I, Gregory A. Meckstroth Jr., hereby submit this original work as part of the requirements for the degree of:
Master of Community Planning
in College of Design, Architecture, Art, and Planning
It is entitled:
FBCs for NBDs in Cincinnati, Ohio

Student Signature: Gregory A. Meckstroth Jr.

This work and its defense approved by:
Committee Chair: Menelaos Triantafillou, MLA
Mahyar Arefi

Approval of the electronic document:
I have reviewed the Thesis/Dissertation in its final electronic format and certify that it is an accurate copy of the document reviewed and approved by the committee.
Committee Chair signature: Menelaos Triantafillou, MLA
FBCs for NBDs in Cincinnati, Ohio

A thesis submitted to the
Division of Research and Advanced Studies
Of the University of Cincinnati

In partial fulfillment of the
requirements for the degree of
MASTER OF COMMUNITY PLANNING

in the School of Planning
of the College of Design, Architecture, Art, and Planning

2009

By

Gregory A. Meckstroth Jr.
Bachelor of Science in Business Administration, The Ohio State University, 2007
Bachelor of Science in Geography, The Ohio State University, 2007

Chair: Prof. Menelaos Triantafillou
Member: Prof. Mahyar Arefi
Abstract

This thesis analyzes Form Based Codes (FBCs) for Neighborhood Districts (NBDs) in Cincinnati, Ohio. Currently, Cincinnati is considering implementing FBCs within their boundaries. What is unknown is both ‘where’ and ‘how’ the City implements such regulation. A biased opinion is brought, believing NBDs are the ideal ‘where’. What is unclear is ‘how’ Cincinnati will go about the process. With these points in mind, the two research questions focus on: (1) Are Neighborhood Business Districts in Cincinnati, Ohio a legitimate focus for Form Based Code implementation? (2) What can be learned from other Form Based Code case studies and how can such lessons be applied to Cincinnati, Ohio’s FBC implementation efforts in NBDs?

The first question is answered through looking at current commercial development and homebuyer trends and proving Cincinnati’s NBDs could economically benefit from such trends. The second research question is answered through a case study review of notable form based regulations.

General conclusions include the realization that FBCs can be focused in NBDs for Cincinnati, Ohio. Further, these FBCs must have a community outreach process, the Code must be illustrative, must have economic incentives, and must consider form context. It is important to realize Form Based Codes are a relatively new concept and further research needs to be conducted to understand their long-term effects. For this reason, the research findings should be considered preliminary and initial.
Acknowledgements

I would like to thank Professor Triantafillou and Professor Arefi for providing guidance and words of wisdom during the course of this research. I would also like to thank my friends and family for their guidance and words of wisdom throughout my twenty-four years of life. You know who you are!
# Table of Contents

Chapter 1: Introduction and Problem Statement

1.1 Introduction ............................................................................................................. 1
1.2 Problem Definition and Research Questions ......................................................... 3

Chapter 2: Methodology

2.1 Methodology Components ...................................................................................... 5
2.2 Literature Review ................................................................................................... 5
2.3 FBC Case Study Selection Criteria ......................................................................... 6
2.4 Euclidean Zoning Case Study Selection ................................................................ 8
2.5 Case Study Summary and Analysis ....................................................................... 8
2.6 Conclusions for Cincinnati FBCs .......................................................................... 9
2.7 Methodology limitations ......................................................................................... 9

Chapter 3: Literature Review

3.1 The Problem with Sprawl ..................................................................................... 11
3.2 Brief Euclidean Zoning History ............................................................................. 11
3.3 The Need for a Healthy Urban Core ..................................................................... 14
3.4 New Urbanism – The Return of Traditional Planning ........................................... 14
3.5 New Urbanism in Commercial Development ....................................................... 17
3.6 New Urbanism Codified: Form Based Codes ....................................................... 20
3.7 New Urbanism Debated: Can Social & Physical Goals be Married? ................. 28
3.8 Neighborhood Business Districts (NBDs) in Cincinnati, Ohio ....................... 30

Chapter 4: Case Study – Columbia Pike Form Based Code

4.1 About Arlington County ....................................................................................... 33
4.2 Columbia Pike ....................................................................................................... 34
4.3 The Columbia Pike Initiative ................................................................................ 35
4.4 Columbia Pike Form Based Code Purpose ........................................................ 36
4.5 Definitions .............................................................................................................. 37
4.6 The Regulating Plan ............................................................................................. 37
4.7 Building Envelope Standards ................................................................................ 41
4.8 Streetscape Standards ......................................................................................... 43
4.9 Architectural Standards ....................................................................................... 43
4.10 Administration ..................................................................................................... 44
4.11 Development Effects .......................................................................................... 44
4.12 Code Evaluation .................................................................................................. 46

Chapter 5: Case Study – Urban Village Code

5.1 About St. Paul, Minnesota ..................................................................................... 49
5.2 Urban Villages ....................................................................................................... 49
5.3 Urban Village Code Purpose ............................................................................... 52
5.4 Principal Uses ....................................................................................................... 53
5.5 Density and Dimensional Standards ..................................................................... 54
5.6 Required Conditions ............................................................................................ 55
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.7 Design Standards</td>
<td>56</td>
</tr>
<tr>
<td>5.8 TN3 Required Elements</td>
<td>58</td>
</tr>
<tr>
<td>5.9 Planning Requirements</td>
<td>59</td>
</tr>
<tr>
<td>5.10 Development Effects</td>
<td>60</td>
</tr>
<tr>
<td>5.11 Code Evaluation</td>
<td>62</td>
</tr>
<tr>
<td>Chapter 6: Case Study – College Hill Neighborhood Business District</td>
<td>65</td>
</tr>
<tr>
<td>6.1 Neighborhood Business District Location</td>
<td>65</td>
</tr>
<tr>
<td>6.2 Historical Perspective</td>
<td>66</td>
</tr>
<tr>
<td>6.3 Current Conditions</td>
<td>68</td>
</tr>
<tr>
<td>6.4 Current NBD Zoning</td>
<td>72</td>
</tr>
<tr>
<td>Chapter 7: Conclusions</td>
<td>76</td>
</tr>
<tr>
<td>7.1 Research Questions Answers</td>
<td>76</td>
</tr>
<tr>
<td>7.2 Form Based Code Recommendations for Cincinnati, Ohio</td>
<td>81</td>
</tr>
<tr>
<td>7.3 Areas for Further Research</td>
<td>83</td>
</tr>
<tr>
<td>Bibliography</td>
<td>85</td>
</tr>
</tbody>
</table>
Chapter 1: Introduction and Problem Statement

1.1 Introduction

Land-use zoning has been around since 1926 in the United States, when the US Supreme Court case *Village of Euclid, Ohio vs. Ambler Realty Co.* legitimized the notion. Since then, Euclidean Zoning, as it became known, has become the norm with regard to zoning regulation. Euclidean zoning’s underlying principles deal with separation of land uses, density controls, parking requirements, and other basic functions. By 1950, this way of regulating land development had largely manifested itself into suburban sprawl. Because these new developments only paid attention to land use and largely catered to the automobile, function was placed before form and many began feeling ideal ‘sense-of-place’ attributes were taking a back seat to convenient, auto-oriented development. This development paradigm has since come under scrutiny by New Urbanists, a group of planners, designers, architects, and citizens concerned with returning traditional planning principles back into our cities, where compact, mixed-use communities would replace sprawl caused by Euclidean Zoning.

New Urbanists, realizing the importance of regulatory devices and their effect on the built environment, began forming a code of their own to take on suburban sprawl and replace Euclidean Zoning with traditional code. One such alternative that has come to the forefront in recent years is the Form-Based Code (FBC). Through this new regulation, communities can develop in a more cohesive manner and see better relationships between the street, sidewalk, and storefronts. The code aims to use simple and clear prescriptions for height, building elements, and other urban forms that make for a strong, healthy mix of uses along a business district or in an entire community.
Currently, Cincinnati, Ohio has expressed a serious desire to create an FBC. The City is taking such action because FBCs have become very popular and have been widely discussed across the nation for a few years now. The first attempt at modern FBC is widely credited to Andres Duany and Elizabeth Plater-Zyberk of DPZ, who designed the Florida town of Seaside in 1982. As part of the New Urbanism movement, these individuals were faced with the challenge of creating an entire town that could revive Florida’s building tradition without creating a project that looked too bland and typical (LeMaster, 2008).

Rather than using conventional zoning, the two created a set of guidelines that allowed developers to build within a specific set of forms, rather than uses. Seaside was built at higher densities than typical resort towns, and as a result, a walkable, intimate small-town atmosphere flourished. The town became widely popular and sold well. FBCs and its lessons from Seaside soon became very popular, with such cities as Toronto, Nashville, And Louisville all adopting some form of the code (LeMaster, 2008). Cincinnati City leaders have been paying attention to this movement. In particular, Councilwoman Roxanne Qualls has been spearheading FBCs for Cincinnati, as she believes they are “a really powerful tool for building strong neighborhoods and spurring business development” (LeMaster, 2008). As has been said before, she is planning on taking this belief and plans on assisting communities with the process of creating FBCs in 2009. Currently, there is a lack of independent research that has looked at possible ways the City of Cincinnati would go about such a process.
1.2 Problem Definition and Research Questions

In Cincinnati, Ohio, it is my observation that identity is being threatened by sprawling suburbs and exurbs. Quite possibly in an attempt to regain urbanity and identify, the City is looking at Form-Based Codes, codes that focus on form instead of use. Based on my own observations, one of Cincinnati’s unique attributes is the existence of numerous neighborhood business districts (NBDs), all with their own unique sense of place and design. It is my belief that in order for Cincinnati to maintain and strengthen its regional economic niche, these traditional NBD’s must either be preserved or complimented with necessary infill. Given that FBCs are meant to preserve or recreate such traditional places, I will attempt to answer my first research question: (1) Are Neighborhood Business Districts in Cincinnati, Ohio a legitimate focus for Form Based Code implementation? From this, I can then answer my second research question, which is: (2) What can be learned from other Form Based Code case studies and how can such lessons be applied to Cincinnati, Ohio’s FBC implementation efforts in NBDs?

My first hypothesis in relation to my first research question is that yes, NBDs should and could be the primary focus of any initial FBC implementation in Cincinnati. I believe these NBDs could act as economic vessels that will assist the city’s economic strength and protecting or enhancing their form would go a long way in achieving such goals. My hypothesis in relation to the second research question is that the biggest lesson to be learned from other FBC efforts is that new development should first and foremost take into consideration its surrounding context.
Answers to my first research question are accompanied with shortcomings in my research, as a regulatory tool that focuses on design is not the only factor that affects economic niche characteristics of NBDs or economic opportunities in urban cores in general. Certainly, other social, political, and economic factors heavily influence the form, mix, and feel of an NBD in Cincinnati. But for the purpose of this study, focusing primarily on design as a factor to NBD economic success can warrant an investigation into whether NBDs are the proper focus for Cincinnati FBC efforts. An answer to my second research question is also accompanied with shortcomings in my research, as uncertainty exists when applying specific lessons from one individual case to another, considerably different situation.
2.1 Methodology Components

The research methodology consists of five phases:

1. Literature Review
2. FBC Case Study Selection
3. Euclidean Zoning Case Study Selection
4. Case Study Summary and Analysis
5. Conclusion for Cincinnati FBCs

2.2 Literature Review

When attempting to prove the legitimacy of focusing FBC efforts on NBDs in Cincinnati, I decided to bring basics to the foreground; start from square one. With this in mind, I began the literature review with a discussion about sprawl, its problems, and how Euclidean Zoning has contributed to the issue. From there, I emphasized the importance of a region having an economically viable and healthy urban core. With this theoretical underpinning in mind, I was then able to move forward and begin proving the legitimacy of possible FBC efforts in NBDs.

I looked at recent trends concerning commercial development and its preference towards creating places similar in concept to NBDs. Examples of these can be seen across the country in lifestyle centers and town centers. I also discussed trends proving younger generations are increasingly desiring walkable neighborhoods with strong community characteristics. Taken together, these trends proved places high on design and central to a walkable community are and can be economically viable and in line with market trends. Such trends could benefit NBDs in Cincinnati, Ohio.
From there, I discussed Cincinnati’s NBDs, and proved their characteristics are in line with both commercial development trends, and young homeowner/renter preferences. I discussed how Cincinnati’s NBDs, unlike the lifestyle and town centers currently being created, are authentically high on design and promote walkability. I then showed a map indicating the location of these NBDs across Cincinnati, effectively defining what I mean by the term Neighborhood Business District with reference to this study. Given such places exist in Cincinnati, and coupled with market trends, I then discussed the need for Cincinnati to either preserve the existing forms in NBDs or promote proper development and infill to return these places to their traditional form.

I also introduced Form-Based Codes, its intent, structure, and ideal outcomes. I presented them as a tool for a strong urban core, something that is promoted as protecting or creating places of traditional form, places similar to Cincinnati’s NBDs. Given the fact that Cincinnati is going to implement FBCs in the future, I focused more on what the Code attempts to do and can do instead of dealing with pertinent pros and cons. I did not attempt to analyze the merit of FBCs, but rather, analyze exactly what they are to set the stage for how they could be implemented in a place like Cincinnati. Finally, I discussed the debate over FBCs and if they are an attempt at social engineering through physical determinism.

2.3 FBC Case Study Selection Criteria

When searching for proper Form Based Code case studies, I understood the importance of choosing examples in which learned lessons could more easily be applied to NBDs in Cincinnati. Therefore, I was looking for examples along corridors, Main Streets, or community centers. I was also looking for case studies in established, urban
core communities instead of suburban or exurban type places. From this scope, I chose the Columbia Pike Special Revitalization District Form Based Code in Arlington County, Virginia and the St. Paul, Minnesota Urban Village Code.

The Columbia Pike FBC was chosen because its application dealt with a corridor, similar to numerous FBCs in Cincinnati. Further, Columbia Pike has traditionally acted as a ‘Main Street’ for its surroundings, but whose form has since been devastated by auto-oriented development, characteristics similar to numerous Cincinnati NBDs as well. The St. Paul Code was chosen because of its setting and desired outcomes. St. Paul is an urban core city similar in size to Cincinnati and their Urban Village Code either preserves or creates ‘urban villages’ (NBDs). Preserving or enhancing Cincinnati’s NBDs would, in effect, create similar outcomes, providing the City with ‘urban villages’ across its landscape.

I also chose these two FBC case studies because they represent two distinct ways of creating such Code. The Columbia Pike Code acts as an overlay district to the current Euclidian Zoning and offers economic incentives for developers to comply with their FBC. On the other hand, the St. Paul Code is written into their zoning ordinance and is a mandatory measure for developers to follow. Also, they differ because the Columbia Pike FBC was created as a result of intensive community outreach and charrettes while the St. Paul Code was not. All together, these two examples provide a strong contrast to one another, giving me an opportunity to understand strengths and weaknesses associated with each.
2.4 Euclidean Zoning Case Study Selection

I decided to conduct a case study on the urban form effects of Euclidean Zoning on a Neighborhood Business District to showcase the consequences of such regulation on traditional business centers. This case study's purpose is to stand in contrast to the FBC case studies and show the type of development that should be expected if Euclidean Zoning remains the dominant regulatory structure in Cincinnati. With this in mind, I decided to choose the College Hill NBD in Cincinnati as my case study focus because it is a great example of a traditional business district whose form and cohesive nature has been torn apart by auto-oriented business and surface parking lots under the Euclidean Zoning regulatory structure.

2.5 Case Study Summary and Analysis

I began my analysis of each FBC case study by attempting to understand current conditions and economic situations each community has faced. From this, I was able to understand why the community decided to implement the FBCs. Then, I analyzed each case study's actual FBC and summarized important concepts and regulations. Further, through internet searches, journal readings, and past people's analysis, I was able to put together an analysis of FBC development effects in each community. I then analyzed each case study in general terms, citing pros and cons of each based on general intents of Form Based Codes themselves. I also discussed pros and cons in terms of how the code promoted community, social equity, and the common good – three social goals discussed is Section 3.8, 3 goals pertinent to physical planning, and 3 goals indirectly expressed in the 27 principles of the Charter of the New Urbanism.
With regard to the Euclidean Zoning Case Study, the analysis looked at the NBD from a historical perspective, briefly highlighting the College Hill of the past, the present, and how it has changed over the years. I analyzed the current Euclidean Zoning Code and related it to the recent developments that have taken place in the NBD, most notably those of auto-orientation. Finally, I analyzed the NBD from a traditional planning perspective, discussing the pros and cons of its current structure from this perspective. Seeing as how Form Based Codes has a traditional planning underpinning, this analysis will help me understand how FBCs could be applied to a place like College Hill.

2.6 Conclusions for Cincinnati FBCs

The FBCs I studied are place-based, meaning they are instruments meant to shape their environment and unique to that environment. Therefore, applying my findings from these case studies to Cincinnati was difficult and limiting. Nonetheless, from both my literature review and case study analysis I was able to draw general conclusions and recommendations regarding the impact FBCs would have on NBDs in Cincinnati, Ohio.

2.7 Methodology limitations

My analysis has two main limitations:

1. Case Study Applicability
2. Insufficient data

First, my case studies may or may not represent FBC national trends. I could have chosen two completely different case studies and thus come upon completely different conclusions. However, both my case studies share principles that are common in stated Form Based Codes principles and thus, I am assuming they are or could be considered representative examples of FBCs in general.
Second, all three case studies presented challenges regarding access to data. Given the time and scope of this project, I was unable to visit, in person, the FBC case studies. As a result, I cannot give an accurate portrayal of development affects that only a first hand account can give. Thus, my findings as they relate to FBCs in Cincinnati, Ohio could be considered initial and not absolute.
Chapter 3: Literature Review

3.1 The Problem with Sprawl

For the past 60 years, the outward expansion of the city’s people and resources has come with numerous consequences. It has had social and environmental ramifications for the suburbs and exurbs, as well as economic and racial isolation in the inner city. Also, this outward expansion has had a negative effect on our natural resources and is unsustainable in terms of consumer efficiency (Fofrich, 2004).

As suburban sprawl continues to increase in the United States, so too does infrastructure and the cost associated with maintaining it. This includes the need to expand gas, water, power lines, and roads. Plus, freeways are needed to reach these places due to a lack of public transit in these regions. Further, many suburbs restrict who can live in their communities, something that can be seen in gated communities. These places prevent numerous types of relationships that would typically develop in a community. As a result, many suburbs have become places of scarce social interaction. This cuts people off from each other, reducing interaction between different groups, and thus decreases awareness and tolerance of differing opinions and ways of life (Wiseman, 1998). Certainly, a large force behind the suburbanization of the United States is Euclidean Zoning and Non-Euclidean Zoning and their regulatory structures (Gajjar, 2007; Wiseman, 1998).

3.2 Brief Euclidean Zoning History

In 1926, the concept of land use zoning was legitimized by the US Supreme Court in the case of Village of Euclid, Ohio vs. Ambler Realty Co., and was soon coined Euclidean Zoning (Cullingworth, 2003). Before this, similar regulations were based on
the authority of cities to exercise their police power through the protection of public health, safety, and general welfare of the public. As a result, these early regulations looked to minimize uncontrolled development and harmful land uses (Gajjar, 2007).

From this idea, cities began requiring the separation of buildings to avoid the spread of fires and allow for people to have more space to themselves. Later, they limited building height to allow for easier access for firefighters. Further, they isolated single-family housing from all other types of development, especially from industrial, smoke-producing uses. From this, a gradual practice of separating ‘incompatible’ uses became the norm; now cities had different zones for residential, commercial, industrial and so on (Mandelker et al, 2008).

This initial creation of single-family isolation was due in part to the belief that multi-family housing was substandard and undesirable to be around. This bias can be seen in the 1926 U.S. Supreme Court case, Village of Euclid v. Ambler Realty Company (272 U.S. 365) which validated the idea of comprehensive zoning and led to the coining of the term “Euclidean Zoning.” The following quote is an example of the Court’s thinking and clearly shows a bias towards multi-family housing:

*With particular reference to apartment houses, it is pointed out that the development of detached house sections is greatly retarded by the coming of apartment houses, which as sometimes resulted in destroying the entire section for private house purposes; that in such sections very often the apartment house is a mere parasite, constructed in order to take advantage of the open spaces and attractive surroundings created by the residential character of the district.....Under these circumstances, apartment houses, which in a different environment would be not only entirely unobjectionable but highly desirable, come very near to being nuisances* (Mandelker et al, 2008).
Since 1926, numerous communities across the United States adopted land use zoning to regulate private land use and to prevent adjacent property nuisances. By 1937, forty-seven states reported some form of land-use zoning and by 1950; the country was seeing mostly suburban oriented development (Haar and Kayden, 1989). As of today, all 50 states have such regulation (Hoch, 2000).

Since 1950, the United States saw large growth in the economic and housing sectors. As a result, highlights of the shortcomings of segregated land uses began to show themselves. The large demand for housing, high marriage and birth rates and the idea of attaining the ‘American Dream’ created a shortage of housing for families. These problems lead to the dramatic increase of large scale housing production on the United States (Jackson, 1985). This further allowed for people to live far from where they work, segregated land uses even further, and lead to what is known today as ‘sprawl’ (Jackson, 1985; Parolek et al, 2008).

As more and more people demanded such a lifestyle, travel distances to and from work increased. As these single family homes sprawled and decentralized, the provision of public transportation became expensive and inefficient (Parolek et al, 2008). As a result, a car-dominated society was created, something that was “unsociable, outdated, and technically unsustainable [to people’s] daily lives” (Ferrel and Madden 2002, 12). Now, government money went to designing and building streets to accommodate increased traffic flows (Parolek et al, 2008). These developments made streets less attractive for pedestrians while further separating people from anything to walk to. This type of zoning continues today in American society and is the prevalent way of regulating zoning laws (Ferrel and Madden, 2002; Parolek et al, 2008).
3.3 The Need for a Healthy Urban Core

The city, unlike suburban and exurban sprawl largely created by Euclidean Zoning, has the potential to support a wide variety of life styles. The variety of buildings and residential options in neighborhoods allow for diverse tastes and residents (Jacobs, 1961). Each neighborhood can have a variety of functions, places, and activities that serve as a location for residents to come together. This provides a great source of community and pride for residents (Moe and Wilkie, 1999).

Further, it is proven that an image of a struggling city directly affects the metropolitan region as a whole (Moe and Wilkie, 1999). Lively city areas, due to their dense concentration of people and ideas, can also support diverse large and small businesses in ways suburbs cannot (Jacobs, 1961). Further, cities full of life and diversity help small businesses that fill niches develop, which directly benefits the community by reinvesting in the local economy and thus supporting other important institutions (Moe and Wilkie, 1999).

So the City must be healthy if the region as a whole is to be healthy. As Jane Jacobs writes, “Without a strong and inclusive central heart, a city tends to become a collection of interests isolated from one another. It falters at producing something greater, socially, culturally and economically, than the sum of its separated parts” (Jacobs, 1961, 165) With this quote in mind, the City of Cincinnati, Ohio, being the urban central core of its region, must be strong, vibrant, and healthy.

3.4 New Urbanism – The Return of Traditional Planning

One recent trend that attempts to give our regions a strong urban core, combat the negative effects of Euclidean Zoning, and return our cities to what is called ‘proper form’
is New Urbanism. New Urbanism initially rose about as a response to the development effects of Euclidean Zoning. In the 1960s, a growing number of people became dissatisfied with the suburban development caused by Euclidean Zoning and the disinvestment in our urban cores that was taking hold of America. Jane Jacobs’s book, *The Death and Life of Great American Cities* fueled a lot of this distaste for modern suburbia (Longstreth, 2000) and in the 1980s, the movement known as New Urbanism came to fruition among planners and designers (Longstreth, 2000).

New Urbanists cited many faults of suburban type development. They saw this development as too auto-dependent, with excessively wide roads, seas of parking lots, and congested traffic. This lead to wasted resources and threatened the sustainability of the natural environment. Further, suburban development has encouraged social homogeneity, as development patterns have lead to social division and isolation of the rich and poor. Because of these factors and many more, these places have lacked character, a sense of place, and community pride, characteristics once exhibited in many communities before Euclidean Zoning. New Urbanism has set out to fix these issues and return our cities to more traditional forms (Calthorpe, 1993).

In the 1990s an organization called the Congress for New Urbanism was formed and their set of principles was defined (Leccese *et al* 2000; Neal 2003). These ideals described the planning and design of spaces, squares, roads, streetscapes, buildings, and how they relate to one another. Essentially, New Urbanism hoped to promote community cohesion. Applying traditional planning designs, it discourages reliance on the automobile while encouraging a lifestyle where jobs, retail, and homes are situated close to each other (Calthorpe, 1993; Leccese *et al* 2000; Neal 2003.)
The theme of New Urbanism is that of community interaction, with properly placed town centers and cultural institutions that foster “pedestrianism” to create “urban villages” with discernable centers, public gathering spots, high density mixed-uses, and within walking distance of transit stations or centers (Calthorpe, 1993). “Pedestrianism” is about choking down the streets, creating mini-parks where parking lots once lay, and putting in more landscaping and street furniture (Calthorpe, 1993).

Further, New Urbanism attempts to take the emphasis away from the automobile and place it on the pedestrians, the residents. It seeks to create a pedestrian-friendly, economically and socially diverse community for all walks of life. It aims at improving the quality of life in the long-term, rather than simply adding more turning lanes, entrance features, and collector streets (Katz, 1994). The neighborhood qualities that still exist in form in many of our urban cores are again brought to the forefront and emphasized as proper form (Calthorpe, 1993).

In terms of actual neighborhood design, traditional streets should form a connected network, be narrow in nature, tree lined, and should be pedestrian friendly. On-street parking and narrow streets are meant to slow auto traffic. Buildings should be placed close to the street while parking lots are hidden behind the structures. The reasons for this placement have to do with human perception of a place. First, humans tend not to like endless vistas as they can be disorienting. Thus, people naturally prefer vista termination (Congress for the New Urbanism, 2001).

Further, streets need enclosure to make the space feel tangible. To achieve horizontal enclosure, buildings must be placed closer to the street in a cohesive manner to give visually interesting things to look at while walking by. Building placement is
important too, as prominent structures such as churches or other civic sites should be placed at the termination of street vistas to enhance prominence. To achieve vertical enclosure, tall trees in long rows could be planted for such effect. Also, neighborhoods should have a discernible center, often in the form of a green or square (Congress for the New Urbanism, 2001).

### 3.5 New Urbanism in Commercial Development

New Urbanist principles took hold of retail development in the mid-1990s, as Lifestyle Centers became increasingly popular. This type of center is characterized as having continuous storefronts accessed by exterior walkways. Typically, large surface parking lots border the walkways. The storefronts are thought to be more ‘upscale’ in nature, using higher quality materials and obvious differentiation of materials from store to store. This design was meant to increase visibility for each store and accommodate fast-paced lifestyles of shoppers by giving them easy access to each store (Weber and Palmer 2005).

Soon enough, a new Town Center trend grew out of the Lifestyle Center trend. Town Center developments were based on the concept of replicating small town downtowns and/or small neighborhood business districts (Southworth 2005). Typical Town Centers tend to be large in scale and have on-street parking. They usually have a ‘dumbbell’ layout with department store anchors at the ends of streets. Outside the Town Center, surface parking lots or parking garages typically surround the Center and most of these developments are along highways (Bohl and Schwanke 2002; Southworth 2005).
What differentiates Town Centers most from Lifestyle Centers is the presence and focus of mixed-uses. Typically, in Town Centers the first floor is comprised of retail with the upper floors being used for office or residential purposes. These are being developed this way because market trends show an increased interest in urban living and environments, especially among young professionals and empty nesters (Bohl and Schwanke 2002; Southworth 2005).

Town Center developers are paying attention to the details, as most of them include a town square, a public green space, street furnishings, traditional architectural styles, and façade differentiation. Also, the façade design gives the impression of many small buildings connected to each other, resembling many small towns or neighborhood business districts that already exist across the country. When planning these Town Centers, developers have considered place making, identity, and architectural styles to be a critical aspect in creating a successful Center (Bohl and Schwanke, 2002; Southworth, 2005).
With increasing congestion on highways, rising fuel prices, and increasing land values, it seems that the popularity in urban development styles will be a long lasting trend. Further, there is a realization that consumers increasingly desire a need to connect to their surroundings. With this in mind, Town Centers have enacted placemaking techniques discussed above, inciting pedestrian friendly spaces to which people will develop a strong emotional connection (Beyard et al, 2005; Schmitz et al, 2006; Southworth et al, 2005).

Shopping is now seen as an escape for consumers; a recreational and social experience that is more about being and interacting with others than it is about shopping and buying things. This shift to a focus on the experience of consumers can be seen in how retail stores, restaurants, and entertainment facilities in Lifestyle and Town Centers pay attention to the detail of design in an attempt to deliver a product that would be considered an experience, rather than a service. As a result, perceived value increases and thus higher prices can be charged, resulting in higher profits (Pine and Gilmore, 1999).

According to Jonathan Levine of the University of Michigan and Lawrence Frank of the University of British Columbia, only 5 to 10 percent of the United States housing stock is located in walkable urban places and yet, nearly 33 percent of homeowners and buyers prefer to live in these types of places, creating a large pent up demand for urban lifestyles. As has already been discussed, a large chunk of development in the United States will continue to be mixed-use and contain urban character, integrated in the urban grid, of higher residential density, and connected to existing neighborhood contexts. Consumers seem to be looking for community experiences. If places like Cincinnati,
Ohio take advantage of these trends, they should expect to fill the pent up demand for urban lifestyles.

3.6 New Urbanism Codified - Form Based Codes

In an effort to strengthen our urban cores and combat the negative externalities of Euclidean Zoning, seen in suburban and exurban sprawl, New Urbanists have created Form based Codes (FBCs), a regulatory tool that is vision based and prescriptive, either requiring or giving the option through overlay districts that all development act in a cohesive manner in order to serve the vision of a community, focusing design more than use (Ferrel and Madden, 2002). Apart of the New Urbanism movement, FBCs are place-based, attempting to enhance or create a specific place’s unique characteristics, either creating or returning places back to traditional forms as described in section 3.4. To accomplish this, they aim to be customizable and attempt to regulate different places’ own unique vision (Parolek et al, 2008).

FBCs are designed to address both public and private concerns, attempting to create whole places with buildings, streets, sidewalks, parks, and parking. Essentially, they aim to regulate private development for the public good. Further, Form Based Codes regulate the details of walkable, human-scaled neighborhoods, focusing on urban form while looking at use and other important factors to create mixed-use, diverse, lively places (Parolek et al 2008). To regulate such details, FBCs typically use clear, easy to understand graphics and illustrations to show exactly what they are regulating and what should be created (Lynch, 2003).

FBCs also attempt to isolate noxious uses such as heavy manufacturing and airports, a characteristic similar to conventional Euclidean zoning. Finally, FBCs can
attempt to provide a streamlined, fast development review and approval process, as adhering to a community’s vision requires little or no subjective review (Parolek et al 2008). Table 3.1 provides a more in-depth look at the differences between conventional zoning and FBC’s.

<table>
<thead>
<tr>
<th>Conventional Zoning Codes</th>
<th>Form-Based Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-oriented, segregated land-use planning principles</td>
<td>Mixed use, walkable, compact development oriented principles</td>
</tr>
<tr>
<td>Organized around single-use zones</td>
<td>Based on spatial organizing principles that identify and reinforce an urban hierarchy</td>
</tr>
<tr>
<td>Use is primary</td>
<td>Physical form and character are primary, with secondary attention to use</td>
</tr>
<tr>
<td>Reactive to individual development proposals</td>
<td>Proactive community visioning</td>
</tr>
<tr>
<td>Proscriptive regulations, regulating what is not permitted, as well as unpredictable numeric parameters, like density and Floor-Area Ratio (FAR)</td>
<td>Prescriptive regulations, describing what is required, such as build-to lines and combined min/max building heights</td>
</tr>
<tr>
<td>Regulates to create buildings</td>
<td>Regulates to create spaces</td>
</tr>
</tbody>
</table>

Table 3.1: Conventional (Euclidean Zoning vs. Form Based Codes) Source: Parolek et al, 2008

Form-Based Codes, as defined by the Form-Based Codes Institute, are made up of the following required components:

1. A Regulating Plan
2. Public Space Standards
3. Building Form Standards
4. Administration
5. Glossary

A Regulating Plan

This is a plan or map of some sorts that assigns the codes different standards to locations throughout the spatial boundary of the community/city. The purpose of the
regulating plan is to administer and identify where different rules apply for different developments. The Plan also acts as direct regulation, showing precise development requirements such as street frontages and building types. Also, The Regulating Plan is by nature a planning tool, allowing planners to apply FBCs on a street-by-street or block-by-block basis. As opposed to applying regulations to large regions, this method allows easy transition throughout the neighborhood in seamless fashions (Parolek et al, 2008).

The main difference between the regulating plan and a Euclidean zoning plan has to do with simplicity. Essentially, typical zoning maps are considered confusing with numerous land use classifications and their related, overly descriptive code. On the other hand, a typical FBC regulating plan has anywhere from 3 to 10 building types with their specific location and detailed form standards associated with their location (Burdette, 2004).

When regulating the type, scale, form, and density of certain development, planners have commonly used SmartCode, a way organizing FBCs principles into a rural-to-urban “transect.” This organization scale is a means of considering different human habitats from the most rural to the most urban. These transects are meant to transition smoothly from one to the other as opposed to harsh boundaries and distinctions (Bohl, 2002). The zones, as shown in Figure 3.3, are classified by the physical intensity of the urban form, the relationship between nature and the urban, and the complexity of uses within each transect.
This type of transect can be applied to all elements of creating places, from building form and parking requirements to public spaces, signage, etc. These transects should be implemented on a community level and introduced at the beginning of the visioning process. This allows a community to choose which transect they would like to model themselves after (Parolek et al, 2008).

While some say the transect standards can pigeonhole community development, (Burdette, 2004), others attest the transect is flexible and allows for the natural evolution of a community to occur (Bohl, 2002). Proponents argue that if a community fits under the T3 zone but over time market forces demand different built environments and densities, a community can easily transition to the T4 transect. Also, a community can pick and choose different elements from different transects for community application (Parolek et al, 2008). For example, a community can implement T4 parking requirements with T3 building heights.

Public Space Standards

The character of the public space such as parks and plazas affect the quality of places and the ‘sense-of-place’ characteristics communities attempt to attain. For this very reason, Public Space Standards are critical elements of any Form-Based Code.
These elements cover two broad categories: thoroughfares/streets and civic space (Parolek et al, 2008).

Thoroughfares or streets are the veins and arteries of any community, pumping life throughout the region. Therefore, the impact of their design on places is of the utmost importance. Depending on the community transect, different standards can be applied to different places. For example, places in the T2 zone can get by with curbless streets and have wider travel lanes whereas T6 communities will have a greater amount of curbs, narrow travel lanes, and narrow planting strip separating the pedestrian from the travel lanes (Katz, 1994). A few common thoroughfare regulations are:

- **Movement Type**- The type of traffic flow the thoroughfare is designed to appease
- **Design Speed** – The highest vehicle speed the thoroughfare is designed to handle
- **Pedestrian Crossing Time** – Time required for pedestrians to cross the street
- **Right-of-Way (ROW) Width** – The area across a street in which the municipality owns
- **Traffic Lanes** – The amount of and width of areas designated for vehicular travel
- **Bicycle Lanes** – The amount of and width of areas designated for bicycle travel
- **Parking Lanes** – The amount of and width of areas designated for on-street parking
- **Landscape Type** – The type of and spacing of plantings
- **Lighting** – The type of and amount of luminous subjects

(Parolek et al, 2008)

**Building Form Standards**

These types of standards have a primary role in defining what the built environment will look like. These are typically presented in transect form or ‘envelope’ form, each ‘envelope’ having its own standards, each presented in graphic, easy to read
form (Katz, 2004). Because FBCs are intended to regulate the character and quality of public spaces, the location and size of the building and its public space frontages must be regulated. After all, it is these structures that define the edges and spaces of many public spaces. Further, each envelope more or less contains the following elements: overview of the zone, building placement regulations, building form regulations, parking regulations, allowed use types, allowed frontage types, allowed encroachments, and allowed building types (Katz, 2004; Parolek et al., 2008).

According to the Form Based Codes Institute, a planner should look at building placement when developing building form standards and keep in mind building flexibility for a variety of uses (Katz, 2004). These elements provide the foundation for establishing the character of each envelope. Typical issues a planner faces when dealing with building placement involve setbacks, maximum and minimum lot widths, and build-to-line (BTL) – a line parallel to the property line where the façade of a structure is required to come up to. Next, a planner must deal with the building form itself. The form establishes the proper proportion for the space and allows for easy transition from public to private uses. Typical issues a planner faces when dealing with building form involves maximum and minimum building height, ground-floor finished level height, building width, building depth, and ancillary building size (Parolek et al., 2008).

Parking is always an issue in dealing with public spaces. Certainly, parking can completely break up urban fabric and eliminate walkable choices. Therefore, it is imperative parking is dealt with in a proper way with good design. For FBCs, parking requirements change depending on what transect the community falls under. Typical issues a planner faces when dealing with parking involves required spaces and location.
Depending on the desired urban form, these requirements differ. Additionally, parking placement can be illustrated in graphic form to give developers and the public a clearer understanding of what they mean (Katz, 2004).

Planners must also deal with allowed land uses when discussing building form standards. While this principle is not a bedrock principle of FBCs (Parolek et al, 2008), they can still regulate them. What makes this regulation different from conventional zoning can be seen through FBCs flexibility in the number and type of land uses allowed in mixed-use zones by listing them in more generic terms. Finally, allowed uses are grouped into easy-to-read tables and intuitive headings and associated with building types in the envelope standards (Katz, 2004).

FBCs can contain regulations of other urban and public space elements. FBCs can further regulate block standards; regulating block length and perimeter and allowed alleys and main arterials. They can also regulate architectural detail including the massing, façade composition, windows/doors, detail, and color combinations (Parolek et al, 2008). As has been stated before, each envelope is treated differently with regard to these specifics as well, as not all detail is proper for all envelopes.

Administration

First and foremost, any municipality looking to adopt FBCs generally has three options:

1. Adopt the FBC into their existing regulatory framework
2. Completely replace the existing zoning regulations with FBCs
3. Adopt FBCs parallel to the existing regulations

(Burdette, 2004)
The second option can be time consuming, cumbersome, and politically unpopular. The third can be politically popular but could be proven ineffective, as the regulation is not mandatory. The first choice seems like a combination of the second and third and could be seen as politically popular (Burdette, 2004; Sitkowski and Ohm, 2006).

All FBCs include administrative provisions that specify how the code is to be enforced. The main procedures specified here have to deal with submitting, reviewing, and approving or disapproving of a proposed development (Sitkowski and Ohm, 2006). From this, there could be numerous subcomponents dealing with anything from historical review to nonconformity issues. Generally though, it is viewed that the critical components to administration code should first be to determine how individual projects will be reviewed and approved and second, that the regulations and procedures address nonconformity issues (Sitkowski and Ohm 2006).

**Glossary**

The final component to implementing Form-Based Codes is to maintain a glossary full of definitions of uncommon terms in which the general public do not understand or do not come in contact with on a daily basis. First and foremost, any glossary should have land-use types for each different transect with appropriate colors so the public can easily understand the similarities and differences between them. From this, confusion can be minimized and implementing FBC’s can be made more obtainable in quicker fashions (Parolek *et al* 2008).
The Charrette Process

In keeping with the ideal of New Urbanism of inclusiveness, a lot of FBCs include some form of community based charrette process in order to achieve a community vision. These charrettes are typically led by consulting firms hired by the municipality and can last several days or weeks. Typically, there is a large community outreach, with announcements about the Form Based Code charrette process and numerous sessions are held in varying formats to ensure diverse people are represented. Over the course of the charrette, the public gives their opinions and thoughts on how they would like to see their community develop, possibly including details on form, architecture, and public spaces. Certainly, each process is different depending on the consulting firm or the municipality. The different processes range from displaying visual graphics such as perspective drawings, site analysis diagrams, and an illustrative plan. The main goal of any charrette process is to gain an understanding of what the public wants out of a Form Based Code so the municipality can codify the community based physical plan. The resulting FBC would, in theory, reflect the needs and desires of the community at large and as a result, no variance process would be necessary for developers, as adhering to the community’s vision requires no such process (Burdette, 2004; Katz and Ferrell, 2003; Katz, 2004).

3.7 New Urbanism Debated: Can Social & Physical Goals be Married?

New Urbanism and thus Form Based Codes is understood as being heavily focused on physical design while analysis of its social goals is limited. Certainly, almost every physical design faces the issue of finding a balance between what design can and cannot achieve socially. If New Urbanism focuses too heavily on the physical, it will be
accused of ignoring the social, however if it gets involved in social issues too much, it will be accused of social engineering. New Urbanism and its stated goals attempt to achieve the right balance (Talen, 2002.)

The debate here is whether New Urbanism and FBC’s physical planning goals can be linked to fostering community, social equity, the common good, and other social goals. Community is usually defined in terms of two aspects, a social component, involving numerous types of social interactions, and an affective component, involving a range of psychological and emotional responses. Social equity can be defined as the distributive equality of people and resources. The common good can be defined as an action that promotes all individuals. Taken together, these three social goals can define three of the main social goals physical planners and thus New Urbanists hope to attain through good design (Talen, 2002).

Many would argue these social goals cannot be attained through physical design solutions, and that such efforts have historically been linked to efforts to promote social homogeneity and exclusion (Silver, 1985). Evidence to this point is mixed, as good design can create great ‘sense of place’ and thus widespread community attachment is created. However, many still see New Urbanism and thus FBCs as an extension of physical determinism bordering on social oppression via creating controlled, contrived experiences (Harvey, 1997; Talen, 2002).

New Urbanism and FBCs have many critics, claiming these tools attempt to engage in social engineering (Talen, 2002). The Charter of the New Urbanism has 27 key principles, all of which can directly be tied to social goals (Congress for the New Urbanism, 2001). Whether or not these goals and their social aspects can be attained
through FBCs and physical design is what is being debated and something I will delve into later during my analysis of specific FBCs in the United States.

3.8 Neighborhood Business Districts (NBDs) in Cincinnati, Ohio

The aforementioned consumer and development trends in Section 3.5 could prove highly beneficial to the City of Cincinnati, Ohio. Currently, the City has many Neighborhood Business Districts (NBDs), all acting as Town Centers for their distinctive neighborhoods and all unique in form and design (Chundur, 2000). Cincinnati could take advantage of the aforementioned trends by aesthetically and hopefully socially enhancing or protecting their current NBDs urban form.

Cincinnati is unique in the Midwest with regard to urban form, as the City’s NBDs are numerous, all acting as central meeting places for each neighborhood. In Cincinnati’s beginnings, downtown became very dense due to topography constraints on its northern boundaries. When technology allowed people to migrate out of the basin and into the surrounding hills, Cincinnati’s first suburbs were created. Examples of this are the present day neighborhoods of Clifton, Hyde Park, and College Hill (Giglierano and Overmyer, 1988).

In their early years these suburbs were accessed via streetcar and thus they developed their own NBDs along or at the end of the streetcar lines. Eventually, a lot of these suburbs were incorporated into the City of Cincinnati, all being relatively close to the City’s central core. Through the first half of the 20th Century, the NBDs contained a variety of shops and uses that catered to the surrounding community. Unfortunately, as the automobile gained in popularity and shopping and housing patterns dramatically
changed in favor of suburbia, many NBDs declined and vacancies increased (The Citizen’s Committee for Neighborhood Business Districts, 1981).

Fortunately for Cincinnati, there have been a few NBDs that have withstood suburbanization and maintained a regional niche. Such examples include Hyde Park, Clifton, Mt. Lookout, Oakley, and Mt. Adams. These centers have provided economic stabilization and acted as economic vessels for their respective neighborhoods. However, these examples are the exception to the rule, as most NBDs have declined, as high vacancies and economic stagnation are prevalent issues (The Citizen’s Committee for Neighborhood Business Districts, 1981).

A number of these NBDs have what New Urbanists would consider strong form; a place adhering to traditional planning ideals with buildings flush with the street, façade differentiation, and promoting a ‘pedestrianism’ realm. If future development is planned properly, these centers could return to viable economic vessels considering the recent consumer and homebuyer trends towards urban atmospheres and walkable communities with central NBD-type places. Currently, the City of Cincinnati is looking to take advantage of these trends. Spearheaded by councilwoman Roxanne Qualls, the City is looking to implement Form Based Codes into their zoning regulations. The desired outcome of such implementation is economic development for the City neighborhoods as well as reinvestment benefits such as increased tax revenue for each community and the City as a whole.
Figure 3.4 showcases Cincinnati’s NBDs, shown in black. These NBDs are defined by the City of Cincinnati Department of Community Development for their Neighborhood Business District Improvement Program (City of Cincinnati, Ohio, 2008). Figure 3.4 showcases twelve NBDs – NBDs that represent the diversity of NBDs in Cincinnati.
Chapter 4: Case Study – Columbia Pike Form Based Code

4.1 About Arlington County

Arlington County, Virginia is a 26-square mile urban/suburban area located across the Potomac River from Washington, D.C. As of 2008, the population of the County was around 208,000 – a 9% growth since 2000. The County population density is 8,062 persons per square mile, making it one of the most densely populated regions in the country. The population is also fairly diverse, with 35% of residents having a Hispanic/Latino, African-American, Asian, or multi-racial background. 23% of residents were born outside the United States and 99 languages are spoken in the County public school system. As of 2006, a little over 67% of adults age 25 and older had a bachelors degree or higher and 34% held a graduate or professional degree (Profile of Arlington County, VA, 2008).

Economically, Arlington had an estimated 205,300 jobs as of 2008. The federal government was the largest employer in the County and the top 5 private employers were as follows: Virginia Hospital Center, Marriott International, Corporate Executive Board, Lockheed Martin Corp., and SAIC. In March 2007, Arlington’s unemployment rate was 1.8%, significantly below the national average. In today’s economic struggles, this number has most likely increased (Profile of Arlington County, VA, 2008).

Arlington’s main attractions are the Pentagon, Arlington National Cemetery, and the U.S. Marine Corps War Memorial. The County isn’t merely for tourists though, as numerous residential neighborhoods and over 50 million square feet of office space are present. The majority of this office space is along the Metropolitan Area Transit Authority subway system (Metro) lines. Over the past few decades, Arlington County’s
planning and economic development efforts have been along these lines (Profile of Arlington County, VA, 2008).

4.2 Columbia Pike

Columbia Pike is a major thoroughfare across Arlington County. For many years, this corridor has served as the County’s ‘Main Street,’ home to eclectic neighborhoods, residential community’s, shopping areas, and religious institutions. Since the 1970’s, the character of Columbia Pike had been threatened by suburban commercial development allowed by Euclidean Zoning (The Vision: Arlington’s Main Street). As of the early 2000’s, the Pike was littered with freestanding fast food restaurants, convenience stores, and auto-oriented, single use developments, as seen in Figures 4.1-4.3. Despite the single use orientation, the neighborhoods around the Pike were diverse. A 2001 Brookings Institute study found zip code 22204 – a zip code encompassing Columbia Pike, as one of the most diverse areas in the Washington, D.C. metropolitan area (The Vision: Arlington’s Main Street).

Little economic development took place from the 1970-2000 along Columbia Pike. Timothy Lynch, Executive Director of the Columbia Pike Organization during FBC implementation, is on record as saying that during the 1970-2000 time period, virtually no growth has happened along the Pike. During this time, he argued mom and pop stores were replaced by freestanding chains, but no net growth occurred. Primary reasons for this were due to the Pike not being along Metro routes as well as high land prices (Deane, 2003).
4.3 The Columbia Pike Initiative

During the 1980’s, the Arlington County Board created a special revitalization district along an important section of Columbia Pike in an effort to create economic development along the corridor. In 1986, a coalition of local businesses, property owners, and concerned individuals created the non-profit Columbia Pike Revitalization Organization (CPRO) and focused on the revitalization district. By the 1990’s, the organization expanded their efforts to the entire Columbia Pike – from the County line to the Pentagon. The majority of the land is neighborhood oriented commercial uses, and the existing zoning classification allows for linear commercial development along the Pike. Other portions of the district are zoned residential, including diverse options for apartments and single-family homes (Facts about CPRO, 2008).

In 1998, the Arlington County Board created the Columbia Pike Initiative, tasked with the mission to create a safe and vibrant “Main Street.” To carry out this idea, the Arlington held hundreds of community meetings over three years in an attempt to not only educate the public about community development, but to also gain ideas about
future needs for the area in order to create a vision for the Pike. The vision included five primary goals:

1. A community that is vibrant, with safe neighborhoods, active retail and office, and a variety of housing options and types, including a mix of orientation, revitalization, and/or redevelopment;

2. A community that is ethnically diverse and culturally rich;

3. A community that is easily accessible by public transportation and on foot;

4. A community that has well-designed and attractive buildings, streetscapes, public art, and open spaces that link the commercial corridor with the surrounding neighborhoods; and

5. A corridor made up of distinct commercial mixed-use districts (Columbia Pike Initiative, 2008).

From this vision, the County adopted a Revitalization Plan in 2002, and then held a community based charrette. Over the course of the seven day charrette, Arlington planners and consultants worked with the community to transform their vision for the Pike into a series of land-use plans that were anti-Euclidean Zoning in nature. Together, the Revitalization Plan and the charrette results served as a framework for the creation of the Columbia Pike Special Revitalization District Form Based Code (FBC), which was enacted by the County in February 2003(Columbia Pike Initiative, 2008).

4.4 Columbia Pike Form Based Code Purpose

The Columbia Pike Special Revitalization District Form Based Code (called the Code), in Arlington, Virginia, is a parallel code, meaning it sits next to the existing zoning ordinance, and developers can choose which to follow. This legal document
regulates land-development, setting careful controls on building form- with broad parameters on building use- to shape clear public space and with a strong mix of uses. The Code is designed to foster and maintain a vital Main Street for its surrounding neighborhoods and uses clear graphic prescriptions for height, siting, and building elements to address basic necessities for forming public space. Wherever there appears to be a conflict between this Code and other sections of the Zoning Ordinance, the requirements set forth by the Code will prevail. The Code is made up of the following parts: Definitions, the Regulating Plan, the Building Envelope Standards, the Streetscape Standards, and the Architectural Standards (Columbia Pike Special Revitalization District Form Based Code).

4.5 Definitions

This section defines terms for the purpose of the Code. Certain terms used in Form Based Code are used in specific ways and thus must be defined prior to any Code itself. Terms range from Accessory Unit to Streetscape. Where these terms are used in the Code, they are presented in CAPITAL letters to refer back to the meaning of the term defined here (Columbia Pike Special Revitalization District Form Based Code).

4.6 The Regulating Plan

The regulating plans act as the foundation for the Columbia Pike FBC, defining the relationship between the individual lots and the surrounding streets. The Code includes four specific regulating plans: The Town Center, the Neighborhood Center, the Village Center, and the Western Gateway. These plans are structured around maps that indicate the hierarchy of the district’s streets: “Main Street Frontage,” “Avenue Street Frontage,” “Local Street Frontage,” and “Neighborhood Street Frontage.” Each of
these designations is described in detail later in the Building Envelope Standards. The regulating plan map, one of which is seen in Figure 4.4, include a required building line (RBL) – a line to which building facades must be built up to, parking setback lines – prohibits parking within the streetfront realm (excluding on-street parking), tree alignment lines – emphasizes the importance of street trees along Columbia Pike (Columbia Pike Special Revitalization District Form Based Code).

In addition to the maps, the regulation plan section specifies rules in the following areas:

1. Blocks/alleys –
   a. all lots shall share a frontage line with a street; all lots and or all contiguous lots shall be considered a block;
   b. No block shall have a length greater than 400 feet without an alley or pedestrian access providing a pathway through to another street; and
   c. Alleys shall provide access to rear lots; curb cuts shall be limited to no more than one per 200 feet of street frontage on main street and avenue sites.

2. Buildings –
   a. The maximum building footprint is 30,000 square feet, large grocery stores may have a 50,000 square foot footprint;
   b. For each block, buildings shall present a complete and discrete façade composition. Each façade shall include a primary street entry; and
   c. Consistent building envelope standard sites shall front one another across streets. When separated by a square, civic green or park, building types
from adjacent levels may face one another, unless otherwise indicated on the regulating plan.

3. Streetscape

a. Street trees shall be planted at the time of development and spaced 25 to 30 feet on center;

b. Street lights shall be installed on both sides of streets along the street tree alignment; and

c. At time of development, developer is required to install sidewalks. Consistency of paving design is required within a block;

4. Parking

a. Enable people to park once at a convenient spot and then be able to walk around. Encourage shared parking facilities;

b. Reduce diffused, inefficient, single purpose reserved parking;

c. Maximize on-street parking;

d. 1 1/8 parking spaces per residential unit, one space per 1,000 square feet of non-residential space, all of which are shared parking; and

e. For office development, 1 employee bicycle parking rack or bicycle locker per 7,500 square feet of space shall be provided; for residential, 1 parking rack per 3 units; for retail, 1 bicycle rack per 5,000 square feet of space.

5. Retail

a. Generally, retail is required on the ground story of main street sites. Primary retail uses are those that provide entertainment or leisure and secondary retail uses are those that provide personal or business services.
6. Historic Preservation
   
   a. Historic structure redevelopment is subject to the Arlington Historical Affairs and Landmark Review Board. Historic attributes are to be preserved;
   
   b. Historic facades redevelopment is subject to the Arlington Historical Affairs and Landmark Review Board. Historic attributes are to be preserved; and
   
   c. Developers are required to obtain a Certificate of Appropriateness from the Historical Affairs and Landmarks Review Board when dealing with historic properties and streetscapes, utilities, and other issues.

7. Public Improvements
   
   a. The developer/property owner is required to construct and maintain all streetscape improvements (Columbia Pike Special Revitalization District Form Based Code).

Figure 4.4: Regulating Plan Example

Source: Columbia Pike Special Revitalization District Form Based Code
4.7 Building Envelope Standards

The goal of these standards is to create a healthy and vital public realm through good street space. This section includes two components. First, it lists general guiding principles for building within the district. These principles (place parking behind buildings, create vital public realm, active building fronts, etc) are in line with a general New Urbanism design philosophy. Second, the section presents more detailed building standards for each of the four categories described in the Regulating Plans: Main Street Sites, Avenue Street Sites, Local Street Sites, and Neighborhood Street Sites all have different standards (Columbia Pike Special Revitalization District Form Based Code).

For each category of building sites, the FBC includes specifications of height, siting, elements, and use. Within each area, the FBC provides a single, clear graphic with supporting text. Figures 4.5-4.8 provide an example of each specification for Main Street Sites.

*Height Specifications.* The height graphic shows minimum and maximum numbers of stories, floor-to-floor heights, and the height of streetwalls. Supporting text reiterates all graphic specifications.

*Siting Specifications.* The siting graphic shows the relationship between the building, the RBL, required setbacks, and the site’s required open space, if any. Supporting text reiterates all graphic specifications.

*Elements Specifications.* The elements graphic varies between different categories of building sites. For Main-Street sites, the graphic showcases minimum and maximum requirements for streetfront windows. For the other three, the elements graphic goes one
step further and prescribes the general treatment of fences, balconies, and porches. Supporting text reiterates all graphic specifications.

*Use Specifications.* The use graphic shows the allowable uses for buildings within the site. For Main-Street and Avenue sites, the allowed uses vary between ground-floor and upper-floors, with ground-floor dedicated to retail or office. Upper floors are dedicated to residential or office. Local and Neighborhood Sites allow residential uses on all floors. Supporting text reiterates all graphic specifications (Columbia Pike Special Revitalization District Form Based Code).

Figure 4.5: Main Street Sites

![Height Specifications](image)

Figure 4.6: Main Street Sites

![Siting Specifications](image)

Figure 4.7: Main Street Sites

![Elements Specifications](image)

Figure 4.8: Main Street Sites

![Use Specifications](image)

Figure 4.5-4.8 Source: Columbia Pike Special Revitalization District Form Based Code
4.8 Streetscape Standards

These standards attempt to achieve three main goals:

1. Ensure the coherence of the streets;

2. Assist building owners and operators with understanding the relationship between the street and their own lots; and

3. Establish an environment which encourages and facilitates pedestrian activity.

The standards address these goals by providing general principles for the streetscape and the fronts and rears of buildings, stressing consistency and the importance of building facades and their relationship to the street. The standards include minimum streetscape standards, mandating trees (and detailing tree type and spacing), and defining sidewalk width. It also presents rules for dealing with squares and civic greens, ranging from materials used to percentage of pervious surfaces. (Columbia Pike Special Revitalization District Form Based Code).

4.9 Architectural Standards

The Architectural Standards section is intended to create a form consistency along Columbia Pike. Therefore, the Code includes intent, guiding illustrations, and building standards for building walls, roofs and parapets, street walls, windows and doors, signage, and lighting and mechanical equipment. The intent is clear and accompanied with clear graphics of what is wanted and what is prohibited. The building standards provided are high in detail, ranging from allowable roof pitches to the size and type of signage and lettering placed on building door entrances. (Columbia Pike Special Revitalization District Form Based Code).
4.10 Administration

The Administration section describes the two review processes that apply to any development within the district that chooses to use the FBC incentives. The two processes are as follows: by-right option or special exception/use permit option. For each option, a detailed process is laid out, laying out both the permitting timeframe and the roles of those involved (Columbia Pike Special Revitalization District Form Based Code).

In combination with the FBC, Arlington County implemented numerous economic incentives, including tax exemption for money spent on commercial rehabilitation, expediting the regulatory approval process (from 12 months to 90 days), a tax-increment financing district, and shared parking zones (Columbia Pike Special Revitalization District Form Based Code).

4.11 Development Effects

In the two years after FBC implementation along Columbia Pike, there was a general consensus that economic stimulation was occurring at unprecedented levels. Timothy Lynch, then Executive Director of the Columbia Pike Revitalization Organization and Richard Tucker, then Arlington County planner directly involved with the Pike, are on record as saying the FBC had been a success in attracting investment (Kohr, 2004).

Within the first two years of FBC formulation, over $300 million in new development projects had been proposed along the corridor. According to Lynch, the development community seemed to embrace the FBC along with the economic incentives
provided. He noted one main reason for this was due to the simplicity of the Code and
the fact that the developers didn’t have a lengthy plan approval process (Kohr, 2004).

Since then, the Code has continued to spur development along the corridor. The following FBC compliant projects have either been approved or completed since 2004:

- In 2006, the Halstead at Arlington mixed use project was approved, complete with underground parking and a dedicated public square. As of today, the project is close to being complete;
- Concrete is being poured for the 55 Hundred project, another high density (10 story) mixed use building;
- The Arlington Mill Community Center was recently approved, complete with a gymnasium, apartments, ground floor retail, and a public plaza;
- Concrete is being poured on the 6-story mixed-use Siena Park. Construction is expected to be complete by late 2009;
- Penrose Square, a 7-story mixed use project is currently in the process of attaining approval; and
- Majestic Oak is a completed 11 single family and 11 town home projects two blocks south of Columbia Pike (Work Continues on Approved Development Projects, 2008).
The high density development has garnered attention for new public transportation as well. In spring 2006, the Arlington County Board and the Fairfax County Board of Supervisors formally adopted the Modified Streetcar Alternative as the preferred alternative for new transportation along Columbia Pike. The Columbia Pike Streetcar initiative is still in its infancy and early planning stages, but the desire for better public transportation underscores the economic development successes along the Pike (Work Continues on Approved Development Projects, 2008).

4.12 Code Evaluation

In terms of the Code itself, from my judgment, the pros of the Code are as follows:

- Promotes community involvement through public charrettes;
- Applies an economic incentive system to lure developers to use FBC;
- Provides clear and easy to understand graphics;
- Shortened project approval time; and
- Code based on level of physical impact.
In terms of the Code itself, from my judgment, the cons of the Code are as follows:

- Is a parallel Code, meaning the original Euclidean Zoning still exists. This is confusing and presents legal issues and barriers in the future.

In terms of development consequences, there is strong evidence the Columbia Pike FBC has been a success. The FBC has undoubtedly caused a lot of private investment in an area previously plagued by poor cohesion, surface parking lots, and no identity due to Euclidean Zoning. The new projects being developed are almost entirely mixed-use, of high density, and are adhering to the FBCs. As a result, a community is being formed with strong vision, cohesion, identity, and promise, something the pre-existing Euclidean Zoning ordinance had failed to do.

When looking at the pros, cons, and development consequences of the Columbia Pike FBC, one must also consider the social impact on the community. How has the FBC affected societal goals of fostering community, creating social equity, or reaching a common good? It seems the charrette process for this FBC was successful in achieving a broad spectrum of the residents who live around Columbia Pike. The process allowed them to interact with each other, create something together, and unify around a common vision. In this way, I believe the charrette process created or helped continuing efforts towards fostering a community. Because the vision set forth was representative of the entire community, I also believe the process has reached a greater common good. What seems lacking is social equity, as a lot of the new private development caters to the middle income and upper income population and ignores lower class individuals. For example, there is little to no affordable units or rental units in the new developments
being created, something that shuts out certain socio-economic groups. As the Code continues to be used and implemented, I would recommend incorporating social equity components to plans while trying not to have them perceived as social engineering or physical determinism products.

As the Code moves forward, I would recommend making the Code a mandatory regulation, forcing developers to follow the FBC and ridding the area of two separate standards. It seems the area has reached a critical mass and an incentive system may no longer be necessary. Still though, the Columbia Pike FBC has brought the community’s ideas together into a cohesive vision, bringing needed predictability to corridor development. Seeing as how the Pike was previously plagued with uncertainty and lack of cohesion, and coupled with the possibility of alternative transportation coming to the area, this portends well for the future of the Pike.
Chapter 5: Case Study – Urban Village Code

5.1 About St. Paul, Minnesota

St. Paul, Minnesota is a 52-square mile urban core city located along the Mississippi River, in Ramsey County and roughly 8 miles from downtown Minneapolis, Minnesota. As of 2007, the city population was estimated at 273,535, a decrease of 4.6% since 2000. St. Paul is apart of the much larger Minneapolis-St. Paul metropolitan region, with a little over 3 million residents. The city’s population density is 5,260.88 persons per square mile. The population is relatively diverse, with 67% of residents being Caucasian, 11% being African-American, and 12.4% being Asian. As of 2007, roughly 37.2% of residents held a bachelors degree or higher (U.S. Census Bureau, 2007).

Economically, St. Paul has 145,717 jobs as of 2007. Major employers include Ecolab, The Travelers Companies, and Lawson Software. As of 2007, the unemployment rate was 5.6%, similar to national average. In today’s economic struggles, this number has most likely increased (U.S. Census Bureau, 2007).

5.2 Urban Villages

Traditionally, St. Paul grew many urban villages across its boundaries with a mix of uses and civic open space. This settlement pattern changed after World War II, when the automobile began dominating the development landscape. Like many American cities, St. Paul began building streets for cars rather than people, and shopping centers with large parking lots became the norm, in sharp contrast to the urban village model that had existed for years. As a result of the auto-orientation of St. Paul, many of these urban
villages couldn’t compete and became rundown and vacant (Rhees and Torstenson, 2001).

In the 1990’s, policymakers and neighborhood advocates, aware of the state of their urban villages, began increasing awareness of place-oriented urban design in sustaining and renewing St. Paul’s downtown and urban villages. Therefore, the city decided to rehabilitate an aging urban village known as Phalen Center. During this process, the city went through a lot of arm-twisting to achieve a desired mixed-use neighborhood with varying housing types. It was then that the city realized the city’s current zoning code was more a hindrance than a help in reestablishing urban villages (Rhees and Torstenson, 2001).

Because of the current zoning shortcomings, the city created a policy plan known as the *Saint Paul on the Mississippi Development Framework*. The plan advanced a persuasive image: a series of interrelated mixed-use urban villages in and around downtown nestled in a reforested Mississippi river valley. The ten guiding principles, something which has since been incorporated into the city comprehensive plan, are as follows:

1. *Evoke a sense of place.* Create a physical setting that says, "This is St. Paul."
2. *Restore and establish the unique urban ecology.* parts of the natural environment that have been lost over time due to development.
3. *Invest in the public realm.* Create a network of streets, sidewalks and parks that are safe, vibrant and pedestrian-friendly.
4. *Broaden the mix of uses.* Create urban villages where people live, work and play.
5. *Improve connectivity* between neighborhoods, downtown and the river.
6. *Ensure that buildings support broader city building goals,* with design that fits into their surroundings and helps make adjacent public spaces active.

7. *Build on existing strengths:* historic buildings, parks, tree-lined streets and the Mississippi River.

8. *Preserve and enhance heritage resources:* historic buildings and public spaces.

9. *Provide a balanced network for movement.* Design city streets to accommodate pedestrians, cars, buses, bikes, on-street parking, landscaping, lighting and signs.

10. *Foster public safety.* Increase the number of people in our public spaces (Rhees and Torstenson, 2001).

The city’s Land Use Plan, adopted in 1999 as part of its comprehensive plan, elaborated these principles and established a series of urban village guidelines such as compactness, walkability, presence of institutions, parks, commercial center, and civic institutions, with diverse housing types. The Land Use Plan defined an urban village as follows:

*Neighborhoods as Urban Villages.* Opportunities to live, work and shop in close proximity will reinforce the urban village characteristics of Saint Paul neighborhoods. Improvements and new developments should contribute to a high quality, visually inviting, pedestrian-friendly environment. Land Use and Housing chapter policies support application of urban village principles in neighborhood planning and development. (St. Paul Comprehensive Plan Summary, 1999)

In spite of this proactive planning, St. Paul still continued to deal with unnecessary obstacles when attempting to create urban village-style redevelopment. As a result, the planning staff sought and received a grant from the Twin Cities’ Metropolitan Council to
develop zoning codes that would support the urban village approach. City planning and zoning staff identified three goals and objectives of a new code:

1. It should provide more guidance for urban design and functional relationships for a greater mix of uses - without creating new administrative and plan review burdens for staff already stretched too thin.

2. New regulations need to function simply, clearly and efficiently, in a way that is easy for the public as well as zoning staff to use and understand. Urban village zoning districts cannot be so complex and onerous that property owners and developers avoid using them.

3. Urban village zoning needs to fit seamlessly into the existing zoning code, not make the zoning regulations more complex. It would not result in more overlay districts or layers of complexity and, ideally, should make the zoning regulations simpler and more elegant (Rhees and Torstenson, 2001).

5.3 Urban Village Code Purpose

The general intent of the TN traditional neighborhood districts, found in Article III, Section 66.311 of St. Paul’s Zoning Code is as follows:

TN traditional neighborhood districts are intended to foster the development and growth of compact, pedestrian-oriented urban villages. All three (3) districts are intended to encourage a compatible mix of commercial and residential uses within buildings, sites and blocks; new development in proximity to major transit streets and corridors; and additional choices in housing (St. Paul, Minnesota, 2004).
The intent of the TN1 district is to provide for compact, pedestrian-oriented mixed-use areas of limited size to serve neighborhood needs. It is also intended to act as a transitional use along major thoroughfares. TN2 districts are used for existing or potential pedestrian and transit nodes. Its intent is to foster and support compact, pedestrian-oriented commercial and residential development that can support and increase transit. Finally, the TN3 district provides for higher-density pedestrian and transit-oriented mixed-use development. It is designed for development or redevelopment on site large enough to support a mix of uses, a mix of housing styles, a system of interconnected streets and paths, and a system of open space. TN3 is also intended for smaller sites in existing mixed-use neighborhood centers where some of the above elements already exist or in a potential “urban village” site, as defined in the comprehensive plan (St. Paul, Minnesota, 2004).

5.4 Principal Uses

The Code lists principal uses in traditional neighborhood districts, lists all permitted and conditional uses in the TN1-TN3 districts, and lists if there are development standards or not. A large chart is provided, with [P] for permitted, [C] for conditional use, and a check as to whether there are development standards for that use. An exhaustive chart is given, listing types of housing, civic and institutional uses, social, cultural, and recreational facilities, commercial uses, and accessory uses (St. Paul, Minnesota, 2004).
### 5.5 Density and Dimensional Standards

A table is also provided that sets forth density and dimensional standards that are specific for each traditional neighborhood district. The following table excerpt is for TN1 only:

Table 5.1: Urban Village Density and Dimensional Standards  
Source: St. Paul, Minnesota, 2004

<table>
<thead>
<tr>
<th>Building Type by Zoning District</th>
<th>Density</th>
<th>Lot Size Minimum (per unit)</th>
<th>Height</th>
<th>Yard Setbacks (Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Area (sq. ft.) (a)</td>
<td>Width (feet)</td>
<td>Min. (stories)</td>
</tr>
<tr>
<td><strong>TN1</strong></td>
<td></td>
<td></td>
<td></td>
<td>Min.-- Max.(a)</td>
</tr>
<tr>
<td>1-family dwelling</td>
<td>6--12 units/acre (b)</td>
<td>3,500 (b)</td>
<td>30</td>
<td>none</td>
</tr>
<tr>
<td>2-family/townhouse</td>
<td>8--20 units/acre (b)</td>
<td>2,000 (b)</td>
<td>20</td>
<td>none</td>
</tr>
<tr>
<td>Multifamily</td>
<td>10--25 units/acre (b)</td>
<td>1,700 (b)</td>
<td>n/a</td>
<td>none</td>
</tr>
<tr>
<td>Nonresidential or mixed use</td>
<td>0.3--1.0 FAR</td>
<td>n/a</td>
<td>n/a</td>
<td>none</td>
</tr>
</tbody>
</table>

Table 5.1: Urban Village Density and Dimensional Standards  
Source: St. Paul, Minnesota, 2004

---

54
Lowercase letters, such as (a), (b), or (i) reference notes that accompany the provided information. For example, (a) refers to the following note:

(a) Units per acre is calculated based on net acreage for residential development. Density based on units per acre must be calculated for parcels of an acre or more in size. For smaller parcels, the maximum number of units may be calculated based upon minimum lot size per unit. In calculating the area of a lot that adjoins a dedicated public alley, for the purpose of applying lot area and density requirements, one-half the width of such alley adjoining the lot shall be considered as part of the lot (St. Paul, Minnesota, 2004).

5.6 Required Conditions

The Code also goes over certain conditions required in the TN1 and TN2 districts. Specifically, the Code sets standards for the amount of parking in these districts, maximum amount of surface parking, minimum amount of required off-street parking for nonresidential uses, placement of parking, specifically that on surface level (regulates that parking must be placed to the rear of the principal building in most cases), disallows drive-through sales and services in the TN1 district, stating all business must take place on the inside of buildings, with the exception of outdoor seating, and disallows drive-through sales in TN2 unless a conditional use is permitted (St. Paul, Minnesota, 2004).

More conditions involve storefronts or ground floors originally designed for commercial uses, as the Code says these spaces shall not be converted to more than fifty percent residential use without a conditional use permit. In conversion of commercial to residential, the traditional storefront design shall be retained. Further, in mixed-use buildings, nonresidential uses shall be located on the first floor or lower floors of the
building. Residential units in mixed-use buildings may be on any floor, but not directly underneath nonresidential uses (St. Paul, Minnesota, 2004).

Parking requirements for the TN3 district are given special attention and its own section. This section sets harsher standards for parking than that set for TN1 and TN2, as 2/3 amount of parking is required as compared to TN1 and TN2. Placement of parking is similar to that of TN1 and TN2 (St. Paul, Minnesota, 2004).

5.7 Design Standards

The Code also sets standards for design as it applies to TN1-TN3 traditional neighborhood districts. These standards apply to any site plan and other development proposals, as they should be consistent with the set forth standards unless the applicant can demonstrate that there are circumstances unique to the property that make compliance impractical or unreasonable. The following table is a portion of the table provided in the Code that specifies which design standards apply to which district:
<table>
<thead>
<tr>
<th>TN Guidelines</th>
<th>TN1</th>
<th>TN2</th>
<th>TN3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Land use diversity</td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>2. Similar facing buildings</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>3. Transitions to lower-density neighborhoods</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>4. Block length</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>5. Compatible rehabilitation and reuse</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>6. Use established building facade line</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>7. Buildings anchor the corner</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>8. Front yard landscaping</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>9. Building facade continuity</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>10. Building facade articulation - base, middle and top</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

Notes are accompanied with the above table, and provide in depth design standards. Below are a few examples of such notes:

(2) **Similar facing buildings.** Buildings that face each other across a street shall be generally similar in height, scale and articulation.
(3) **Transitions to lower-density neighborhoods.** Transitions in density or intensity shall be managed through careful attention to building height, scale, massing and solar exposure.

(4) **Block length.** Block faces in mixed use areas shall typically not exceed four hundred (400) feet. Block faces in residential areas shall typically follow the pattern of neighboring blocks, but shall not exceed six hundred sixty (660) feet, the length of the standard Saint Paul block.

(7) **Buildings anchor the corner.** New buildings on corner lots shall be oriented to the corner and both public streets.

(9) **Building facade continuity.** New buildings along commercial and mixed-use streets shall provide a continuous facade along the street. Where breaks occur, the street edge shall be continued through the use of fencing, low walls and/or landscaping.

(10) **Building facade articulation - base, middle and top.**
    a. Most traditional buildings in the city have a strong pattern of base, middle and top, created by variations in detailing, color and materials. New buildings shall respond to this pattern.
    b. Articulated tops shall be considered in the design of all new buildings. This articulation might consist of pitched roofs, dormers, gable ends, cornice detailing, etc.

**5.8 TN3 Required Elements**

The Code sets standards for the TN3 district when a master plan designates portions of blocks or blocks as “mixed residential,” “mixed use,” “open space,” “edge,” or “transition area.” When a site is fifteen acres or more, the site shall include, at a minimum, a mixed residential area and the specified amount of open space within one-
quarter mile of a mixed-use neighborhood center. A mixed use area and/or edge/transition area may also be required, depending on certain criteria. The Code then goes on to list the criteria for such uses if it is to be included in a master plan (St. Paul, Minnesota, 2004).

For a mixed-use area, the Code discusses placement of residential areas as they relate to the mixed-use area, the inclusion of certain compatible uses, and shall include a centrally located public space. For an edge or transition area, the Code discusses densities of housing and housing types. For open space areas, the Code specifies percentages dedicated to open space depending on the size of the site (St. Paul, Minnesota, 2004).

5.9 Planning Requirements

The Code also goes over certain procedures or precedents that must be known when implementing this section of the Code. For example, any previous plans prepared for the urban village sites shall be incorporated as appropriate in preparing any development plan for a TN3 site. The intent of such plans shall be realized to the extent possible (St. Paul, Minnesota, 2004).

The Code then goes on to discuss certain procedures a developer must follow when getting a master plan approved by the City. Any master plan for a TN3 district fifteen acres or more in area shall have a master plan and include the following elements: a location map transit arterials and other geographic features, existing parks and open space within one-half mile radius, a site inventory of resources and constraints, plan graphics including topographic features, block layout, circulation system, block-level analysis, an open space plan, and a preliminary stormwater plan. The plan should also
include building elevations, an indication of scale, height, massing, parking location, and relationship to street. Finally, the plan should incorporate a phasing plan including the phasing of open space and street improvements and utilities. Once approved, a master plan may be modified through minor modifications or major modifications, the only difference being the difference in percentage of plan changes (St. Paul, Minnesota, 2004).

5.10 Development Effects

The Urban Village Code has since seen wide implementation throughout St. Paul’s neighborhoods, specifically along corridors and at important intersections. The design standards have been well received by the development community and have thus far succeeded in garnering a large interest in redevelopment opportunities (Gaspers, 2006). In a few instances however, large interest has not turned into a successful development.

The TN-3 district in particular has seen major interest from developers. One project worth mentioning is the West Side Flats condominium/mixed-use complex that was to be 10 stories in height. The developers sought a variance to build a 10 story structure despite the T3 zoning limiting the development at 6 stories. As a result, the Planning Commission rejected their appeal (Groeneveld, 2004). As of today, because of a number of factors including the credit crunch, the site sits vacant. And redevelopment projects take place, including Westside Flats and the Upper Landing. Combined, they have twelve hundred housing units (Gaspers, 2006).

A successful project is the Riverview at Upper Landing project. The idea for this project, located in a TN-3 district, was to have mainly apartments, and retail along the riverfront complete with underground parking and access to nearby parks. Being billed as St.
Paul’s ‘premier rental community,’ numerous apartments have been occupied and retail tenants such as Caribou Coffee and AnyTime Fitness have filled some retail spots (Gaspers, 2006; Saint Paul Home Realty, 2009). This project is said to be at the center of the revitalization effort of former industrialized areas along the Mississippi River and adjacent to downtown St. Paul. Tax-increment financing has been used extensively on this project (Gaspers, 2006). Gateway Village is another example of a successful TN-3 development. The project started in 2003 and now includes 550 apartments and condominiums and 120 units of senior housing (Ridder, 2003).

Another development worth mentioning is the Pan-Asian mixed-use development in the city’s Frogtown community. This $32 million project, which replaced the Unidale Mall, was quite controversial and was not supported by the Frogtown community council, despite getting approval by the St. Paul Planning Commission. In fact, the community didn’t support the project so much that they asked St. Paul City Council to hold off establishing a tax increment financing district necessary for the project to move forward and signed petitions in favor of stopping the project from happening (Ridder, 2002).
The TN-2 district has seen activity mainly on smaller projects and on a parcel by parcel basis. Such development has acted as a defense against auto-oriented development (Gaspers, 2006). The TN-1 district, designed as a transition zone between high-intensity commercial developments and surrounding neighborhoods has seen a more limited use (Gaspers, 2006).

5.11 Code Evaluation

In terms of the Code itself, from my judgment, the pros of the Code are as follows:

- Applies an economic incentive system to lure developers
- Code based on level of physical impact
- Clear and easy to understand design standards
- Code a mandatory regulation
- Semi-successful use of a building envelope standards

In terms of the Code itself, from my judgment, the cons of the Code are as follows:

- No charrette or community outreach facilitation
- No utilization of graphics were used
- Variances are allowed – keeping project approval time static

In terms of development consequences, there is certainly evidence that the St. Paul urban villages were successful and garnered a lot of development attention. This Code has either facilitated or aided redevelopment of brownfield sites or corridors lacking cohesion and ‘place’ attributes. On the negative side, there have been controversies over several urban village developments. One can be attributed to the fact that the Code allows variances to take place. Because of this, a developer applied for a taller building
that was allowed and in the end, the project was denied. As it stands today, the project is in limbo and the land still stands vacant. Another development faced considerable community resistance and pushback. If a community charrette process was used to facilitate community interest in urban villages then such pushback would not have existed. Instead, certain communities felt like these urban villages were there to gentrify the neighborhood and displace current residents. If a charrette process were used, this could have been avoided.

When looking at the pros, cons, and development consequences of the Urban Village Code, one must also consider the social impact on the community. It is my belief that of the two FBC case studies, this represents physical determinism the most. I believe this because, unlike the Columbia Pike FBC, this Code had no charrette process to gather community input. Thus, it seems the common good was not achieved, something articulated by a lot of St. Paul community members, leading to the nullification of numerous Urban Village projects. While some of the successful projects have created walkable centers where interaction can increase and a sense of community can be fostered, the Code still fails in fostering community in general because it failed to invoke community input through a charrette process or other means.

On the other hand, I do believe some of the Urban Village projects incorporated social equity components, as the Riverview at Upper Landing project included affordable apartments as well as senior living units mixed in with market rate units. As the Code moves forward, I would recommend continuing its social equity policies while attempting to reach out to better reach out to community members where new developments may
happen. As a hopeful result of this effort, community input can be ascertained, allowing pushback to recede.
Chapter 6: Case Study – College Hill Neighborhood Business District

6.1 Neighborhood Business District Location

College Hill is a hilltop community 5 miles from downtown Cincinnati. As of today, the community is primarily residential, with diverse districts ranging from gaslight streets with single-family mansions to dense multi-family dwellings. The principle district, an old traditional business district, lies along Hamilton Avenue which travels north to south directly through College Hill. College Hill’s neighborhood business district, shown in Figure 6.1, is situated along Hamilton Avenue, bounded by Llanfair Street to the south and just north of North Bend Avenue to the north.

Figure 6.1: College Hill NBD Location  
Source: Author; CAGIS, 2009
6.2 Historical Perspective

College Hill’s original NBD could be seen as a model for modern New Urbanism, as it evoked numerous traditional forms. Certainly, the district has a proud past, as it once served as a traditional vibrant epicenter of a walkable community, boasting diverse retail and restaurant options with the Hollywood Theater forming a major attraction (Giglierano and Overmyer, 1988). The district was served by streetcars which helped connect the neighborhood to the rest of Cincinnati and thus increased business along the district. As can be seen in Figure’s 6.2, 6.3, and 6.4, the district, built before Euclidean Zoning became the preferred land regulatory tool, featured institutions favoring pedestrian activity, with storefronts built to the street, providing cohesive, enclosed streetscapes where a sense of community was evident and identifiable. As in all traditional business districts, the area favored ‘pedestrianism’, an urban village with public gathering spots and high density, and mixed-use development within walking distance of residences and transit stations (College Hill, Ohio Cincinnati, 1966).
Since World War II, the automobile soon became the choice transit alternative. Highway’s soon allowed people to live further from where they worked and as a result, many people began leaving the city for ‘greener’ pastures, attempting to attain their slice of the American dream. As a result of this migration out of the city and coupled with the popularity of the car, the majority of new neighborhoods and commercial districts were built around the automobile, catering to their needs more so than pedestrians’. Because Euclidean Zoning was the underlying regulation of the land, such development was allowed and legal, as long as the use matched the zoning code. This way of zoning would soon manifest itself in pedestrian friendly districts like College Hill, and prove to transform the district form from traditional ‘pedestrian’ to modern ‘automobile’. Unfortunately, providing adequate parking proved difficult and thus, places like College Hill simply couldn’t compete with suburban shopping malls with ample parking. As this happened, the district declined as vacancies increased and what little investment that did
occur was only detrimental to the district’s original form. I believe if Euclidean Zoning hadn’t been the absolute law of the land, places like College Hill could have been salvaged instead of having to compete (unsuccessfully at that) with auto-centric shopping malls.

6.3 Current Conditions

As has already been said College Hill’s NBD of today would be defined as ‘automobile friendly’ and lack traditional planning characteristics. There is no longer a cohesive pedestrian realm full of vibrancy, destinations, and...well pedestrians. There are no public gathering spots or pocket parks, no recognizable center, and no distinct identity for the community to gather around.

Further, Hamilton Avenue has poor pedestrian circulation. While the Avenue has strong connections to the surrounding streets, many of them simply dead end into Hamilton Avenue, instead of actually intersecting the street. As a result, there are few stop lights or stop signs and few cross walks. This allows cars to drive fast through the district, deemphasizing the safety of the pedestrian. Also, the abundance of curb cuts and surface parking lots for the auto-oriented businesses further deemphasizes the safety and needs of the pedestrian, effectively destroying cohesion and ‘pedestrianism’. These auto-oriented features also diminish horizontal enclosure by breaking up building line cohesion. Figure’s 6.5, 6.6, and 6.7 showcase these auto-oriented uses.
Further on the negative side, Hamilton Avenue lacks no discernible center and thus no true civic space to congregate for possible neighborhood programming. Also, while Hamilton Avenue has strong vista characteristics, the termination vista heading north at Ambrose Avenue contains no important civic institution and the structure is in poor condition.

On the positive side, some traditional characteristics have remained intact. Hamilton Avenue is relatively narrow, with 2 lanes dedicated to traffic passing through, one going each way. There are also 2 lanes of on-street parking, one on each side of the street. There is also a presence of tall, high quality trees that form a strong canopy and provide vertical enclosure. There are also a number of newly planted trees that will one day provide further enclosure. Also, a large portion of the existing buildings are built flush with the sidewalk, providing some horizontal enclosure. As can be seen in Figure’s 6.8, 6.9, and 6.10, these structures are pedestrian-oriented, cohesive, and enact an ‘urban village’ sense.
Further, there are strong vista termination characteristics along Hamilton Avenue. When driving or walking north past Marlowe Avenue, the curve in the road creates anticipation and curiosity for what is around the corner. Figure 6.11 showcases this vista heading north. Heading south on Hamilton Avenue creates the same effect and can be seen in Figure 12. These vistas also provide some closure for the district. There is a possible termination at the intersection of Hamilton and Llanfair Avenue, as the road curves similar to the Marlowe Avenue curve. Unfortunately, there exists no structure at this bend in the road and thus no anticipation is created.
Figure’s 6.13 and 6.14 summarize and highlight the positives and negatives discussed above.

Figure 6.13: Positive Conditions

Figure 6.14: Negative Conditions

Source: Author; CAGIS 2009
Based on the analysis I conducted, there are certainly positives and negatives of the current business district. What was originally designed as a traditional community center with strong form has since become a place with no discernable center, poor cohesion, and an auto-orientation. Thus, it seems evident that College Hill’s NBD has lost a lot of its traditional forms. Despite this, there are clear positives and a strong urban fabric to work with. Understanding New Urbanism and its applications to a current context could help the NBD once again become the traditional center of the community of College Hill.

6.4 Current NBD Zoning

Euclidean Zoning is the main reason College Hill changed from a traditional pedestrian center to one that caters to the car. As Randall Arendt, a planning professor at the University of Massachusetts, put it, zoning is “why America looks the way it does. The law is the major problem with this development pattern” (O’Toole). As new construction adhered to the allowed uses within the NBD, it seemingly ignored the current form.
The current zoning regulations can be seen in Figure 6.15. The zones, CC-M, CN-M, CN-P, and CC-P are defined below in the City of Cincinnati’s Zoning Code:

- **CN Commercial Neighborhood.** To identify, create, maintain and enhance mixed-use neighborhood commercial centers that reflect smaller-scale, pedestrian-oriented development with continuous street frontage and a mix of commercial and residential uses. Typical uses include retail, services, housing, office, open space, eating and drinking establishments and smaller-scale public and recreation and entertainment uses. Future development must be of a pedestrian-oriented commercial or mixed-use nature, serving the immediate neighborhood.

- **CC Commercial Community.** To identify, create, maintain and enhance areas suitable for a wide variety of commercial and institutional uses along major transportation corridors and in shopping districts or centers. Although these centers may reflect elements of both pedestrian- and auto-oriented development, they typically accommodate larger-scale retail and commercial service uses, such as auto-related businesses and recreation and entertainment, as well as a variety of
public and semi-public uses. Future development must reflect a complementary and compatible mix of uses, and may include residential uses.

Three community character designations are established to enhance each type of commercial district:

- **Pedestrian.** This district designation is intended for areas with a traditional urban character, where buildings are required to be built to the street or sidewalk line, to provide a close relationship between pedestrians and shops. Design standards will reinforce this character and require treatments that provide an interesting pedestrian environment. This designation may apply to some areas where a few auto-oriented uses exist, but where restoring the pedestrian character is specified in a community plan or other documentation approved by the Planning Commission.

- **Mixed.** This district designation is intended to provide for a mix of the pedestrian and auto-oriented development. Older, pedestrian-oriented buildings may be intermixed with newer, auto-oriented uses.

At the base of these zones are allowed uses. Essentially, the code for the City of Cincinnati establishes the allowed uses for each zone and as long as a new development adheres to the established use, the new construction can take on virtually any form. Below is an excerpt from Cincinnati’s zoning code, proving commercial areas such as College Hill’s NBD is zoned based on use:
1409-07. *Land Use Regulations.*

Schedule 1409-07 below prescribes the land use regulations for C Districts. The regulations for each sub district are established by letter designations as follows:

- "P" designates permitted uses. These uses may be subject to additional regulations as indicated.

- "L" designates uses that are permitted, subject to certain limitations. Numeric suffixes refer to limitations listed at the bottom of Schedule 1409-07.

- "C" designates uses permitted only after review and approval of the conditional use by the Zoning Hearing Examiner. These uses may be subject to additional regulations as indicated.

*Zoning Code Source: City of Cincinnati, 2009*

The code goes on to list, in detail, the uses that are and aren’t permitted in the differing commercial areas throughout the city, including College Hill’s NBD. As has been stated and illustrated, this way of regulating land use has allowed College Hill’s NBD to legally transition from ‘pedestrian friendly’ to ‘automobile friendly.’ If zoning based on use continues to occur in College Hill, one should expect the status quo, something that would continue to cater to the automobile instead of the pedestrian. I believe this is a mistake, as aforementioned trends regarding commercial development as well as homebuyer preferences could prove beneficial for College Hill and continuing the zoning status quo would not prove adequate in taking advantage of such trends.
Chapter 7: Conclusions

7.1 Research Questions Answers

When looking at Form Based Codes (FBCs) for Neighborhood Business Districts (NBDs) in Cincinnati, Ohio, I immediately look at my initial research questions: (1) Are Neighborhood Business Districts in Cincinnati, Ohio a legitimate focus for Form Based Code implementation (2) What can be learned from other Form Based Code case studies and how can such lessons be applied to Cincinnati, Ohio FBC implementation efforts?

The answer to my first question, discussed thoroughly in Chapter 3, is yes. When looking at current commercial development trends, whether it is lifestyle centers or town centers, there is proof that traditional business district design is being emulated in new development across the country. Such places include diverse facades, wide sidewalks, public greens and civic spaces, and mixed-uses.

Further, when looking at current homebuyer desires and trends, there is proof that people increasingly desire walkable neighborhoods with access to central spaces and/or business districts. Roughly 33% of homebuyers desire walkable neighborhoods but only five-ten percent of homeowners live in such places. This gap in demand, coupled with commercial development trends, could be taken advantage of by a place like Cincinnati, Ohio since their NBDs and neighborhoods exemplify aforementioned economic trends.

The answer to my second research question cannot be summed up with one or a few words. Certainly, a lot can be learned from my case studies. The Columbia Pike Form Based Code has proved that new development can happen in an established neighborhood and such development can redefine how a place functions within the neighborhood. Further, this case study has shown FBCs can create not only better
development but also more of it! Certainly, the economic incentives associated with the FBC helped spur the quantity of development, but the FBC itself helped ensure the quality. The following points sums up the pros and cons of the Columbia Pike FBC:

Pros:

- Promotes community involvement through public charrettes;
- Applies an economic incentive system to lure developers to use FBC;
- Provides clear and easy to understand graphics;
- Shortened project approval time; and
- Code based on level of physical impact.

Cons:

- Is a parallel Code, meaning the original Euclidean Zoning still exists. This is confusing and presents legal issues and barriers in the future.

While I list the Code as being parallel as a negative, there are perceived positives associated with this. A parallel code is more politically safe and may not cause turmoil within the community. If the parallel code is a success, it could become mandatory without upsetting anyone. Unfortunately, a parallel code would certainly have to be accompanied with economic incentives such as tax increment financing (TIF). In Cincinnati, Ohio, only so many TIF districts can be created and thus, creating TIFs for all the NBDs would prove impossible. Also, creating a parallel code might confuse community members and developers between the difference of an FBC and an urban design overlay district. Therefore, it is my opinion that Cincinnati should create a highly articulated FBC that is mandatory and thus not confusing for those who will use it.
Further, from this case study, Cincinnati should realize that FBCs work well for infill development in built-up neighborhoods. The City should also understand the importance of the charrette process, especially in efforts towards achieving social goals of fostering community and reaching common good, the necessity of using easy to understand graphics for design standards, the value of designing based on context, and the significance of shortening project approval times for developers. Also, as I mentioned before Cincinnati should not contemplate creating parallel codes as such an overlay could create confusion and prove detrimental to the purpose behind the FBC. The City shouldn’t have to worry about political unpopularity of FBCs as long as the community is well represented during a charrette process.

The St. Paul Urban Village Code has a lot to learn from as well. The Code shows that development quantity can increase within the Code districts, and at higher qualities. Even though the code was mandatory, they still employed economic incentives to lure developers. Unfortunately, St. Paul did not employ the charrette process when creating the Urban Village Code and thus seemed unable to achieve the important social goals of fostering community and reaching the common good. As a result, some projects faced community resistance and became caught up in political strife. Fortunately, some of the projects did include elements of social equity, as numerous affordable apartments and senior living units were offered. If Cincinnati wants their FBC efforts to achieve stronger social equity, resulting in stronger, more diverse communities, I believe they could learn from what the Urban Village Code has done in that regard.

Another fault of the Code had to do with the City allowing variances within the urban villages. Because of this, some developers attempted to redefine design standards within
an urban village and applied for variances to do so. When the City Planning Commission denied the request, the project diminished and vacant lots ensued. If the City had employed a charrette process, no variances would be allowed, as adhering to the community’s vision requires no such process. Allowing variances only lengthens the project approval time and can potentially lead to projects not being finished. The following points sums up the pros and cons of the Urban Village Code:

Pros:

- Applies an economic incentive system to lure developers
- Code based on level of physical impact
- Clear and easy to understand design standards
- Code a mandatory regulation
- Semi-successful use of a building envelope standards

Cons:

- No charrette or community outreach facilitation
- No utilization of graphics were used
- Variances are allowed – keeping project approval time static

From this case study, Cincinnati should understand that FBCs works well with regard to brownfield sites and infill sites. Further, Cincinnati should understand the importance of having clear and easy to understand design standards, the option of using building envelope standards, and the necessity of using an economic incentive system to lure developers. Further, based on the negative consequences St. Paul has had to deal with, Cincinnati should understand they must employ the charrette process to ensure the
community vision is adhered to, when creating FBCs. This will allow Cincinnati to better foster community spirits and reach a common good within the community. From this community input, the City can rid their FBC of variances, something that will significantly shorten project approval time for developers. This could act as a development incentive and perhaps the City wouldn’t have to employ economic incentives to lure developers. Thus, it is my recommendation that Cincinnati should employ a mandatory Code similar to St. Paul’s, but the Code should reflect the community via a charrette process, allowing there to be no variances and thus shortening project approval time for developers. This way, economic incentives wouldn’t have to be employed as was the case in St. Paul.

The College Hill Neighborhood Business District case study has lessons associated with it as well. The case study showcased a traditional business district in Cincinnati, Ohio and how Euclidean Zoning and the advent of the automobile destroyed large sections of its original form. The study was meant to show the consequences of status quo, of maintaining Euclidean Zoning in Cincinnati’s NBDs. From this analysis, the City of Cincinnati should expect numerous NBDs across Cincinnati to continue to face disinvestment and poor form cohesion as long as Euclidean Zoning is the regulatory tool of primary use. As a result, cohesive, pedestrian friendly NBDs will become few and far between and Cincinnati would no longer be able to lure homebuyers desiring such places. Form Based Codes could and should be used to not only protect the NBDs current form, but also ensure any new infill that takes place is done so properly.
7.2 Form Based Code Recommendations for Cincinnati, Ohio

Below, I summarize aforementioned points and lessons learned from the case studies and specifically spell out specific steps I believe the City of Cincinnati should take if they are going to implement Form Based Codes:

- Any Form Based Code should be created by the community through a charrette, visioning process, or other community-based activity. To foster community and reach a common good, the charrette/community event must include a diverse populace and be representative of the community at large. To overcome any potential issue with lacking a community consensus, there needs to be a significant outreach to educate the public about urban issues and the importance of them.

- The Form Based Code should first be implemented in each community’s Neighborhood Business District. This code should not be an overlay district or parallel code, but should be a mandatory code, written into the City’s current zoning regulations. The mandatory nature of the code coupled with the charrette process will lessen the need for variances, thus shortening project approval time for developers. This can act as a major incentive for development. Afterall, “A well written Form Based Code avoids the typical scenarios facing developers: wasting time and money on a concept that ends up being unacceptable to a community fearing to propose something desirable because too many variances or discretionary approvals would be required and inquiring as to desirable uses on a site and being told with a shrug to come back with a proposal” (Madden & Spikowski, 2006, 177).
The Form Based Code should implement social equity components such as affordable housing, senior care, and promote locally owned and/or minority businesses. Critics may argue this is social engineering and physical determinism, but on the other hand such efforts could go a long way in ensuring inclusion, not exclusivity. In doing this, the Form Based Code can be implemented as part of a larger integrated development plan, bringing together community dynamics with good site design, transportation improvements, and environmental remediation.

The Form Based Code should heavily employ and in many ways rely upon visual graphics to convey ideas of building form, site design, public space creation, and other important design regulations as they relate to FBCs.

The Form Based Code should not be overly prescriptive, especially with regard to architectural details, unless the NBD or part of the NBD is a historical district. This will allow the character of the buildings to change over time and not become pigeonholed into one or two monotonous looks.

The Form Based Code should be flexible and adaptable to all types of development. A ‘one size fits all’ model should not be used for all of Cincinnati’s NBDs. Instead, each community must create an FBC unique to their situation and context. In my opinion, for geographically small NBDs such as Hyde Park Square, Mt. Lookout Square, and St. Gregory Street in Mt. Adams, a transect is not necessary, as development throughout the NBD should be similar and within one transect. For geographically large NBDs like College Hill’s, Oakley’s, or NBDs on the west side of town, each
community might consider a transect for development, as the character along the NBD significantly differs throughout. I would recommend avoiding the transect model put forth via SmartCode as such a transect seems to be a ‘one size fits all’ approach to transects. Instead, I would recommend creating a transect unique to each location situation, ensuring neighborhood context when considering future building forms is placed in the absolute forefront.

- Economic incentives such as Tax Increment Financing or tax abatements should not be considered a must as long as the Code is mandatory and the result of community input. I am not saying such incentive isn’t absolutely necessary, as only time and experience will tell. What I am saying is they should not be seen as an absolute must, at least initially.

If these points are followed, I believe the City of Cincinnati could not only see development consequence success within their NBDs, but could also take positive steps in fostering stronger communities, creating a better social equity, and reaching a higher common good. Having said that, it’s important to understand and state that the physical aspect of FBCs alone will not cure all or perhaps any social ills within a community and should not be looked at as a means to do so.

7.3 Areas for Further Research

I feel my research provides interesting insight into From Based Code application in Cincinnati, Ohio. Certainly, this body of research could be considered a first step towards totally understanding how FBCs would be implemented here. Other topics worth looking at include implementing FBCs across the entire city, creating various transects for different regions, and possibly even creating a unique transect for Cincinnati
involving basins, hillsides, and plateaus. Such a study could encompass a wider variety
of FBC case studies including those that have been implemented across an entire
jurisdiction. Further research could also be conducted to look at FBC affects regarding
geographic variation, specifically in the Midwest. I also believe FBC research needs to
be conducted over a long period of time, seeing development affects ten or twenty years
down the road. This would help understand long term effects of FBCs.

As it stands today, Cincinnati is likely to implement FBCs. I believe my research
gives insight regarding where and how FBCs would be implemented. Hopefully, as more
research is conducted and the FBC process begins in Cincinnati, recommendations
similar to mine will be taken into consideration, hopefully leading to successful
implementation, ensuing development, and NBD rejuvenation. Based on my findings
from my two FBC case studies, this can certainly happen as long as the community is
involved in the process from day one.
Bibliography


Columbia Pike Special Revitalization District Form Based Code. Arlington County, VA.


Madden, Mary E. and Spikowski, Bill. 2006. *Place making with Form-Based Codes*. Urban Land Institute (September): 174-178. Internet;


Sitkowski, Robert J. and Ohm, Brian W. 2006. *Form-based land development regulations*. The Urban Lawyer. Internet;


