REVITALIZING A FEDERAL-ASSISTED HOUSING COMMUNITY:

A REDESIGN OF THE OUTDOOR ENVIRONMENT OF BETHEL MIDTOWN VILLAGE

by

JIALIU CUI

(Under the Direction of Katherine Melcher)

ABSTRACT

This thesis explores possible methods to revitalize the outdoor environment of a federal-assisted housing community. The revitalization process focuses on two aspects—the connections between the federal-assisted housing communities and the surrounding neighborhood, and the outdoor environment of these communities. Based on the knowledge of relevant literature and cases studies, this thesis suggests possible design approaches for revitalizing a federal-assisted housing community. These design approaches are examined through the design application for the outdoor environment of Bethel Midtown Village. Diagrams and images are provided to better explain the ideas in this thesis. Finally, this thesis concludes that improvements in the connections between federal-assisted housing communities and the surrounding neighborhood, and improvements in the outdoor environments of these communities are important for the revitalization of federal-assisted housing communities.

INDEX WORDS: federal-assisted housing, public housing, low-income housing, community revitalization, outdoor environment, social space, landscape architecture

REVITALIZING A FEDERAL-ASSISTED HOUSING COMMUNITY:

A REDESIGN OF THE OUTDOOR ENVIRONMENT OF BETHEL MIDTOWN VILLAGE

by

JIALIU CUI

BLA, Nanjing Forestry University, China, 2013

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

of the Requirements for the Degree

MASTER OF LANDSCAPE ARCHITECTURE

ATHENS, GEORGIA

2015

REVITALIZING A FEDERAL-ASSISTED HOUSING COMMUNITY:

A REDESIGN OF THE OUTDOOR ENVIRONMENT OF BETHEL MIDTOWN VILLAGE

by

JIALIU CUI

Major Professor:	Katherine Melcher
Committee:	Brad Davis
	Pratt Cassity
	Ovita Thornton

Electronic Version Approved:

Suzanne Barbour
Dean of the Graduate School
The University of Georgia
August 2015

ACKNOWLEDGEMENTS

First and foremost, I want to express my thanks to Professor Melcher, my supervisor, for her constant encouragement and guidance. Second, I would like to express my gratitude to Professor Davis, who generously agreed to be my reading chair and offered me many great suggestions. I am also greatly indebted to Professor Cassity and Ms. Thornton, my committee members, who have instructed and helped me a lot in the past half a year.

Last my thanks would go to my beloved family for their love all through these years.

TABLE OF CONTENTS

Page

LIST OF FIGURES

Page

CHAPTER 1

INTRODUCTION

The community charrette held by the University of Georgia's Center of Community Design & Preservation in January 2014 first brought the Bethel Midtown Village, a federal-assisted housing community, to my attention. Federal-assisted housing refers to housing receiving support from the federal government including public housing and housing receiving assistance under federal acts like Section 8 of the U.S. Housing Act of 1937, section 202 of the Housing Act of 1959 and section 811 of the National Affordable Housing Act (USLegal, Inc., 2015). The isolated community, fenced by iron wire-netting, contrasts with the magnificent buildings on the other side of the street in downtown Athens, Georgia. The situation within Bethel Village is not a singular case; many federal-assisted housing communities nation-wide are facing serious environmental, social, and economic issues. Although they were constructed with high standards and had mixed-income applicants during the first decades of their existence, federal-assisted housing gradually became people's last choice for housing. High vacancy rates and poor management have led to many federal-assisted housing communities being torn down, and the government has also sought other alternative choices, such as scattered-site housing. But as an efficient model that has functioned for over 100 years, federal-assisted housing projects have benefited millions of Americans.

The changes in the federal-assisted housing system serve as a reflection of the changes in society. This unique type of community and the culture within it deserve to be protected and improved. As an important component of downtown Athens, the Bethel Village community

deserves to be revitalized because it is an integral part of the history and diversity of the downtown area. Furthermore, revitalizing it will facilitate preserving and revitalizing the whole of downtown Athens. This thesis aims to explore how the knowledge of landscape architecture can help federal-assisted housing communities, like Bethel Midtown Village, to reverse their isolated situation and improve their physical environment.

1.1 Background

In order to better understand the characteristics of federal-assisted housing communities, perspectives from a much broader context are needed— specifically, from the history of the American federal-assisted housing system. Understanding the complex history of the development of this welfare system will be helpful in identifying the needs of such communities. Understanding how a well-developed federal-assisted housing community could benefit the residents living in it and the surrounding area is also important to support the revitalization of such communities.

1.1.1 The development of American federal-assisted housing system

The government and the public have been directing attention and efforts toward solving the problems of housing for people with low income since the 19th century in America. The federal-assisted housing system has been modifying the regulations and improving the conditions of the federal-assisted communities throughout history. Development strategies and regulations have become more efficient and complete, and more people are benefitting from this welfare system. However, the physical environment of these communities has not received sufficient attention. Research conducted by Ross, Shlay, and Picon (2012) found that residents in federal-assisted housing communities have a high satisfaction with their living conditions because they are receiving financial aid from the government. However, the residents were not satisfied with the

physical community environment in these communities. Improving the environment within these communities is essential to creating a better living space for their residents.

1.1.2 Benefits of an environmentally and socially friendly federal-assisted housing community

The general importance and benefit to society of providing affordable housing to people with low income is obvious: it enables people with low incomes to find safe, affordable housing and creates secure, stable neighborhoods. The primary goal of the federal-assisted housing system has been improving access to affordable shelter for more people. Although some research has demonstrated that more access to walkable greenspace could help the residents improve their health, especially for elderly people (Takano, Takehito, Nakamura, and Watanabe, 2002), many federal-assisted housing communities didn't pay attention to creating high-quality greenspace inside the community.

1.2 Research Questions

This thesis identifies important factors in revitalizing the outdoor environment of federal-assisted housing communities on both the city and community levels, and then will make corresponding design and planning recommendations. The main questions are:

1. What are the most important issues in revitalizing the environment of these communities?

2. What are the common strategies that can revitalize the outdoor environment of federal-assisted housing communities?

In order to help readers understand what these strategies mean and how they would function in a real circumstance, a complete redevelopment process will be presented through a design application in Bethel Midtown Village to answer the question:

3. How can we apply these strategies in Bethel Midtown Village?

1.3 Limitations and Delimitations

The problems in federal-assisted housing communities are very complex. Answers to them require research into politics, history, psychology, urban planning and many other disciplines. The perspective from landscape architecture can help relieve some problems by changing the physical environment. Nevertheless, responses only from landscape architecture cannot solve all the problems, and this is the first limitation of the present work.

Representativeness is the second limitation. Not all federal-assisted communities are facing the same problems that Bethel Midtown Village faces. Every community is unique in its location, demographics, transportation systems, physical environment, community needs. The problems that happen in Bethel don't necessarily happen in other communities. The process this thesis provides is only a possible suggestion. If applied to other contexts, the process would be different.

Thirdly, the redevelopment strategies provided in this thesis only focus on the outside environment of the community. The strategies provided in this thesis do not including tearing down the buildings or dispersing the residents, which are common strategies in federal-assisted housing revitalizations. In communities where this is necessary, the strategies provided by this thesis will not apply.

The fourth limitation is that there is not enough time for a full participatory process to get more data on the ages and races of the people in the community. Thus, the understanding of their culture and preferences is limited, especially when the author does not have significant experience with similar communities.

The last limitation of this thesis is financial. The lack of sufficient money is one of the biggest reasons why the suggested improvements for federal-assisted housing communities are not actually made.

This thesis only incorporates elements such as the transportation systems (e.g., the bus system) and pedestrian system to some degree. The change of transportation systems around these communities requires more research on the city level in cooperation with urban planners. Thus, the strategies on transportation systems suggested in this thesis did not consider the whole city. They are simply possible choices for the transportation systems around the community.

1.4 Methodology

A literature review, case studies and projective design are the main research strategies used in this thesis. This thesis is divided into 6 chapters, each of which discusses an issue concerned with the research questions.

Chapter 2 discusses the existing literature and studies regarding federal-assisted housing communities. Analysis of the past research presents potential benefits of improving the connections between these communities and surrounding neighborhood and the physical environment inside these communities.

Chapter 3 provides some successful cases of low-income community revitalization projects to study. These projects are not all federal-assisted housing projects, but they are facing similar problems such as isolated social situations, and deteriorating physical environments. These successful projects could provide useful redevelopment principles and detailed strategies for application in Bethel Midtown Village.

Chapter 4 will design approaches for improving the connections between the federal-assisted housing communities and surrounding neighborhood, and the physical environment

inside the communities. These design approaches are made based on the conclusions of Chapter 2 and Chapter 3.

Chapter 5 applies the design approaches in Chapter 4 into the redesign of the connections between Bethel Midtown Village and the surrounding environment. Challenges are analyzed, redesign strategies and concrete design solutions are provided. A same process is applied in Chapter 6 to provide design solutions to improve the physical environment within the Bethel community.

Chapter 7 concludes the thesis with an evaluation of the process and strategies for the redevelopment of the outdoor environment of federal-assisted communities, based on the design process of Bethel Midtown Village.

CHAPTER 2

PRESERVING THE VALUABLE LIVING SOURCE

As a valuable component of people's housing options and a city's social space, the federal-assisted housing community in America is a significant resource for people with low incomes. The scholarly literature concerned with federal-assisted housing, especially those studies focused on the outdoor environment aspect that this thesis studies, addresses two basic questions: why these federal-assisted housing communities are important to society and normal people's lives, and how to improve the living conditions of such communities.

2.1 Development of the federal-assisted housing system

The federal-assisted housing projects in the United States currently help more than 4.8 million households with financial assistance from United States Department of Housing and Urban Development (National Low Income Housing Coalition, 2012). In order to understand the development history of the American federal-assisted housing system, it is necessary to examine the history of the primal form of it—public housing, which was first built in England. Driven by the rapidly increasing urban population caused by the nineteenth century's Industrial Revolution, municipal housing gradually became one of people's primary living choices in the city (Green, 1998). Inefficient use of city land and old city patterns are also factors that resulted in the appearance of high-density buildings. Tenement blocks in the cities were built to meet a growing working class's demand for housing. As a part of such municipal housing types, the first public housing project was built in London during the 1890s, which improved the living conditions of a former slum community (Haines, 2008). The origin of the world's first public housing project

actually indicates two important factors to consider: such projects aim to provide accommodations for more people in the city and to create a better living environment for them. In the twentieth century, public housing development in western countries including U.S. emphasized more on accommodating more people and gradually placed less emphasis on providing a better environment.

Just like the general trend of public housing development worldwide, better living conditions and closer locations to the work destinations attracted more applicants from different social classes in the first decades after 1870s, but eventually public housing became people's last option for housing. In 1890, the photos in the collection 'How the Other Half Lives' by Jacob Riis (Fig1) brought the public's attention to the living conditions of the slums in New York City. Earlier efforts to solve the living and social problems in such communities had been unsuccessful due to resource limitations (Bauman & Biles, 2000).

Figure 1: New York City tenement lodgings in 19th century (Rii, 1890)

Public awareness plays an important role in the development of federal-assisted housing, and history has shown that awareness can result in the reform of the existing code and founding of leading organizations. In 1910, the National Housing Association was created with delegates from many cities to help people achieve better living conditions (Bauman & Biles, 2000). As part of Franklin Roosevelt's New Deal, the Public Works Administration (PWA) was a more effective federal organization, helping construct low-income housing and replace slums after 1933. Great progress was made under PWA's effort, resulting in about fifty-two architecturally-cohesive housing projects across the United States. With a permanent housing authority operating beginning in 1937, public housing projects began to increase: 50,000 housing units were constructed in 1939 alone (Keith, 1973), which indicates how strong leadership in the

public housing development could heavily accelerate the process. The later development of HUD (Department of Housing and Urban Development), founded in 1967, also demonstrates the importance of effective leadership in federal-assisted housing communities. With more rapid modern development, more and more low-income citizens began to live in the newly-built housing projects because of the demolishment of poorer urban neighborhoods. The conditions of these projects became thus even worse than the slums they should have replaced (Jacobs, 1961). The demolition of the Pruitt-Igoe housing project (Fig 2) in St. Louis in 1972, signaled the end of the popularity of high-rise buildings that originated from Le Corbusier's "Towers in the Park" in public housing projects (Bauman & Biles, 2000).

Figure 2: High-rise buildings in Pruitt-Igoe housing project (United States Geological Survey)

In order to deal with the emerging problems in federal-assisted housing projects, the Housing Act of 1968, looked for answers in the theory of "Garden Cities," developed by

Ebenezer Howard in the early 1900s. Howard's theory attempted to solve the problems of overcrowding and pollution by creating smaller "garden cities" and lower buildings. After the transition from a cohesive high-rise model to a flattened and flexible one, the federal-assisted housing system has remained relatively unchanged in terms of legislation, administration, and building types. The changes in the federal-assisted housing system were minor throughout the 1980s. In 1992, HOPE VI, a project aimed at replacing poor-quality public housing projects with lower-density developments, appeared. HOPE VI tried to solve the dilemma among poor-quality public housing communities on a fundamental level by providing funding to assist the local communities with demolishing and reconstructing of housing (Erickson, 2009). In addition, HOPE VI put more focus on people-based interventions in the redevelopment of public housing communities—it helps public housing residents increase the chances of owning homes and getting employed (Naparstek & Dooley, 1997). These efforts not only improved the living conditions in the public housing communities but also paid attentions to residents' social lives.

This continuously self-improving history suggests that federal-assisted housing communities are significant components of the housing in America, both from the aspects of basic human living rights and the variety of the culture of communities. Living in an affordable and secure environment is desired by everyone. However, some low-income people have to rely on housing that is made affordable through government assistance. That is one of the realities of living conditions that require the existence of federal-assisted housing communities. Although they usually have a more crowded and less comfortable environment compared to most other communities, the federal-assisted housing communities gradually gain a different self-identity instead of becoming an area of unconsolidated groups of residents. Such communities have various impacts on the surrounding neighborhood (Ellen, 2007). According to Ellen (2007),

replacing the former blighted spaces in most of federal-assisted housing communities could benefit the whole neighborhood and enhance the quality of the whole area, attracting additional investment and increasing the population. On the other hand, Ellen's study also points out that these benefits may only be realized if the communities are controlled under proper size, connected to surrounding areas, well-managed, and occupied by good tenants (Ellen, 2007). Though not all federal-assisted housing communities could meet these requirements immediately, these potential benefits of revitalizing federal-assisted housing communities at least show a possible promising future for those communities faced with problems. Landscape architecture could help in this revitalizing process and benefit the residents directly.

Community identity is a concept that involves knowledge from different disciplines such as planning, social psychology, sociology, political science, and history. Different scholars focus on the different aspects of community identity in forming definitions; for instance, the sociologists care more about how to solve the problem of definition (Gotham 1999). Nevertheless, few studies focus on how to develop community identity through the physical environment of a community. Throughout the long and tortuous development history of the American federal-assisted housing system, scientists from various professions and politicians have revised the policies and rules from a macroscopic perspective; however, the real-life residents who suffer from these shifts also need to receive more attention (Rothman, 1995). While the national policies on public housing communities keep making adjustments, few responses from the microscopic aspects, such as architectural details and landscape improvements, have been made.

2.2 Benefits of an environmentally and socially friendly federal-assisted housing community

The federal-assisted housing projects were not only built to serve as shelters. They also could bring positive effects like increasing the communication, improve residents' health conditions to the people living in them. Research conducted by Takano, Takehito, Keiko Nakamura, and Masafumi Watanabe in 2002 demonstrates that walkable green space can have a strong positive effect on senior people's longevity and life quality (Takano, Takehito, Nakamura, & Watanabe, 2002). A research conducted by Kuo, Sullivan, Coley and Brunson (1998) indicates that high quality greenspace could attract more people to the outdoor environment and provide more chances for communication among the neighborhood. The improvement of these community-based greenspace could benefit the community both physically and socially (Kuo, Sullivan, Coley and Brunson, 1998). In another study completed in England, a higher proportion of green space has been shown to have positive effect on residents' health in general (Mitchell & Popham, 2007). This research also points out another important aspect of low-income housing communities: the higher quantity of green space doesn't necessarily mean better health in such areas. Two possible ways to explain this relationship include the higher rate of health problems in these low-income housing area compared with other richer areas and the fact that poor quality green space in such an area may even have negative effect on residents. These factors bring up two essential issues that planners and landscape architects should take into consideration when introducing green space into federal-assisted housing communities: green spaces can provide more physical activities that could help improve residents' health, but those green spaces need to be of a certain quality.

Regular exercise is a big relief to the most common chronic diseases like heart failure, asthma and so on, which are common in low-income communities such as public housing neighborhoods (Mermin, 2009). High quality green space and public space in these communities are also the places where social communication between people would most likely take place. One of the hindering factors that discourages people from using such public spaces is the disorganized parking space and roads within such communities (Mermin, 2009). Such disorganized traffic is not only a potential danger to the children in the communities, it also disturbs the pedestrian system, which could do good to people's health. The disorganization of roads and parking within these communities is doubly significant because many residents within such communities rely on driving for needs such as grocery shopping. Getting these communities connected to accessible public resources is key to solving such problems.

A community garden is one of the possible choices for combining a physical and visual opportunity to increase green space and providing reliable food resource within the communities. Models in many cities, like Toronto's Alex Wilson community garden, offer successful examples of community garden implementation, which combines gardening, ecological restoration and local food production, in the low-income housing complex (Irvine, Johnson, & Peters, 2007).

2.3 Social Impacts

The scholarly literature concerned with the social impacts of federal-assisted housing projects consists mostly of research conducted by sociologists. This thesis attempts to understand such sociology issues and make responses from the perspective of landscape architecture.

Concentrated poverty is one of the most serious issues for which people think public housing communities, a main type of federal-assisted housing, are associated with (Massey & Kanaiaupuni, 1993). A 1998 study conducted in Columbus, Ohio, pointed out that people who

struggle the most tend to cluster in the local public housing communities (Holloway et al., 1998). However, another nation-wide study questioned the theory that public housing projects have such independent impact on concentrated poverty (Freeman, 2003). Thus, the existence of federal-assisted housing communities is not the only inducement of concentrated poverty, because concentrated poverty is "a complex set of social phenomena" (Crump, 2002). Nevertheless, as an essential component of the local neighborhood, the public housing communities could make positive responses to this problem by setting good examples of improving the neighborhood quality.

Health and safety issues are also focuses in the federal-assisted housing communities. Most residents get financial assistance from the government (Schill, 1993). Residents in these communities have a higher satisfaction with their indoor living conditions, likely because of this financial assistance (Ross, Shlay, & Picon, 2012). However, according to the same research, residents in these communities tend be less satisfied with the neighborhood environment (Ross, Shlay, & Picon, 2012). This result is essential for this thesis, because it puts more urgency on the improvement of the neighborhood environment. Crime, including drug-related crime and shootings, is another major issue that troubles federal-assisted housing communities (Turner et al., 2005). One of the causes of such crime issues is the isolated and closed status of such communities. Dark corners make the crime possible and covert, so one of the strategies that could be used to deal with this situation is connecting these communities back to the greater neighborhood. A more visible and accessible federal-assisted housing community can benefit not only the residents living in it, but the whole neighborhood in which it is located.

2.4 Defensible space

The improvement of the quality of a federal-assisted housing community could include different aspects, including strengthening the connections between the community and the outside environment, introducing more high quality green space, and getting residents involved in the improvement process. Research conducted by Daniel Banks in 2006 suggested a special method: using defensible space to improve the quality of the federal-assisted housing environment (Banks, 2006). Having considered the crime and violence happening in these communities, this research suggested using design to define the community borders and each single building. Private outdoor space is physically separated from the general public space in the community by short fences. However, these private outdoor spaces are still visually connected with each other and with the public space inside the community. In this way, the residents will be able to monitor and have better control over their living environment (Banks, 2006) while still have connections with each other. This strategy has been applied in different federal-assisted housing communities in Charlotte, North Carolina, Greenville, South Carolina, and Norfolk, Virginia (Banks, 2006). While this defensible design method did function well in the prevention of crime in the federal-assisted housing communities, there is an important factor we should be aware of: this method also isolates the federal-assisted housing community from the rest of the neighborhood and reduces the potential connections between residents. Although this thesis tries to make federal-assisted housing communities more connected with the surrounding environment, some ideas in Banks's research such as using defensible space for individual buildings, making the facilities on site more visible and recognizable, encouraging small business around the community, and increasing police presence (Banks, 2006) are all very effective and could be applied in the Bethel community.

2.5 Senses and scale

In design, paying attention to built environment is significant when it comes to the community redevelopment process, because it could determine how residents feel in the outdoor. Jan Gehl emphasized the importance of pedestrianism and the application of the human dimension in city design in his 2010 book, *Cities for People* (Gehl, 2010). His theory tries to build a livable environment based on the respect of humans' demands instead of industry's demands in the city. He pointed out that the disrespect of humans' sense and scale resulted in the chaos in modern cities (Gehl, 2010). As a product of modern society, the environment within federal-assisted housing communities also faces the same dilemma: lack of a pedestrian system, unorganized paths and empty public spaces that are not human-scaled, and usually unwalkable distances from public resources. In order to create a safe and healthy environment in the public housing communities, the advocating of pedestrianism is important. In addition, creating human-scale places within public housing communities could encourage residents to communicate better with each other. Marcus and Francis (1997) suggested introducing social spaces in different sizes into the community to meet different social demands of the residents. Using interpretive instructions prohibitory signs to guide people's activities would also help the community have a sense of welcoming and friendly (Marcus & Francis, 1997).

Thwaites suggested using people's social activities to restore the environment in his 2007 book—*Experiential Landscape: An Approach to People, Place and Space.* His theory points out the importance of people's activities in bring vitality into the outdoor environment. And the "urban restorative" network consists of neighborhood, streets, places, and micro-places (Thwaites, 2007), all of which have different roles in providing connections to people. Micro-places are important to people's outdoor active recreations; places play important roles in

providing local connections between people; street could connect different “places”; neighborhood could cohere all these elements together in a broader scale (Thwaites, 2007). In order to improve both the physical and social conditions of federal-assisted housing communities, efforts should also be made in different scales. Human-scaled micro-places, socially connected places, transitionally-connected streets, and a united neighborhood may be able improve the environment of those federal-assisted housing communities.

2.6 Summary

This chapter has reviewed the development of federal-assisted housing system and the impacts it has on both people and environment. It shows that the public housing community does play an important role in satisfying the living demands of people with low incomes. However, it seems that the outdoor environment of these communities do not receive much attention. Some research has noticed the potential benefits that revitalizing a federal-assisted housing community could bring to the whole neighborhood like more investment (Ellen, 2007), a better neighborhood environment, and closer connections between communities (Kuo, Sullivan, Coley and Brunson, 1998). Possible ideas are also provided to improve the outdoor environment of the federal-assisted housing communities like introducing more greenspace into the community (Mitchell & Popham, 2007). In addition, in order to create a better outdoor environment for a federal-assisted housing, knowledge of human-dimensioned space (Gehl, 2010), “urban restorative” network (Thwaites, 2007) may also need to be brought into consideration.

The next chapter will explore several cases to better understand how to create a better future for Bethel Village.

CHAPTER 3

CASE STUDIES

The previous chapter provided an understanding of the major issues in federal-assisted housing community redevelopment. This chapter will analyze three different low income housing redevelopment cases, including two public housing community projects, to better comprehend how to make a successful outdoor environment for a federal-assisted housing community.

These three low income housing community projects tried to create better low-income communities through different strategies in accordance with different site conditions. The Burlingame Affordable Housing (Phase I) located in Aspen, Colorado is a totally new affordable housing community that was built based on the respect of the natural environment, as well as residents' physical and social lives. Hunters View Public Housing located in San Francisco, California is a successfully redeveloped public housing community that totally demolished former housing on site. West Addition public housing communities in San Francisco, California used a method called *remodeling renewal* to revitalize public housing communities based on the maximum respect for the existing conditions on site. These three projects provide useful information for redeveloping the outdoor environment of federal-housing communities through three different strategies.

3.1 Creating a new neighborhood

Burlingame Affordable Housing (Phase I)

Location: Aspen, Colorado

Site Size: 31 acres

Open Time: 2008

Units: 107

Designer: DHM Design

Status: Built

The first project this chapter discusses is a newly built affordable housing community that shares the same purpose with federal-housing projects: they are both built to help ease the burden of housing cost for low income families. Burlingame Affordable Housing (Phase I) was designed (Fig 3) and built based on considerations for residents and future development (DHM Design, 2005). It responded to the natural environment and residents' physical and social lives, which makes it instructive for public housing redevelopment projects as well.

Figure 3: Master plan of Burlingame Affordable Housing (Phase I) (DHM Design)

3.1.1 Site background

Located in a ranch area in Aspen, Colorado, the 31-acre site is surrounded by Buttermilk Mountain, which gives the community a great view and a special identity. The topic of developing a healthy community was not a new idea for the developers of Burlingame Affordable Housing, but the real situation of this site challenged the application of such precepts: the site was far away from an urban area, the government excluded any commercial activities in this area, and the site had a significant grade change (DHM Design, 2005). Beginning with an empty site, the DHM design team had a very good opportunity to develop an affordable housing community that could benefit the current residents and future generations physically, socially, economically and ecologically.

3.1.2 Design solutions

In accordance with the requirements from the city government, designers from DHM decided to create a cost-effective affordable housing community with interesting aesthetic value, convenient public transportation and a sense of community through six aspects: landform, neighborhoods, transit, public space, drainage and community (DHM Design, 2005).

3.1.2.1 Land form

The sloping topography and history of ranching activities on site were two main factors that designers hoped to take advantage of in the final master plan. Buildings, traffic systems and drainage systems were all arranged based on the topography on site (Fig 4), and this minimized the cut and fill. The existing landscape, which largely consisted of native grass, was kept for a distinctive community environment.

Figure 4: Burlingame Affordable Housing community surrounded by mountains (DHM Design)

3.1.2.2 Public transit and space

The proposed master plan from DHM tried to encourage communication between people by providing a properly-set public space and public transportation system. Public space in various sizes, from a large center gathering space (Fig 5) to intimate spaces in front of individual buildings, provided residents with different opportunities to communicate with each other. Another efficient strategy applied was arranging convenient access to public transportation in the community. The proposed plan provided 8 transit stops in the community. This ease of access not only encouraged residents to use public transportation and walk more, but also increased the chances of communication between people. Designers also hoped to make these stops neighborhood centers by providing amenities like mailboxes, newspaper stands and recycling receptacles (DHM Design, 2005).

Figure 5: Vision for a lively community environment

(Source: Image from http://www.burlingamepresales.com/)

3.1.2.3 Sense of community

A physical environment with a strong identity, social communication between residents, and human-scaled facilities (Fig 6), including buildings and open spaces, all added to the quality of this newly-built affordable housing community. The encouragement to use public space and public transportation, along with the special character of the community itself, improved the sense of community in this affordable housing project.

Figure 6: Public space between different units in side Burlingame Affordable Housing Community (DHM Design)

3.2 Updating the whole site for a better function

Hunters View Public Housing Neighborhood Redevelopment

Location: San Francisco, CA

Site Size: 22 acres

Open Time: 1956

Redevelopment time: 2005-2015

Units Before: 267

Units After Redevelopment: 107

Designer: GLS Landscape / Architecture and Daniel Solomon Design Partners, San Francisco

Status: Built

Located in the southeastern corner of San Francisco, the Hunters View Public Housing Community (Fig 7) was once regarded as the worst community in this city (GLS Landscape Architecture & Daniel Solomon Design Partners, 2011). Since the start of Hunters View Public Housing Neighborhood Redevelopment, this area, and especially this public housing community, has gained a positive reputation that it never had before (GLS Landscape Architecture & Daniel Solomon Design Partners, 2011).

Figure 7: Master plans of Hunters View Public Housing before and after redevelopment

(Source: Image from http://www.devinegong.com)

3.2.1 Problems on site

Transformed from former temporary living facilities for the workers of Hunters Point Naval Shipyard during the World War II, Hunters View Public Housing has been on the hillside since 1956. When the redevelopment started in 2005, it had been almost 60 years since the housing units were first built in this area and almost 50 years since it first served as a public housing community. Poor conditions of the buildings, infrastructure system, and transportation system, together with safety issues, had resulted in the abandonment of almost 40 percent of the units (PD&R Edge, 2015), which meant only about 150 households lived in the community. Lack of proper maintenance left the residents in this community living in a sub-standard environment

(Hunters View Associates, LP, 2014). Converted from a temporary housing facility for the war efforts to a public housing community for low-income residents in the city, the Hunters View Public Housing community was not put in the right place for a residential area at the beginning (GLS Landscape Architecture, 2011). Incautious design without considering what makes a successful community also aggravated the situation. The challenges in the community included the following issues: deteriorating buildings, inefficient infrastructure system, steepness in the whole community area, disconnection from the public transportation system, social isolation from the surrounding environment, and poor access to the community.

3.2.1.1 Deteriorating buildings

Figure 8: Poorly maintained conditions of a unit in Hunters View Public Housing (Atkins)

Deteriorating buildings (Fig 8) were one of the most serious problems in the Hunters View public housing community. These poor building conditions of the buildings were caused by two

main factors: the age of the buildings and poor maintenance. The redevelopment plan tore these old buildings down and rebuilt new ones.

3.2.1.2 Inefficient infrastructure system

Infrastructure system is another important issue that is fundamental in public housing communities. Both physical and social infrastructure should be given to residents along with housing (Hingoran & Tiwari, 2012) including electrical grids, water supply, roads, and sewer. However, even such basic infrastructure did not operate well in Hunters View Public Housing Community (Fig 9). The transformation in the 1950s did not follow the design principles that make this city special. For example, roads were designed just to follow the contours, which made the community disconnected to the surrounding environment and public transportation. Furthermore, the sewer system didn't function very well (GLS Landscape Architecture, 2011).

Figure 9: Poorly maintained infrastructure in Hunters View Public Housing (Atkins)

3.2.1.3 Steepness in the whole community area

Located on a hillside on San Francisco's bay area, Hunters View has a great view of the skyline and shoreline (HOPE SF, 2013). But instead of bringing the advantages of that situation for a livable environment for the residents, such steep inclines seemed to be negative factors that restricted people's activities. Looking for a way in which the big slopes could play a positive role in stimulating people's outdoor activities is a challenge.

3.2.1.4 Physically and socially isolated from the broader neighborhood

The isolated situation of Hunters View Public Housing reduced the contact between residents and the surrounding neighborhoods both physically and socially. A poor public transportation system (HOPE SF, 2013) made the community inconvenient for residents' daily lives, and the lack of safe public space reduced the communication between the public housing community and the surrounding environment (HOPE SF, 2013).

3.2.2 Redevelopment Process

In order to save this important public housing community, which has a long history in San Francisco, and help the low-income residents in it to improve their quality of life, the city government selected Hunters View to be undertaken by the HOPE SF program, which aims to improve the qualities of HOPE VI projects city wide (Hunters View Associates, LP, 2014). GLS Landscape Architecture and Daniel Solomon Design Partners were chosen to lead the design process. The whole design process was long and complex, and many people and different programs were involved, but due to space restrictions this thesis will direct its attention to two issues: the strategies applied to guide the redevelopment and the design itself, especially the design of the outdoor environment.

3.2.2.1 Strategies

Developers used three basic strategies in this redevelopment project: getting current residents involved during the whole process, physically replacing the whole community, and socially reconnecting the community to the broader neighborhood. These strategies responded to the aspects of physical, social and community involvement levels, which aimed to solve the problems inside Hunters View in a stratified way.

Because of the huge cost of repairing the existing structures on site (Hunters View Associates, LP, 2014), the developers decided to tear all the buildings on site down and rebuild the living facilities with a much more organized infrastructure. This strategy is not very common in the public housing community redevelopment projects because of the huge cost: 450 million dollars would be spent in total on Hunters View Public Housing project (Hunters View Associates, LP, 2014). Funding was raised from various individuals and organizations of different levels.

Based on the idea of reconnecting the public housing community to the surrounding environment, developers planned to redesign the existing road grids and add more entrances to the site (GLS Landscape Architecture & Daniel Solomon Design Partners, 2011). The area in which Hunters View was located not only had great views of San Francisco's beautiful shoreline, but also was just a short distance from a commercial corridor and a rail line (GLS Landscape Architecture & Daniel Solomon Design Partners, 2011). Added access to the public transportation system would allow residents to benefit from such great public resources. Green space is another important element in improving the living condition and social lives in Hunters View Public Housing redevelopment, and two new parks on the hill and a football stadium,

together with a lot of green space inside the community, were added to improve the social environment.

Considering the needs of current residents and getting the public involved were essential for such public housing redevelopments. Hunters View project took several approaches to ensure minimum interruption of residents' daily lives on site. The project divided the whole process into phases to make sure that residents would have a place to stay when the project is undergoing. They tried to ensure the original residents would have priority to live in the newly built community. Finally, the project provided employment opportunities for the residents (Hunters View Associates, LP, 2014).

3.2.2.2 Environment Design

The redesign of Hunters View Public Housing Community involved many professions including landscape architecture, architecture, and civil engineering. This case study focuses on the design of the outdoor environment.

Figure 10: Hunters View site plan (Image from http://huntersview.info/)

The final design (Fig 10) tried to make the new community a typical “San Francisco Neighborhood” design, which includes elements like grid streets, view corridors consisting of streets and stairs, and hilltop parks (Hunters View Community Partners, 2008). Such local characteristics could help in developing the community’s cultural identity.

This redevelopment plan proposed more connections (Fig 11) to the surrounding environment: potential accesses to the commercial areas, schools, and green space were all included in the final plan. In addition more accesses from the community to the public transportation systems including a light rail line and 3 bus routes are added.

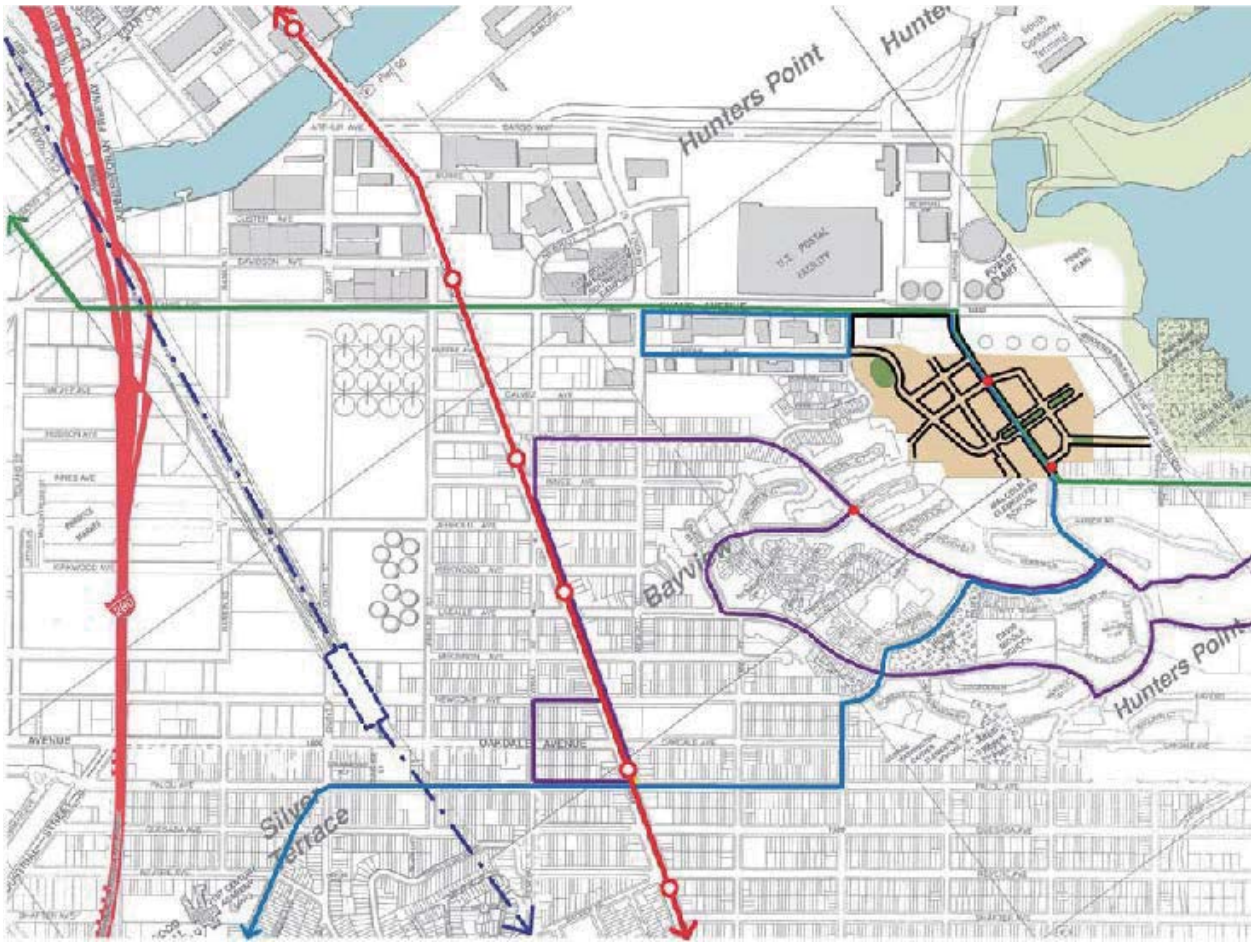

Figure 11: Accesses to the transit systems for Hunters View (Hunters View Community Partners)

In order to solve the problem of the big slope inside the community, the design team suggested using stairs and terraced space (Fig 12) to create an environment that would be convenient for pedestrians and creative for green space users.

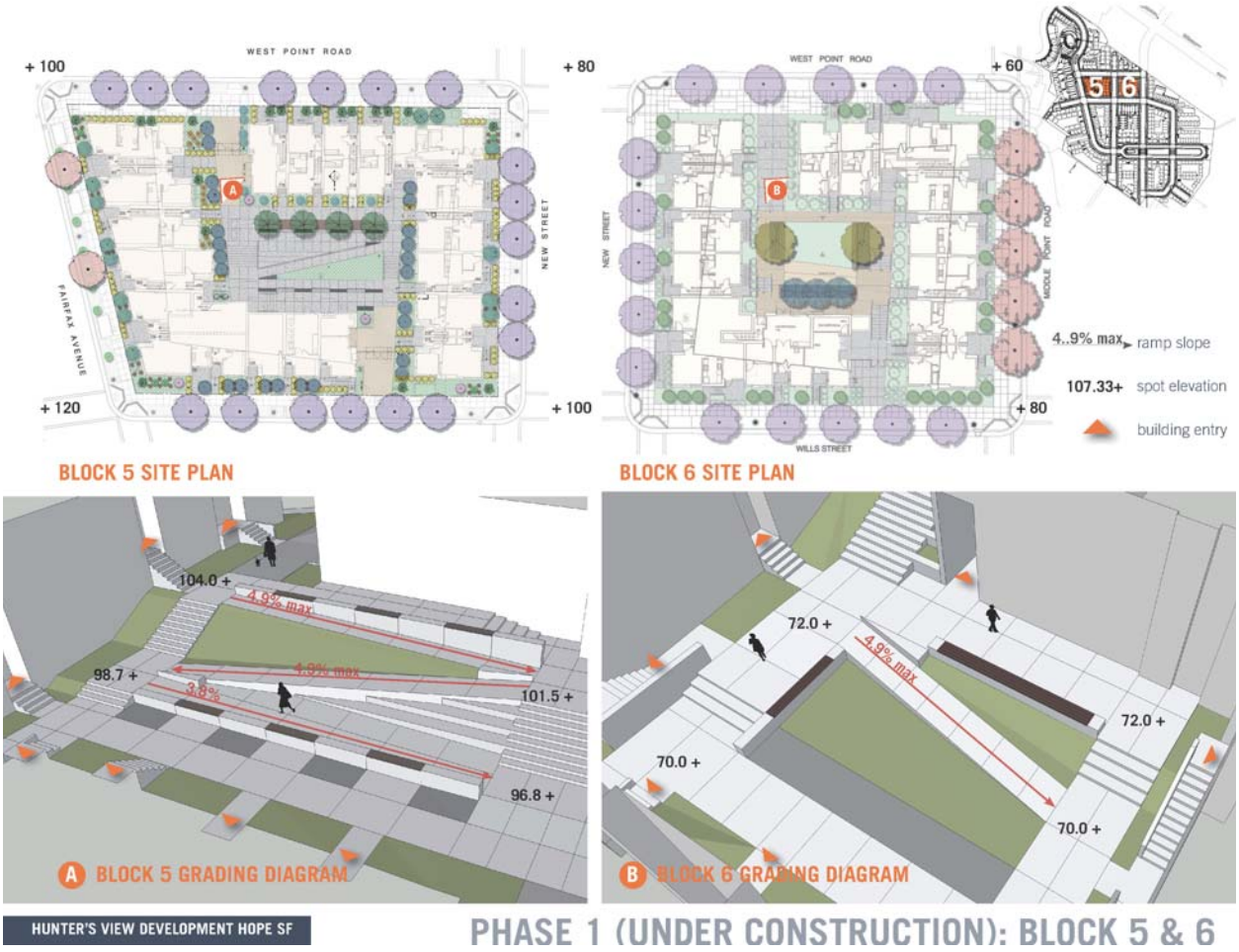

Figure 12: Use of stairs in two blocks inside Hunters View (GLS Landscape Architecture)

3.3 Remodeling renewal

Remodeling renewal—Revitalization of public housing communities in Western Addition

Location: San Francisco, CA

Site Size: 8 blocks

Project time: 2007

Designer: Leslie Webster

Status: Not built

3.3.1 Projects background:

This project developed a theoretical method, remodeling renewal, and applied it to the revitalization of a public housing community named Western Addition in San Francisco. Webster, the designer of the site authored a theory that included a series of principles that could be applied to rehabilitate those public housing communities in the Western Addition area of San Francisco (Webster, 2007). These strategies were made based on the unique characteristics these local communities shared and problems they all faced.

Webster came up the concept of *remodeling renewal* to improve the physical conditions of communities while minimizing the interference with people's lives on the site (Webster, 2007). This theory asserts that urban renewal should be sensitive to the needs of the existing communities. Because the buildings or city patterns that were believed outdated were actually homes, communities and neighborhoods to the people living there, changes should be made based on the existing structures instead of tearing them down (Webster, 2007).

The former type of urban renewal removed the whole community that was believed "outdated" and rebuilt according to the latest trend, which would be considered outdated in another several decades. In the public housing communities in Western Addition: former urban renewal had made those areas concentrations of low income residents and poorly maintained facilities, but they were going to go through the process again. Based on such conditions, Webster developed a method in which the improvement would take place without tearing old structures down.

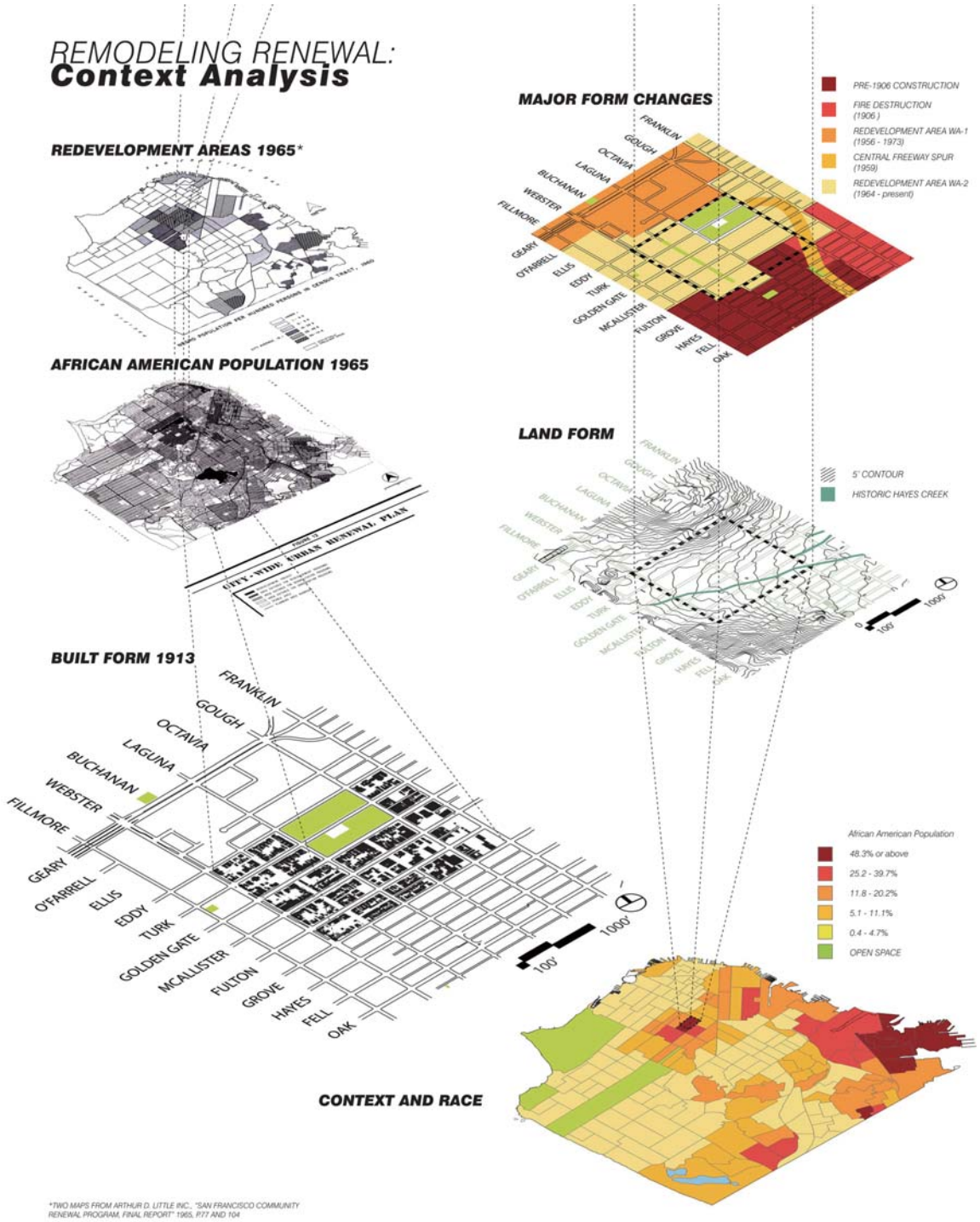

Figure 13: Site history analysis (Webster)

3.3.2 Redevelopment principles

Webster suggested seven principles to guide the redevelopment process:

1. Breaking the institutional neighborhoods into a more human scale;

2. Clearly defining a transitional zone between public and private space;

3. Securing the neighborhood environment;

4. Increasing building density based on respect of existing structures;

5. Documenting the land use development history;

6. Addressing the importance of public space;

7. Minimizing the interference with current residents' lives (Webster, 2007).

These principles addressed the importance of preserving the history (Fig 13) and current people's lives on site. By suggesting that the existing buildings on site not be simply torn down, these guiding principles put a focus on adding and activating public space. Furthermore, Webster's proposal responded to the possibility of future developments by emphasizing the significance of documenting the development history. Such history would play an important role in keeping the character of these communities in future development.

3.3.3 Design process

The design response made by Webster tried to solve the problem in the Western Addition public housing communities on two scales: the neighborhood scale and the site scale, which is also the social scale (Webster, 2007). An urban design for all eight blocks and a site plan for one of them were provided to better explain the principles mentioned above.

The bigger plan for all the eight blocks (Fig 14) in Western Addition included improving the pedestrian system, managing stormwater, increasing the green space, and narrowing wide

traffic street for sidewalks (Webster, 2007). A solid infrastructure system and pedestrian priorities were addressed in this plan for Western Addition.

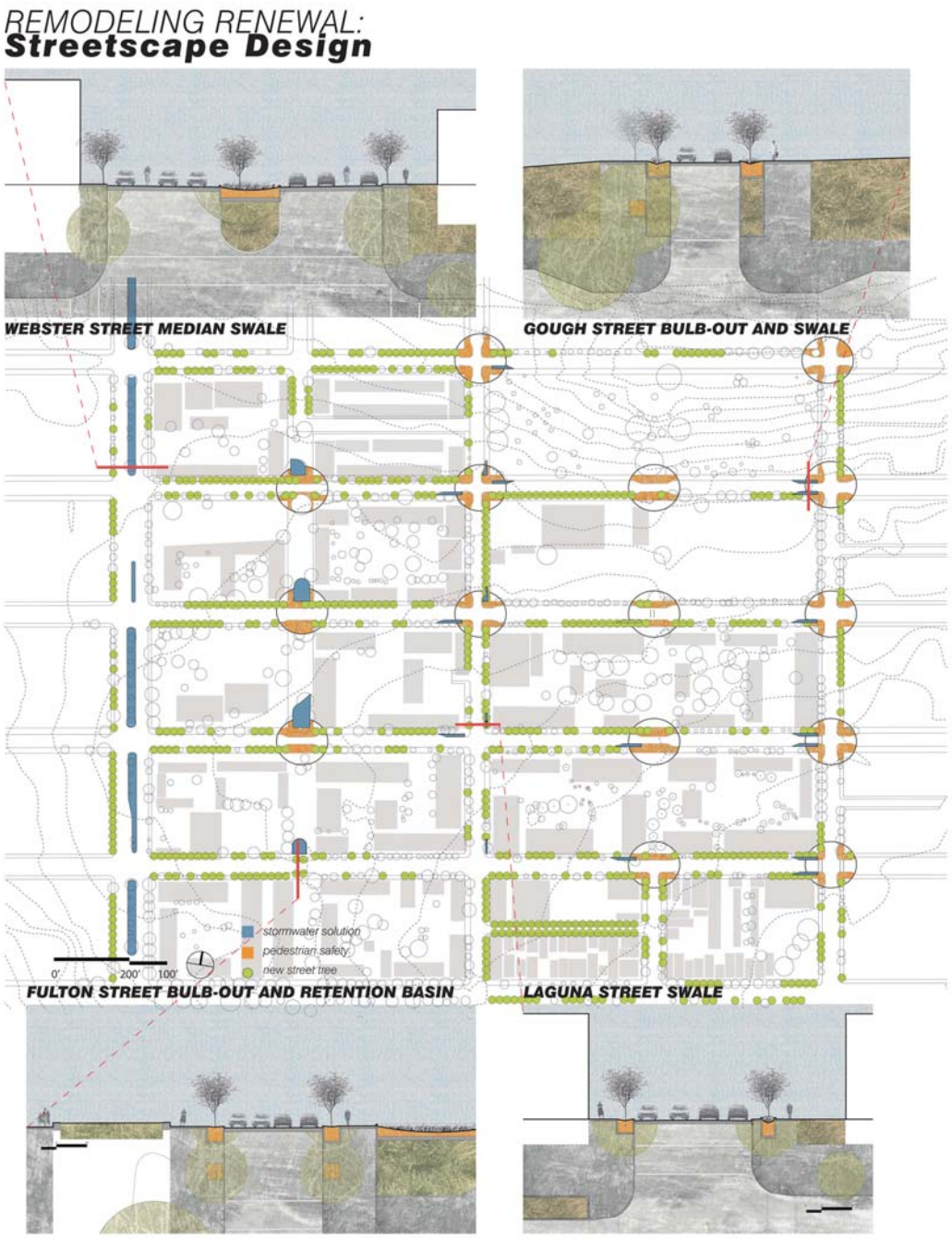

Figure 14: Street Plan for all the eight blocks in Western Addition (Webster)

The more detailed site plan for one block (Fig 15) gave some more detailed and operable approaches on the single-community scale. These approaches included adding facilities to identify private space, using parallel parking, making the block open to the surrounding neighborhood, repairing the community center, introducing commercial activities, and softening the visual impact of the gate (Webster, 2007).

Figure 15: A detailed site plan for one site (Webster)

This development plan aimed to inform people involved in development and encourage them to respect the fact that these communities, even though in bad physical condition, were home to current residents and had the same value of any other communities in this country. Only with real respect and understanding of the history, current conditions, and people's demands could designers and planners design places for them.

3.4 Conclusion from case studies

3.4.1 Lessons learned cases

The projects in this chapter introduced three different directions for improving the environment of public housing communities based on different existing conditions. The Burlingame affordable housing community was a totally new project, which makes it an ideal example of creating a healthy community from the beginning. The Hunters View public housing community redevelopment decided to rebuild a new community with healthy infrastructure systems and new connections to the surrounding neighborhood. The redevelopment plan for Western Addition valued the significance of the existing structures and history on site, thus suggesting a redevelopment plan that would minimize the interference with residents' lives on site.

3.4.2 Comparison

These three cases used three different strategies to build better low-income communities based on different existing conditions. It would be the best if the correct development strategies could be made at the beginning of building a community. Respect of the natural environment, easy accesses to the public transit, and multiple social spaces are primary considerations. However, many federal-assisted housing communities were not built based on these principles. Thus, redevelopment strategies can be divided into two types, like those applied in Hunters View:

redeveloping the community thoroughly and those like Western Addition: redeveloping the community with a maximum respect for the existing conditions. Redeveloping the whole site thoroughly could better transform the community into a more positive, livable place. However, it could also demolish the unique character of these communities as mentioned in Chapter 2. Thus, the redevelopment process in West Addition would be the most suitable to these federal-assisted housing projects where housing is still in good condition, because it helps the communities improve the environment while protecting this valuable living typology.

These three cases differ from each other in size, location and redevelopment strategy, however they all address the following issues to create a healthy public housing community:

1. emphasizing the connections with the surrounding environment

2. improving the physical environment inside the community based on the respect of history and people's lives on site.

Detailed strategies might vary between different projects, but these two aspects together contributed to a better public housing community in all sites. Therefore these efforts can also be instructive for the redevelopment plan for Bethel Village public housing community.

Although Bethel community is a very different context because it is currently home to many low-income residents in downtown Athens, some general strategies are still useful. However, a careful redevelopment plan according to the current conditions and with minimum interference of people's lives should be developed and implemented.

In order to achieve such a plan, Chapter 4 will conclude design approaches for the improvement of connections between federal-assisted housing communities and surrounding environment, and outdoor environment inside these communities based on Chapter 2 and Chapter 3. Chapter 5 will apply these design approaches into the redesign of the connections

between Bethel community and the surrounding environment. Lastly, Chapter 6 will suggest design solutions to the outdoor environment inside the Bethel community.

CHAPTER 4

DESIGN APPROACHES

Based on the conclusions from Chapter 2 and the successful experience of several low income housing community redevelopment projects in Chapter 3, this chapter will suggest design approaches for revitalizing the outdoor environment of a federal-assisted housing community. The design approaches will be provided for improving connections between the federal-assisted housing community and the surrounding environment; and for enhancing the outdoor environment inside the community.

However, it is also important to notice that, located in the Athens downtown area, Bethel Midtown Village has a different context compared with the selected communities in Chapter 3: it is not a totally new site as Burlingame is; it does not have as many choices as Hunters View has for transportation; and it does not have many similar communities around it as West Addition has. So, not all of the useful strategies applied in those three communities would be useful in the Bethel community.

4.1 Design approaches for improving the connections between the community and the surrounding neighborhood

4.1.1 Useful ideas from literature review and case studies

Covering more than 4.8 million households (HUD, 2015), federal-assisted communities need to offer the same access to public resources, such as public transportation systems and public spaces that other communities have. In addition, improvement of the conditions of federal-assisted housing communities could benefit the surrounding neighborhoods, including

attracting more investment and increasing the population (Ellen, 2007). These factors indicate that both federal-assisted housing communities and the surrounding neighborhoods could benefit from stronger connections between them. In addition, according to Thwaites "socially restorative environment" theory (2007), it is important to address the connections between communities to create a cohesive neighborhood.

The selected cases discussed in Chapter 3 chose three different models to redevelop low-income communities: Burlingame Affordable Housing, Hunters View Public Housing, and West Addition Public Housing. However, they all used corresponding strategies to strengthen the connections between the low income communities and the surrounding environment. The Burlingame community used accessible and shared public space and public transportation to encourage communication among residents. The public spaces and convenient bus stops not only increase communication among people but also encourage people to walk more. The Hunter View community improved the road grid and added more entrances to reconnect the community to the broader neighborhood. More access to public transportation also reversed the isolated situation of the community. The West Addition community encouraged more communication among people through the improvement of pedestrian systems.

4.1.2 Design approaches

Based on the conclusions from Chapter 2 and Chapter 3, an improvement in the connections between the communities and the surrounding environment could benefit residents in both the low-income communities and those outside of them. Design approaches to improve connections could be implemented as follows:

1. Analyze the transportation systems that connect federal-assisted housing communities and surrounding neighborhood;

2. Improve each transportation system with a focus on providing more access to both federal-assisted housing communities and the surrounding neighborhoods;

3. Integrating different transportation systems for a complete transportation system both for federal-assisted housing communities and the surrounding neighborhoods.

4.2 Design approaches for enhancing the physical environment inside the community

4.2.1 Useful ideas from literature review and case studies

While the residents of federal-assisted housing communities tend to have a high level of satisfaction with their indoor living conditions because they are receiving financial assistance from the government (Schill, 1993), they seem to be less satisfied with the outdoor environment of the communities (Ross, Shlay, & Picon, 2012). A lack of high-quality public space and disorganized transportation systems decrease the communication that happens in the community (Mermin, 2009). Providing more high-quality green space in federal-assisted housing communities could have positive effects on residents' health (Mitchell & Popham, 2007) and increase social communication among people. Social spaces in different sizes like big "places" and small "micro-places" (Thwaites, 2007) are both needed inside the community to provide public space for the whole community and relative private space for individual buildings.

The three cases discussed in Chapter 3 all paid great attention to the improvement of the physical environment of low-income communities. The Burlingame community used multifunctional social space and human-scaled buildings and green space to create a sense of community for the residents. The Hunters View community improved the infrastructure, such as the electrical grid, roads, and sewers and created more social space according to the topography. The Western Addition community also used various public spaces to improve the physical

environment of the community. In addition, it addressed the importance of a transitional zone between public and private spaces (Webster, 2007).

4.2.1 Design approaches

According to the studies cited in Chapter 2 and selected cases in Chapter 3, creating high-quality public space is an important aspect of the improvement of the physical environment of the community. Design approaches for enhancing the physical environment of federal-assisted housing communities could be implemented as follows:

1. Analyze the outdoor environment of federal assisted housing communities to identify the problems of social space and pedestrian system;

2. Create public spaces in different sizes for the community;

3. Improve the pedestrian system in the community and connect different public spaces together.

Based on the design approaches provided above, the next two chapters will analyze the challenges of the connections between Bethel community (Bethel Midtown Village) and the surrounding neighborhood, and the outdoor environment inside Bethel community. These two chapters will also provide concrete strategies and design applications for the community.

CHAPTER 5

CREATING AN ACCESSIBLE COMMUNITY—CHALLENGES ANALYSIS, REVITALIZING STRATEGIES, AND DESIGN APPLICATION FOR THE CONNECTIONS BETWEEN BETHEL COMMUNITY AND SURROUNDING NEIGHBORHOOD

Built in 1975, the Bethel Midtown Village (Fig 16) has been sitting at the north of Athens downtown for almost 40 years, but its current blighted situation was not an issue when this community was first established. These “shotgun”-style apartments were proposed to replace a neighborhood for working-class African-Americans that was torn down in the late 1960s. It was one of best living choices for African-Americans during that time, because it had amenities such as air conditioning and indoor plumbing that little housing for African-Americans had at that time (Aued, 2013).

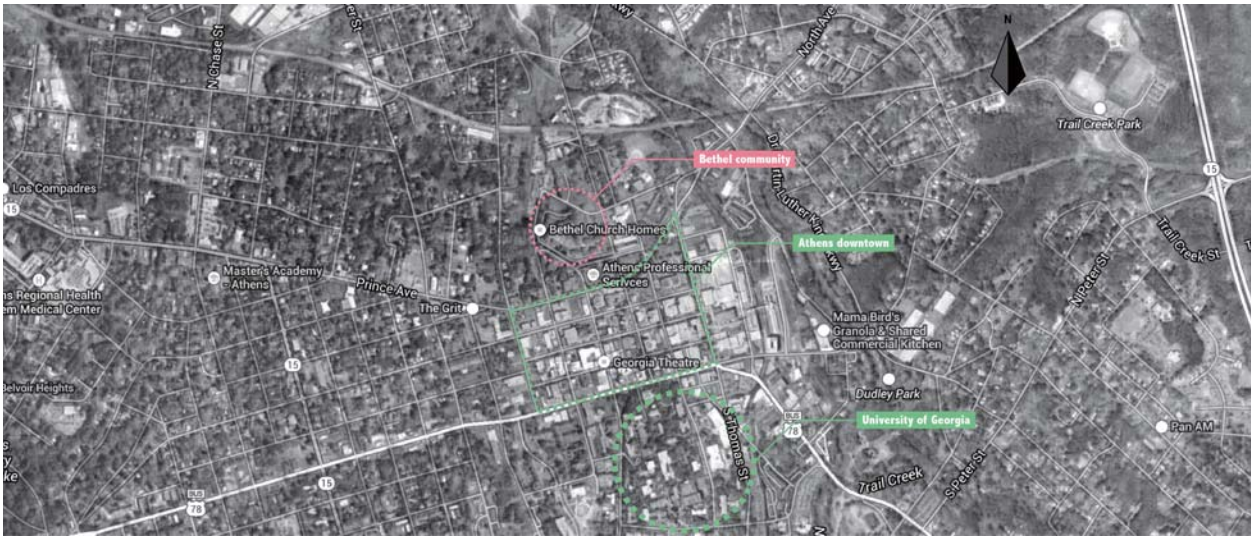

Figure 16: Location of Bethel Midtown Village in Athens

The Bethel Midtown Village was designed and built with the ambition of providing quality living environments to African-American people. However, such an ambitious project began to become outdated when the downtown area where it was located and the city started to grow in recent decades.

Based on the factors that contribute to a healthy community discussed in Chapter 2 and Chapter 3, and design approach for these issues in Chapter 4, Chapter 5 will analyze challenges of the connections between Bethel community and the surrounding neighborhood, and provide strategies and concrete design solutions to them.

The challenges that the Bethel Village is faced with cannot simply be solved by environmental improvements. Unequally-distributed public resources, incomplete pedestrian and bicycle systems, and disconnected neighborhoods all aggravate the situation of the federal-assisted housing community. This thesis aims to not only improve the inner physical environment of the community but also change the isolated situation of Bethel Village by strengthening its connections with the surrounding neighborhood.

5.1 Challenges of the connections between Bethel community and surrounding environment

The isolated situation of Bethel Village was caused by many factors, including a broken road system, few transportation choices, and fenced environment. This section will analyze the challenges of the historical development of connections between Bethel community and the surrounding neighborhood, as well as transportation systems including bus and pedestrian systems around Bethel community.

5.1.1 Historic development of the connections between Bethel community and the surrounding neighborhood

Understanding the historical development process plays an important role in preserving the current community as a significant part of living typologies and housing affordabilities in downtown. This section will analyze the historical changes of the city fabric around the site and the broader neighborhood to identify the most valuable elements during the development.

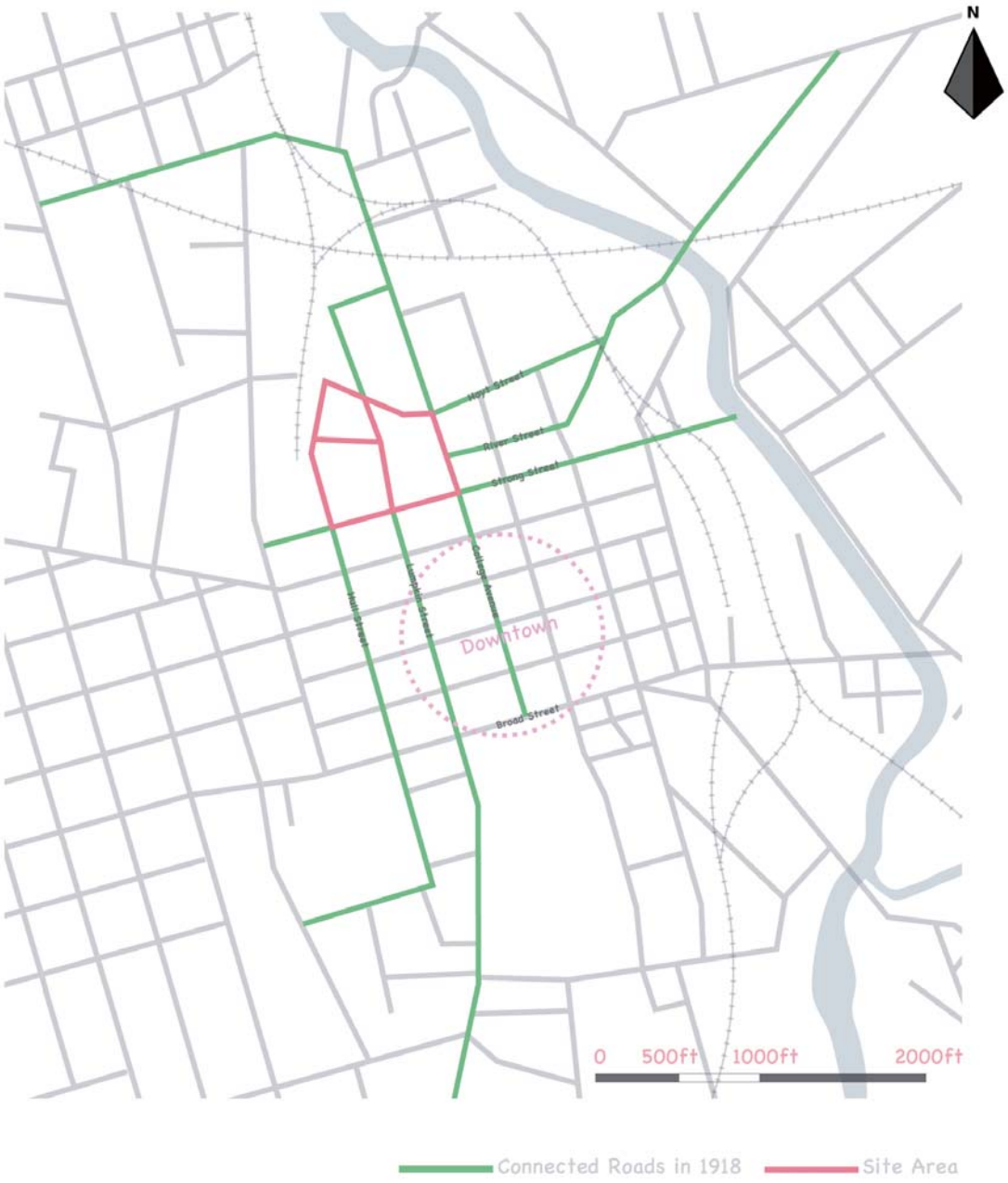

Figure 17: Road systems around Bethel Village site in 1918

A 1918 map (Fig 17) of the Athens downtown area shows that the site used to have convenient access to the surrounding environment. Such accessibility made it a good choice for the site of workers' housing. Moreover, the site was strongly connected to the downtown area by Hull Street, Lumpkin Street and College Avenue, which are all still thriving currently. Such easy

connections to the most flourishing area in the city—its downtown area—ensured the site advantages for living, getting food, accessing green space, and getting to places of employment, especially when automobile use was not widespread. The site area was located at the north of downtown Athens, and was closely connected with the downtown area. These roads also connected the site to the University of Georgia several blocks away.

A detailed map (Fig 18) better explains site's immediate the surrounding environment in 1918. The old building patterns and road systems were quite similar to the neighborhood. Public facilities like churches, public school and a passenger depot were well connected the site. All these factors made the site well connected with the broader neighborhood.

Figure 18: Surrounding neighborhood of Bethel community in 1918

The 1930 map (Fig 19) demonstrates that development was continuing in this area. Several added roads strengthened the connections between the site and surrounding environment. The site began to have stronger connections with the northwestern area. Located at the north edge of Athens downtown area, the site area played the role of connector between the northwestern area and downtown, and it spread the influence of downtown to a farther area. Such connections also enlarged the interactions between the site and the neighborhood, which had a positive effect on the site's safety.

Figure 19: Road systems around Bethel Village site in 1930

Healthy relationships with the surrounding environment once made the site promising, but the housing complexes for the workers built in 1970s cut these connections: Hoyt Street was disconnected from Pulaski Street, Lumpkin Street, College Avenue were disconnected from the roads in the north (Fig 20).

Figure 20: Disconnected roads around Bethel Village site

The community was put in a promising area with potential to develop, however the disconnections from the surrounding environment made it isolated now. A closed community might help strengthen the community's safety by keeping outsiders out, but such disconnections from the neighborhood both physically and socially isolate Bethel community from the surrounding neighborhood. It is important to improve the safety of the community, but it should

communicate more and interact more with the surrounding environment like the site previously did in its history.

5.1.2 Surrounding neighborhoods

Located in a district with a long history, Bethel Village community is surrounded by several historic districts. These historic districts gave unique character to the downtown area. Lessons learnt form Hunters View community indicates that stronger connections between the site and these historic districts could not only make the community more connected with the surrounding neighborhood, but also help the community develop its own sense of special character based on this cultural background.

Surrounding neighborhoods have organized different community associations, such as the Chamberlin Association and the Cobbham Neighborhood Association. Such neighborhood associations could help in improving the community environment and continuously enhancing the improvement process. With an active neighborhood association, the Bethel community could increase its interactions with other community associations for a better understanding of each other. The Bethel Stakeholder Committee, which consists of residents, property mangers, and a group of people who care about the community's future, has been making consistent effort to make this community better. The future development process could also seek for cooperation with them.

5.1.3 Bus routes and stops

There are seven bus routes running near the community, but only the Route 8 is convenient to the community (Fig 21). Within a ¼- mile or 400-meter radius, which is the most suitable distance for walking to bus stops (Walker, 2011), there are only stops for Route 5,7,8, and most of them are located far away from the main entrance of the community. Another challenge is that

the community has access to the bus routes running across the city from the west to the east, but it has few connections to the transit system connecting the north and south parts of the city. Because the downtown area and UGA are both located to the south of the community, more connections in this direction could make it possible for the community to benefit from such resources. Furthermore, bus routes running from the north to the south could help in connecting the north parts to the south and spreading the energy of the downtown area to Bethel Village.

Figure 21: Bus routes around Bethel community

5.1.4 Pedestrian and bicycle systems

Pedestrian and bicycle systems play important roles in public housing communities not only because of the health benefits they could bring to the residents, but also because they could increase the connections between Bethel community and the surrounding neighborhood. There are green spaces and greenways around the community, such as Lay Park and North Oconee River Greenway; however, limited and incomplete systems make it difficult for the residents to benefit from them. Well-organized bicycle systems could not only provide recreational activities to the residents but also give them more transportation choices. As they currently operate, the discontinuous bicycle routes (Fig 22) around the site make even short trips difficult and unsafe.

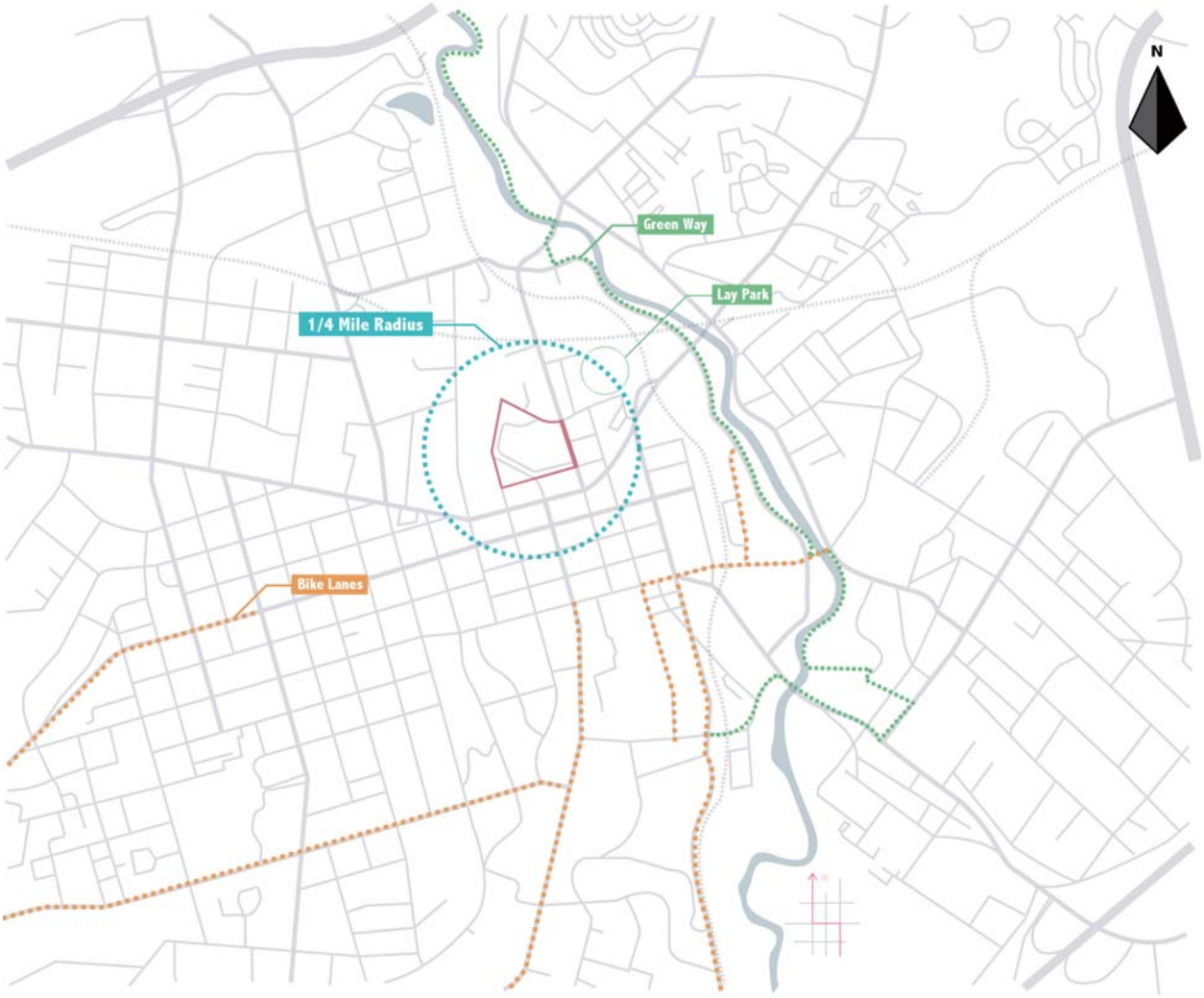

Figure 22: Bicycle routes around Bethel Midtown Village

(Information from Bike Athens)

From the aspect of transportation system, the site is not well connected with the surrounding neighborhood. The existing or potential transportation choices, such as public transit, walking, and bicycling, do not cooperate with each other very well. An individual solution for each system is necessary, but an integrative method is needed to establish a multi-choice transportation system for the community.

5.2 Strategies for improving the connections between the community and surrounding neighborhood

Strategies for the improvement of connections between Bethel community and the surrounding neighborhoods will focus on adjusting and integrating the transportation systems and strengthening the connections between neighborhoods and the spaces with high aesthetic values, like green space and historic districts.

5.2.1 Integrating different traffic options for a synthetic transportation system

5.2.1.1 Improving individual transportation systems

The first step of integrating the transportation should be improving each individual system. Bus routes running across the area in the north/south direction need to be added. Bus stops could play important roles in providing social space for residents from different communities. Thus, the location of bus stops should be moved to an area that is convenient to both residents and people from the surrounding neighborhood.

The improvement of the pedestrian and bicycle systems could reconnect different routes and adding more access to them from different neighborhoods. Although the current systems are not complete around the community, there are several roads with moderate or light traffic (Fig 23) around the site that have the potential to help reconnect the bicycle and pedestrian systems.

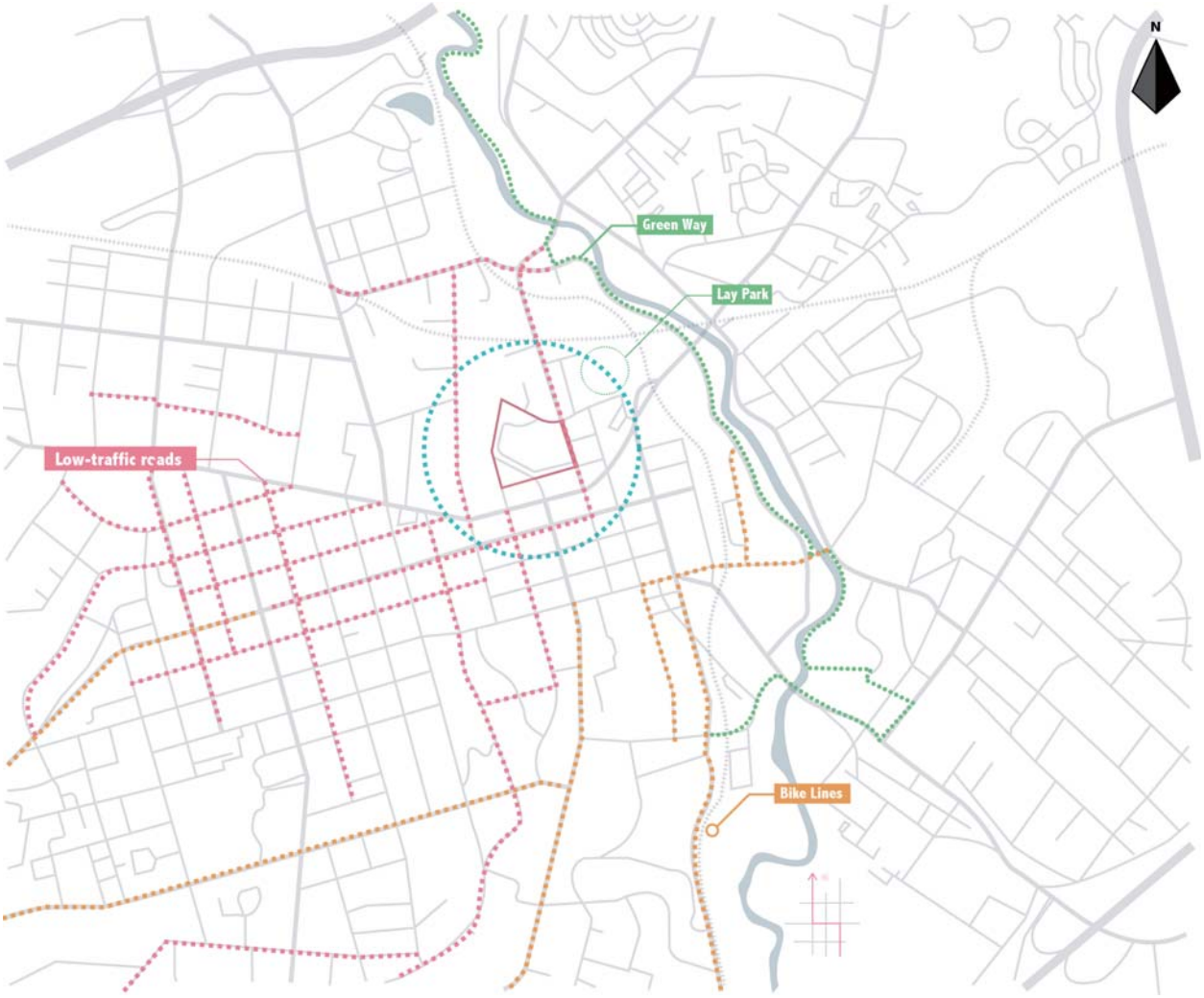

Figure 23: Bike lanes and low-traffic roads around the community

5.2.1.2 Combination of different transportation

Another important strategy for improving transportation is strengthening the connections between different transportation methods. More convenient transitions between public transportation systems could greatly encourage people's use of these systems and improve their efficiency. A micro-place that could provide different functions like sitting and bike-storage for pedestrians, bicyclists, and people waiting for buses (Fig 24) could be added to where different transportation systems meet.

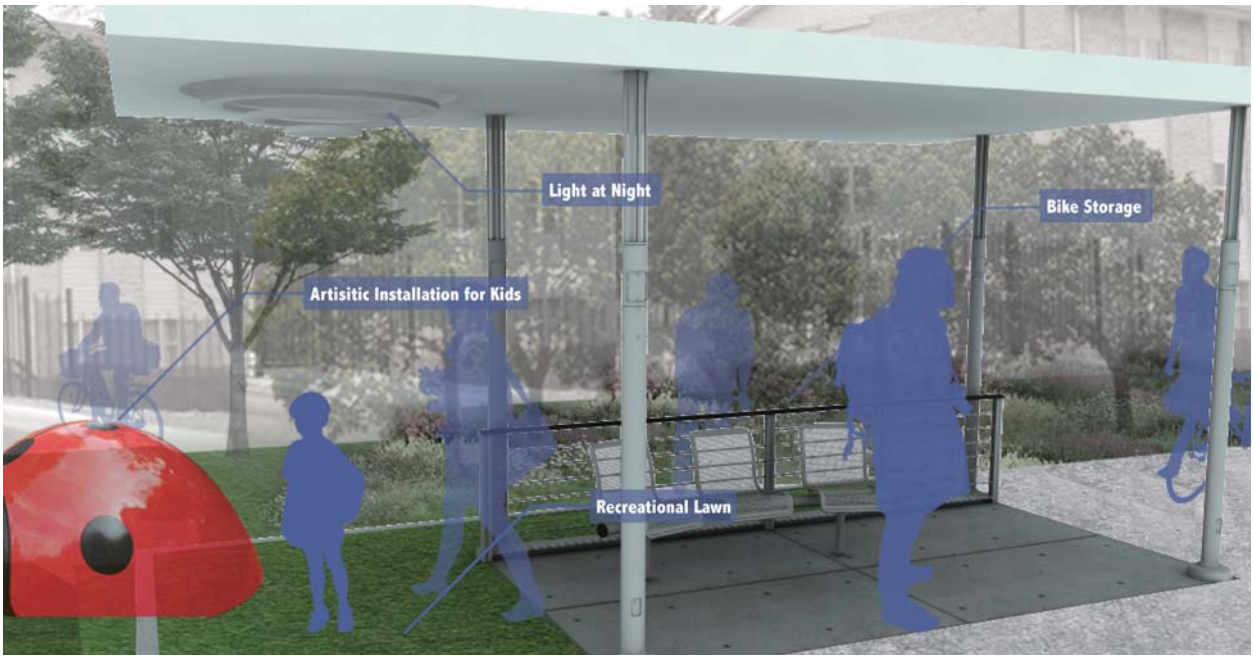

Figure 24: Combine different transportation systems together

5.3 Accessible space—design application for rebuilding the connections around Bethel Midtown Village

A large amount of great effort has been made during the community charrette organized by Center for Community Design & Preservation at University of Georgia. Based on opinions and information gathered from the residents earlier by students from the Historic Preservation program. Due to these helpful efforts in advance, every one participated in the charrette had already had a picture of what residents really need which was essential for the later success of this charrette. Focuses are put into the redevelopment of the community logo, bus stops, the community center, the buildings and the landscape. Compared to these various ideas, this thesis tries to solve the problems in the Bethel Midtown Village through a systematic way, which could benefit other federal-assisted communities with the same problems.

After the 2014 charrette, the Center for Community Design and Preservation of University of Georgia conducted a follow-up survey to get residents' opinions about the changes of the

community after the charrette. Most residents expressed their satisfaction of the improvement the community center, however the outdoor environment and transportation systems still need to be improved. According to the information gathered from the public-input session of the 2014 charrette (Center for Community Design and Preservation, 2014), schools, hospitals and shopping destinations are the most important destinations for daily life. A destination map (Fig 25) describing the shopping destinations, schools and hospitals is provided to help identify how the transportation system need to be modified. In addition, according to the information from this public input conducted by CCDP (Center for Community Design and Preservation), many children in the Bethel community attend Clarke High School and Barrow Elementary School, which are located in south of the site. More access to this area needs to be addressed in the improvement plan for the transportation systems. However it is also important to notice that, due to the follow-up survey was conducted on weekdays, it is very possible that most of the participants do not work or work at home.

Figure 25: Destinations around the community

Because most of the residents from the community do not have their own cars, these destinations could affect the resetting of bus routes and bus stops. Figure 25 indicates that most destinations are beyond the walkable distance from the community; thus, more bus routes and more accessible bus stops are needed around the community.

5.3.1 Bus routes

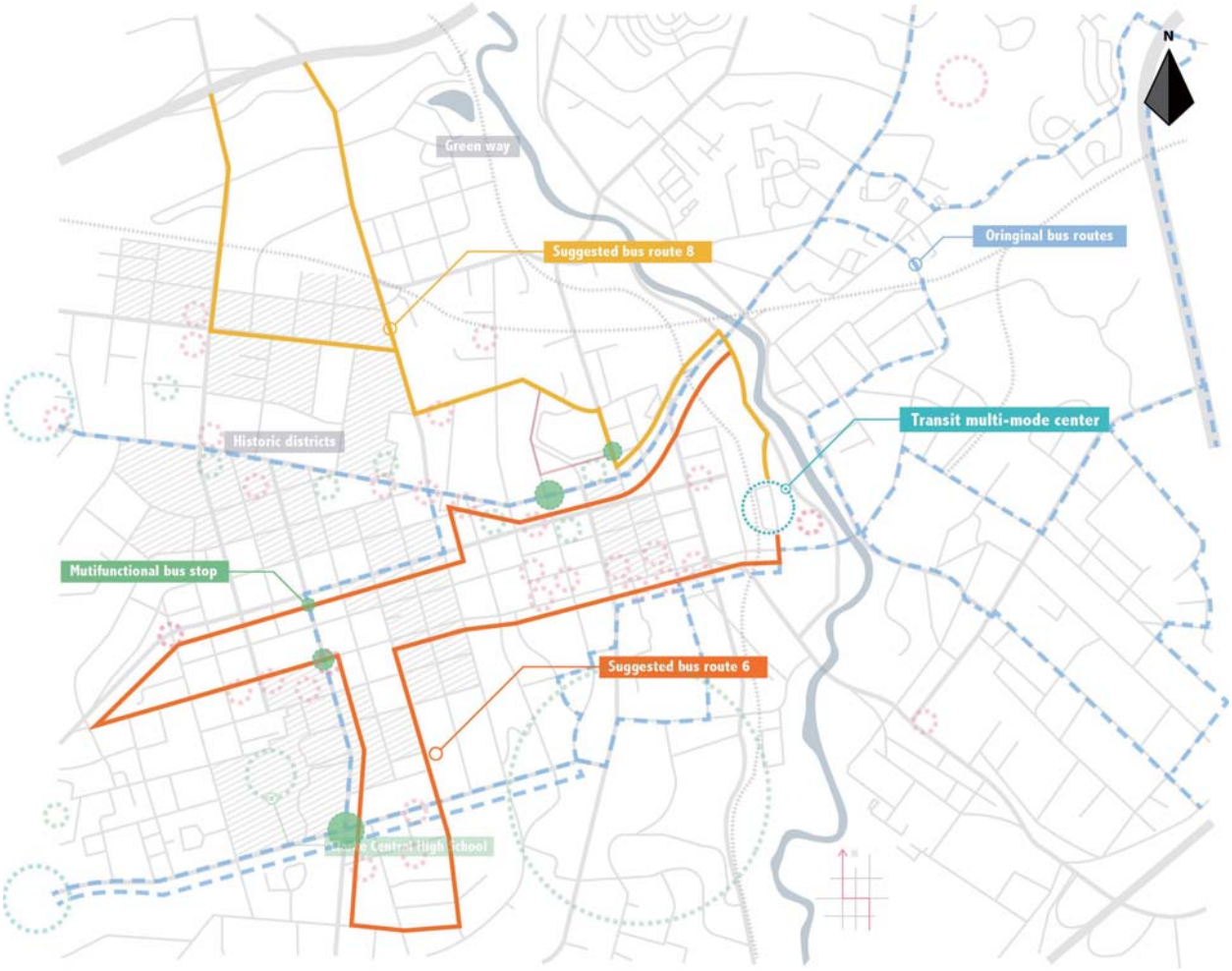

Figure 26: Redesigned bus route and bus stops around the community

Currently there is only one bus route in the east-west direction that can be easily reached from the community. This route does not bring residents to the destinations in the southwest, where some school and historic districts are located. In order to help the residents get to the destinations in the southwest while minimally disturbing the existing transportation system, Route 6 and Route 8 are considered to be the most suitable one. The suggested bus route 6 in Figure 26 could connect the community to the schools that many children from the community attend, and other destinations in the southwest. Based on similar principles, Route 8 is the best

one to help the residents get to the northwest. However, in order to realize the change of Route 8, Hoyt Street need to be reconnected with Pulaski Street, which may also help improving the isolated situation of the community.

Besides the change in the bus routes, more bus stops are suggested where these new bus routes intersect with the existing bus routes. These new stops will make it easier for residents to get access to more bus routes with minimum alteration of the transportation system at the city level. The transportation system at city level should pay more attention to those low-income communities, because they need these systems more than others. The suggested changes of the bus routes are made based on the needs of Bethel Midtown Village. They could be useful reference for future redevelopment of the bus routes of the city.

5.3.2 Pedestrian and bicycle systems

The existing pedestrian-friendly roads around the community are not well connected, which discourages the residents from choosing walking as a possible choice. However, because there are many roads with low traffic around the community, it is possible to develop these roads into walking-friendly roads. The suggested pedestrian system in Figure 27 is a combination of the existing pedestrian-friendly roads and roads with low traffic. These suggested pedestrian-friendly roads could not only encourage people, including the residents from Bethel community, to walk more but also better connect different destinations.

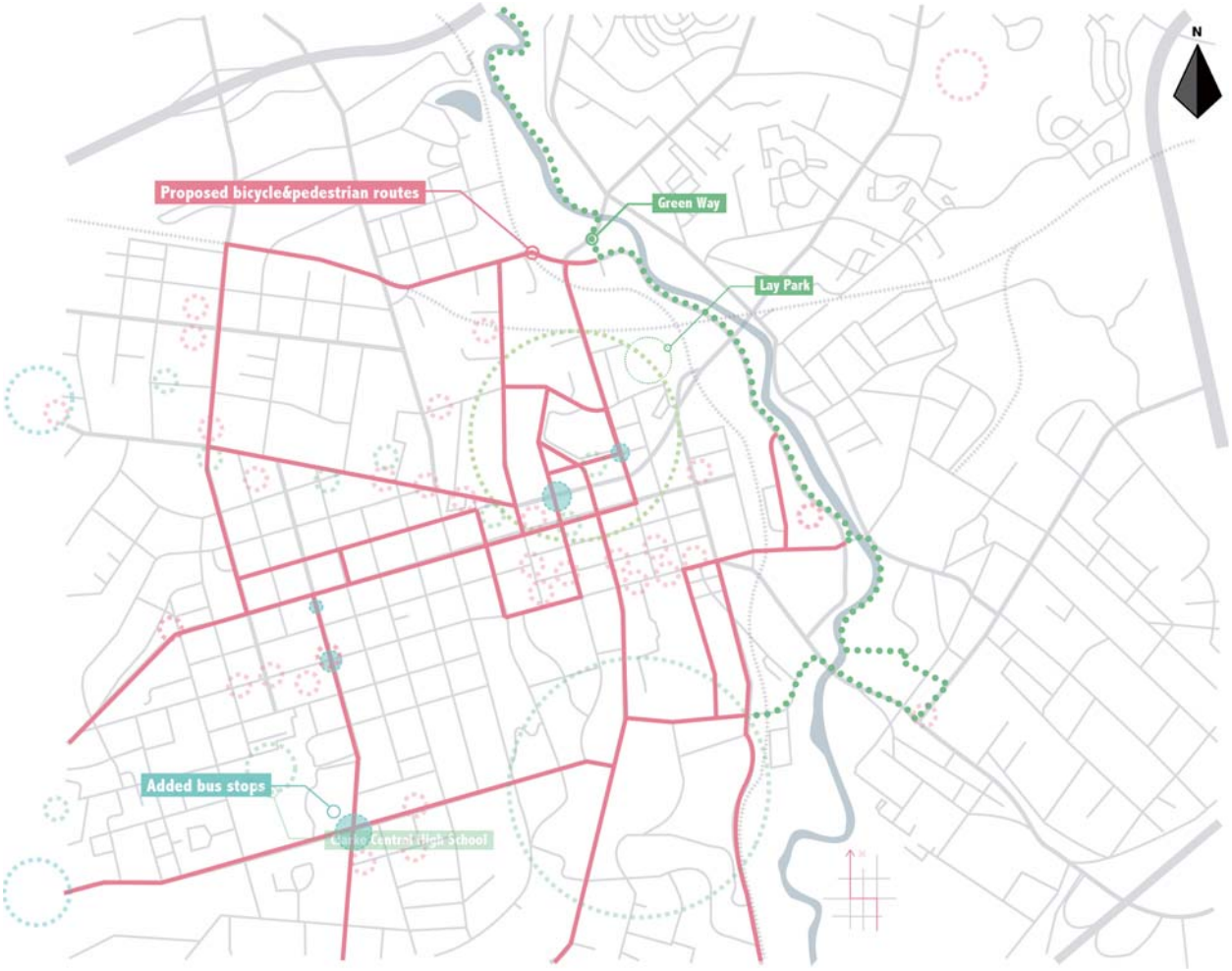

Figure 27: Suggested pedestrian system around the community

Thwaites “urban restorative” networks regard streets as important connections between different “spaces”, his theory encourages designers to make the streets “connective” and “active” (Thwaites, 2007). Suggested pedestrian-friendly routes in Figure 28 could improve the connectivity of the pedestrian system around Bethel community. However, more efforts are needed to make the pedestrian systems more “active”.

Detailed improvement ideas are shown in Figure 28: the planting belts are set in order to secure the safety of pedestrians and bicyclists, using trees to create a more comfortable environment for the pedestrians. Making the pedestrians feel safer is one aspect of improving the “activeness” of the streets, more “social-dimensioned” street furniture could attract more

activities and communication in these safe streets (Thwaites, 2007). However, the actual improvement of different roads would depend on the right of way and road widths. Figure 28 is just a potential model of such improvement.

Figure 28: Suggested improvement model to make the roads more pedestrian-friendly

CHAPTER 6

REBUILDING THE SOCIAL SPACE—

CHALLENGES ANALYSIS, REVITALIZING STRATEGIES, AND DESIGN APPLICATION FOR THE OUTDOOR ENVIRONMENT OF BETHEL COMMUNITY

Having served as a federal assisted housing community for almost 40 years, the outdoor environment of Bethel Midtown Village has become outdated. The public space inside the community does not provide a quality environment in which the residents can relax, communicate, and live. The abandoned environment has prevented residents from going out, and the isolated situation has made the community appealing to the drug dealers from downtown area (Johnson, 2009). A quality physical environment could help get the residents back into the outdoor space, which will not only improve their life quality but also help reduce crime inside the complex.

6.1 Challenges of the physical environment of the community

6.1.1 Inefficient barriers

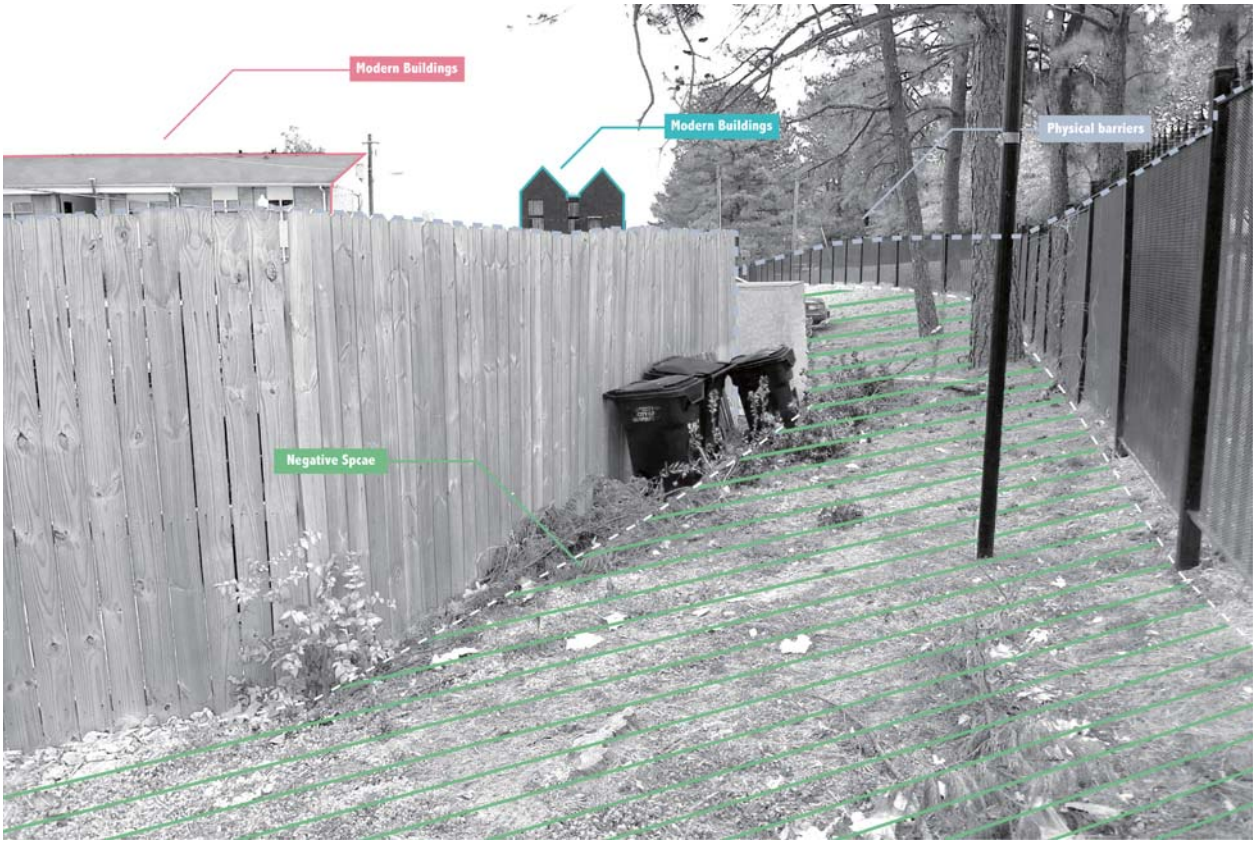

Figure 29: Unused space behind the fences

(Photo from Center for Community Design and Preservation, edited by author)

The fences around Bethel community (Fig 29) were originally set to help create a better and safer environment. However, the high crime rates have indicated the fencing to be inefficient at increasing safety; and, actually, such physical barriers have made the illegal activities more unnoticeable. A fenced environment prevents connection between the community and surrounding neighborhoods.

Although Banks's "defensible space" (2007) suggests using fences in the community, it addresses the importance of visual connectivity in the outdoor environment. The fences in Bethel community cause visual discontinuity.

6.1.2 Public space inside the community

Figure 30: Current public space inside the community

(Photo from Center for Community Design and Preservation, edited by author)

Most of the public space inside the community is currently not well occupied (Fig 30), which discourages residents, especially the children, from going out. Buildings are not well connected by paths and the empty outdoor spaces do not play the role of connecting the buildings.

In addition to the blighted public space, the lack of buffer space between the public space and the private space is another cause that stops residents from going out. The only space at which the residents commonly gather is the dark corner under the stairwells.

However, there is still great potential for public space improvements in this community. Trees planted in the empty space between the buildings have the potential to reconnect the community. Trees add a lively spirit---and, in the summers, much-needed shade---to these empty spaces and could be future centers of social space for gatherings (Fig 31).

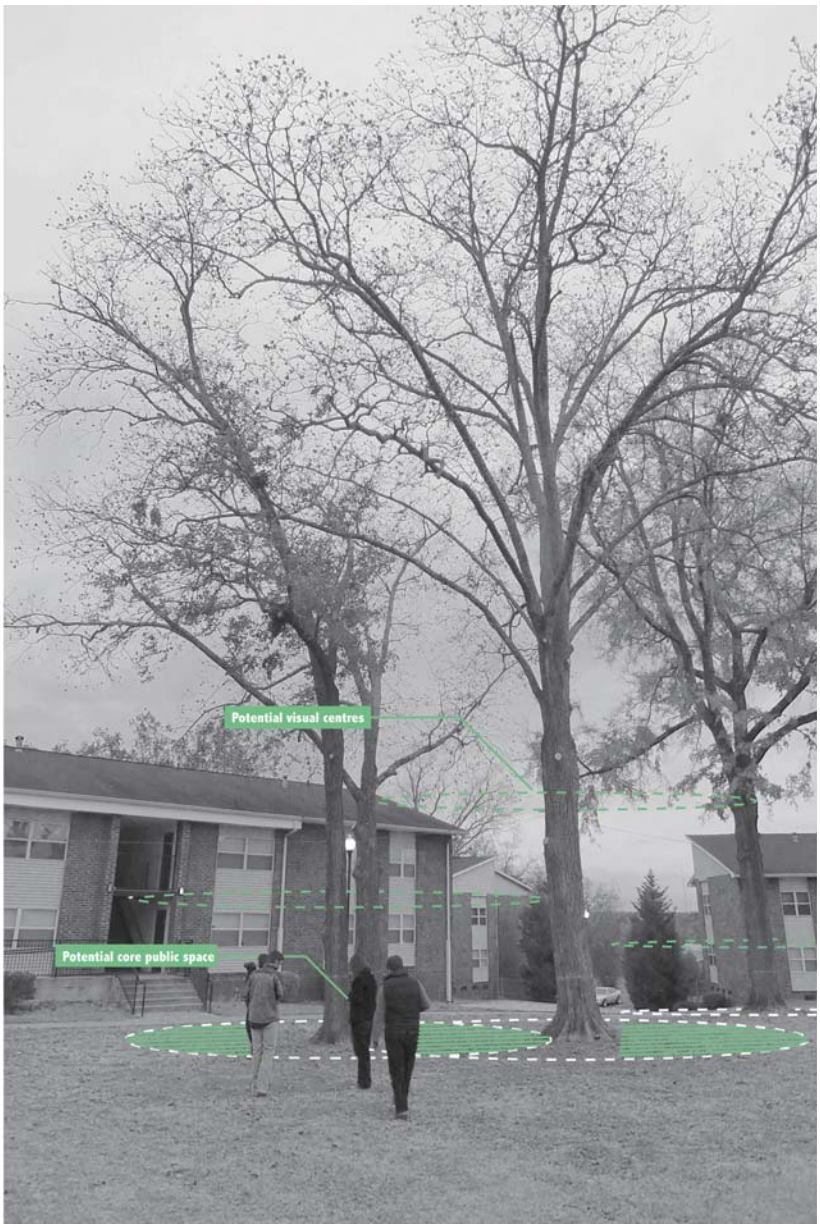

Figure 31: Existing trees in the empty public space inside the community

(Photo from Center for Community Design and Preservation, edited by author)

6.2 Strategies for improving the outdoor environment of Bethel community

The improvement of the physical and social environment inside the community would be easier to achieve if the social connections between community and the surrounding environments have been improved.

6.2.1 Continuous pedestrian and bicycle systems in the community

There are two important aspects to focus on inside the community: the pedestrian and bicycle systems that could easily connect the community to the public transportation systems, and the car traffic systems.

The pedestrian and bicycle systems in the Bethel community could not only provide better connections inside the community, but also get the community connected to the outside via these routes. The redevelopment of these routes needs to focus on reconnecting the buildings in the community as well as connecting the community to the neighborhood. Physical barriers are needed around the community, but more visual continuality may also need to be addressed at the same time.

6.2.2 Provide social spaces for better communication

Social space is needed both inside and outside the community. Such social space could be the public space that could connect different units in the community and provide facilities that serve people from both the community and surrounding neighborhood.

6.2.2.1 Reconnect different units inside

Social spaces in different sizes are strongly needed to help get the community more connected to each other. The current empty space could be reclaimed into multi-functional outdoor spaces for the residents. These future community social spaces should be accessible to

all the surrounding buildings. The connections between different social spaces should also be addressed for better connections in the community.

6.2.2.2 Public space for people both inside and outside the community

Besides the social space inside the community, the social space around the community is also important. The lack of communication between the community and the surrounding neighborhood also aggravate the isolated situation of the community. More social space around the community could provide more opportunities for communication to happen. Such types of social space could be green spaces like those inside the community. Other types of spaces could include public facilities like bus stops and small shops.

6.3 Design application for improving the outdoor environment of Bethel community

6.3.1 Rebuilding the social space—new master plan for Bethel Midtown Village

Based on the analysis of the problems of the physical environment inside the Bethel Midtown Village community in Chapter 4, an unorganized traffic system, the lack of quality social space, and safety issues are the three most serious problems that need to be addressed.

Figure 32: Current situation in Bethel Midtown Village (Google Map)

Strategies for solving these problems have been suggested in Chapter 5. These strategies include reorganizing the traffic system inside the community, improving the social space, and strengthening the safety situation of the community. A new master plan shown in Figure 33 tries to respond to the problems in the community based on these strategies.

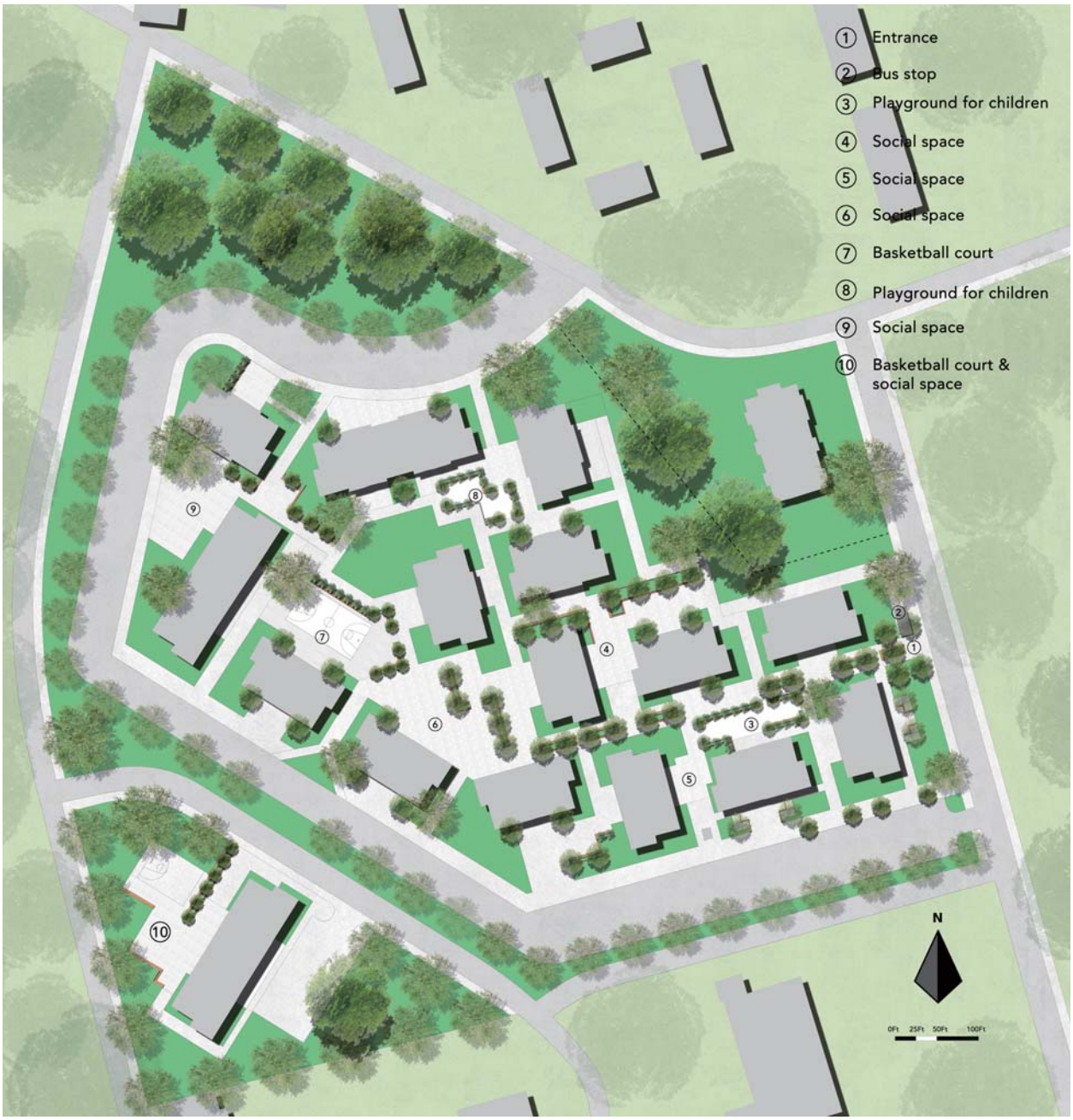

Figure 33: New mater plan for Bethel Midtown Village

6.3.1.1 Reorganize the traffic system inside the community

The current traffic system does not well organize the whole community (Fig 34). The border between the parking space and living area is not clear. The paths between buildings do

not strongly connect different units. Some paths overlap. The community does not have an individual entrance for pedestrians.

Figure 34: Existing traffic systems inside the community

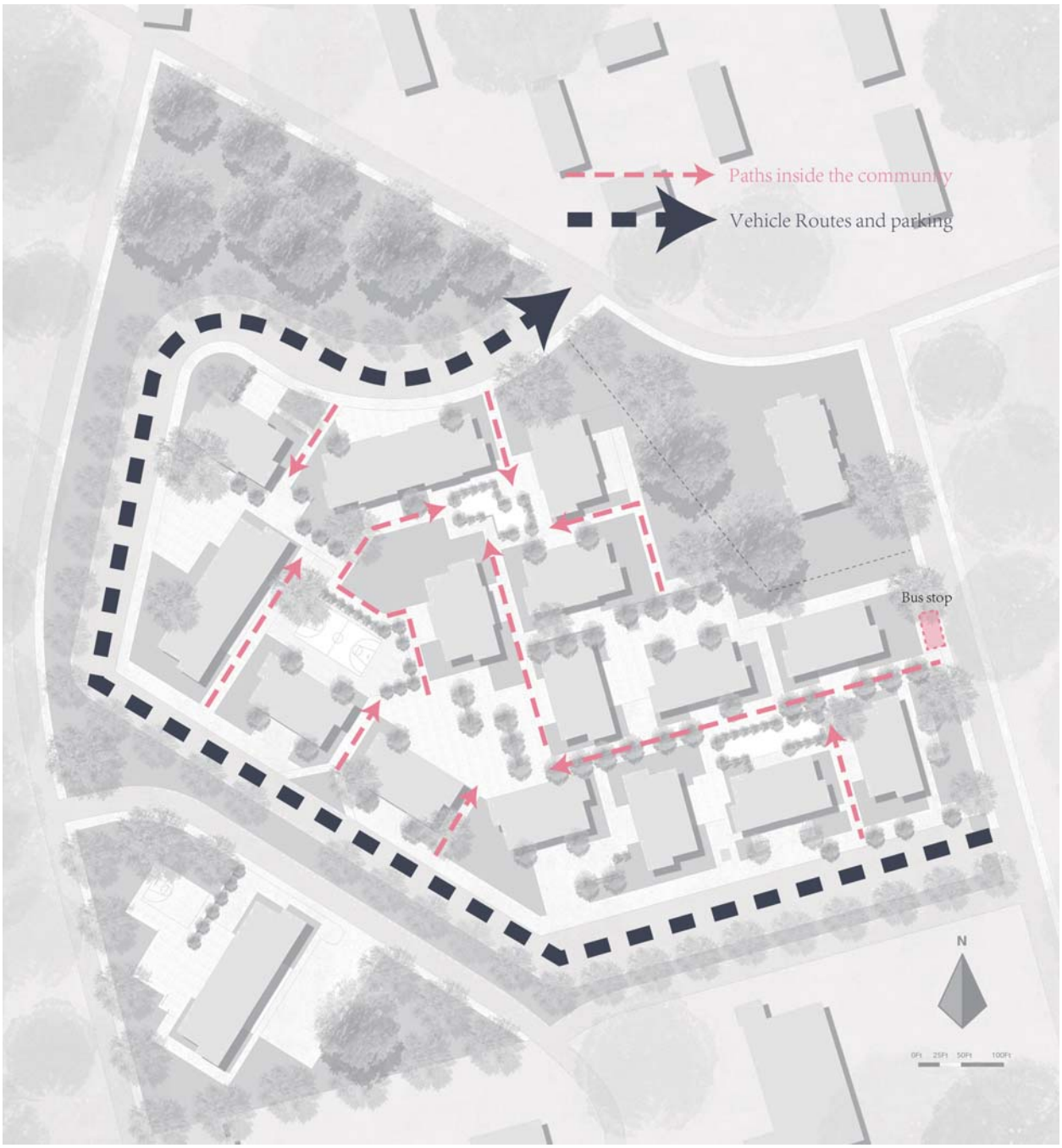

Figure 35: Analysis of the traffic system of the new master plan

Besides the original entrance for both pedestrians and vehicles, the new plan adds a new entrance for pedestrian and bicyclist use only. A bus stop is proposed beside this new pedestrian entrance, such separate entrances for vehicles and pedestrians may reduce the conflict between

the pedestrians and vehicles. In addition, this bus stop could also provide a chance for people from different communities to communicate with each other.

A main walkway beginning at the pedestrian entrance creates a clearer pedestrian system in the community. Secondary walkways connect different buildings inside the community to the main walkway. The walkway starting from the old entrance is separated from the parking lots and connected to the whole pedestrian system inside the community through secondary walkways. All these improvements could help the community establish a more ordered and safer traffic system.

6.3.1.2 Create more social space

Figure 36: The analysis of different types of public space in the new master plan

According to the information gathered during the charrette in 2013, quality outdoor space for sitting and communicating, playground for children are the most desired by residents. The new site plan for the outdoor environment of Bethel community addressed such needs (Fig 36).

The current public space inside the community is not clearly defined, which makes it difficult for the residents to use these spaces efficiently. The new master plan uses more clearly-defined hardscape in different sizes to improve the quality of the landscape of the community and provide more space for residents' outdoor activities.

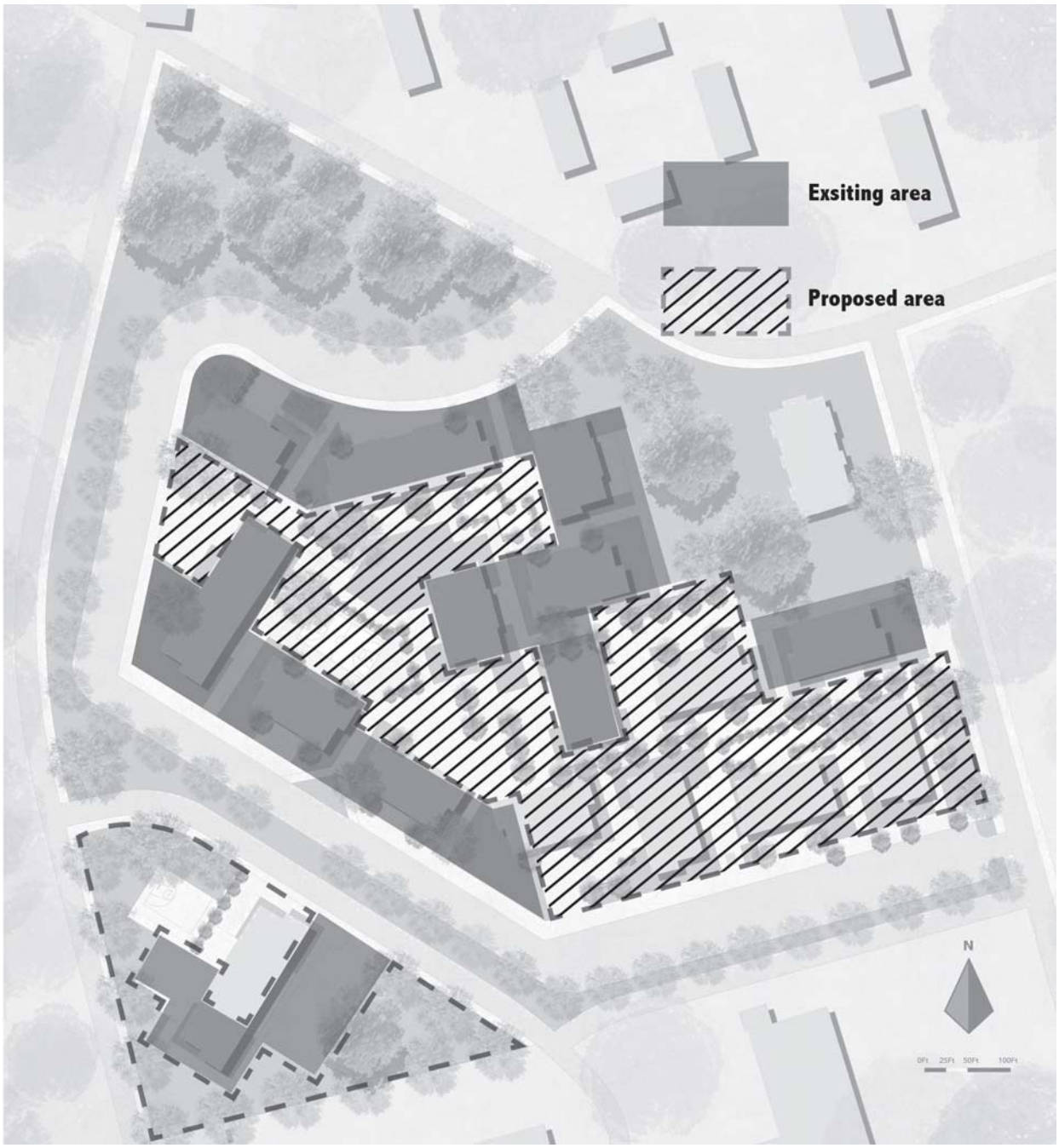

Figure 37: The analysis of the existing and proposed area in the new master plan

The public spaces in the community are divided into different types: those for the whole community and those for the individual buildings. The social space in front of each building ensures a relative private space for the residents (Fig 38). Small social space and sitting facilities are proposed around each building. Such small space could provide relatively private spaces for the residents from the same buildings.

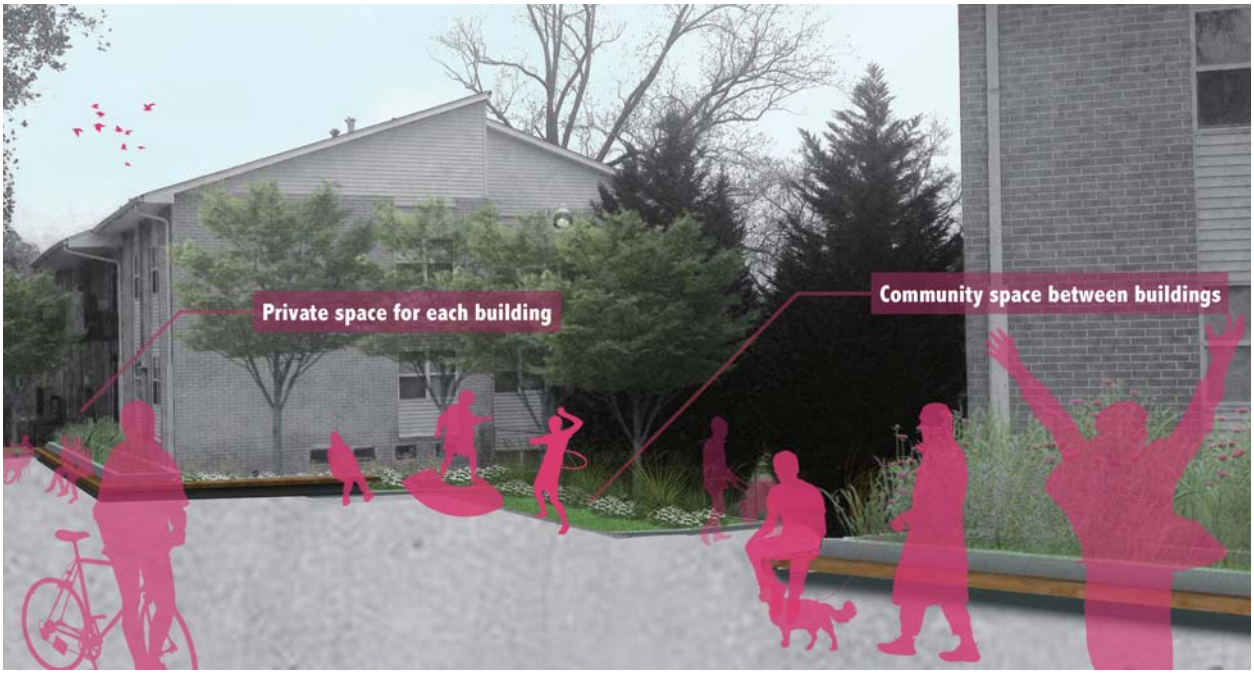

Figure 38: Perspective of the relatively private public space in the community

In addition to such relative private spaces, some larger public spaces (Fig 40) are proposed between different buildings. These shared public spaces could enlarge the communication between residents. The last type of public spaces proposed in this new master plan is space that could be used by all the residents in the community. Such community public spaces include the children's playground, the basketball court, and the open area that could provide gathering space for community events.

Figure 39: Existing condition of a empty space in front of the buiidings

Such different types of public space in the community meet residents' different requirements for outdoor activity space. The high quality public space, together with a reorganized traffic system, will strengthen the connections among the residents.

Figure 40: Perspective of the multi-use public space in the community

The new master plan tries to use more quality public space to attract more residents to the outdoors. More residential involvement could create a more positive and healthier atmosphere within the community, and such community involvement could help reduce the opportunity for others to commit illegal activities.

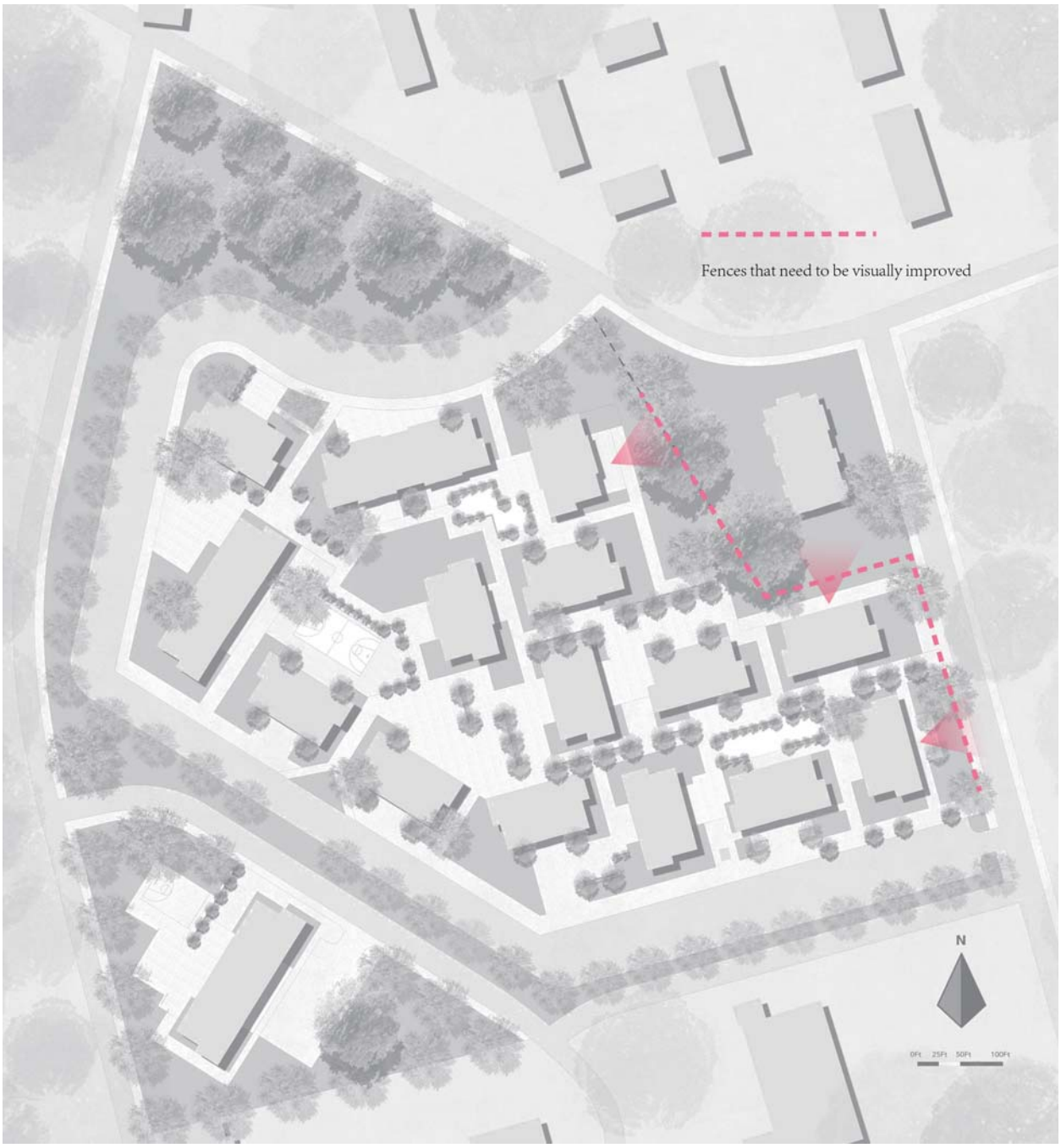

Figure 41: Fences that need to be visually improved

Despite the public involvement mentioned above, solutions for reducing the visual obstruction of the fences are also important, especially for those located in front of residents' activity area as showed in Figure 41. Creative planting installations could not only help improve the visual experience of the fences but also attract residents to use this negative space. Using

plants is another method to improve the visibility of the fences: controlling the shrubs at a height of 3 feet and the trees at a height of 8 feet could help soften the fences without blocking people's view. Light is another important effort to ensure visibility: tall lights need to be added in the outside environment. Moreover, management of these lights also needs to be improved.

CHAPTER 7

CONCLUSION

Many federal-assisted housing communities are facing the problems of isolated social environment, blighted physical environment, unemployment, and crime. Nevertheless, they are also home to many people with low incomes, just like the one studied in this thesis. This thesis aims to use the knowledge of landscape architecture to reverse the isolated situation of these federal-assisted housing communities and improve their physical environment. Although landscape architecture cannot solve all the problems in these communities, it can help the communities improve their physical environment and become more connected with the surrounding environment. These improvements will benefit the residents in their basic living condition and bring in more attention from the public.

Based on the redevelopment process of Bethel Midtown Village in this thesis, the process of redeveloping a downfallen federal-assisted community has three phases. First, analyze the site's challenges, including historic development, connections, and physical environment. Second, strengthen the connections between the site and the surrounding neighborhood through reorganizing the transportation systems. Third, reinforce the connections inside the community and utilize community members through creating more high quality public space inside the community.

This thesis addressed connections between the community and the broader neighborhood, as well as the connections among different units inside the community. This dual focus is important because only stronger connections between communities and people will help revitalize these

federal-assisted housing communities with low-income residents. Suggestions for improving these connections at different levels, the city level and the community level, have been provided in this thesis. An organized traffic system, various public spaces, and concerns for safety are the three main factors that contribute to a successful revitalization project. The corresponding strategies have been suggested in the thesis and applied in the design for Bethel Midtown Village.

Improving the inner connections can be achieved through different public spaces, but the improvement of outside connections is more difficult because it will involve changes at a broader scale. More research should be conducted on the city level, and other professions like urban planning should be involved in future study.

REFERENCE

APCHA. "PHASE II LOOKING NORTH THROUGH COURTYARD." Digital image. Burlingame Ranch. Accessed February 1, 2015. http://www.burlingamepresales.com/Community.htm.

Athens Chamber of Commerce. "REFERENCE MAP OF ATHENS, GEORGIA." Digital image. University of Georgia Libraries. June 1930. http://www.architects.uga.edu/sites/default/files/pdf/maps/historic-campus/1930athensmap.pdf.

Aued, Blake. "A REVIVED EFFORT TO IMPROVE BETHEL MIDTOWN VILLAGE." Flagpole Magazine. April 03, 2013. http://www.flagpole.com/news/news-features/2013/04/03/a-revived-effort-to-improve-bethel-midtown-homes.

Aued, Blake. "THE BATTLE FOR BETHEL: RESIDENTS TARGET CRIME." Online Athens. May 17, 2009. http://onlineathens.com/stories/051709/new_440784042.shtml#.VT_zzFxIYxk.

Bauman, John F., Roger Biles, and Kristin M. Szylvian. "FROM TENEMENTS TO THE TAYLOR HOMES: IN SEARCH OF AN URBAN HOUSING POLICY IN TWENTIETH-CENTURY AMERICA." University Park, PA: Pennsylvania State University Press, 2000.

Stepney, Bethnal Green, ed. "BETHNAL GREEN: BUILDING AND SOCIAL CONDITIONS FROM 1837 TO 1875." in A History of the County of Middlesex: Volume 11, T F T Baker (London: Victoria County History, 1998), 120-126, accessed April 22, 2015, http://www.british-history.ac.uk/vch/middx/vol11/pp120-126

"BURLINGAME RANCH I." Aspen/Pitkin County Housing Authority Website. Accessed February 2015. http://www.apcha.org/sitepages/pid87.php.

"BURLINGAME RANCH PHASE II." Burlingame Ranch. Accessed February 2015. http://www.burlingamepresales.com/Community.htm.

"CLARKE COUNTY, GEORGIA, USA." Georgia Aerial Photographs. Accessed February 1, 2015. http://dbs.galib.uga.edu/gaph/html/clarke.html.

Crump, Jeff. "DECONCENTRATION BY DEMOLITION: PUBLIC HOUSING, POVERTY, AND URBAN POLICY." Environment and Planning D: Society and Space 20, no. 5 (2002): 581-96. doi:10.1068/d306.

Devine&Gong,Inc. "HUNTERS VIEW EXISTING NEIGHBORHOOD." Digital image. Devine&Gong,Inc. 2008. http://www.devinegong.com/featured_hunters.html.

Devine&Gong,Inc. "HUNTERS VIEW PROPOSED PLAN FOR THE NEIGHBORHOOD." Digital image. Devine&Gong,Inc. 2008. http://www.devinegong.com/featured_hunters.html.

DHM Design. "ANALYSIS AND PLANNING AWARD OF HONOR BURLINGAME RANCH AFFORDABLE HOUSING, ASPEN, CO." ASLA. 2005. Accessed February 2015. http://www.asla.org/awards/2005/05winners/269.html.

DHM Design. "BURLINGAME AFFORDABLE HOUSING." Dhmdesign.com. Accessed February 2015. http://www.dhmdesign.com/projects/burlingame-affordable-housing/.

DHM Design. "BURLINGAME AFFORDABLE HOUSING." Digital image. DHM Design.com. Accessed February 1, 2015. http://www.dhmdesign.com/projects/burlingame-affordable-housing/.

Digital Library of Georgia. "ATHENS, GA. 1918, INDEX MAP." Sunburn Fire Insurance Maps. March 23, 2011. http://dlg.galileo.usg.edu/sanborn/CityCounty/Athens1918/IndexMap.html?Welcome.

Digital Library of Georgia. "SANBORN FIRE INSURANCE MAPS FOR GEORGIA TOWNS AND CITIES, 1884-1922." Sanborn® Fire Insurance Maps. 2011. http://dlg.galileo.usg.edu/sanborn/.

Erickson, David James. "THE HOUSING POLICY REVOLUTION: NETWORKS AND NEIGHBORHOODS. " Washington, DC: Urban Institute Press, 2009.

Ellen, Ingrid Gould. "SPILLOVERS AND SUBSIDIZED HOUSING: THE IMPACT OF SUBSIDIZED RENTAL HOUSING ON NEIGHBORHOODS." March 2007. Accessed February 2015. http://www.jchs.harvard.edu/sites/jchs.harvard.edu/files/rr07-3_ellen.pdf.

"FEDERALLY ASSISTED HOUSING LAW & LEGAL DEFINITION." USLEGAL.COM. Accessed April 2015. http://definitions.uslegal.com/f/federally-assisted-housing/.

Forsling, Suzanne. "HOW DOES YOUR GARDEN GROW?" Juneau Empire. July 25, 2008. http://juneauempire.com/stories/072508/nei_309624417.shtml#.VT_3k1xIYxl.

Freeman, Lance. "THE IMPACT OF ASSISTED HOUSING DEVELOPMENTS ON CONCENTRATED POVERTY." Housing Policy Debate 14, no. 1-2 (2003): 103-41. doi:10.1080/10511482.2003.9521470.

GIS, and Graphics Division Athens-Clarke County Planning Department. "DOWNTOWN CHARACTER AREAS." Athens-Clarke County Unified Government. January 29, 2007. http://www.athensclarkecounty.com/DocumentCenter/Home/View/265http://www.athensclarkecounty.com/DocumentCenter/Home/View/265.

GLS Landscape/ Architecture. "PHASE I (UNDER CONSTRUCTION): BLOCK 5 & 6." Digital image. ASLA. 2011. http://www.asla.org/2011awards/545.html.

GLS Landscape / Architecture, and Daniel Solomon Design Partners, San Francisco. "HUNTERS VIEW PUBLIC HOUSING NEIGHBORHOOD REDEVELOPMENT." ASLA. 2011. Accessed February 2015. http://www.asla.org/2011awards/545.html.

Gotham, Kevin Fox. "SEPARATE AND UNEQUAL: THE HOUSING ACT OF 1968 AND THE SECTION 235 PROGRAM." Sociological Forum 15, no. 1 (March 01, 2000): 13-37. Accessed April 29, 2015. http://www.jstor.org/stable/10.2307/3070335?ref=no-x-route:ced2a647b96a26d49689b2b8ac85cc47.

Haines, Garry. "BOUNDARY OF OLD NICHOL'S VICE, FILTH & DEATH." The Docklands and East London Advertiser. July 2008. Accessed February 2015. http://www.eastlondonadvertiser.co.uk/news/heritage/boundary_of_old_nichol_s_vice_filth_death_1_666236.

"HEALTHY LANDSCAPES FOR AFFORDABLE HOUSING." Naomi Mermin Consulting. 2009. Accessed February 2015. http://www.nmermin.com/Greening%20Affordable%20Housing.pdf.

Hingorani, Pritika, and Piyush Tiwari. "HOUSING AND BASIC INFRASTRUCTURE SERVICES FOR ALL: A CONCEPTUAL FRAMEWORK FOR URBAN INDIA." (n.d.): n. pag. Global Development Network. 2012. Web. Mar. 2015.

Holloway, S. R., D. Bryan, R. Chabot, D. M. Rogers, and J. Rulli. "EXPLORING THE EFFECT OF PUBLIC HOUSING ON THE CONCENTRATION OF POVERTY IN COLUMBUS, OHIO." Urban Affairs Review 33, no. 6 (1998): 767-89. doi:10.1177/107808749803300603.

"HOUSING AND VOUCHERS IN ACHIEVING RESIDENTIAL SATISFACTION." Cityscape 14, no. 1, American Housing Survey (January 01, 2012): 35-53. Accessed April 29, 2015. http://www.jstor.org/stable/10.2307/41553080?ref=no-x-route:b804fc4632092c63770a584e4910fca5.

Hunters View Associates. "HUNTERS VIEW SITE PLAN RENDERING." Digital image. Hunters View. May 2, 2014. http://huntersview.info/project-resources/5238767072_a377b40d76_o/.

Hunters View Community Partners. "HUNTERS VIEW DESIGN FOR DEVELOPMENT." Http://huntersview.info/. May 29, 2008. Accessed February 2015. http://huntersview.info/wp-content/uploads/2014/05/Design-for-Development.pdf.

"HUNTERS VIEW – PROJECT DESCRIPTION." Http://huntersview.info/. Accessed February 2015. http://huntersview.info/wp-content/uploads/2014/05/Full-Project-Description.pdf.

Irvine, Seana, Lorraine Johnson, and Kim Peters. "COMMUNITY GARDENS AND SUSTAINABLE LAND USE PLANNING: A CASE-STUDY OF THE ALEX WILSON

"COMMUNITY GARDEN." Local Environment 4, no. 1 (1999): 33-46. doi:10.1080/13549839908725579.

Johnson, Joe. "CRIME STALKS ATHENS APARTMENT COMPLEX." Online Athens. February 22, 2009. http://onlineathens.com/stories/022209/new_396545978.shtml#.VT_sRFxIYxk.

Keith, Nathaniel Schnieder. POLITICS AND THE HOUSING CRISIS SINCE 1930. New York: Universe Books, 1973.

Knight, Heather. "FIXING MESS AT HUNTERS VIEW WON'T BE QUICK, EASY OR CHEAP." SFGATE. September 16, 2007. Accessed February 2015. http://www.sfgate.com/health/article/Fixing-mess-at-Hunters-View-won-t-be-quick-easy-2540482.php#photo-2673684.

Kuo, Frances E., William C. Sullivan, Rebekah Levine Coley, and Liesette Brunson. "FERTILE GROUND FOR COMMUNITY: INNER-CITY NEIGHBORHOOD COMMON SPACES." American Journal of Community Psychology 26, no. 6 (1998). http://illinoisonline.org/krassa/ps450/Readings/Kuo%20Fertile%20Ground%20Innercity%20Common%20Space.pdf.

"LOCAL HISTORIC DESIGNATIONS, ATHENS-CLARKE COUNTY." Athens-Clarke County Unified Government. Accessed February 1, 2015. http://www.athensclarkecounty.com/DocumentCenter/Home/View/19722.

"MAP OF REGISTERED NEIGHBORHOODS." Athens-Clarke County Unified Government. Accessed February 1, 2015. http://www.athensclarkecounty.com/831/Directory-of-Neighborhoods.

Marcus, Clare Cooper, and Carolyn Francis. "PEOPLE PLACES: DESIGN GUIDELINES FOR URBAN OPEN SPACE. " John Wiley and Sons, 1997.

Massey, Douglas S. "PUBLIC HOUSING AND THE CONCENTRATION OF POVERTY." Social Science Quarterly 74, no. 1 (March 01, 1993): 109-22. Accessed April 29, 2015. http://www.jstor.org/stable/10.2307/42863165?ref=no-x-route:5e48fdf60e29ffce9fb1ec3390affc67.

Mitchell, Richard, and Frank Popham. "GREENSPACE, URBANITY AND HEALTH: RELATIONSHIPS IN ENGLAND." Journal of Epidemiology and community health 61, no. 8 (2007): 681-683.

Morales, Kristen. "BETHEL: AFFORDABLE HOUSING OR MISMANAGED CASH COW?" Flagpole Magazine. June 05, 2013. http://www.flagpole.com/news/news-features/2013/06/05/bethel-midtown-village-affordable-housing-or-mismanaged-cash-cow.

Morales, Kristen. "GREENVILLE SHOWS HOW ATHENS CAN MAKE OUR DOWNTOWN BETTER." Flagpole Magazine. June 04, 2014. http://www.flagpole.com/news/news-features/2014/06/04/greenville-shows-how-athens-can-make-our-downtown-better.

Morales, Kristen. "HISTORY OF PUBLIC HOUSING." Flagpole Magazine. August 08, 2012. http://www.flagpole.com/news/news-features/2012/08/08/history-of-public-housing.

Naparstek, Arthur J., and Dooley Dennis. "COUNTERING URBAN DISINVESTMENT THROUGH COMMUNITY-BUILDING INITIATIVES." Social Work, 506-514, 42, no. 5 (1997). doi:10.1093/sw/42.5.506.

National Low Income Housing Coalition. "WHO LIVES IN FEDERALLY ASSISTED HOUSING?" HOUSINGSPOTLIGHT 2, no. 2 (November 2012). http://nlihc.org/sites/default/files/HousingSpotlight2-2.pdf.

Riis, Jacob. "FIVE CENT A SPOT"UNAUTHORIZED LODGINGS IN A BAYARD STREET TENEMENT." Digital image. The American Yawp. Accessed February 1, 2015. http://www.americanyawp.com/text/how-the-other-half-lived-photographs-of-jacob-riis/.

Ross, Lauren M., Anne B. Shay, and Mario G. Picon. "YOU CAN'T ALWAYS GET WHAT YOU WANT: THE ROLE OF PUBLIC HOUSING AND VOUCHERS IN ACHIEVING RESIDENTIAL SATISFACTION." Cityscape 14.1 (2012): 35-53. Web. 5 Nov. 2013.

Said, Carolyn. "SF'S HUNTERS VIEW HOUSING PROJECT OPENS." SFGATE. January 10, 2013. Accessed February 29, 2015. http://www.sfgate.com/realestate/article/SF-s-Hunters-View-housing-project-opens-4184816.php#photo-4013339.

San Francisco Chronicle, and Lacy Atkins. "POLICE OFFICER DAVID DOCKERY PATROLS THE HUNTERS POINT COMPLEX." Digital image. SFGATE. September 16, 2007. http://www.sfgate.com/health/article/Fixing-mess-at-Hunters-View-won-t-be-quick-easy-2540482.php.

San Francisco Chronicle, and Lacy Atkins. "RESIDENTS OF THE HUNTERS VIEW HOUSING PROJECT SIT IN FRONT OF THEIR APARTMENT WHERE HUMAN FACES IN THE SEWAGE COMES OUT OF THE GRATES." Digital image. SFGATE. September 11, 2007. http://www.sfgate.com/health/article/Fixing-mess-at-Hunters-View-won-t-be-quick-easy-2540482.php.

Schill, Michael H. "DISTRESSED PUBLIC HOUSING: WHERE DO WE GO FROM HERE?" The University of Chicago Law Review 60, no. 2 (April 01, 1993): 497-554. Accessed April 29, 2015. http://www.jstor.org/stable/10.2307/1600078?ref=no-x-route:be2753492c5326aec82de802e4297cdd.

Takano, Takehito, Keiko Nakamura, and Masafumi Watanabe. "URBAN RESIDENTIAL ENVIRONMENTS AND SENIOR CITIZENS' LONGEVITY IN MEGACITY AREAS: THE

IMPORTANCE OF WALKABLE GREEN SPACES." Journal of epidemiology and community health 56, no. 12 (2002): 913-918.

Thwaites, Kevin, and Ian Simkins. "EXPERIENTIAL LANDSCAPE: AN APPROACH TO PEOPLE, PLACE, AND SPACE. " London: Routledge, Taylor & Francis Group, 2007.

Turner, Margery Austin, Susan Popkin, and G. Thomas Kingsley. "DISTRESSED PUBLIC HOUSING WHAT IT COSTS TO DO NOTHING." Urban Institute. N.p., 11 Apr. 2005. Web. Feb. 2015.

United States Geological Survey. "PRUITT-IGOE USGS PHOTOGRAPH." Digital image. Wikipedia. Accessed February 1, 2015. http://en.wikipedia.org/wiki/File:Pruitt-igoeUSGS02.jpg.

USLegal, Inc. "FEDERALLY ASSISTED HOUSING LAW & LEGAL DEFINITION." USLegal.com. Accessed February 1, 2015. http://definitions.uslegal.com/f/federally-assisted-housing/.

Walker, Jarrett. "BASICS: WALKING DISTANCE TO TRANSIT." Human Transit. Accessed February 1, 2015. http://www.humantransit.org/2011/04/basics-walking-distance-to-transit.html.

Webster, Leslie. "ANALYSIS AND PLANNING HONOR AWARD REMODELING RENEWAL." ASLA. 2007. Accessed March 29, 2015. http://www.asla.org/awards/2007/studentawards/022.html.