of wall surfaces and windows, the relation of roof and façade – all these things reflect social habit and spiritual need, as well as structural necessity and climatic conditions. That is why architecture tells history, for it shows how, and why, and to what end people have lived. And that is why its pleasures are so various . . .<sup>136</sup>

Tradition gives us a sense of place and continuity. Mumford goes on to discuss what could happen if we do not observe an architectural custom: "If we botch our buildings, crowd them together, or mistake their proper use, we cannot escape the results of our failure . . ."<sup>137</sup> Many failures occurred in the 1960s and 1970s when social customs in architectural traditions were deliberately ignored. The construction of a parking deck in Ellis Square, where Savannah's City Market once stood, was a mistake that galvanized the city to action. Over fifty years later, efforts are being made to correct that mistake.<sup>138</sup> Ruskin taught us that buildings are "the records of a community's life, its interests, its tastes, its economic organization, its social order, its religion."<sup>139</sup> The same is true of historic landscapes and street patterns, as evidenced by the recognition of Savannah's Historic Central Area. During 120 years of growth, the buildings and landscaping in and around each of the 24 squares reflected changing times and prosperities. Yet,

---

<sup>136</sup> Lewis Mumford, *Architecture*, Reading With a Purpose Series (Chicago: American Library Association, 1926), 25.

<sup>137</sup> *Ibid.*, 10.

<sup>138</sup> "Savannah: History" [article on-line]; available from [http://encyclopedia.laborlawtalk.com/Savannah,\\_Georgia](http://encyclopedia.laborlawtalk.com/Savannah,_Georgia); Internet; accessed 6 May 2005.

<sup>139</sup> Mumford, 9.

“Regardless of detail, the new houses did not vary appreciably from the old ones in terms of scale and proportion. Even when houses were rebuilt, this same respect for existing character was maintained.”<sup>140</sup>

### Defining Compatibility

While most people would assert that they know what existing character is, they would find it difficult to define those design details that create it. Wallis asks “Would different windows do the trick, hiding the wheels, raising the roof, lowering the floor? Even when such recommendations are made people find that it still isn’t enough.”<sup>141</sup> Much thought has been put into historic preservation plans, design guidelines, and other reports to help public officials, builders, preservation commissions, and community residents understand “how anticipated new construction and the old structures to be preserved could be blended together in a harmonious manner.”<sup>142</sup>

One of the best and earliest plans is Savannah’s Historic Preservation Plan, created in 1973. This plan lays out sixteen criteria by which individual structures may be compared and evaluated. The stated intent “in developing these sixteen criteria has been to identify specific design elements which, if repeated or echoed a sufficient number of times, will assure the maintenance and preservation of the architectural and historic character of the [Central Savannah Area].”<sup>143</sup> The authors of the plan give each criterion a one-point value and a proposed new structure or remodeling would have to achieve at least six points to be acceptable, indicating that

---

<sup>140</sup> *Historic Preservation Plan for the Central Area General Neighborhood Renewal Area: Savannah, Georgia* (Washington, DC: United States Department of Housing and Urban Development, 1973), 5.

<sup>141</sup> Wallis, 24.

<sup>142</sup> *Historic Preservation Plan*, 3.

<sup>143</sup> *Ibid.*, 11.

at least six characteristics should guarantee similarity to a “majority of the structures in the immediately surrounding area.”<sup>144</sup> The sixteen criteria are:<sup>145</sup>

1. **Height** – Mandatory that new buildings be constructed to a height within ten percent the average height of adjacent buildings
2. **Proportions of buildings’ front facades** – Relationship between the width and height of the front elevation
3. **Proportion of openings within the façade** – Relationship of width and height of windows and doors
4. **Rhythms of solids to voids in front façade** – Alternating strong and weak elements, such as solid surfaces and openings
5. **Rhythm of spacing of buildings on streets** – Alternating buildings and spaces
6. **Rhythm of entrance and/or porch projections** – Relationship of entrances to sidewalks
7. **Relationship of materials**
8. **Relationship of textures** – Smooth versus round, horizontal versus vertical
9. **Relationship of color** – Including the predominant and accent colors
10. **Relationship of architectural details** – Including cornices, lintel, arches, quoins, chimneys, etc.
11. **Relationship of roof shapes** – Gable, clipped, etc.
12. **Walls of continuity** – Including brick walls, fences, hedges, and building facades
13. **Relationship of landscaping** – Type and quality of landscaping, continuity
14. **Ground cover** – Including pavers, cobblestones, tabby, etc.

---

<sup>144</sup> Ibid.

<sup>145</sup> Ibid., 18.



15. **Scale** – How the building mass relates to open space and to the size of man

16. **Directional expression of front elevation** – Vertical, horizontal, or non-directional

These criteria are specific to the urban plan of Savannah where there is a very tight fabric of buildings interlaced with open space. Buildings that are “isolated in rustic surroundings” would be acceptable with lesser degrees of compatibility. Edwards believed that urban buildings “ought to show by their shapes that they are conscious of each other’s existence and form a *society* of buildings.”<sup>146</sup> He seems to concur with the Savannah plan by allowing that although various materials and color could lend a degree of unsociability, if the buildings have sociable forms, the result is a compatible streetscape.

Another approach may be more useful for buildings not located urban areas. The National Park Service (NPS) supported the creation of a simple tool which community residents could use to interpret infill development in historic districts. The result of this initiative is known as the FRESH approach. These criteria may be used in any area, regardless of the spatial proximity. There are five criteria in the FRESH approach:<sup>147</sup>

1. **Footprint and Foundation** – The form of the outer walls and porches viewed from above
2. **Roof Shape** – How the planes of the roof intersect
3. **Envelope** – Includes mass, height, projections, relationships between height and width, etc.
4. **Skin** – Exterior cladding
5. **Holes** – Location, segmentation, and symmetry of doors, windows, vents, etc.

---

<sup>146</sup> Edwards, 95.

<sup>147</sup> Cassity, 15.

Cassity notes that this approach helps buildings be compatible with their surroundings, but it does not guarantee great architecture. Unlike the Savannah Plan, it is not useful for identifying styles or other specific details, such as ornamentation.

Finally, the Colorado Historical Society's general handbook for design guidelines identifies four general terms that "identify basic relationships among buildings and spaces and do so without reference to specific styles of architecture."<sup>148</sup> The handbook establishes general rules for developing design guidelines. Four attributes apply both to the spatial arrangement of the buildings and landscape features and their physical attributes.<sup>149</sup>

1. **Pattern** refers to "objects arranged in a formal or regular manner where the arrangement is reproducible." This is most easily seen in building materials, façade elements such as windows and columns, and the common spacing of buildings or trees.
2. **Alignment** refers to the "arrangement of objects in a straight line." It may be applied to façade elements, such as cornices or moldings that separate floors. Alignment can be vertical or horizontal or signify the relationship of the façade to the sidewalk. The absence of alignment can also be important.
3. **Size** refers to the dimensions of a building or part of a building.
4. **Shape** refers to the form of a building or part of a building.

The authors note that "Similarity of size and shape is what is important, because similarity contributes to visual continuity." They further note the intricacy of the attributes: "Pattern and alignment are often the result of similarities of size and shape."<sup>150</sup> The terms are flexible and it

---

<sup>148</sup> Green, 12.

<sup>149</sup> Ibid.

<sup>150</sup> Ibid., 15.

may be possible to generalize their scopes to include as many attributes as defined in Savannah's Plan.

Many current design evaluation guidelines ensure respect toward the historic character of an area's buildings. This is a departure from the twentieth century modernist philosophy that eschewed historical details. Brolin is a strong component of the philosophy that "establishing a sense of visual continuity does not mean embalming a neighborhood."<sup>151</sup> He suggests that stagnant designs are not a result of observing historical traditions and that "Variety, invention, and change are all possible within the bounds of a consistent and coherent visual tradition."<sup>152</sup> Brolin is a proponent of ornamentation, yet he offers a full set of general attributes that should be observed for designing compatible buildings.<sup>153</sup>

1. Setback from the street
2. Spacing from adjoining buildings
3. Massing: how the main volumes of the building are composed
4. Approximate height
5. Façade proportions and directionality
6. Shape and silhouette
7. Windows and door dispositions
8. Window and door sizes and proportions
9. Materials
10. Color
11. Scale: how the building is perceived relative to human size

---

<sup>151</sup> Brolin, 150.

<sup>152</sup> Ibid.

<sup>153</sup> Ibid., 153.

Brolin equates ornamentation with “visual feeling.” His questions about appropriate ornamentation could be used as guidelines for new construction:<sup>154</sup>

- Is color an important element and if so, how is it used?
- Is the dominant feeling of the building, as reinforced by the ornament, one of solidity or thinness and linearity?
- Is the ornament angular or curving?
- Is the ornament soft or hard looking?
- Is the ornament visually heavy or light?
- Does the ornament look busy or plain?

Design guidelines and preservation plans are based on the assumption that there is a significant and cohesive “look” to maintain, such as the “Santa Fe look” discussed in Chapter 2. There must be a justifiable reason to enforce the guidelines, which are often linked to a historic preservation ordinance. Brolin suggests that residents who believe that the “context [of their area] is worthy of respect” - as many do, hence a partial reason for banning manufactured homes - should “Design to accommodate its visual character, copying or inventing as you like, but always with your overriding concern being the visual consequences of what you are doing.”<sup>155</sup> For infill housing in areas with no discernible visual tradition, Brolin notes that if residents decide “that the existing context is not worth respecting, look to a regional tradition”<sup>156</sup> for design attributes for new buildings.

Many in-town neighborhoods developed over an extended period. In working-class neighborhoods, there are often spurts of new construction when there is relative prosperity. As contrasted with more homogeneous middle-class in-town neighborhoods, these neighborhoods

---

<sup>154</sup> Ibid., 154.

<sup>155</sup> Ibid., 148.

<sup>156</sup> Ibid.

often contain many types and styles of houses, built over a period of many generations. Brolin suggests that in a “transitional situation, where old and new compete to establish a tone and the new does not respect the old, you must choose sides. Pick that which you and the community find most beautiful or most meaningful. . . . Do not use the bad new building as the starting point just because it is the most recent.”<sup>157</sup>

There is no way to guarantee good design, but by using the various criteria for design elements that were included in Savannah’s Plan, the FRESH approach, or Brolin’s attributes, compatible design may be achieved. The final sections of this chapter will attempt to identify several design changes that can be given to manufactured homes to create a compatible design in historic neighborhoods.

### The Common House

In most neighborhoods, there are several types and styles of housing. “Type” describes the shape of the building: dog-trot, saddlebag, shotgun, bungalow, etc.<sup>158</sup> The term “style” is used to categorize a home by its architectural features.<sup>159</sup> For instance, a home with exposed rafter tails, knee brackets, and wide eaves has elements of the Craftsman style. Other common styles in Georgia include Greek Revival, Colonial Revival, and Queen Anne. Houses without a defined style are said to be folk or vernacular, meaning they were built in the architectural parlance of local builders, without the help of an architect.<sup>160</sup> Kit homes, such as those from Sears & Roebuck are also usually vernacular in style. Most homes in historically poor and working-class neighborhoods and in rural areas were built in a vernacular style.

---

<sup>157</sup> Ibid., 149.

<sup>158</sup> Virginia & Lee McAlester, *A Field Guide to American Houses* (New York: Alfred A. Knopf, 2003), 20.

<sup>159</sup> Ibid., 5.

<sup>160</sup> Ibid.

Jakle attempted to characterize common houses in America's small towns, including several towns in Georgia and the Southeast. Small, common houses set in small towns do not demand the same critical analysis of Savannah's urban homes, but they may be "noticed for various attributes . . . construction materials . . . general floor plan . . . roof form, overall height, height of basement or crawl space, size, façade covering, color, roofing material, and stylish decoration . . . porches, garages, and carports."<sup>161</sup> Jakle's "common house" is not a descriptor of style, type, or construction period, but instead encompasses the common houses in which Americans lived in the 1980s in the Eastern United States. As common houses, they often make up much of the character of a small town, so their identification is important to planners seeking to define compatible design.

One characteristic Jakle identifies for the common house is massing; most are a single room deep, two rooms deep, or irregularly massed.<sup>162</sup> Their study identified four basic roof forms: side gable, front gable, cross-gable, and hip form. The side gable was the most common form in all but one of the twenty towns studied.<sup>163</sup> Common houses were usually built to take advantage of regional environmental effects. To take advantage of air flow and shade, almost all homes in the South had raised foundations<sup>164</sup> and more than three-quarters of all houses had porches.<sup>165</sup> Porch types were usually shed, portico, or incised and many had pseudo-classical reproduction columns.<sup>166</sup>

The most common exterior material in the lower South was the wooden clapboard,<sup>167</sup> although "Dwellings with cement block walls characterize more than 1 percent of all dwellings

---

<sup>161</sup> Jakle et al., 64.

<sup>162</sup> Ibid., 69.

<sup>163</sup> Ibid., 70.

<sup>164</sup> Ibid., 77.

<sup>165</sup> Ibid., 79.

<sup>166</sup> Ibid., 93.

<sup>167</sup> Ibid., 85.

in eight of ten Southern towns. . . . Dwellings with block walls tend to be found in neighborhoods inhabited by poor blacks.”<sup>168</sup> They observed that common houses had very common decorative elements, including small-paned windows, real and simulated, “decorative exterior shutters, [and] paneled front doors, with pseudo-classical frames.”<sup>169</sup>

In Chapter 6, it will be shown that the case study area is populated with mostly bungalows and cottages, two very common house types. The early 1900s were a period of growth for East Athens and the popularity of the bungalow was driven by its ability to be economical.<sup>170</sup> In the South, the bungalow, with its shallow roof and shaded porch, was especially popular. According to Grow, “The cottage or bungalow is . . . by definition, a vernacular or popular building.”<sup>171</sup> Grow uses the term bungalow to refer to a popular type of cottage built from the early 1900s to the 1930s. He notes that, although the bungalow housing type has exotic roots, “In popular architectural literature, a bungalow came to mean simply an inexpensive box [where] . . . overall style is secondary to economy or utility.”<sup>172</sup> Many bungalows have one story, between three and six rooms, and as few add-ons and amenities as possible.<sup>173</sup> Grow notes that house plan books were consulted over individual architects and that these vernacular adaptations of the high-stylists have “charm, a character sadly missing from much of the contemporary building scene (see Figure 5.1).”<sup>174</sup>

---

<sup>168</sup> Ibid., 84.

<sup>169</sup> Ibid., 93.

<sup>170</sup> Lawrence Grow, comp., *The Old House Book of Cottages and Bungalows* (Pittstown, NJ: Main Street Press, 1987), 72.

<sup>171</sup> Ibid., 7.

<sup>172</sup> Ibid.

<sup>173</sup> Ibid.

<sup>174</sup> Ibid., 8.



*Figure 5.1. A small, inexpensive cottage (Grow, 95)*

### Characteristics of the Bungalow

The bungalow derived its form from other cultures but was infused with American sensibility and materials “to produce an original and intelligent design.”<sup>175</sup> The bungalow plan reduced the distinction between indoor and outdoor space, which made it first popular in California and later in the South. The casual, open room arrangement, built-in storage, and plenty of light and air made the type interesting to Americans of the early twentieth century who tired of the Victorian fussiness of the late 19<sup>th</sup> century. The bungalow was ubiquitous and had different design characteristics throughout its period of growth and development.

---

<sup>175</sup> Herbert Gottfried and Jan Jennings, *American Vernacular Design 1870-1940: An Illustrated Glossary* (New York: Van Nostrand Reinhold, 1985), 216.



The basic design principles behind the bungalow remained the same: a small plan, low profile, use of natural materials, easy adaptation to sites, and simplified design. Large windows contributed to inside-outside continuity. Planes were broken by porches, bays, and room projections.<sup>176</sup> To further eliminate the perception of a basic rectangle, the façade often included the “alternation of mass and void, . . . a push-pull effect.”<sup>177</sup> The roofs tended to be either side-gabled or hipped. The pyramid cottage is a form of the hipped roof bungalow.

The majority of bungalows were sheathed with wooden clapboards, although stucco and cement block was also common. Most had open porches either separate or under the main roof, although the hipped roof bungalow often had an incised (cutaway) porch. Gottfried and Jannings write that “In southern climates, the roof is low, ventilators may replace dormers, and window placement facilitates cross-ventilation.”<sup>178</sup>

#### Characteristics of Manufactured Housing

In historical neighborhoods, those with a housing stock older than 50 years, there are a set of objects recognized as acceptable housing; among these are the American four-square, modified dog-trots, saddlebags, bungalows, and cottages. Wallis observed that “Despite this diversity, there are limits [to what is acceptable], and they have been tested by the mobile home. [People say:] ‘It’s not housing . . . because it has wheels.’ ‘It’s not housing, because housing doesn’t *look* like that.’”<sup>179</sup> Although neighborhoods can accept many different styles and types of houses, the manufactured home is apparently not one of them, hence the use of exclusionary zoning. The manufactured housing industry currently faces the task of determining what sets manufactured housing apart from site-built housing. The major differences between

---

<sup>176</sup> Ibid., 218.

<sup>177</sup> Ibid.

<sup>178</sup> Ibid., 220.

<sup>179</sup> Wallis, 24.

manufactured housing and site-built housing are height, linearity and orientation, exterior features and “thinness.” Each of these factors is discussed in turn.

### *Height*

Manufactured homes have a standard roof pitch of 3:12, which means there are three feet of rise (vertical) for every twelve feet of run (horizontal).<sup>180</sup> This is a very low roof pitch (see Figure 5.2). The roof height is low in order to accommodate the height requirements imposed by the Department of Transportation so that the home can pass below the lowest highway overpasses. The “normal” roof pitch on an older site-built home is 4:12, although they can be as high as 12:12.<sup>181</sup> Many manufacturers now offer increased roof pitches when requested and 5:12 and 7:12 are often quoted as upgrade options. These steeper roofs are either built on-site or are jacked into position on-site.



*Figure 5.2.* Typical manufactured home roof – 3:12 pitch (Photo by author)

---

<sup>180</sup> “BOCA vs HUD – What is the Difference?” [article on-line]; available from [http://www.birchwoodhomes.com/index.php?ID=bwh\\_BOCA\\_vs\\_HUD](http://www.birchwoodhomes.com/index.php?ID=bwh_BOCA_vs_HUD); Internet; accessed 11 May 2005.

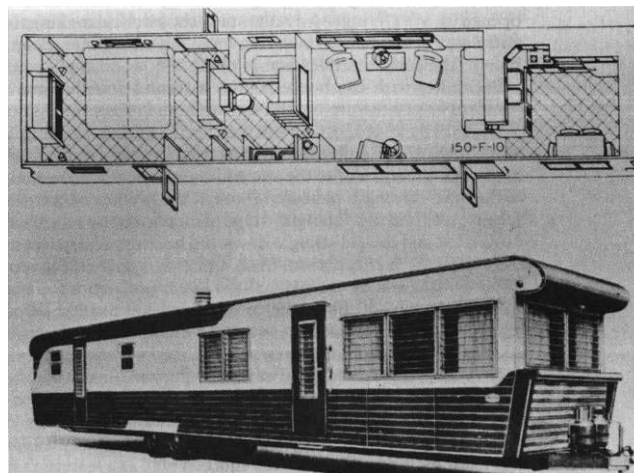
<sup>181</sup> “Inspecting Pitched Roofs” [article on-line]; available from <http://www.oldhouseweb.com/stories/Detailed/10277.shtml>; Internet; accessed 11 May 2005.

### Linearity and Orientation

The length of mobile homes increased in the 1960s and began resembling a “shotgun” type (see Figure 5.3). The 12 foot width and 40 foot length exaggerated the linear proportions of the single-wide. With the invention of double-wide models, with 24 foot widths, floor plans would be borrowed directly from conventional house designs, alleviating somewhat the linearity of the floor plan.<sup>182</sup>

Manufactured houses continue to be predominantly linear on the exterior although there are sometimes bays or other bump-outs that relieve the linearity. In newer models, some interior space is removed to create a multi-dimensional building that resembles most site-built housing.

Front doors on manufactured homes are usually on the long side, although there are models with front doors on the short side. The front door is usually oriented toward the street, so that those with front doors on the long side resemble ranch houses, while those with front doors on the short side resemble either shotgun houses or bungalows.



*Figure 5.3.* “Shotgun” Type Mobile Home – One walked in and looked left, down the long hall and straight into the bedroom. (Wallis, 137)

---

<sup>182</sup> Wallis, 139.

### Exterior Features

Original trailer doors were, “at most, 6 feet high, and swung outward, like vehicle doors. House doors are around 7 feet high and swing inward, allowing a storm or screen door to be attached.”<sup>183</sup> In the 1950s, doors became taller and swung inward as taller and wider models were introduced. Around the same time, many manufacturers began offering house-like windows, including casement-type, picture, and bay. These changes were mainly meant to enhance the experience on the interior, but they also changed the appearance of the exterior.<sup>184</sup>

House trailers were originally clad on the exterior with metal sheathing, which could be crimped into decorative patterns.<sup>185</sup> Although slightly more decorative, these trailers were very boxy, allowing for easy installation of interior walls, but greatly altering the stream-lined look of the travel trailer. These boxy styles were particularly well-suited for the modernist architecture popular in the 1950s, but the general public never embraced that style for mobile homes. Both a Miesian-style home (see Figure 5.4) and a Wrightian-style home were designed, but never marketed as commercial models (see Figure 5.5).

Manufactured homes were and are treated with appliqués to imply traditional housing construction techniques. Early on, Ventoura introduced a “duplex” model that included a “brick patterned section that looked like a chimney. . . . Since there was no fireplace in the unit, the detail was purely cosmetic.” Another part of the home had a roofline appliqué (see Figure 5.6).<sup>186</sup> West-Wood produced a model that had a recessed doorway, simulated fieldstone

---

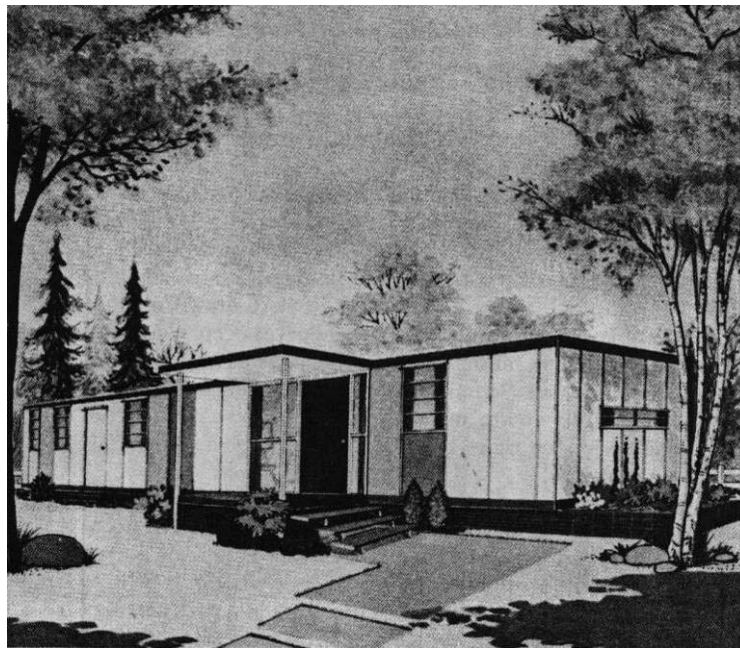
<sup>183</sup> Wallis, 139.

<sup>184</sup> Ibid.

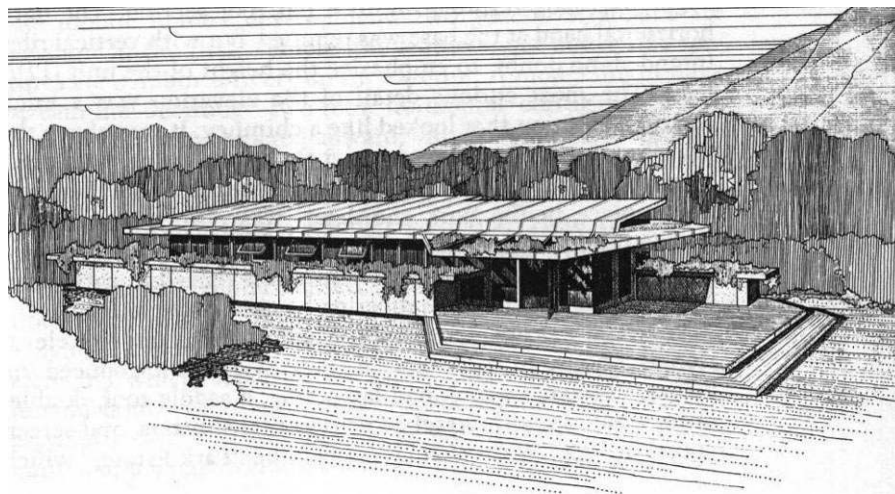
<sup>185</sup> Ibid., 145.

<sup>186</sup> Ibid., 148.

wainscot, and a pitched shed roof. The intent of the designers was to “provide more house-like lines to the exterior.”<sup>187</sup>



*Figure 5.4. “Miesian” Type – This “Object of Industrial Design” was never produced. (Wallis, 146)*



*Figure 5.5. “Wrightian” Type – Prairie Style (Wallis, 147)*

---

<sup>187</sup> Ibid., 149.



*Figure 5.6.* Ventoura’s “houselike” exterior (Wallis, 148)

### *Thinness*

The linearity and exterior features “made the person entering aware of the thin-wood framed wall that separated exterior and interior. In a site-built house, the flatness of the exterior wall is broken by window sill, door frame, and overhanging eaves. In the mobile home, the flatness is unrelieved.”<sup>188</sup> It has a lightness to it, a shallow cross section. Wallis writes that “Thinness is evident in the shallow recesses and the characteristic appliqué look of details, whether structural or ornamental.”<sup>189</sup> He continues:

Thinness is also apparent in something far more subtle and figurative: in the imitative borrowing of elements, such as the photographed grain of an expensive wood laminated to the surface of cheap paneling, or details borrowed from different styles collaged on a single object. The figurative thinness of the mobile home consists of the way it casually borrows characteristics from other often unrelated objects.

---

<sup>188</sup> Ibid., 138.

<sup>189</sup> Ibid., 160.

Literal thinness is also a factor in the appearance of the manufactured home: “One mobile home for sale in Virginia . . . featured a sunken living room which was sunken all of two inches. ‘The effect becomes totally two-dimensional, a paste-on look’”<sup>190</sup>

Although there is a figurative thinness to some site-built houses, there is not often a literal thinness. There is some relief to walls both interior and exterior, as well as to the roof. There is much figurative thinness, however, in that “ornamentation is applied independently” of the system of space and structure.<sup>191</sup> These ornaments may be painted on or be very expensive. With these paste-on features, manufactured housing becomes more accepted in site-built neighborhoods; it is the literal thinness that makes them so identifiably out of place.

#### *Other Design Elements*

There are other, less significant elements of manufactured housing design that have separated them clearly from site-built housing in the past and sometimes today. These include:

- skirting/foundation covering
- exterior materials
- zero roof overhang/no eave

#### *Creating Compatibility*

Improvements in the manufactured housing industry and industrialization of materials used in both manufactured and site-built housing have lessened the differences in the skirting and exterior materials. Roof pitches for manufactured housing can be as steep as site-built houses with new tilt-up roof technology (see Figure 5.7).<sup>192</sup> Smaller models and those models with projecting rooms reduce the linearity of the manufactured house. Floor plans are available that

---

<sup>190</sup> Ibid., 164.

<sup>191</sup> Ibid., 163.

<sup>192</sup> “Two-Story Manufactured (HUD-Code) Homes” [article on-line] (Upper Marlboro, MD: ToolBase Services); available from <http://www.toolbase.org>; Internet; accessed 24 February 2005.

copy site-built houses. Some manufactured and site-built houses are now built with relatively thin walls, use the same vinyl windows and thin doors, and achieve the same appearance of thinness. Manufactured housing is commonly affixed to a continuous concrete foundation as are site-built houses. Most inexpensive houses today are clad in vinyl siding, have vinyl soffits and eaves. Both manufactured housing and site-built housing commonly use metal or asphalt shingle roofs. A demonstration project even demonstrated that more generous trim and eaves could be incorporated into a manufactured home. Over the years, the manufactured housing industry and the site-built housing industry have merged onto a common path of building materials, designs, and building techniques.<sup>193</sup>



*Figure 5.7. Tilt-up Roofs - Two double-section manufactured houses with tilt-up roofs. Once the house is installed on-site, the roofs will be jacked into place. The resulting higher roof pitch resembles that of a site-built house. (Photo by author)*

---

<sup>193</sup> Chet Boddy, “Factory Built Housing” (2002) [article on-line]; available from <http://www.chetboddy.com/Pages/factorybuilt.html>; Internet; accessed 11 May 2005.



As early as 1981, perceptions about the appearance of manufactured housing were changing. The Michigan Supreme Court ruled, presumably based on the evidence presented and not their own personal expertise:

The mobile home today can compare favorably with site-built housing in size, safety, and attractiveness. To be sure, mobile homes inferior in many respects to site-built homes continue to be manufactured. But the assumptions that all mobile homes are different from all site-built homes . . . can no longer be accepted. To say that a dwelling was ‘constructed to be towed on its own chassis’ or ‘designed without permanent foundation’ speaks only to its origins and not to its present character.<sup>194</sup>

The APA’s 1980 classification system for manufactured housing addressed appearance standards. The author, Frederick G. Bair, Jr., suggested that the community, not planners, should decide what features would make a home “acceptable for zones designated for single-family housing. Such standards might include minimum width to length ratios, exterior materials, roof pitch and style, window size and style, and foundations.”<sup>195</sup> Homes which did not meet these appearance standards would be relegated to parks or other zones, but the decision to exclude them would be up to the affected community. His suggestion was that these standards would be adopted as part of the regulatory code after all community input was solicited.

In the late 1990s, a two-year demonstration project sponsored by the Manufactured Housing Institute (MHI) selected six cities in the United States in which to develop prototypical manufactured housing for infill lots. The goal was “to demonstrate that manufactured housing could be both affordable and architecturally appropriate in a variety of urban contexts.”<sup>196</sup> As if taking a cue from Bair, the prototypes were designed after a collaborative design process that allowed communities to have input into the design of new homes in their area. In the first two design meetings in Wilkinsburg, PA, and Birmingham, AL, the participants displayed “an

---

<sup>194</sup> *Robinson Township v. Knoll*, 410 Mich. 293, 302 N.W. 2d 146 (1981).

<sup>195</sup> Wallis, 243.

<sup>196</sup> Susan Maxman and Muscoe Martin, “Manufactured Housing Urban Design Project,” *Urban Land* (March 1997): 49.

admirable awareness of urban design.”<sup>197</sup> They debated the size and proportions of front porches and the appropriate roof pitches. There was little concern expressed at these meetings over the appropriateness of manufactured homes in their neighborhood.<sup>198</sup>

The study concluded that in order to create a compatible design, “the design strategy [would be] to modify the manufacturer’s typical floor plans and elevations to fit the urban lots.”

The authors elaborated:

Site-built components, such as porches and garages, are used to provide variety and maintain the character of the neighborhood. In Wilkinsburg, PA, where the predominant pattern is two- and three-story single-family homes, the proposed houses have two stories. The Wilkinsburg focus groups validated the designers’ instinct about the importance of front porches for urban housing.<sup>199</sup>

In Birmingham, the manufacturer’s standard “box” is being modified “to provide architectural compatibility. These modifications include steeper roof pitches, more generous trim and eave details, and thoughtfully proportioned windows.”<sup>200</sup> Other study homes in Wilkinsburg, PA, and Washington, D.C., exhibit the same characteristics (See Figures 5.8 and 5.9).



*Figure 5.8. Demonstration Home 1 –  
A model manufactured home  
in Wilkinsburg, PA (MHI Website)*



*Figure 5.9. Demonstration Home 2 –  
A model manufactured home  
in Washington, D.C. (MHI Website)*

---

<sup>197</sup> Ibid., 50.

<sup>198</sup> Ibid.

<sup>199</sup> Ibid.

<sup>200</sup> Ibid., 51.

A study by the Southwest Georgia Regional Development Center was conducted “to determine if manufactured housing could be built to be compatible with existing urban neighborhoods and still remain affordable.” They intended that “manufactured homes would be constructed that borrow design cues from the neighborhood – including pitched roofs, front porches, raised foundations, and eave overhangs . . .” They found that “this project clearly works on paper. These homes can be built for less than similar site-built houses.”<sup>201</sup> Unfortunately, once the project reached this conclusion, no other work was taken to gain acceptability. Instead, the executive summary for the project report suggested that other issues regarding the acceptability of manufactured housing in predominantly site-built neighborhoods were of greater importance.<sup>202</sup>

### Gray Areas

Given the proliferation of guidelines for creating and evaluating appropriately compatible infill housing – design guidelines, preservation plans, polemical authors – it would seem simple to write a land-use regulation that is inclusionary of all types of housing. If the elements of design were black and white, it would be. Yet there are some elements that are not simple. As stated in Chapter 2, the perception of height is more important than actual height. The height of a building as viewed from across the street will depend on the ridgeline of the roof, while the height from the yard will depend on the cornice line. This may be simple in urban areas such as Savannah where most buildings are at the sidewalk, but historic neighborhoods that grew organically and without zoning can have greatly varying street frontages and front yard setback. Can regulations be written that ensure an appropriate height? There may be similar quandaries when considering other factors.

---

<sup>201</sup> “Context Sensitive Scattered Site Infill Manufactured Housing Project,” Southwest Georgia Regional Development Center, partial report received from Paul Forgey, 1 September 2004.

<sup>202</sup> Ibid.

Manufactured housing can be built and installed in a historic district and meet all of the requirements given by zoning, design guidelines, or form-based codes. Their inclusion in historically low-income areas is more easily accomplished than in historically high-income areas because existing homes, usually vernacular and kit-built houses, typically contain much less ornamentation than their high-style cousins in the high-income neighborhoods.

With the many design options available for manufactured housing and considering the fact that both manufactured housing and site-built housing use similar materials and construction methods, planners should allow all housing options. Manufactured housing can be offered as a solution to affordable housing, and in the long term reduce the harmful effects of gentrification and help to maintain a sense of place.

The choice of land-use regulation should be based on local conditions. If there are local historic districts in a community, with historic district design guidelines and design review, then design guidelines would be the best option for regulating infill housing design. In communities with a large planning staff and neighborhoods with defined development areas, the use of the development brief would serve to specifically pinpoint the type of infill design that is desired. In other communities, form-based codes are broad enough to allow community input and could be adopted in a zoning overlay district.

## CHAPTER 6

### CASE STUDY: EAST ATHENS

Many aspects of the East Athens neighborhood are becoming threatened, due to lack of maintenance, abandonment, and improper infill. In this traditionally homeowner-centric area, much of the housing is being bought by landlords and rented. Due to the low to moderate income of the residents in East Athens, some (especially the elderly) find it difficult to maintain their homes. Some homes are abandoned and left to vandalism or simply to decay on the spot, creating a health hazard and general eyesore. A number of infill homes have been built in the general area, and while some are well designed and built, others greatly disrupt the integrity of the neighborhood.<sup>203</sup>

Urban neighborhoods could benefit substantially from such affordability-enhancing options as manufactured housing, the use of modular units in construction, and the legalization of accessory apartments...Manufactured housing is still frequently relegated to rural areas by local zoning ordinances.<sup>204</sup>

#### Historical Development

The East Athens neighborhood is sometimes defined as that area bounded by 4<sup>th</sup> Street and the railroad to the north, the Athens Perimeter Loop to the east, the Oconee River to the west, and Oak Street/Oconee Street to the south (see Figure 6.1).<sup>205</sup> East Athens was primarily settled after the Civil War, although there were scattered settlements in the area from the early 1800s. The Cook and Brothers Confederate Armory located on the east side of the North Oconee River in 1863, serving as a mill after the Civil War.<sup>206</sup> A mill village grew up to serve the housing needs of its workers.

---

<sup>203</sup> Kay S. Stanton, *East Athens Historic Resources Survey and Documentation (Draft)* (Athens, GA: Athens-Clarke Heritage Foundation, 2004), 20.

<sup>204</sup> *Why Not In Our Community?*, 22.

<sup>205</sup> Stanton, 3.

<sup>206</sup> Michael Gagnon, "Transition to an Industrial South: Athens, Georgia 1830-1870" (Ph.D. diss., Emory University, 1999), quoted in Stanton, 6.



Figure 6.1. Map of East Athens - As defined by Historic Resources Survey: 4<sup>th</sup> Street and railroad to north, Perimeter Road (129) to east, the Oconee River to west, and Oak Street to South (Mapquest)

Early in its history, the area was one of Athens’ African-American communities. “Blackfriars,” also known as freed slaves, settled on the east bank of the Oconee River in 1865.<sup>207</sup> Soon after that, the First African Methodist Episcopal Church was established in the area, indicating a sizable African-American community.<sup>208</sup> In 1882, Gospel Pilgrim Cemetery, where several of Athens’ notable African-Americans are buried, was founded in East Athens.<sup>209</sup>

By the end of the 1940s, the area was dense enough that the City of Athens established water and sewage service.<sup>210</sup> In April 1950, Clarke County created the East Athens Elementary

<sup>207</sup> Michael Thurmond, *A Story Untold: Black Men and Women in Athens History*, ed. Dorothy Sparer (Athens, GA: Clarke County School District, 1978), quoted in Stanton, 6.

<sup>208</sup> Stanton, 6.

<sup>209</sup> “National Register Nomination for Gospel Pilgrim Cemetery-draft,” (June 2003), quoted in Stanton, 7.

<sup>210</sup> Stanton, 7.

School.<sup>211</sup> Local businesspeople operated a hotel (Arch Street),<sup>212</sup> a grocery store (Triangle Plaza),<sup>213</sup> and neighborhood stores and shops.<sup>214</sup> In the 1960s, the city completed paving all the streets in East Athens.<sup>215</sup>

### Data Review

This thesis examines a single area of East Athens to draw conclusions about the demographic profile of its residents and housing. The area of interest is a single United States Census Block Group: Census Tract 302, Block Group 2, as defined in the 2000 Census. The area within this Block Group, but excluding land outside the Athens Perimeter Road is considered part of East Athens and will be referred to in this thesis as “the Neighborhood” for simplicity. It is bounded on the west and north by Arch Street from East Broad Street to Gressom Street, Gressom Street north to Nellie B Avenue, Nellie B east from Gressom Street to Athens Perimeter Road, and on the south and east by the Oconee River, Oak Street and Oconee Street (see Figure 6.2). This information is intended to present a general portrait of the Neighborhood, but does not represent a statistical analysis. Recent data on new construction was collected from the Athens-Clarke County Tax Assessor’s office and corroborated via a windshield survey.

In addition to the Census, several visual analyses were performed. Historic Preservation graduate students conducted visual surveys in a large area of East Athens. The survey included 160 properties, most of which are in the Neighborhood. The survey identified housing types and major features, such as roof shape and orientation, exterior materials, type and height of foundation, symmetry of the façade, and massing. Kay Stanton at the Athens-Clarke Heritage Foundation expanded the area of the visual survey to determine if other parts of East Athens

---

<sup>211</sup> Thurmond, quoted in Stanton, 7.

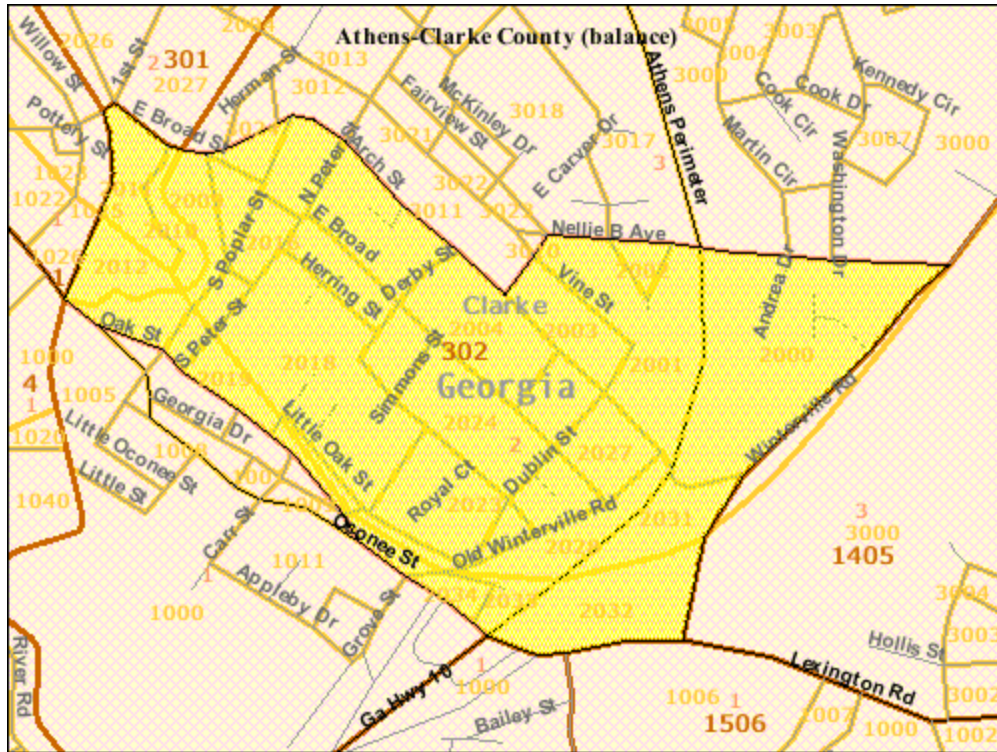
<sup>212</sup> Stanton, 7.

<sup>213</sup> Ibid., 8.

<sup>214</sup> Ibid., 9.

<sup>215</sup> Ibid., 8.

were historically and visually related to the initial survey area. The result of these surveys and additional historical research led her to recommend that two National Register Historic Districts be established; both would overlap the Neighborhood (see Figure 6.3).



*Figure 6.2. The Neighborhood – That portion of the yellow shaded area (Census Block 302, Tract 2) that is west of the Athens Perimeter. North is to the top of the page. (A-CC Mapping)*



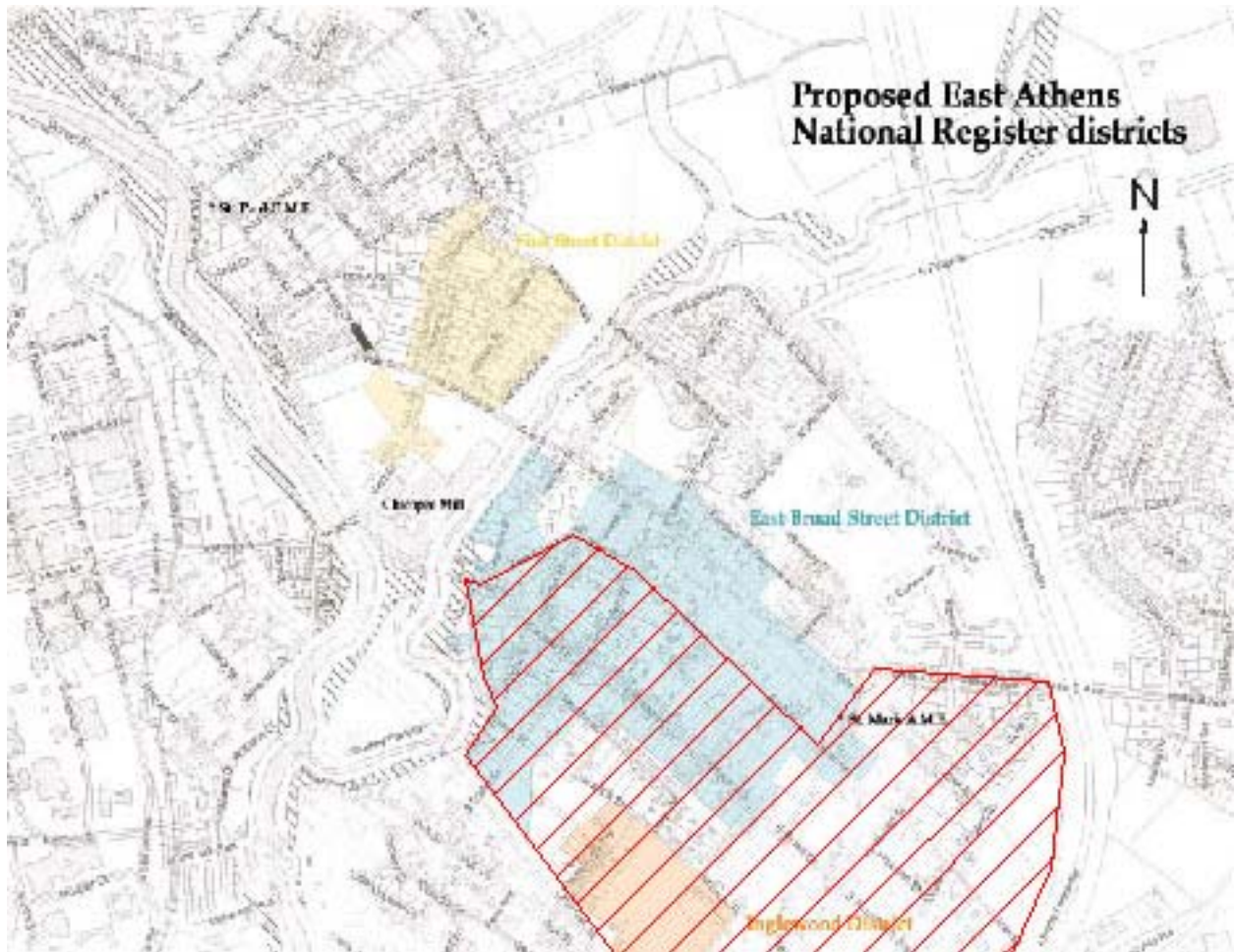


Figure 6.3. Proposed National Register Districts - Shaded in blue, yellow, and orange. The Neighborhood area, hatched in red, overlaps two of the districts. (Stanton)

## Neighborhood Character

Stanton writes that “East Athens is a traditionally residential area that contains a mix of old and new . . . extend[ing] through a series of small hills and valleys, revealing a combination of simple, single-family historic and contemporary houses and mobile homes.”<sup>216</sup> The area also contains a small number of commercial structures, churches, and the mill complex on the edge of the area. In the survey area, the estimated dates of construction for the houses range from 1860 to 2004. Most were built between 1920 and 1950, with forty-four being constructed in the 1930s. The dominant dwelling types identified are rectangular bungalows and pyramid cottages.<sup>217</sup> Many of the homes are “typical of African-American dwellings”<sup>218</sup> in Athens: unadorned, reflecting no architectural style. They are small, simple dwellings, similar in many respects to houses in the other early African-American development in the Hancock area of West Athens.<sup>219</sup>

The gabled bungalow forms are most interesting for discussion in this thesis due to their obvious similarity to traditional manufactured homes. The overlap of the survey area and the Neighborhood includes several housing forms that could be adapted to manufactured housing:

- Side gable house with a center front gable portico (see Figure 6.4)
- Side gable house with a wide front shed porch (see Figure 6.5)
- Front gable house with a small front gable portico to either side or in the center (see Figure 6.6)

---

<sup>216</sup> Stanton, 9.

<sup>217</sup> Ibid., 10

<sup>218</sup> Ibid., 20.

<sup>219</sup> East Athens Historic Resource Survey, compiled by Kay S. Stanton for *East Athens Historic Resources Survey and Documentation (Draft)* (Athens, GA: Athens-Clarke Heritage Foundation, 2004), loose leaf.

Another common form is the hipped cottage with a hipped front porch, usually to the right side.<sup>220</sup> It is interesting to note other housing types in the Neighborhood when discussing compatible design, since a house does not necessarily need to copy exactly the forms of its neighbors to be architecturally compatible.



*Figure 6.4.* Typical side-gable house with front-gable portico (Photo by author)



*Figure 6.5.* Typical side-gable house with wide shed porch (Photo by author)

---

<sup>220</sup> Ibid.



*Figure 6.6.* Typical front-gable house with front-gable portico (Photo by author)

The 2000 Census recorded 476 housing units in the Neighborhood. Of these, 295 (62%) were detached single family residences, as opposed to duplexes, apartments, and mobile homes. Mobile homes accounted for 54 units (11.3%).<sup>221</sup> The Census shows that, as of 1999, almost 30 percent of the housing units in the Neighborhood were built prior to 1960, compared to only 20 percent for the county (see Table 6.1).

*Table 6.1.* Construction date ranges for housing units in the Neighborhood

<b>Construction Date</b>	<b>Neighborhood (Number and %)</b>	<b>Athens-Clarke County (%)</b>
1970-1999	200 (41.8)	64
1960-1969	140 (29.4)	15.8
1940-1959	88 (18.5)	13.1
Pre-1940	49 (10.3)	7

Two hundred housing units were built in the thirty year period 1970 – 1999, including many units of public housing. In the following four years, approximately 25 new detached

---

<sup>221</sup> United States Census Bureau, Census of Population and Housing Summary File 3; 2000; available from <http://www.census.gov>; Internet; accessed 11 May 2005.

houses were built,<sup>222</sup> representing five percent of all units and eight percent of all detached single family houses, assuming no loss of units in that period. New houses were built on large vacant areas of land, many of which still exist in the Neighborhood (see Figure 6.7).<sup>223</sup>



*Figure 6.7. Vacant properties, circa 2003, in East Athens are shaded in blue.*

Increased demand for housing may be leading to increased property values county-wide. The median home value in the Neighborhood in 1999 was \$53,000.<sup>224</sup> The 25 new homes in the Neighborhood had an average sales price of \$115,105<sup>225</sup> which is higher than the \$111,300 median value of homes in Clarke County in 1999.<sup>226</sup> The increase in property values has both critics and supporters. Homeowners have the opportunity to enjoy higher resale value but must

---

<sup>222</sup> Kelly Thomas.

<sup>223</sup> Joanne Dejausserand, Athens-Clarke County Planning Department GIS Analyst, interview by author, email, Athens, GA, 3 May 2005.

<sup>224</sup> Census 2000.

<sup>225</sup> Kelly Thomas.

<sup>226</sup> Census 2000.

also pay higher property taxes. Public officials enjoy having the larger tax revenue to spend on programs. News of higher property values is usually reported in conjunction with tax notices. A *Banner-Herald* writer reported that “The taxable property in the county grew in value by about seven percent in 2004. Half of that value is from new construction or improvements, while half is from increased property values.”<sup>227</sup> The first half often contribute to the second half.

The low average valuation of homes in the Neighborhood is based on the fact that over 45 percent of homes there have values of less than \$50,000.<sup>228</sup> The picture is quite different county-wide, where only about seven percent of the homes are valued at less than \$50,000. High homeownership in both the Neighborhood (50%) and the county (68.5%) is reported, but the value of mortgages varies widely. Just over 70 percent of owner-residents in the Neighborhood have monthly mortgage payments of less than \$600 (26.9% are between \$200-\$299.). Almost one quarter of residents in the Neighborhood have occupied their homes for more than twenty years, compared to only twelve percent county-wide.<sup>229</sup> This is a picture of a stable and affordable neighborhood.

#### Demographic Information

Home values and income levels reflect the fact that the Neighborhood is occupied mostly by students and low-income, working-class, long-term residents. The per capita income in Georgia in the year 2000 was approximately \$28,000. In Clarke County, it was approximately \$24,000 and in the Neighborhood, it was approximately \$21,000.<sup>230</sup> The poverty level is \$19,200 for Clarke County, so the residents of the Neighborhood are on average living closer to the poverty level than to the county average.

---

<sup>227</sup> Allison Floyd, “Tax notices on the way: Rising property values leading to higher bills” [article on-line] *Athens Banner-Herald*, 5 May 2005; available from <http://www.onlineathens.com>; Internet; accessed 7 May 2005.

<sup>228</sup> Census 2000.

<sup>229</sup> Ibid.

<sup>230</sup> Ibid.

The Neighborhood, along with most of East Athens, was settled by and remains almost 90 percent African-American.<sup>231</sup> In the past, obtaining loans in other parts of town was almost impossible due to red-lining.<sup>232</sup> Today, a worker with an annual gross income of \$21,000 can qualify for a mortgage of \$68,000, with monthly payments of about \$400.<sup>233</sup> That worker can live in any part of the county he can afford. However, new housing in his price range is not being built in his neighborhood.

A working-class family which wants to buy or build a new house in East Athens will likely require assistance from the Habitat for Humanity, the Athens Housing Authority, the East Athens Development Corporation, the Athens Land Trust, or another agency to subsidize their purchase. New market-rate site-built houses in East Athens are selling at an average of \$115,000<sup>234</sup> and existing home prices are rising quickly to approach the sales prices of new houses. Builders are not necessarily altruists; they generally prefer to sell their housing at the maximum market rate. The average resident of the Neighborhood cannot afford market-rate site-built housing. The manufactured house may be an option, since they usually cost half as much per square foot than a comparable site-built house,<sup>235</sup> but they are currently “zoned out” of the Neighborhood. Perhaps changing their appearance would sway public prejudice as it did in the Birmingham demonstration project.

#### Compatible Infill Housing Design

In preparing the nomination for the National Register Historic District, the Athens-Clarke Heritage Foundation will identify several housing types as typical of the neighborhood. They

---

<sup>231</sup> Ibid.

<sup>232</sup> Red-lining is defined as “To discriminate against by refusing to grant loans, mortgages, or insurance to.” [dictionary on-line] available from <http://dictionary.reference.com>; Internet; accessed 9 May 2005.

<sup>233</sup> Based on a 5.75% interest rate on a 30-year fixed mortgage. [calculator on-line] available from <http://mortgage.interest.com>; Internet; accessed 7 May 2005.

<sup>234</sup> Kelly Thomas.

<sup>235</sup> Tinsley and Cude, 38.

will evaluate the types of houses in the context of development after the Civil War and into the twentieth century. Further, they will assess the housing stock in order to evaluate the integrity of the historical neighborhood. To be designated a National Register Historic District, a neighborhood must contain a set of objects related by a shared aspect of history, by common landscape features, or visually. Often, an area will encompass all three relationships when housing forms can be directly related to historical development. Maintaining visual relationships in the existing houses and in new houses is important in historic districts. In other Athens historic districts, there are Historic Preservation Design Guidelines in place “to protect the visual qualities of local historic districts and landmarks. . . . They ensure that changes enhance the historic qualities of . . . historic areas.”<sup>236</sup>

The Athens guidelines are based on the rules of compatibility that were discussed in Chapter 5. To fully establish compatible design for manufactured housing, the predominant housing types can be taken as models. This thesis uses an assemblage of the Athens-Clarke Design Guidelines for New Buildings,<sup>237</sup> Brolin’s attributes, and the Savannah Plan in order to establish the dominant characteristics for infill housing (see Table 6.2). In practice, residents of the community should be involved in determining what factors are important to them.

It is important that new housing respect the definable characteristics of existing houses. It is not necessary that the new housing replicate existing housing, but there are some attributes that are more important than others. One such is scale. When new housing does not respect the scale of existing housing, regardless of its adherence to the other attributes, it will not likely be compatible. An example of an inappropriately-scaled infill house can be seen at Arch Mill Village, located at Derby and Arch Streets in the Neighborhood (see Figure 6.8). Several homes

---

<sup>236</sup> Historic Preservation Commission, *Historic Preservation Design Guidelines* (Athens, GA: Historic Preservation Commission).

<sup>237</sup> Ibid.



in this infill development are two-story, whereas there are very few existing two-story homes in the Neighborhood. In addition to being out of scale, these homes have decoration more commonly found in other Athens neighborhoods. The ornament, such as Craftsman-esque windows and radiating porch railings, do not respect the character of the neighborhood (see Figure 6.9). Other homes have garages in the front, which is a feature not observed in any but the newest houses in the area (see Figure 6.10).



*Figure 6.8.* Incompatible scale – This infill house has two stories, making it out of scale with most in the Neighborhood (Photo by author)



*Figure 6.9.* Incompatible ornament on this infill house includes “Craftsman” windows and radiating porch rails. (Photo by author)



*Figure 6.10.* Incompatible garage – A feature such as a garage in the front of the house is incompatible with Neighborhood forms. (Photo by author)

*Table 6.2.* Design compatibility characteristics compiled from three sources, including only attributes that are appropriate to the study area

<b>A-CC Design Guidelines for New Buildings</b>	<b>Brolin's Attributes</b>
• Façade Elements	• Massing
• Materials	• Height
• Ornamentation	• Shape
• Symmetry	• Silhouette
• Complexity	• Windows and Doors Positions
• Directional Expression	• Window and Door Sizes
• Roof Pitch	• Color
• Roof Shape	
• Roof Complexity	<b>Savannah Plan</b>
• Height of Foundation	• Rhythm of solids to voids
• Type and Material of Foundation	• Rhythm of porch
	• Textures of materials

The East Athens Historic Resource Surveys reveal that several houses can be grouped into two types that appear often (see Table 6.3). This thesis limits its focus to allow elaboration of design attributes, although there are many type categories into which area housing can be grouped. Both types of interest were evaluated for the applicable characteristics listed in table 6.2.

Table 6.3. An evaluation of two housing types in East Athens and a standard double-width manufactured house

<b>Characteristics</b>	<b>Type 1 – Front Gable with Front Gable Porch</b>	<b>Type 2 – Side Gable with Shed Roof Porch</b>	<b>Standard Double-Width Manufactured House</b>
Façade Elements	Half- to Third-Width Front Porch with Front Gable Roof.	Almost Full-Width Porch with Shed Roof.	Small site-built porch/stoop usually minimum required.
Materials	Siding Varies (Wood, Asbestos, Vinyl, Aluminum) Roof usually Composite Shingle Porch Varies (Wood, Concrete)	Siding Varies (Wood, Asbestos, Vinyl, Aluminum) Roof usually Composite Shingle Porch Varies (Wood, Concrete)	Siding usually Vinyl Roof usually Composite Shingle Porch/stoop usually Wood
Symmetry	Asymmetrical	Usually centered on front door.	Usually asymmetrical.
Complexity	None	None	None
Directional Expression	Horizontal or None	Horizontal	Horizontal
Roof Pitch	High, up to 12:12. Same or lower porch roof pitch.	High, up to 12:12. Lower porch roof pitch.	Low, usually 3:12 or 4:12.
Roof Shape	Front Gable	Side Gable	Usually Side Gable
Roof Complexity	Two Gables (porch)	None	None
Height of Foundation	Varies	Varies	Varies
Type and Material of Foundation	Varies	Varies	Concrete Block Pier Standard, unless Continuous Block Foundation Required by Law
Massing	Two rooms wide by more than two deep. No projecting rooms on sides.	One room deep, three bays wide, perhaps Central hallway. Usually a shed roof addition to rear.	Varies, Depends on Size of Unit. Very Linear
Height	One story	One story, Sometimes Second Floor in Attic.	One story
Shape	Rectangle	Rectangle	Rectangle
Silhouette	“House” – Rectangle Topped with a Triangle	Rectangle	Usually Rectangle
Windows and Doors Positions	Off-center Door, Regularly-spaced Windows	Center of just Off-Center Door, Regularly-spaced Windows	Usually Off-Center Door, Irregularly-spaced Windows
Window and Door Sizes	Single or Double Large (3’x5’) Windows, Standard Doors	Single or Double Large (3’x5’) Windows, Standard Doors	Single or Double, Small (2’x4’) Windows, Standard Doors
Ornament	Multi-paned Windows	Multi-paned Windows	“Multi-paned” Windows
Color	Varies	Varies	Varies, Usually a Neutral Color
Rhythm of solids to voids	Usually very regular, with no large areas of either.	Usually very regular, with no large areas of either. Some instances of paired windows.	Varies
Textures of Materials	Depends on Materials	Depends on Materials.	Usually very flat

The evaluation illustrates several definable attributes of the two housing types. If manufactured housing were to be permitted as infill housing in this area, these attributes could be replicated or reinterpreted by the manufacturer. As with the Savannah Plan, there could be a minimum number of attributes that must be met to assure compatibility. As with FBCs, the community could be allowed to define what attributes it believes an infill housing unit must possess to ensure compatibility.

Fortunately, much of the infill housing in East Athens has adhered to self-regulating compatibility standards. Perhaps the architect or builder studied the neighborhood in order to determine the neighborhood characteristics he felt a new house should embody. Houses located at 224 and 226 Arch Street (see Figures 6.11 and 6.12) respect the neighborhood context in scale, form, roof shape, window pane configuration, rhythm of solids to voids and other attributes. These houses are clearly compatible with the existing houses and even seem to be replicas of them, albeit with newer materials (e.g. Hardie siding, vinyl windows, etc.).

#### Application of Design Attributes

Compatible housing need not contain all of the recognizable design attributes. The authors of the Savannah Plan recommended that infill housing meet six of sixteen attributes for compatibility. In East Athens, consideration for affordability must be preeminent, so design modifications to standardized manufactured homes should be few. Design changes, on-site work by contractors, and the required inspection by either HUD or local officials add costs that are passed on to the homebuyer.



*Figure 6.11.* Compatible infill - The scale, roof lines, window pane configuration, and generous trim make this house compatible infill. It is almost a reproduction of other houses in the Neighborhood (Photo by author)



*Figure 6.12.* Compatible corner infill - This house is compatible infill which is important for a corner location. (Photo by author)

A letter sent to Cavalier Home Builders, the manufactured housing manufacturer which participated in the ULI demonstration project, included requirements for infill housing (see Appendix). The requirements for two case study house types were based on the design attributes given in table 6.3. The author identified seven major elements required for compatibility. Each of these will affect the cost to some degree:

- 1) **Foundation material** – The predominant historic foundation type in the Neighborhood is brick piers. Many of these have been filled in with concrete block and some have been stuccoed, giving the appearance of a continuous foundation wall. Therefore, the foundation requirement is very flexible. Many communities in Georgia already require continuous concrete block foundations for manufactured homes, so this option should add no to very little cost.
- 2) **Exterior materials** – Most historic homes in the Neighborhood were built with wooden clapboard siding. Many have since been clad in vinyl. The standard manufactured home today has vinyl siding, but both cementitious and wood siding are available as options. The predominant roofing material in the Neighborhood and on manufactured housing is the asphalt/composition roofing shingle. Therefore, the requirement for a particular exterior material will be flexible and add little cost.
- 3) **Window size and appearance** – The typical window in historic Neighborhood houses is double-hung (both panes slide past each other) and built of wood. There is a common theme of the multi-paned (e.g. six-over-six, nine-over-nine) window, but the actual configurations vary to a great degree. The differences are due to both construction date and more recent alterations, which have also included the replacement of historic windows with vinyl windows. Modern site-built and manufactured homes usually have

windows that appear to be multi-paned, but they will almost always be made of vinyl. It is more important that the windows be appropriately scaled and positioned on the walls.

This requirement could add minimal cost.

4) **Eaves and trim** – Historic houses generally have a large eave and soffit. In the past, the soffit would have been wood. Modern houses now have vinyl soffits and eaves. The size of the eave will be more important than the materials. The eave should be at least one foot wide. Trim around the windows and doors and at the corners of the house should also be at least four inches wide. This is an important detail that will help combat the appearance of “thinness.” Adding larger eaves and more generous trim will increase the cost a moderate amount.

5) **Roof shapes** – Historic houses in the Neighborhood have widely varying roof pitches. In general, they are between 6:12 and 12:12, although there are some with less pitch. The manufactured housing industry has perfected the tilt-up roof to meet a pitch of this degree. This requirement will add cost because on-site work and further inspections are required.

6) **Front door location** - Currently, almost all of Cavalier’s floorplans have the front door on the non-gable side,<sup>238</sup> mimicking the case study house with the side gable roof and front shed porch. The floor plan for a front gable house could require some modification, which would add moderate to great cost.

7) **Porch location and size** – All historic houses in the Neighborhood have generous porches on the front façade. As this is the most visible part of the house, it is a feature that contributes greatly to the character of the Neighborhood. As such, it is a necessary

---

<sup>238</sup> “Search for a floor plan” [database on-line]; available from <http://www.cavalierhomebuilders.com>; Internet; accessed 12 May 2005.



feature for compatible infill. The porch will be built on-site, requiring an additional inspection. This is a feature that will probably add the most cost.

Not all of the design attributes given in table 6.3 were deemed necessary by the author to ensure compatible design. Those that were emphasized to the manufacturer, if used, would serve to replicate one of the case study housing types. It is possible that even fewer than six attributes could be used in order to preserve affordability and create a compatible but new housing form.

### Meeting the Challenge

Cavalier Home Builders designed a manufactured house with the features identified as necessary to guarantee compatibility. They also provided financial information on the houses, including the individual additional cost for some of the features. It is the opinion of the author that the home designs they proposed, with alterations as suggested, will create compatible infill. Both home designs cost less than \$86,000 after modifications, delivery, installation, and builder profit. This amount includes a cost of \$15,000 for the land, which is greater than most lots in the Neighborhood would cost for a home this size.

This is a cost savings of almost \$30,000 compared to the average new site-built house in the Neighborhood. It is \$15,000 less than even the least expensive of the new site-built houses. Only a minor part of this differential is in the price of the lot.

Case Study Type 1 was the front gable house with offset front gable porch. The proposed home design from Cavalier is shown in figures 6.13 and 6.14.



Figure 6.13. Cavalier Home Builders Model E6368-1 Elevation – This manufactured house has a projecting gable front room. It would be very architecturally-compatible with the Case Study Type 1 house with a site-built front gable porch.

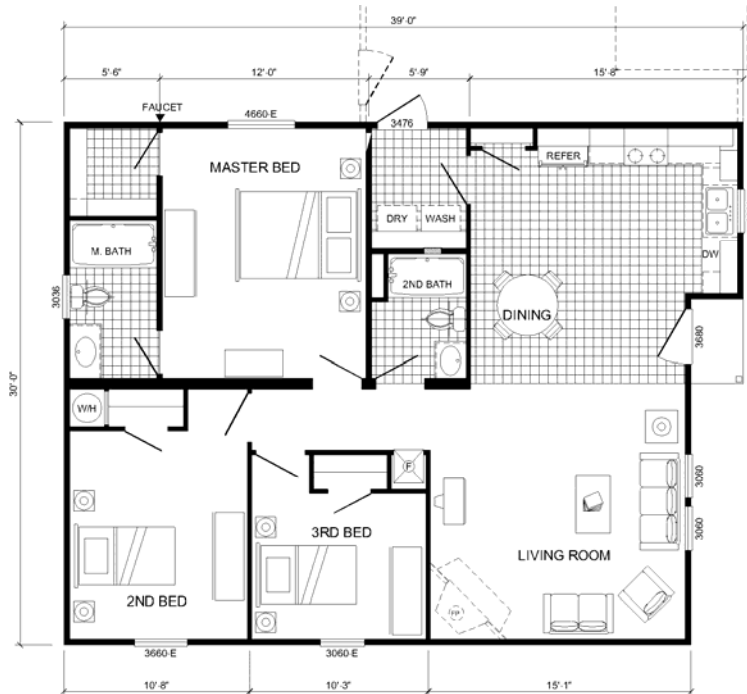


Figure 6.14. Cavalier Home Builders Model E6368-1 Floor Plan – This 1100 SF house is quite generous in its dimensions and room layout.

It is a small house encompassing 1110 square feet and having a width of two rooms. This home is very livable with three bedrooms and fits the scale of the Neighborhood well. The selling price would be \$85,499. The compatibility-enhanced features are:

- Higher roof pitch = 6.25:12 (+ \$3375)
- Site-built half-width porch extending existing projecting gable (+ \$3000)
- “Six-over-six multi-paned” windows with appropriate proportions (separate cost not given)
- Continuous concrete block foundation (+ \$3600)

Case Study Type 2 was the side gable with wide shed front porch. The proposed home design from Cavalier is shown in figures 6.15 and 6.16. Most of the historic homes of this type are one room deep under the main gable and have a rear shed addition to create an over plan depth of two rooms. Cavalier proposes a two-room deep model under a single gable. This is also a small house, encompassing 1173 square feet and having a width of three rooms. There are three bedrooms and generous living spaces. The selling price would be \$81,933. With a single gable and no shed addition, this home does not fit the neighborhood character as well as the other model. Its compatibility-enhanced features are:

- Higher roof pitch = 6.25:12 (+ \$3375)
- Site-built wide shed porch (+ \$4000)
- “Six-over-six multi-paned” windows with appropriate proportions (separate cost not given)
- Continuous concrete block foundation (+ \$3600)



**FRONT ELEVATION**

Figure 6.15. Cavalier Home Builders Model E5301-S Elevation – With a site-built porch, this manufactured house would be architecturally-compatible with the Case Study Type 2 house.

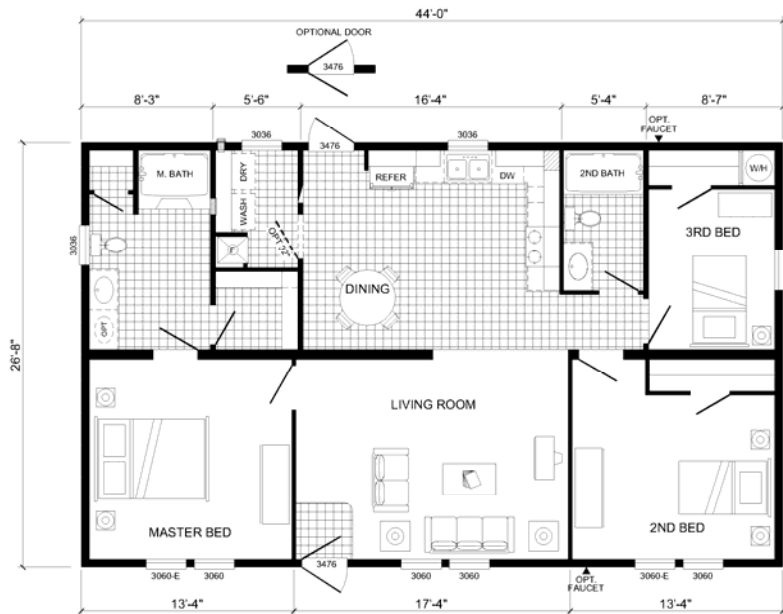


Figure 6.16. Cavalier Home Builders Model E5301-S Floor Plan – This 1173 SF house is quite generous in its dimensions and room layout.

In the selling prices given by Cavalier, there are several other costs built in. The greatest variable cost is the land:

- Land (\$15,000) – This figure could vary considerably, especially if the lot is donated or already owned by the family.
- Septic Tank (\$2200) – This would not be necessary in an urban setting.
- Power and Water Hook-up (\$850 each) – This could vary for an urban setting.
- Other Common Options (\$2570) – These could include more trim but are not explained.

Both proposed homes are more affordable than a site-built home with equivalent visual characteristics. Based on very simple guidelines given by the author, the manufacturer was able to find an existing home design, make basic modifications, and deliver a price for compatible infill in less than three weeks. A similar process involving community residents, local policy makers, historic preservationists, design professionals, and the manufacturer could deliver even more impressive designs and ultimately result in this type of affordable housing being included in a historic neighborhood.

## CHAPTER 7

### HISTORIC PRESERVATION ISSUES

#### Preserving a Sense of Place

Historic Preservation is the name for a profession which includes people with such distinct desires as preserving interiors, documents, landscapes, architecture, and entire communities. It also includes those who want to preserve and create affordable housing options. Advocacy efforts are based on personal values and goals, some of which may be contradictory to others in the profession. For example, in an effort to preserve historic architecture, rehabilitating and selling mill village houses to the upper-middle-class promotes preservation of the built environment, since they are able to afford maintenance and repairs. Those same houses are the tangible manifestation of a close-knit community of people with historic relationships to the mill. Yet the preservation of that community may lead to the neglect and ultimate ruin of the houses. Balancing the effects of gentrification while preserving the built environment is one of the most difficult tasks preservationists may encounter.

A mill community is made up of people, tangible objects (buildings and landscapes), and intangible culture (community values, relationships, and history). All of these things create a sense of the place. Waters writes that “it is through a sense of place that individuals obtain part of their identity.” He elaborates that having a sense of place circumvents the rootlessness that “can lead to a sense of alienation from others, an unwillingness to be involved in situations requiring responsibility to others, and failure to identify with the physical environment.”<sup>239</sup>

---

<sup>239</sup> John C. Waters, *Maintaining a Sense of Place: A Citizen's Guide to Community Preservation* (Athens, GA: University of Georgia Institute of Community and Area Development, 1983), 59.

Gentrification can displace and destroy aspects that contribute to that sense of place, notably the people, their relationships, and the shared history.

Many view gentrification's renewing effects as wholly positive, but the truth is that "the benefits of these changes are often enjoyed disproportionately by the new arrivals, while the established residents find themselves economically and socially marginalized."<sup>240</sup> The ultimate effect of gentrification is the loss of a significant portion of the type of population that inhabited the area.

Displacement, whether via urban renewal and the bulldozer or by market forces, is an act of force. It is anti-democratic because it denies self-determination to an existing community. Displacement usually doesn't happen without a fight. Tenant activists have pushed for things like anti-eviction or rent control ordinances. In the long run, though, these are not likely to be more than a speed bump in the process of displacement.<sup>241</sup>

A lesser effect of gentrification in many in-town neighborhoods is new construction, which can either contribute to or detract from the sense of place. Inharmonious architecture in too great a quantity can undermine the identity of the neighborhood with which many residents and locals alike identify.

Gentrification also creates economic vitality through housing rehabilitation, new businesses, and increased municipal services being provided to a rising tax base. Increased density and stable households contribute to safety, vitality, and upkeep, creating a place residents want to remain.

Preservationists who are cognizant of both the positive and negative effects of gentrification will be better prepared to harness the good and mitigate the harmful. They can and should create methods by which homeowners of various income levels can contribute to the

---

<sup>240</sup> Benjamin Grant, "What is Gentrification?" [article on-line]; available from [http://www.pbs.org/pov/pov2003/flagwars/special\\_gentrification.html](http://www.pbs.org/pov/pov2003/flagwars/special_gentrification.html); Internet; accessed 19 March 2005.

<sup>241</sup> Tom Wetzel, "What is gentrification?" (2004) [article on-line]; available from <http://www.uncanny.net/~wetzel/gentry.htm>; Internet; accessed 19 March 2005.

stock of new housing. A significant part of this effort must be won in the political arena, where community leaders have the ability to implement tax freezes for long-time homeowners, ensure that housing subsidies are available for the neediest, and create inclusionary land-use regulations so that all types of housing, including manufactured housing, are available in all neighborhoods. Where there is opposition to a type of housing, preservation advocates should partner with private firms and public agencies to overcome prejudice.

Much prejudice against manufactured housing is based on preconceived notions that they are noticeably different than site-built housing. This prejudice should not be a stumbling block in efforts to provide affordable housing; today's manufactured housing design is far removed from the mobile homes of the 1970s. They can resemble site-built housing and remain affordable.

Manufactured housing advocates have begun lobbying for inclusionary land-use policies and have even drawn up "compatibility standards." The standards, while they definitely improve the appearance of manufactured housing, fall short of guaranteeing design compatibility in historic neighborhoods.<sup>242</sup> Many historic houses, especially those in low-income neighborhoods are common forms, yet the predominant form is particular to each locale and design guidelines for compatible infill should be determined locally. Minor stylistic differences may be observed by community residents that are not obvious to a consultant or an advocacy group in another state.

Preservationists should be proactive partners with affordable housing activists because preserving a sense of place is intertwined with creating and maintaining affordable housing. The best options should be examined, but guidelines must be in place when these options are

---

<sup>242</sup> Georgia Manufactured Housing Association, "Zoning Ordinance Amendments for the Uniform Treatment of Manufactured and Modular Homes on Private Property," Georgia Manufactured Housing Association, April 2005.



exercised. Historic preservation professionals with knowledge of all the issues are positioned to be leaders in developing compatibility standards for inclusionary land-use regulations.

## CHAPTER 8

### CONCLUSION AND RECOMMENDATIONS

#### Conclusion

This thesis is not promoting manufactured housing as the highest and best form of housing. It is, however, promoting the manufactured housing type as the best option for ownable, affordable housing, especially in urban settings. From the viewpoint of historic preservationists and others, the sense of ownership in one's home contributes to a sense of community, which in turn helps create a sense of place. The author also advocates that working-class households should be able to own a home near jobs and public transportation if they desire to do so.

A sense of place also relies upon the appearance of the built environment. Creating opportunities for affordable housing of any form should not preclude efforts to maintain and promote the architectural harmony of a community. The thesis proved that, with proper design guidelines, the manufactured housing type can be designed to be architecturally-compatible with historic houses and remain affordable.

It is a fact of today's real estate system that gentrification will occur in areas where the supply of good opportunities for development and affordable homeownership exist. The historic preservation professional who advocates for affordable housing is in a good place to harness the good and mitigate the harmful effects of gentrification. Preservation professionals are already working to promote affordable housing in areas such as East Athens.

Advocacy groups have promoted affordable housing in historic neighborhoods for years, but most are overlooking the manufactured house as an option for urban infill. In addition, city and county zoning laws exclude it from existing neighborhoods where affordable housing is needed most. The reasons for this exclusion are numerous and have been upheld in courts of law. A paradigm shift must occur in the political, financial, advocacy, and design arenas to overcome the unjustified prejudice against manufactured housing. The following recommendations, if followed, would create opportunities for affordable housing that do not exist in many communities today.

#### Recommendations for Athens-Clarke County and Other Local Governments

- For each existing neighborhood where affordable housing is desired, hold a community design charrette to determine the desired characteristics for infill housing.
  - Utilize the expertise of the Center for Community Design, Planning, and Preservation and the Alliance for Quality Growth at UGA.
  - Include manufactured housing representatives.
  - Illicit support from neighborhood residents for manufactured housing as an affordable housing option.
  - Use the Manufactured Housing Institute/Urban Land Institute demonstration projects as models.
- Create design guidelines based on community desires.
  - The guidelines should guarantee variety in housing form and style.
  - The guidelines should be broad enough to allow any type of housing, including manufactured housing, to be used as infill.
  - The guidelines should be narrow enough to guarantee compatible infill.

- Expensive design modifications to standard housing units should be minimized in order to preserve affordability.
- Implement the guidelines in the land-use regulations.
  - The zoning code should be modified to be less exclusionary. It should be design-based, regulating form and style rather than housing type. Manufactured housing should be allowed in all districts, subject to the existence of design guidelines.
  - In a local historic district, the guidelines should be incorporated into the *Historic Preservation Design Guidelines*, with design review by the Historic Preservation Commission.
  - The ultimate form of design control could resemble a form-based code. In all neighborhoods, the design guidelines could take the form of form-based codes and be officially adopted as law. It would work as an Overlay Zone that is established to encourage affordable housing.
- The tax assessor should promote the assessment of manufactured housing as real property, rather than personal property.
- The Housing Authority should consider compatibly-designed manufactured housing, where possible.

Recommendations for Historic Preservation and Advocacy Professionals

- Advocates for historic preservation and affordable housing must embrace the manufactured house as a viable infill housing option.
- Historic preservation professionals must proactively encourage the use of design guidelines and form-based codes in order to create more inclusionary zoning.

- Housing advocates must lobby for inclusionary zoning and fair tax assessment for manufactured housing. Equal treatment of the housing type would contribute to its acceptance as infill.
- Create a demonstration project in a target area to prove the viability of the housing type as compatible and affordable infill.
- Work with manufacturers to provide graphical representations and accurate costs of manufactured housing options for potential homebuyers.

#### Recommendations for Manufacturers

- Be proactive in developing and selling historically-compatible designs, based on community input.
- Educate manufactured housing retailers about options for appropriate urban infill.
- Encourage manufactured housing retailers to work with and become affordable housing advocates.
- Petition local governments to remove exclusionary zoning and implement design-based zoning.

#### Recommendations for Future Study

- Future study into this subject should examine the actual costs of manufacturing a compatibly-designed manufactured house, including the financing, tax, and installation costs. Service delivery issues are more complex and potentially more expensive in historic neighborhoods due to narrow and winding streets.
- Another study must examine whether newer designs would be preferable to potential owners of manufactured housing if given the choice. The results would allow the

manufacturers to determine whether they should offer these designs as standards for particular local environments.

- The most effective study would include a demonstration project in an urban, in-town residential historic district, where design professionals work with the community to determine recommended design attributes for infill. Similar projects have been conducted in several larger cities in the United States<sup>243</sup> but not with regard to historic district standards and not in mid-size and small towns. The ultimate result of such a study could be a set of design guidelines, zoning overlay or other regulatory code that would be incorporated into the local land-use regulation. Working with city officials could also result in changes to the property valuation method and ultimately to a procedure that could be used in other towns with similar situations.

Planners have long considered the design of individual buildings a less important factor in community design. It has taken strong individuals and learning from failures for individuals and entire communities to recognize that this factor is as important as street width and housing setback. The architects of design guidelines in Colorado wrote:

More and more people are also realizing that the design of a building affects not only the building's owner but also the community at large. They're realizing, that is, that questions of urban design and visual quality need to be answered in ways that enhance the unique character of the community and the quality of life of its citizens.<sup>244</sup>

Everyone seeks and deserves "unique character" and "quality of life." By enlightening personal and public attitudes towards manufactured housing, these can be preserved for all citizens.

Housing advocates, manufacturers, and preservation professionals must work together to achieve our common goals.

---

<sup>243</sup> Maxman and Muscoe.

<sup>244</sup> *Good Neighbors*, 5.

## SOURCES CONSULTED

- Albany, Georgia, Planning Department. "Title I: General Provisions." *Zoning Ordinance, City of Albany and Dougherty County*. Albany, GA: Planning Department. [ordinance on-line]. Available from [http://www.albany.ga.us/Planning\\_Community%20Dev/documents/zoning.pdf](http://www.albany.ga.us/Planning_Community%20Dev/documents/zoning.pdf). Internet. Accessed 11 May 2005.
- Allen, Irving L. "The Ideology of Dense Neighborhood Redevelopment." *Gentrification, Displacement and Neighborhood Revitalization*, eds. J. John Palen and Bruce London. Albany, NY: State University of New York Press, 1984.
- Athens-Clarke County, Georgia, Planning Department. "Chapter 9-7. Single-Family Residential (RS) Districts." *Zoning and Development Standards*. Athens-Clarke County, Georgia: Planning Department. supp. no. 16, 966.26.
- Athens, Georgia, Historic Preservation Commission. *Historic Preservation Design Guidelines*. Athens, GA: Historic Preservation Commission.
- Atilas, Jorge Horacio. "Manufactured Housing: An Assessment of Community Attitudes." Ph.D. diss. Virginia Polytechnic Institute and State University, 1995.
- City of Bainbridge, Georgia, *Zoning Ordinance*. 17 June 2003.
- Bhatnagar, Parija. "Not a mall, it's a lifestyle center." *CNNMoney*. 12 January 2005 [article on-line]. Available from [http://money.cnn.com/2005/01/11/news/fortune500/retail\\_lifestylecenter](http://money.cnn.com/2005/01/11/news/fortune500/retail_lifestylecenter). Internet. Accessed 18 January 2005.
- "BOCA vs HUD – What is the Difference?" [article on-line]. Available from [http://www.birchwoodhomes.com/index.php?ID=bwh\\_BOCA\\_vs\\_HUD](http://www.birchwoodhomes.com/index.php?ID=bwh_BOCA_vs_HUD). Internet. Accessed 11 May 2005.
- Boddy, Chet. "Factory Built Housing." (2002) [article on-line]. Available from <http://www.chetboddy.com/Pages/factorybuilt.html>. Internet. Accessed 11 May 2005.

- Brolin, Brent C. *Architecture in Context: Fitting New Buildings With Old*. New York: Van Nostrand Reinhold, 1980.
- Carl Vinson Institute of Government. *Dismantling Persistent Poverty in Georgia: Breaking the Cycle*. [report on-line]. Athens, GA: Carl Vinson Institute of Government, April 2000. Available from <http://www.cviog.uga.edu/>. Internet. Accessed 11 May 2005.
- Cassity, Pratt. "How to Determine Compatibility for New Structures in a Relatively (Visually) Consistent Historic District." *Alliance Review*. January/February 2005).
- Cavalier Home Builders. "Search for a floor plan" [database on-line]. Available from <http://www.cavalierhomebuilders.com>. Internet. Accessed 12 May 2005.
- Community Services Collaborative. *Deadwood Downtown Design Guidelines*. Boulder: Community Services Collaborative, 1991.
- Congress for the New Urbanism. "Frequently Asked Questions." [document on-line]. Available from [http://www.cnu.org/about/\\_disp\\_faq.html](http://www.cnu.org/about/_disp_faq.html). Internet. Accessed 3 May 2005.
- Craighead, Paula M., ed. *The Hidden Design in Land Use Ordinances: Assessing the Visual Impact of Dimensions Used for Town Planning in Maine Landscapes*. Portland, ME: University of Southern Maine, New England Studies Program, March 1991.
- Crawford, Clan, Jr., *Handbook of Zoning and Land Use Ordinances – With Forms*. Englewood Cliffs, N.J.: Prentice-Hall, 1974.
- Dejausserand, Joanne. Athens-Clarke County Planning Department GIS Analyst. Interview by author. Email. Athens, GA. 3 May 2005.
- Dictionary.com. [dictionary on-line] Available from <http://dictionary.reference.com>. Internet. Accessed 9 May 2005.
- Dolkart, Andrew S. "The Architecture and Development of New York City" [article on-line]. Available from <http://nycarchitecture.columbia.edu>. Internet. Accessed 3 May 2005.
- Duerksen, Christopher J. and R. Matthew Goebel. *Aesthetics, Community Character, and the Law*. Chicago: American Planning Association, 1999.
- Edwards, A. Trystan. *Good & Bad Manners in Architecture*. 2d ed.. London: John Tiranti, 1946.



- Florida Housing Coalition. *Creating Inclusive Communities in Florida* [report on-line]. Florida Housing Coalition and 1000 Friends of Florida, 2002. Available from <http://www.1000fof.org/PUBS>. Internet. Accessed 24 January 2005.
- Florida Manufactured Housing Association. "How Our Homes Are Built" [article on-line]. Florida Manufactured Housing Association, 2004. Available from <http://www.builtstronger.com/engineering.html>. Internet. Accessed 8 May 2005
- Floyd, Allison. "Tax notices on the way: Rising property values leading to higher bills" [article on-line]. *Athens Banner-Herald*. 5 May 2005. Available from <http://www.onlineathens.com>. Internet. Accessed 7 May 2005.
- Gagnon, Michael. "Transition to an Industrial South: Athens, Georgia 1830-1870." Ph. D. diss. Emory University, 1999. Quoted in Stanton, 6.
- Genz, Richard. "Why Advocates Need to Rethink Manufactured Housing." *Housing Policy Debate* 12, iss. 2. 2001.
- Georgia Department of Community Affairs. "Program Description." *2004 Model Code: Alternatives to Conventional Zoning*. Atlanta: Georgia Department of Community Affairs, December 2003. [report on-line]. Available from <http://www.dca.state.ga.us/development/PlanningQualityGrowth/programs/modelcode.asp>. Internet. Accessed 9 May 2005.
- Georgia Manufactured Housing Association. "Zoning Ordinance Amendments for the Uniform Treatment of Manufactured and Modular Homes on Private Property." Georgia Manufactured Housing Association, April 2005.
- Gottfried, Herbert and Jan Jennings. *American Vernacular Design 1870-1940: An Illustrated Glossary*. New York: Van Nostrand Reinhold, 1985.
- Grant, Benjamin. "What is Gentrification?" [article on-line]. Available from [http://www.pbs.org/pov/pov2003/flagwars/special\\_gentrification.html](http://www.pbs.org/pov/pov2003/flagwars/special_gentrification.html). Internet. Accessed 19 March 2005.
- Green, Joslyn, ed. *Good Neighbors: Building Next to History*. Colorado Historical Society, 1978.
- Grow, Lawrence, comp. *The Old House Book of Cottages and Bungalows*. Pittstown, NJ: Main Street Press, 1987.

- Hampson, Rick. "Studies: Gentrification a boost for everyone." *USA TODAY*. 19 April 2005. [article on-line]. Available from [http://www.usatoday.com/news/nation/2005-04-19-gentrification\\_x.htm](http://www.usatoday.com/news/nation/2005-04-19-gentrification_x.htm). Internet. Accessed 3 May 2005.
- Haynes, Jerry. Cavalier Home Builders Sales Manager. Interview by author. Telephone. 5 May 2005.
- Heller, Frederik. "Field Guide to Inclusionary Zoning." [article on-line]. National Association of Realtors. April 2004. Available from <http://www.realtor.org/libweb.nsf/pages/fg806#topica>. Internet. Accessed 6 June 2005.
- "Inspecting Pitched Roofs" [article on-line]. Available from <http://www.oldhouseweb.com/stories/Detailed/10277.shtml>. Internet. Accessed 11 May 2005.
- City of Issaquah Code Definition [on-line zoning ordinance]. Available from <http://www.mrsc.org/mc/issaquah/Issaqa18/issluc1802.html#18.02.080>. Internet. Accessed 2 May 2005.
- Jakle, John A., Robert W. Bastian, and Douglas K. Meyer. *Common Houses in America's Small Towns: The Atlantic Seaboard to the Mississippi Valley*. Athens, GA: University of Georgia Press, 1989.
- Jenkins, Frank E., III. "Goodbye, Cannon v. Coweta County: New Rules on Manufactured Home Legislation." *Georgia Planner*. June 2003. [newsletter on-line]. Available from [http://www.georgiaplanning.org/stuff/newsletters/june-2003\\_33361.pdf](http://www.georgiaplanning.org/stuff/newsletters/june-2003_33361.pdf). Internet. Accessed 7 May 2005.
- Jenkins, Lucy. *Mobile/Manufactured Home Standards*. 2003. Draft code provisions for inclusion in the Chattooga County, Georgia, zoning ordinance.
- Jewell, Kevin. *Raising the Roof, Raising the Floor: Raising Our Expectations for Manufactured Housing*. Public Policy Series, vol. 6, no. 5. Austin: Consumers Union Southwest Region, 2003.
- Katz, Peter. "Form First: The New Urbanist alternative to conventional zoning." *Planning* 70, no. 10. November 2004.
- Lewis, Megan. "Form-Based Zoning." (27 April 2004) [article on-line]. Available from <http://www.denvergov.com>. Internet. Accessed 24 February 2005.

- Lewis, Roger K. "Traditional Zoning Can't Meet the Challenge of Modern Development." *Washington Post*. 24 July 2004. [article on-line]. Available from <http://www.washingtonpost.com>. Internet. Accessed 24 February 2005.
- Bruce Lonnee, "'Class A' Manufactured Homes." 12 October 2003. Looseleaf from the personal file of Bruce Lonnee, Athens-Clarke County Planner.
- Manufactured Housing Institute. "The Definition of a Manufactured Home." [article on-line]. Arlington, VA: Manufactured Housing Institute, 2004. Available from <http://www.manufacturedhousing.org>. Internet. Accessed 9 September 2004.
- \_\_\_\_\_. "Frequently Asked Questions." [article on-line]. Arlington, VA: Manufactured Housing Institute, 2004. Available from <http://www.manufacturedhousing.org>. Internet. Accessed 9 September 2004.
- \_\_\_\_\_. "The History of the Manufactured Home." [article on-line]. Arlington, VA: Manufactured Housing Institute, 2004. Available from <http://www.manufacturedhousing.org>. Internet. Accessed 9 September 2004.
- \_\_\_\_\_. "Understanding Today's Manufactured Housing." [booklet on-line]. Arlington, VA: Manufactured Housing Institute. Available from <http://www.manufacturedhousing.org>. Internet. Accessed on 27 September 2004.
- Manufactured Housing Research Alliance. *Technology Roadmapping for Manufactured Housing*. New York: Manufactured Housing Research Alliance. March 2003.
- Maxman, Susan and Muscoe Martin. "Manufactured Housing Urban Design Project." *Urban Land*. March 1997.
- McAlester, Virginia and Lee McAlester. *A Field Guide to American Houses*. New York: Alfred A. Knopf, 2003.
- McLendon, Sandy. "FutureHouse." *Jetsetmodern.com*. 1 April 2003. [article on-line]. Available from <http://www.jetsetmodern.com>. Internet. Accessed 24 February 2005.
- Mumford, Lewis. *Architecture*. Reading With a Purpose Series. Chicago: American Library Association, 1926.

- National Low Income Housing Coalition. *America's Neighbors: The Affordable Housing Crisis and the People it Affects*. National Low Income Housing Coalition, February 2004.
- \_\_\_\_\_. *Out of Reach: 2004* [database on-line]. Washington, D.C.: National Low Income Housing Coalition, 2004. Available from <http://www.nlihc.org>. Internet. Accessed 24 January 2005.
- North Carolina Housing Coalition. "Glossary of Terms." [document on-line]. Raleigh, NC: North Carolina Housing Coalition. Available from <http://www.nclihc.org>. Internet. Accessed 24 January 2005.
- Nyden, Philip W. and Wim Wiewel, eds. *Challenging Uneven Development: An Urban Agenda for the 1990s*. New Brunswick, N.J.: Rutgers University Press, 1991.
- Palen, J. John and Bruce London. "Some Theoretical and Practical Issues Regarding Inner-City Revitalization." *Gentrification, Displacement and Neighborhood Revitalization*. eds. J. John Palen and Bruce London. Albany, NY: State University of New York Press, 1984.
- Peppers, Kirk. Care Free Homes Housing Consultant. Interview by author. Athens, Georgia. 27 April 2005.
- Pierce, Neal. "Zoning: Ready to be Reformed?" [article on-line]. Available from <http://www.postwritersgroup.com>. Internet. Accessed 24 February 2005.
- Ratcliffe, John. *An Introduction to Town and Country Planning*. 2d ed. Built Environment Series. London: Hutchinson Education, 1981.
- Robinson Township v. Knoll. 410 Mich. 293, 302 N.W. 2d 146 (1981).
- City of Rome, Building Inspection Department. "General Information and Check Sheets: Manufactured (Mobile) Homes." [article on-line]. Rome, GA: City of Rome Building Inspection, 2003. Available from <http://www.rome.ga.us/departments/bldginsp/mobilehome.asp>. Internet. Accessed 7 May 2005.
- Sagalyn, Lynn B. and George Sternlieb. *Zoning and Housing Costs: The Impact of Land-Use Controls on Housing Price*. New Brunswick, N.J.: Rutgers University Press, 1973.
- City of Santa Fe Planning Division. *Historic Districts Handbook: A Guide to Historic Preservation and Design Regulations in Santa Fe*. Santa Fe: City of Santa Fe Planning Division, ca. 1996.

- “Savannah: History” [article on-line]. Available from [http://encyclopedia.laborlawtalk.com/Savannah,\\_Georgia](http://encyclopedia.laborlawtalk.com/Savannah,_Georgia). Internet. Accessed 6 May 2005
- Smith, Herbert H. *The Citizen’s Guide to Zoning*. West Trenton, NJ: Hermitage Press, 1965.
- Smith, Neil and Michelle LeFavre. “A Class Analysis of Gentrification.” *Gentrification, Displacement and Neighborhood Revitalization*. eds. J. John Palen and Bruce London. Albany, NY: State University of New York Press, 1984.
- Southwest Georgia Regional Development Center. “Context Sensitive Scattered Site Infill Manufactured Housing Project,” Southwest Georgia Regional Development Center. Partial report received from Paul Forgey. 1 September 2004.
- Stanton, Kay S. *East Athens Historic Resources Survey and Documentation. (Draft)*. Athens, GA: Athens-Clarke Heritage Foundation, 2004.
- Stanton, Kay S., comp. *East Athens Historic Resource Survey. For East Athens Historic Resources Survey and Documentation (Draft)*. Athens, GA: Athens-Clarke Heritage Foundation, 2004.
- Thomas, Kelly. Athens-Clarke County Real Property Appraiser. Interview by author. Athens, Georgia. 4 May 2005.
- Thurmond, Michael. *A Story Untold: Black Men and Women in Athens History*. ed. Dorothy Sparer. Athens, GA: Clarke County School District, 1978.
- Tinsley, Karen and Brenda Cude. *Georgia: State of the State’s Housing: Service Delivery Region 5* [report on-line]. Athens, GA: Housing and Demographics Research Center, July 2003. Available from <http://www.fcs.uga.edu>. Internet. Accessed 29 January 2005.
- Tung, Anthony M. *Preserving the World’s Great Cities: The Destruction and Renewal of the Historic Metropolis*. New York: Clarkson Potter, 2001.
- “Two-Story Manufactured (HUD-Code) Homes.” [article on-line]. Upper Marlboro, MD: ToolBase Services. Available from <http://www.toolbase.org>. Internet. Accessed 24 February 2005.

United States Census Bureau. Census of Population and Housing Summary File 3. 1990, 2000. Quoted in Karen Tinsley and Brenda Cude, *Georgia: State of the State's Housing: Service Delivery Region 5* [report on-line]. Athens, Georgia: Housing and Demographics Research Center, July 2003. Available from <http://www.fcs.uga.edu>. Internet. Accessed 19 March 2005.

United States Department of Housing and Urban Development. "Appraisal and Property Rights." *Manufactured Homes: Eligibility and General Requirements - Title II* [handbook on-line]. Washington, DC: United States Department of Housing and Urban Development, 4 December 2001. Available from <http://www.hud.gov>. Internet. Accessed 4 May 2005.

\_\_\_\_\_. *Historic Preservation Plan for the Central Area General Neighborhood Renewal Area: Savannah, Georgia*. Washington, DC: United States Department of Housing and Urban Development, 1973.

\_\_\_\_\_. "Manufactured Home Construction and Safety Standards." [article on-line]. Washington, DC: United States Department of Housing and Urban Development, updated 16 May 2002. Available from <http://www.hud.gov/offices/hsg/sfh/mhs/mchss.cfm>. Internet. Accessed 8 May 2005.

\_\_\_\_\_. "Why Not In Our Community?" *Removing Barriers to Affordable Housing*, An Update to the Report of the Advisory Commission on Regulatory Barriers to Affordable Housing [report on-line]. Washington, D.C.: United States Department of Housing and Urban Development, Office of Policy Development and Research, February 2005. Available from <http://www.huduser.org>. Internet. Accessed 11 May 2005.

Voss Matthews, Sherrie. "Missouri Rejects Planning Again, Again, and Again." *Planning* 70, no. 8. August/September 2004.

Wallis, Allan D. *Wheel Estate: The Rise and Decline of Mobile Homes*. New York: Oxford University Press, 1991.

Waters, John C. *Maintaining a Sense of Place: A Citizen's Guide to Community Preservation*. Athens, GA: University of Georgia Institute of Community and Area Development, 1983.

Watson, Kami. "A Solution to the Affordable Housing Crisis." *Journal of Housing & Community Development*, May/June 2002.

Wetzel, Tom. "What is gentrification?" (2004) [article on-line]. Available from <http://www.uncanny.net/~wetzel/gentry.htm>. Internet. Accessed 19 March 2005.

Zhang, Henry H. "Letter to the Editor." *Planning* 70, no. 11. December 2004.

## APPENDIX

### LETTER TO CAVALIER HOME BUILDERS

Mr. Haynes,

Thank you in advance for your help with my thesis. As I mentioned, I am working on my Master in Historic Preservation degree at the University of Georgia.

The focus of my thesis is to demonstrate that manufactured housing should not be excluded by zoning from historic neighborhoods, that it can be designed in a compatible style.

I have determined that there are two housing types in my study area which could easily be replicated in a manufactured home. On the next two pages, I have listed the criteria which should be met in order to ensure a compatible design. I am including representative pictures of actual houses in the study area for your reference.

What I would like to determine is the following:

- Whether Cavalier has existing floor plans that would fit the context I have described.
- What modifications would need to be made to existing models.
- What the price is for the stock model.
- What the price is for the “designed for infill” model.

The implications of my study could be enormous. I have worked with the Athens-Clarke County Planning Office and Department of Community Affairs on this study for background information. Depending on what you tell me, I would like to present the results to both departments. Hopefully, we could usher in a new era in Athens-Clarke, one in which design is more important than housing type, and in which manufactured housing will be included in existing residential neighborhoods.

Having a response based on one of the two designs will be fine if looking at two cases is too large a task. I understand that this may not be on the top of your priority list, so any help you can give me would be appreciated. I plan to turn in the thesis, as it stands, on Friday. If this information can be included, that would help my argument. If not, I will include it as at a later time when I make corrections.

Thank you again.

Brent Runyon



## Case Study Type 1: Front Gable with Offset front Porch

*This is a new house in the study area.*



*This is a ca. 1950 house, altered with vinyl siding.*



### Requirements for new infill housing:

- Most of these houses are several rooms deep and two rooms wide.
- A two-section would likely work best.
- Front width approximately 28 feet. Depth up to 44 feet.

Porch: Simple post supports  
Porch Roof Pitch: Same as house.  
Exterior Cladding: Vinyl or Hardie Plank

Roof Pitch: 6:12 to 12:12  
Roof Material: Asphalt/Composition Shingle or Metal  
Eaves: 1 foot

Façade: Asymmetrical, with front gable porch over door and one window.  
Porch 1/3 to 1/2 width of façade.

Windows: 6-over-6-paned, large sized (3'x5')  
Trim: Generous - ~4" window and door trim

Foundation: Continuous concrete block or concrete

## Case Study Type 2: Side Gable with Shed Porch

*This is a ca. 1920s house.*



*This is a ca. 1920s house*

### Requirements for new infill housing:

- Most of these houses are single room deep, except for the rear addition.
- Therefore, a single section would work best unless a multi-section could replicate the roof lines.
- Front side width should be no more than about 44 feet. Depth should be around 12-15 feet.

*(A double section would require either a flatter roof or a ridiculously high one at the desired pitch.)*

Porch: Simple post supports  
Porch Roof Pitch: 3:12 to 5:12  
Exterior Cladding: Vinyl or Hardie Plank

Roof Pitch: High as possible. (Most houses have between 8:12 and 12:12 pitch.)  
Roof Material: Asphalt/Composition Shingle or Metal  
Eaves: 1 foot

Façade: Symmetrical, centered on front door, or door just off center.  
A single or two paired windows to either side of door.

Windows: 6-over-6-paned, large sized (3'x5')  
Trim: Generous - ~4" window and door trim

Foundation: Continuous concrete block or concrete