NEW URBANISM, TRANSPORTATION MODE CHOICE, AND COMMUNITARIAN BEHAVIOR: A CASE STUDY FROM KENTLANDS, MARYLAND

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ABSTRACT OF THE THESIS

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The typical post-World War II suburb in the United States is characterized by exclusive zoning, low-density development, banal architecture, and an inefficient street morphology. New Urbanism aims to correct many of the ills associated with American suburbia by employing mixed-use and high density development, interesting architecture, and an efficient, interconnected street network. Among the many problems of typical suburban development that New Urbanism claims to mitigate are an overdependence on automobile use and an erosion of communitarian behavior. Little empirical research has been completed that tests New Urbanism’s efficacy in reducing automobile use and promoting pedestrianism, bicycling, and public transportation use, while the theoretical connection that increased pedestrianism leads directly to communitarian behavior is unproven at best. Using interview and survey data, this thesis takes a qualitative approach to assessing how transportation habits and communitarian behavior might be linked in New Urbanism by using residents of Kentlands, Maryland, as an empirical case study. It also pays particular attention to how residents’ habits may differ from when they lived elsewhere prior to moving to Kentlands, in order to see if the New Urbanist environment can alter ingrained behaviors. Furthermore, in order to determine if Kentlands provides a special case, a comparative study is included. Surveys identical to those distributed in Kentlands were distributed to residents of Kensington and Tierrasanta, two neighborhoods in San Diego with similar demographic characteristics and amenities to Kentlands but with very different planning types, to see if residents of New Urbanism behave differently than those of other types of planned communities. This thesis finds that Kentlands is effective in achieving New Urbanism’s goals, but also that factors external to the built environment of the community may be important in achieving this outcome.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT ................................................................. v</td>
</tr>
<tr>
<td>LIST OF TABLES .......................................................... ix</td>
</tr>
<tr>
<td>LIST OF FIGURES ....................................................... xi</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS ...................................................... xiv</td>
</tr>
<tr>
<td>CHAPTER</td>
</tr>
<tr>
<td>1 INTRODUCTION ............................................................ 1</td>
</tr>
<tr>
<td>Background on New Urbanism ................................. 4</td>
</tr>
<tr>
<td>My Approach to Studying and Testing New Urbanism .......... 7</td>
</tr>
<tr>
<td>2 LITERATURE REVIEW ....................................................... 10</td>
</tr>
<tr>
<td>Background and Historical Literature ...................... 11</td>
</tr>
<tr>
<td>The Built Environment of New Urbanism .................. 11</td>
</tr>
<tr>
<td>Sense of Community ..................................................... 15</td>
</tr>
<tr>
<td>Gaps in the Literature ............................................... 18</td>
</tr>
<tr>
<td>Research Questions ..................................................... 19</td>
</tr>
<tr>
<td>3 METHODOLOGY ............................................................. 21</td>
</tr>
<tr>
<td>Preliminary and Preparatory Analysis .................... 22</td>
</tr>
<tr>
<td>Personal and Participant Observation .................... 27</td>
</tr>
<tr>
<td>Surveys ................................................................. 29</td>
</tr>
<tr>
<td>Interviews ............................................................... 32</td>
</tr>
<tr>
<td>4 ASSESSMENT OF KENTLANDS AS A PLACE ......................... 36</td>
</tr>
<tr>
<td>Selection of the Study Site .................................. 36</td>
</tr>
<tr>
<td>History and Development of Kentlands .................. 39</td>
</tr>
<tr>
<td>Architecture and Aesthetics in Kentlands ............... 42</td>
</tr>
<tr>
<td>Planning in Kentlands ............................................. 48</td>
</tr>
<tr>
<td>Street Network and Connectivity ......................... 49</td>
</tr>
<tr>
<td>Mixed-Use Planning and Amenities ...................... 51</td>
</tr>
<tr>
<td>Density ............................................................. 56</td>
</tr>
</tbody>
</table>
The Geographic Situation of Kentlands .......................................................... 57
Viability of Transportation Modes ................................................................. 63
  Walking and Biking ....................................................................................... 63
  Public Transportation ..................................................................................... 67
  Driving ............................................................................................................ 69
Communitarian Spaces .................................................................................... 70
  Open Space ..................................................................................................... 71
  Civic Spaces ................................................................................................... 73
  Third Places .................................................................................................. 75

5  COMPARING KENTLANDS TO KENSINGTON AND TIERRASANTA: HOW NEW URBANISM DIFFERS FROM OTHER NEIGHBORHOOD TYPES .......................................................... 76
  Criteria for Study Site Selection ..................................................................... 76
  Kensington ..................................................................................................... 79
    Viability as a Study Site ................................................................................ 80
    History and Style ......................................................................................... 81
    Planning ....................................................................................................... 83
  Viability of Transportation Modes in Kensington .......................................... 86
    Walking and Biking ....................................................................................... 86
    Public Transportation ................................................................................... 87
    Driving ......................................................................................................... 89
  Communitarian Spaces in Kensington ............................................................ 90
  Tierrasanta .................................................................................................... 90
    Viability as a Study Site ................................................................................ 90
    History and Style ......................................................................................... 93
    Planning ....................................................................................................... 94
  Viability of Transportation Modes in Tierrasanta ......................................... 98
    Walking and Biking ....................................................................................... 98
    Public Transportation ................................................................................... 99
    Driving ......................................................................................................... 101
  Communitarian Spaces in Tierrasanta ............................................................ 102
6 ANALYSIS OF SURVEY RESULTS: HABITS AND BEHAVIORS OF
KENTLANDS RESIDENTS VERSUS RESIDENTS OF KENSINGTON
AND TIERRASANTA .............................................................. 104
   Coding of Survey Data ....................................................... 105
   Survey Results from Kentlands ........................................ 105
     Present and Past Transportation Habits in Kentlands .......... 106
   The Social and Civic Lives of Kentlands Residents ............... 110
   Cross-Analysis of Survey Themes and the Presences of Self-Selection..... 114
   Comparing Survey Results from Kentlands to Kensington and Tierrasanta ..... 118
     Comparison of Transportation Habits ................................ 118
     Comparison of Community-Based and Social Behaviors .......... 121
     The Presence of Self-Selection in Kensington and Tierrasanta .... 123
   Conclusions ....................................................................... 124
7 ANALYSIS OF INTERVIEW DATA FROM KENTLANDS ................ 127
   The Transportation Habits of Kentlands Residents ................ 129
   Adjusting to the Built Environment of Kentlands ................. 134
   Transportation In and Out of Kentlands .............................. 136
   Community-Related Life in Kentlands and How It Is Interrelated with
     Pedestrianism .................................................................. 138
   The Role of Self-Selection .................................................. 145
8 CONCLUSIONS .................................................................. 147
   Behavioral Outcomes in Kentlands: An Example of New Urbanist Success .... 148
   Problems, Shortcomings, and Avenues for Future Research .......... 151
   Final Thoughts .................................................................... 154
REFERENCES ........................................................................ 156
APPENDIX
SURVEY MATERIALS AND RESULTS ....................................... 165
LIST OF TABLES

Table 1. Comparative Demographics between Neighborhoods in this Study .................. 26
Table 2. Major Architectural and Aesthetic Features Common in New Urbanist Communities and Their Presence in Kentlands ................................................................. 42
Table 3. Responses to Survey Question 1: “How long have you lived in (neighborhood)?” ................................................................. 168
Table 4. Responses to Survey Question 2: “Why did you choose to move to (neighborhood)?” ................................................................. 168
Table 5. Responses to Survey Question 3: “What do you like about (neighborhood)?” ...... 169
Table 6. Responses to Survey Question 4: “Circle all the modes of transportation that are generally available to you from your home.” .................................................. 169
Table 7. Responses to Survey Question 5: “Please list or describe all of the places you travel on a regular basis via the following modes of transportation.” .................... 170
Table 8. Responses to Survey Question 6: “Do you feel like you have a choice in how you get to most of your regular errands and engagements, or no? What affects your decisions when choosing how to get someplace? For example, why might you choose to walk somewhere rather than drive?” ............................................ 170
Table 9. Responses to Survey Question 7: “In the neighborhood(s) in which you lived in the ten or so years before you moved to (your current neighborhood), describe your level of frequency of use of the following modes of transportation.” ........................................................................ 171
Table 10. Responses to Survey Question 8: “How would you describe your range in transportation choices in your previous neighborhood(s)? How do they compare with (your current neighborhood)?” ...................................................... 171
Table 11. Responses to Survey Question 9, part 1: “Do you participate in any social activities in your neighborhood?” ................................................................. 172
Table 12. Responses to Survey Question 9, part 2: “What kinds of social activities do you participate in within your neighborhood?” .......................................................... 172
Table 13. Responses to Survey Question 10: “Do you have close friends in the neighborhood? How does having friends or not having friends nearby affect your feelings about Kentlands?” .................................................................. 172
Table 14. A Selection of the Most Prominent Response Types Coded into Each Category for Questions 2 and 3 of the Survey ................................................................. 173
Table 15. A Selection of the Most Prominent Response Types Coded into Each Category for Questions 5 and 7 of the Survey ................................................................. 173

Table 16. A Selection of the Most Prominent Response Types Coded into Each Category for Question 9 of the Survey ................................................................. 174

Table 17. Codes for Transportation-Related Responses Given During Interviews with Residents of Kentlands .................................................................................. 175

Table 18. Codes for Community- and Socially-Related Responses Given During Interviews with Residents of Kentlands ................................................................. 176
LIST OF FIGURES

Figure 1. Relative location and boundaries of Kentlands in Gaithersburg, Maryland, 23 miles northwest of central Washington, DC. .......................................................... 3

Figure 2. Locations of Tierrasanta (including an internal boundary demarcating the extent of the study area) and Kensington within the city of San Diego. ................. 4

Figure 3. A recent real estate listing for a home in Kentlands, with walkable amenities mentioned first................................................................. 23

Figure 4. A screenshot from the official Kentlands web site, touting New Urbanist design goals......................................................... 24

Figure 5. The boundaries of Kentlands superimposed over an aerial image from 1988, prior to construction. Note the forested area on the western edge and the plowed fields to the east................................................... 40

Figure 6. Kentlands in 2007, with Lakelands immediately to the east. .................... 41

Figure 7. Bricks are the predominant construction material in Kentlands, as seen in these row houses.............................................................. 43

Figure 8. The brick motif even includes this gas station in Kentlands Square............. 44

Figure 9. Mature trees in Kentlands provide shade and make the community feel older ................................................................................... 45

Figure 10. Lakelands, conversely, does not benefit from mature trees............... 46

Figure 11. Architectural diversity visible on a single block in Kentlands. ................. 46

Figure 12. The interconnected street network of Kentlands. The dead ends depicted here are alleys rather than streets......................................................... 50

Figure 13. The relative locations of the three adjacent retail districts in Kentlands. 52

Figure 14. Large parking lots in Kentlands Square, the community’s auto-oriented retail area.......................................................... 53

Figure 15. The pedestrian-oriented retail district of Market Square, home to many shops and restaurants......................................................... 53

Figure 16. Main Street, Kentlands. The buildings here contain retail at street level and homes or offices on the floors above......................................................... 54

Figure 17. The relative locations of the three areas of civic space in Kentlands........... 55

Figure 18. A gate-like structure, at the corner of Tschiffely Square Road and Darnestown Road, that serves to delineate the boundaries of Kentlands. .............. 60
Figure 19. Amenities located immediately outside the boundaries of Kentlands. “QOHS” refers to Quince Orchard High School, and “MS” refers to middle school.

Figure 20. Kentlands is bound by busy, multi-lane roads, such as Darnestown Road (left) and Great Seneca Highway (right), pictured with the MedImmune offices in the background.

Figure 21. Traffic calming devices used in Kentlands, including a curb choker (bottom), parallel parking, and a visible, mid-block crosswalk in the background.

Figure 22. A pedestrian walkway that shortens the distance between two parallel streets. Here, several houses have their front doors facing the walkway rather than the street.

Figure 23. An alleyway, or “mews,” in Kentlands.

Figure 24. A public tot lot fronted by homes, an arrangement that provides community supervision using defensive space.

Figure 25. Public open space, complete with benches and one of Kentlands’ few bike racks, in Market Square.

Figure 26. An aerial view of the private clubhouse and recreation area in Kentlands. The green space to the right is a public park.

Figure 27. McNalley and Kulkarni’s three classifications of street network.

Figure 28. A map showing the street network and boundaries of Kensington.

Figure 29. Spanish revival-style homes in Kensington.

Figure 30. An aerial image of Kensington illustrating how canyons constrain its street grid.

Figure 31. Adams Avenue serves as the focal point for life in Kensington.

Figure 32. The area of Tierrasanta proper (shaded), with the internal boundary demarcating the extent of the study area.

Figure 33. An aerial image of Tierrasanta, illustrating how freeways and canyons surround and physically isolate the community.

Figure 34. Homes in the Portofino section of Tierrasanta face onto walkways rather than streets.

Figure 35. The alleyways of Portofino are visible at the bottom of this image. The “second housing area” to the north is marked by a series of cul-de-sacs and is less interconnected.

Figure 36. The third type of neighborhood in Tierrasanta is defined by curvilinear streets and garage door facades.
Figure 37. The relative locations of some of Tierrasanta’s amenities. Elementary schools (ES), middle schools (MS), and other amenities are dispersed throughout the community.................................97

Figure 38. Crosswalks (CW) are far apart along Tierrasanta Boulevard between Portofino (at bottom) and the Tierrasanta Town Center retail area (top). ..................99

Figure 39. The busy intersection between Tierrasanta Boulevard and Santo Road illustrates how Tierrasanta can be intimidating to pedestrians. ......................100

Figure 40. The large parking lot of Tierrasanta Town Center, which make walking distances from nearby homes even greater. .............................................102

Figure 41. Percentage of Kentlands residents reporting availability of transportation mode types from their home. .................................................................107

Figure 42. Percentage of Kentlands residents reporting use of transportation mode types. ‘Bike Destination’ and ‘Walk Destination’ refer to respondents who reported using these modes to travel to destinations, rather than merely for recreation of exercise. .................................................................107

Figure 43. The percentage of Kentlands residents reporting regular use of transportation modes in their previous neighborhoods and in Kentlands. Note the sharp increase in destination-based walking. .............................................109

Figure 44. Percentage of responses (n=91) from Kentlands falling into author-coded categories of locally-oriented social interaction........................................112

Figure 45. Percent of total responses (n=146) from Kentlands residents falling into author-coded categories of reasons for choosing to move to Kentlands. ........115

Figure 46. Percent of total responses (n=140) from Kentlands residents falling into autho-coded categories of reasons for presently liking the neighborhood. ..........116

Figure 47. Number of respondents (out of 51) listing reasons for originally moving to Kentlands compared to the number listing the same reasons for presently liking the neighborhood. ................................................117

Figure 48. Percentage of survey takers from each neighborhood reporting transportation modes available to them from their homes..............................119

Figure 49. Percentage of respondents from each neighborhood reporting regular use of each mode of transportation.........................................................119

Figure 50. Change in percentages points in residents reporting regular use of alternative transportation modes from previous to current neighborhoods. ........121

Figure 51. Percentage by neighborhood (out of all responses) to Question 3 falling into the three categories representing New Urbanist goals...........................124

Figure 52. Page 1 of the survey, as it appeared to respondents in Kentlands...................166

Figure 53. Page 2 of the survey as it appeared to respondents in Kentlands...................167
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CHAPTER 1
INTRODUCTION

Following World War II, the agricultural fringes of American cities witnessed rapid development, as new neighborhoods were planned and constructed en masse to meet the wants and needs of a large class of soldiers returning home from war. With financial assistance from the federal government, GIs were encouraged and enabled to buy houses in America’s expanding suburbs. As the United States’ economy and factories switched from pushing war bonds and manufacturing tanks to selling consumer culture and automobiles, America’s cities quickly began growing outward rather than upward (Lamer 2003).

Exclusive zoning, low-density development, and inefficient street morphologies were common features in most of these new suburbs. As a result, residents of these suburbs usually had to rely on automobiles for most, if not all, of their transportation needs (Gillham 2002). As suburbanites drove more and walked less, they became less connected with their communities and neighbors, rendering the suburbs “placeless” and bereft of strong social ties (Oldenburg 1989, Leyden 2003). Over time, a host of social problems became associated with the suburban, automobile-dependent lifestyle, ranging from lack of civic participation and sense of community (Putnam 2000) to increased levels of obesity (Vandegrift and Yoked 2004, Frank et al. 2006, Lopez-Zetina, Lee, and Friis 2006, Rodriguez, Khattak, and Evenson 2006) and air pollution (Frank et al. 2006).

While the suburban population in the United States has continued to grow, both in gross numbers and as a percentage of the population, by the 1980s there was a significant backlash against suburbia and the problems it had created. The pejorative term “suburban sprawl” gradually entered both the popular and academic vernaculars as an umbrella term for virtually all newly built suburban development. Concurrent with this backlash is the emergence of New Urbanism, an approach to development that embraces neotraditional designs in urban and suburban planning, which many think has the potential to alleviate some of the problems for which suburbia is blamed.
Developments in the New Urbanist style are increasing in number and popularity throughout the United States. Increased attention to New Urbanism is based largely on its claims that it can mitigate or eliminate many of the aforementioned problems associated with suburbs built since World War II through a carefully planned and executed built environment. Among these claims is that New Urbanism will cause its residents to walk more and drive less. It is also claimed that increased pedestrianism is associated with, if not directly responsible for, an increase in sense of community among residents, as random interactions in public places such as streets are purported to create or strengthen community social links. While academic work on New Urbanism has been widespread and varied, there exists a gap in the literature of direct, empirical studies that examine how and why residents of New Urbanism make the transportation choices they do, and whether there is any correlation between these transportation choices and sense of community. This gap in the literature reflects a widespread uncertainty, both in scholarly and lay circles, as to whether New Urbanism actually works. While the movement is often lauded as a promising alternative to suburban sprawl, there is little consensus as to the ways in which New Urbanist developments function for the people that inhabit them.

In this thesis I attempt to help fill that gap by exploring the transportation habits and the social and civic lives of residents of one of New Urbanism’s most prominent communities. I use interview and survey data collected from residents of Kentlands, a large and established New Urbanist community in the Washington suburb of Gaithersburg, Maryland (Figure 1), to answer the general question of why New Urbanist residents make particular transportation choices. I frame my inquiries in relation to ongoing discourses involving New Urbanism, specifically seeking to determine the extent to which the built and social environments of Kentlands influence the transportation choices and habits of residents. I also incorporate a comparative element in this study, in which surveys identical to the one distributed at Kentlands were given to people in two neighborhoods in San Diego. These two neighborhoods, Kensington and Tierrasanta (Figure 2), were chosen not only for their similarities in demographics and amenities to Kentlands, but also for the stark differences in the planning and design of their built environments from each other and from Kentlands. If this thesis is to say anything constructive about Kentlands or New Urbanism in general, it
must have a basis upon which to compare them to other urban forms. The comparative portion of the study will address this concern.

My overall goal is to add to the small but growing body of empirical research on New Urbanism from a qualitative perspective, allowing the residents of Kentlands to speak for themselves regarding what influences their transportation choices and habits. Findings from the case study and the comparative analysis will also permit me to make some broad generalizations about how New Urbanism works differently from other types of planned neighborhoods.
BACKGROUND ON NEW URBANISM

Popular reference to New Urbanist design is believed to have started with the construction of Seaside (Falconer Al-Hindi and Staddon 1997, LaFrank 1997). Seaside, a small resort town on the Gulf Coast of the Florida panhandle, was built in the early 1980s based on designs by Andres Duany and Elizabeth Plater-Zyberk and their firm DPZ, an architectural team which has since become largely devoted to designing and promoting New Urbanist developments. Seaside’s developer, Robert Davis, wanted to build a community from scratch that would be evocative of traditional, small-town America.¹ Since the construction of Seaside, which predates any use of the term New Urbanism, the movement

¹ Appropriately, “neotraditional development” is an oft-used synonym for New Urbanism, and it is perhaps a more accurate descriptor despite its lesser frequency of use.
has grown and evolved into an emergent design paradigm in urban and suburban planning and architecture; Duany and Plater-Zyberk have remained prominently involved in its promotion and development, both through their designs and their writing. In the early 1990s, Duany, Plater-Zyberk, and other planners and architects formed an official organization called the Congress for the New Urbanism (CNU) to promote their ideas. In 1996, the CNU published *The Charter of the New Urbanism*, a 27-point document that outlined the movement’s goals in terms of three scales: “the region” (or the metropolitan or city scale), the “neighborhood, the district, and the corridor,” and “the block, street, and building.”

The *Charter* highlights the importance of smart planning from a multiscalar perspective, ranging from individual buildings to metropolitan areas, and emphasizes the desirability of urban, infill development over suburban development on virgin land. The discourse surrounding New Urbanism, however, often focuses on development at the neighborhood scale and in primarily suburban locations. The best-known New Urbanist developments, such as Kentlands, Celebration in Florida, Prospect New Town in Colorado, and I’on in South Carolina, all meet this description. The prominence of these new suburban towns is owed largely to New Urbanism’s aforementioned potential to alleviate particularly suburban problems. Most salient among these problems are an over-reliance on automobiles and the associated lack of pedestrianism, the isolation of people by class and demographic characteristics, and the banal uniformity of design and architecture and the lack of civic pride and sense of place that comes with it (see, for example, Wolch, Pastor, and Dreier 2004, Handy, Cao, and Mokhtarian 2005). As stated, the outcomes associated with these problems include increased levels of obesity, high levels of air pollution from high rates of automobile use, and a socially isolated population (as summarized by O’Meara Sheehan 2001). For many, New Urbanism is seen as a potential panacea to cure or prevent these problems. While it would be erroneous to describe New Urbanism as an exclusively suburban phenomenon, I am primarily concerned with its potential to alleviate problems associated with suburbanization. Thus, for the remainder of this thesis, the term “New Urbanism” will refer to development at this setting and scale unless otherwise noted.

At the neighborhood scale, the *Charter* contains several points that emphasize New Urbanism’s twin goals of reduced automobile dependence and increased sense of
community, regardless of the setting, with some allusion to specific planning ideals. For example:

- Neighborhoods should be compact, pedestrian-friendly, and mixed-use.
- Many activities of daily living should occur within walking distance, allowing independence to those who do not drive, especially the elderly and the young. Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
- Within neighborhoods, a broad range of housing types and price levels can bring people of diverse ages, races, and incomes into daily interaction, strengthening the personal and civic bonds essential to an authentic community.
- A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use (Charter for the New Urbanism).

One point in particular seems to tie the twin goals together better than others: “Streets and squares should be safe, comfortable, and interesting to the pedestrian. Properly configured, they encourage walking and enable neighbors to know each other and protect their communities” (Charter for the New Urbanism). Viewed holistically, these points from the Charter predict that two things will happen mechanistically in a properly executed New Urbanist neighborhood. First, if people are given places to which they can walk, and a safe, pleasant environment through which to do so, then they will be less likely to drive their cars for necessary trips; and second, if they do indeed walk more, then they will come in contact with people in their neighborhood, creating or bolstering a sense of community through these random public interactions. While this may be an oversimplification of New Urbanism’s goals, it is an intriguing possibility that such a mechanism might work, and as a result much theoretical attention given to New Urbanism has focused on its potential to foster sense of community.

New Urbanism employs a variety of design techniques to attempt to accomplish these goals. Among them are high density land use and compact, interconnected street morphologies, mixed housing types and mixed land use types, and “benevolent” design features (Ford 2001, 268), chief among them front porches and alleyways.  

2 By “benevolent,” Ford refers to architectural features on houses that project a human presence, particularly on their street-facing facades, rather than those that simply cater to the utility of automobile use, such as garages.
architects, developers, and academics who promote New Urbanism, the immediate goals of these features are to create demographically and architecturally heterogeneous environments where commercial and civic amenities are located close to homes, so that residents may access them on foot and potentially meet each others in the process (Nasar and Julian 1995, Lund 2002). Ideally, New Urbanist developments will also foster a connection with the built environment as a cohesive “place,” populated by people who embody a “sense of place” (Tuan 1977, Stedman 2003), rather than as a meaningless agglomeration of houses and buildings.

The appetite for New Urbanist developments is strong worldwide, and particularly so in the United States. A relatively recent estimate puts 1.4 million people (and growing) living in New Urban developments nationwide (Berke et al. 2003), though the definition of what exactly qualifies as New Urbanism is imprecise. Regardless of variations in its definition, it is an increasingly popular and widespread design approach, at the very least because of several important economic factors. First, homes in New Urbanist communities sell at a premium per square foot over homes in traditional suburban communities (Tu and Eppli 1999, Song and Knaap 2003), making it attractive to builders and developers. Further, because of New Urbanism’s emphasis on increased density, builders and developers benefit from producing more housing or commercial units per acre when compared with traditional suburban design, further maximizing their return on investment (Falconer Al-Hindi 2001, Till 2001, Zimmerman 2001). Finally, municipal governments often have a favorable view of New Urbanism for two reasons: first, the increases in density and property values yield more income in property taxes; and second, stringently executed design codes often relieve local governments of the need to provide infrastructure (Tu and Eppli 1999). While restrictive zoning regulations and other hurdles might make New Urbanist development difficult in some places (e.g. Lamer 2003), because it is profitable and shows the potential to improve suburban problems, it will likely continue to grow in popularity and prevalence, making it worthy of inquiry and exploration by scholars in years to come.

MY APPROACH TO STUDYING AND TESTING NEW URBANISM

In conducting this study I concerned myself more with questions of how and why transportation in New Urbanism works rather than the extent to which it works. While many
have attempted to quantify automobile use in New Urbanism, few have qualitatively
explored the precise reasons why residents make their transportation choices in New Urbanist
communities. Qualitative, empirical approaches to looking at New Urbanism are generally
lacking. In this thesis I am particularly concerned with how the built and social environments
of Kentlands affect the transportation choices of its residents and whether the environment of
New Urbanism can influence behavior. Because of the connection between pedestrianism
and sense of community described in New Urbanist theory, I also explore whether there is
any correlation between the two. In Chapter 2, I review the relevant literature that helped
inform this approach, as well as outline the specific research questions I address in this
thesis. The methods I used to answer my research questions, such as participant observation,
surveys, and personal interviews, are described in detail in Chapter 3.

Equally important to the design of my methods was the selection of an appropriate
case study site. Because I am concerned with New Urbanism’s potential to alleviate problems
associated with suburbanization, I chose my study site, Kentlands, in large part due to its
suburban location. Furthermore, it was important that the study site was relatively large and
completely built and settled to ensure a large enough sample size for the surveys. Kentlands
also met these criteria, as well as a wide range of others that made it ideal for this thesis. In
Chapter 4, I describe the process by which I chose Kentlands, as well as my descriptions,
observations and analysis of the built environment of the community.

Chapters 4 and 5 serve as companion chapters to one another in many ways. In
Chapter 5, I begin by discussing the rationale behind the comparative element of this thesis,
and then describe Kensington and Tierrasanta similarly to how I describe Kentlands in
Chapter 4. Kensington and Tierrasanta are demographically and physically similar to
Kentlands in many ways: they are all similarly affluent and densely populated, and they share
many physical attributes, the most salient of which is the presence of important amenities
within a reasonable walking distance from residences. However, the built environments and
planning approaches of Kensington and Tierrasanta are vastly different from each other and
from Kentlands, particularly the layouts of their street networks. For example, Kensington is
a pre-war suburb whose streets follow a simple grid pattern throughout much of its area,
while Tierrasanta’s layout resembles a typical postwar planned unit development. One
neighborhood can be described as more traditional than Kentlands, while the other can be
described as less so, as Kentlands’s street network is interconnected yet does not follow any pattern, let alone a grid. By comparing Kentlands to these two neighborhoods, I aim to show that a New Urbanist planning approach yields different behavioral results than other types of development.

This thesis employs both survey data and interview data to try to answer my research questions. In Chapter 6, I describe my analysis of the survey data from all three neighborhoods, and discuss how the results from Kentlands are similar to or are different from the results from Kensington and Tierrasanta. In Chapter 7, I present my analysis from the personal interviews I conducted in Kentlands, while drawing heavily from my observations and survey results for grounding. Within the body of data I collected for Kentlands, the survey and interview data are intended to complement one another, as the questions asked in both are parallel in nature in many ways. As a result, data from the surveys and interviews are compared and contrasted in appropriate places throughout Chapters 6 and 7. This thesis ends with Chapter 8, in which I present some conclusions to my research questions, explain the ways in which it succeeded and other ways in which it might have been improved, and outline possible further avenues for research that can build on my findings.

It is my conviction that I have been able to shed some light on the ways residents are behaving in and using space in the New Urbanist environment of Kentlands, and I hope to convey that these behaviors indicate some level of success in achieving New Urbanism’s goals of reduced automobile dependence and enhanced sense of community. The survey and interview data indicates that there are indeed significant differences in transportation choice outcome between Kentlands, Kensington, and Tierrasanta; that the built environment of Kentlands influences residents to walk; and that sense of community and civic involvement is strong in Kentlands and has a positive effect on pedestrianism. While self-selection and (to a lesser extent) homogeneity among Kentlands residents seem to have factored in these results, in the end Kentlands appears to represent a successful example of New Urbanist design.
CHAPTER 2

LITERATURE REVIEW

The body of literature on New Urbanism is large and varied. It has received much attention, both in scholarly and popular publications, because of its potential to cure many of the problems associated with suburban development. Early literature on the matter was descriptive or historical in nature, rather than empirical or critical, as the scholarly community attempted to assess what New Urbanism was and what it might become. As such, I begin this literature review by addressing some of the background and historical writing, much of it older but some of it more recent, that helped shape the discourses within and related to New Urbanism.

On the other hand, much of the more recent academic literature approaches the subject by critically analyzing factors of the built environment or sense of community as they relate to New Urbanism. While matters of the built environment and sense of community are finely intertwined and interrelated with regards to New Urbanism, most literature focuses on one or the other, usually acknowledging the theoretical relationship between the two without specifically exploring how or if that relationship works. The prominence of these two often-overlapping themes in the literature is a direct result of the potency of the claims implied by the Charter of the New Urbanism described in Chapter 1, in which increased pedestrianism, as a result of the built environment, leads to increased sense of community. As such, I have organized the bulk of this literature review along the lines of the built environment and sense of community.

After reviewing the body of work pertinent to my investigation of Kentlands, I describe the gaps in the literature to which this thesis contributes. My research questions, which were largely influenced and shaped by the theoretical and research discourses I describe in this review, come last. As my research questions helped shape the methods I use to answer them, they lead my narrative into the next chapter, in which I will describe these methods in detail.
BACKGROUND AND HISTORICAL LITERATURE

The idea that community could be created or maintained through public interactions on a neighborhood’s streets was not new to New Urbanist thinking, as Jane Jacobs had written about it as early as 1961 in her seminal book *The Death and Life of Great American Cities* (Jacobs 1961). The principles that came to define New Urbanism as a school of design started to coalesce in the early 1990s, as writing on the subject began to make lists of explicit design elements whose goals were to cure the ills of suburban development (Duany and Plater-Zyberk 1992, Katz 1994). Most of this early writing still did not yet refer to a monolithic, cohesive body of planning and design theory: while Seaside and Kentlands and a handful of other developments existed in the early 1990s, at that time Duany and his colleagues were still framing their ideas in terms of a series of individual design elements that could improve urban planning.

The term “New Urbanism” and the collective set of well-defined principles that embody it did not gain traction in the popular and academic discourses until the mid 1990s. Articles by McCann (1995), Kunstler (1996), Southworth (1997), and Falconer Al-Hindi and Staddon (1997) helped further establish the discourses underlying New Urbanism’s principles and the problems it hoped to solve, leading up to the publication of the *Charter*, while books by Duany, Plater-Zyberk, and Speck (2000), Talen (2005), and Grant (2006) have provided useful summaries of the history of New Urbanism and the reasoning employed by its proponents in touting it. Many pro-New Urbanist publications, the *Charter* included, emphasize the movement’s advocacy of better planning policies at the metropolitan scale (e.g. Talen 2008), but a majority of the literature on New Urbanism today focuses on the scale of the neighborhood (Kentlands) or small town (Seaside), emphasizing the local focus of the scholarly discourse towards curing suburban problems.

THE BUILT ENVIRONMENT OF NEW URBANISM

To understand the essence of New Urbanism, it is important to acknowledge the theoretical link between the built environment and human behavior. The idea that different built environments produce different human behaviors has been long established in the fields of architecture and planning, as well as in the social sciences (Newman 1973, Whyte 1980, and Lawrence and Low 1990 provide general examples). New Urbanism tries to elicit a
particular set of behaviors, most prominently a change in transportation behavior, from a particular type of built environment. There is a significant body of literature studying how the built environment influences transportation behavior (Frank and Engelke 2001, Handy, Cao, and Mokhtarian 2005, Frank, Engelke, and Schmid 2003, and Ewing and Cervero 2010 provide prominent examples). Ewing and Cervero (2001) outline and summarize how design considerations such as street networks, density, the location of amenities, and land use planning can influence travel behavior. Across the literature, the variables of street morphology and land use zoning have been proven to be highly correlative with transportation behaviors (see also Southworth 1997, which uses Kentlands as an example). Moudon et al. (2006) and Lee and Moudon (2006) even go so far as to compare the efficacy of specific design features in influencing people to walk, finding that high residential density, small blocks, and short distances to amenities are most important. Not coincidentally, New Urbanist design takes into account all of the factors mentioned above in order to provide an environment that strives to reduce automobile dependence.

The Charter of the New Urbanism does not mention any specific design elements that a New Urbanist development should have, but consensus has gradually developed in the literature as to what these elements are and how they are supposed to function. These elements can be organized along the lines of the three scales found in the Charter: the city, the neighborhood, and the building or block. Ironically, little is written about New Urbanism at the metropolitan scale (a phenomenon that Talen (2008) bemoans), even though the problems New Urbanism aims to alleviate, such as those associated with sprawl, are experienced mainly at the larger, city-wide scale. The only often-cited design element particular to this largest scale is the importance of transportation interconnectivity between New Urbanist developments and their surrounding metropolitan contexts. It is also of note that the built environment of a neighborhood’s surrounding areas influences the lives of people within the neighborhood as well (Tobler 1999); as a result I describe and analyze the areas surrounding Kentlands in detail in Chapter 4.

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3 Tobler’s Second Law of Geography, though not cited nearly as often as his First Law, certainly applies here. It claims that “the phenomenon external to an area of interest effects what goes on in the inside” (Tobler 1999, 87).
Instead, most essential writing on New Urbanism focuses on the two smaller scales. Duany and Plater-Zyberk’s most prominent writings on the New Urbanist built environment primarily take a planning approach, focusing on the neighborhood and metropolitan scales, rather than on the architectural scale of the building or the block (Duany and Plater-Zyberk 1992, Duany, Plater-Zyberk, and Speck 2000). These two publications, together with McCann (1995) and Ryan and McNally (1995), laid much of the framework for New Urbanism as a planning approach aimed at alleviating the effects of sprawl. They emphasize high-density development, pedestrian-oriented and interconnected streets, and mixed-used planning, rather than front porches or other elements of individual buildings.

Another important element of New Urbanist design is mixed-use planning, in which important amenities and civic spaces are located nearby to or interspersed within residential areas. A simple example of mixed-use planning often seen in New Urbanist developments are “Main Streets” at the center of residential areas, which have the potential to increase pedestrianism and sense of community (Pendola and Gen 2008). Finally, Duany and Plater-Zyberk (1992) and Ryan and McNally (1995) discuss in detail the importance of an interconnected street network in potentially increasing pedestrianism. When a street network is designed with multiple possible paths between two points, they write, automobile traffic is dispersed, making all streets safer for pedestrians, as well as providing a variety of choices for walking routes.

Taking a different approach, Katz (1994) and LaFrank (1997) provide early accounts of how architecture and aesthetics can influence feelings and behaviors at the neighborhood scale. They describe the importance of regionally contextualized design, which can evoke a strong sense of place, which can in turn foster sense of community as well provide an attractive setting to encourage walking. In general, the importance of aesthetic considerations in New Urbanism is often cited as important, in that it contributes to creating a sense of place in a neighborhood, which in turn might influence people to walk. For example, Ewing et al. (2006) outline nine largely subjective aesthetic qualities, such as “enclosure,” “imageability,”

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4 It is of note, however, that Duany and Plater-Zyberk, along with Peter Calthorpe and many other prominent New Urbanists, are architects by trade. The individual buildings and streetscapes of New Urbanism are important, but its planning approach is what truly distinguishes it and thus that which receives more attention in the literature.
and “human scale,” that are often described as important aesthetic elements in New Urbanist
design.5

At the scale of the individual block or building, two important design elements that
have come to be associated with New Urbanism are front porches and rear alleys. The
purpose of both is to create building facades that are “benevolent” and people-oriented (Ford
(2001) explain how New Urbanism has incorporated porches and alleys, respectively, and
describe how both can serve as useful spaces in encouraging interaction within communities.
Finally, Katz (1994) describes in detail the importance of designing individual buildings
within their regional contexts, such as the Gulf Coast styles used in Seaside or the Georgian
brick and colonial styles prevalent in Kentlands.

Despite these myriad design considerations, the question remains whether New
Urbanism can be successful in actually getting people to change their transportation habits.
There is some evidence in the academic literature that it is successful in some ways. Crane
and Crepeau (1998), Lund (2003), Saelens, Sallis, and Frank (2003), Greenwald (2003), Dill
(2004), Shay et al. (2006), and McLaughlin and Allison (forthcoming) all provide some
evidence that New Urbanist communities (or traditional communities upon which New
Urbanism is modeled) can cause residents to drive less, walk more, or both. Despite the
evidence these publications give, there is still little consensus on whether New Urbanism is a
truly effective approach to significantly reducing automobile dependence, or whether
different approaches might work better.

Furthermore, it still remains to be seen which common features of New Urbanism are
the most effective in promoting pedestrianism. For example, Heath et al. (2006) describe how
various elements of the built environment are almost always viewed collectively in
transportation studies at the neighborhood level, making it difficult to determine which of
these individual features are most influential (S60-S61). As such, relatively little has been
written that authoritatively explores exactly which features of New Urbanism are the most
important in achieving its goals. For instance, Sallis, Bauman, and Pratt (1998) find strong

5 Regarding enclosure, for example, Duany, Plater-Zyberk, and Speck (2000), in referencing Camillo
Sitte’s *City Planning According to Artistic Principles* (1945), describe humankind’s natural proclivity towards
enclosed streetscapes because they satisfy a “need for shelter, orientation, and territoriality” (74).
evidence that walking paths and trails increase pedestrian activity; however, Lee and Moudon (2006) conclude that they only increase recreational (and not destination-based) walking, and Moudon et al. (2006) find that they do very little relative to other features in the environment. Even the rare studies that do isolate a particular design element, such as Ford’s discussion of alleyways (2001) and Brown, Burton, and Sweaney’s analysis of front porches (1998), do not settle the debate regarding their efficacy relative to other design features (as discussed in Falconer Al-Hindi 2001). I do not attempt to conclusively answer the question of which exact features are more or less important in promoting pedestrianism, but only to try to gauge their relative importance to the actual inhabitants of Kentlands.

To that end, it is also important to consider that decreased automobile use, or potentially any behavior New Urbanism is trying to promote, may come as a result of the “self-selection” of residents who move to New Urbanist communities and are already amenable to such behaviors, rather than the influence of New Urbanism’s built environment on its residents (Handy, Cao, and Mokhtarian 2005, Schwanen and Mokhtarian 2005, and Cao, Handy, and Mokhtarian 2006 provide evidence of this). I explore the prominent role of self-selection in Kentlands in my discussion of the transportation and social habits of its residents in Chapters 6 and 7.

Finally, it also important to consider the differences in the built environment between Kentlands and the neighborhoods used in the comparative element of this thesis, Kensington and Tierrasanta. While virtually every piece of literature I cite here makes at least some kind of comparison between the neotraditional built environment of New Urbanism and the postwar suburbs whose problems it is meant to correct (i.e. Tierrasanta), few directly compare New Urbanism to traditional urbanism. Southworth (1997), however, provides an example of such a study, using Kentlands as a case study, in which land use, open space, street networks, and other attributes of the built environment are analyzed and compared between New Urbanism and traditional urban design.

**SENSE OF COMMUNITY**

Implicit to all the elements of the New Urbanist built environment reviewed above is the expectation that they might provide people the opportunity to interact with one another in public, either through coaxing them to walk on the streets or even just to sit on their porches.
The ideal end product of this would be an enhanced sense of community among residents, which is an important goal if one subscribes to the view that sense of community is lacking in so many suburban areas.\footnote{It may seem axiomatic that having strong social relationships within one’s community is beneficial to one’s wellbeing. O’Brien, Hassinger, and Dersham (1994) provide evidence of this, as they found a strong correlation between sense of community and mental health.}

First, it is important to consider what is meant by “sense of community” as it is written about with regards to New Urbanism. McMillan and Chavis, in summarizing the early theoretical work on sense of community, point out that community has often been written of as either “geographical,” in that it is determined by the proximal location of people, or “relational,” in that it develops due to some mutual interest among people regardless of their location (1986, 8). McMillan and Chavis clearly state that these two definitions of sense of community are not mutually exclusive; Chavis and Wandersman (1990) build on this idea in examining how common interests (an example of relational community) and dense urban environments (an example of geographical community) together promote civic participation, a hallmark goal of New Urbanism. Kim and Kaplan (2004) offer another example of the intersection of both these types of sense of community. In attempting to qualify sense of community in Kentlands by comparing it with that of a nearby typical suburban development, they frame sense of community, as it applies to New Urbanism, in terms of “attachment” to the community, “self-identifying” with the community, and “interacting” with other members of the community in the local public sphere. Their approach to analyzing sense of community not only emphasizes the importance of both geographical and relational senses of community, but how the two are mutually reinforcing as well.

Once more, the idea of a strong sense of community is an important goal of New Urbanist design because it is believed by many that communitarian relationships and behaviors are lacking in so many American suburbs. This idea that sense of community has been eroded in American society is not new (Jacobs 1961, Langdon 1994, Putnam 1995, Putnam 2000). The New Urbanist movement has been one of the strongest advocates that the post-war built environment is one of the leading contributors to this decline, and has taken a leading role in this debate by actively trying to design and market its developments as drivers
of sense of community. Most of the early pro-New Urbanist literature does not explicitly cite enhanced sense of community as its primary goal (for a prominent exception see Katz 1994). However, the idea of enhancing community quickly evolved into a major selling point for New Urbanism, even outside of academia (e.g. Kunstler 1996), and thus it has since enjoyed much literary attention (Talen 2002). Much of this attention has been highly critical. New Urbanism’s ability to foster a sense of community has been written off as difficult to prove (Talen 1999), naïve in its grounding (Talen 2000b, Day 2003), or, at worst, socially harmful or exclusive due to its association with high housing costs (Till 1993, Falconer Al-Hindi 2001). Others argue that New Urbanism should be praised for what it can definitely accomplish, such as a marked improvement over traditional suburbia in land use efficiency, aesthetic design, and promoting pedestrianism and civic activity (Ford 1999, Ellis 2002, and Talen [who has at times positioned herself on both sides of the debate] 2000a).

While sense of community has been a growing focus of writing on New Urbanism, relatively little of this literature fully and directly examines the potentially direct link between the built environment and sense of community in New Urbanism itself. Youngentob and Hostetler (2005) test the relationship between the built environment and the attitudes of New Urbanist residents, but do not explore their behaviors. Audirac (1999) attempts to explain how the relationship might work in the New Urbanism environment, but does so using proxy data from non-New Urbanist neighborhoods. Lund (2002), Leyden (2003) and Kim and Kaplan (2004) all find strong correlations between pedestrian-oriented built environments and increased social capital and sense of community, but temper their findings by emphasizing that other variables beyond the built environment might be equally if not more important in this outcome. Finally, du Toit et al. (2007) also explore the link between pedestrian activity and sense of community, but do so without giving much attention to the built environment that might foster the increased pedestrianism. Even less has been written about the link between the social environment of a neighborhood and travel behavior, although the one prominent study on the matter (McDonald 2007) does find this link to be strong among school-aged kids.

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7 An early promotional brochure for Kentlands, as well as many of the journalistic accounts of its development, makes this explicitly clear. I discuss the marketing of Kentlands further in Chapter 3.
GAPS IN THE LITERATURE

There are several important gaps in the literature that I aim to fill with this thesis. First, there is a relative lack of empirical research on New Urbanism. For example, much of the literature on sense of community is primarily theoretical. There is also a relative paucity of work done directly on actual New Urbanist communities, as many empirical studies use traditional urban neighborhoods as proxies for New Urbanist developments. Also, a relatively small amount of research on New Urbanism focuses on transportation issues, even though New Urbanism’s greatest potential might be its ability to change transportation habits. Finally, a majority of empirical work on New Urbanism employs quantitative methods that elicit quantitative data. None of the literature on New Urbanism explores precisely how the built and social environments of New Urbanism affect the transportation choices of residents by directly and empirically observing them and talking to them. Furthermore, empirically assessing New Urbanism is of special importance, given that the bold claims to its efficacy come largely from those with a financial or professional stake in its success.

This thesis contributes to these gaps in several ways. Instead of relying on theoretical accounts of New Urbanism or proxy data from traditional neighborhoods, I base my analysis directly on primary data collected from one of the most prominent examples of New Urbanist design in the United States. Rather than trying to figure out if New Urbanism can make its residents walk more, I answer questions related to the reasons why residents of New Urbanism walk or drive to places. All quantitative empirical studies on transportation habits show that residents of New Urbanist developments indeed do drive less (Dill 2004, Shay et al. 2006, and McLaughlin and Allison forthcoming), but beyond offering conjecture or educated guesses, they do not attempt to find out whether or to what extent elements of the built or social environment contribute to this outcome. I also pay special attention to the important role that self-selection plays in the behavioral outcomes of Kentlands residents. Finally, I shed some light on the relationship between pedestrianism and community formation, two of the most important, interrelated, and debated goals put forth in the Charter, but rarely empirically observed in the literature. The research questions, which I designed to help fill the gaps in the literature, are described below.
RESEARCH QUESTIONS

Taken holistically, the literature on New Urbanism paints the picture of a design movement that has a great deal of unrealized or unconfirmed potential to change suburban planning for the better. Much of the literature on New Urbanism criticizes it for the less-than-complete implementation of its principles at the scale of individual developments. The principles taken as a whole are almost universally accepted as a superior alternative to typical postwar suburban planning, but, for a variety of reasons, few individual developments are able to embody all of these principles. Because of this, my first set of research questions are concerned with the extent to which my study site embodies the full range New Urbanist design principles; it was important that I be able to authoritatively say that Kentlands was an appropriate exemplar of New Urbanism from which generalizations can be made. Though my preliminary research was focused on finding a development that best embodied New Urbanist design, I was not able to visit Kentlands before choosing it as my study site. As such, I assessed the exact ways in which Kentlands embodied or failed to embody important design principles through focused, on-site participant observation of the neighborhood’s built environment once I arrived. While the planning principles of New Urbanism are the most important variables I examine in this thesis, Kentlands’ planners could not change the geographic setting of the community, so I also explore the ways in which the area surrounding Kentlands influenced how its residents behave. Finally, I also ask whether Kentlands is successful in creating an aesthetic sense of place, as the literature shows that aesthetics can also play an important role in influencing pedestrianism and sense of community.

My next set of questions focuses on whether New Urbanism indeed does succeed in reducing automobile dependence. I pose these questions differently than others have in the past, however. Rather than simply asking whether Kentlands has succeeded in causing people to walk more and drive less, I ask whether it has succeeded despite habits residents may have developed while living elsewhere. A corollary to this question that I investigate is the extent to which residents with pre-existing attitudes about transportation and/or community may have deliberately settled in Kentlands, or “self-selected,” in order to live a lifestyle that enables them to walk more or become more involved in the local community.
Next, I ask which factors of the built and social environments of Kentlands are more or less important in influencing the transportation choices of residents. Particular features in the built environment that I looked to for, both when completing my observations and when conducting and analyzing the interviews, included: the connectivity of the street network; the location and quality of local amenities; the aesthetics of the architecture and urban design; the design elements present in the streets and walking paths meant to enhance pedestrianism; and the overall density and layout of the neighborhood’s elements. I approached this larger question by asking a series of more specific questions about the transportation habits and social lives of Kentlands’ residents, which I will describe in detail in Chapter 3. I also ask whether there is any causation or correlation between aspects of residents’ social lives, such as their community engagement, with their transportation habits.

Finally, in order to determine if the New Urbanist built environment of Kentlands represents a special case, I ask if the transportation habits of Kentlands residents differ from those of residents of more or less traditional neighborhoods, as exemplified respectively by Kensington and Tierrasanta. Without examining how Kentlands performs differently from other neighborhoods, I could not contextualize any of the answers to my other research questions, making my analysis less significant.
CHAPTER 3

METHODOLOGY

In order to answer my research questions I needed to employ a variety of different methods. For instance, answering some of my questions required me to intensely observe the environments of Kentlands, Kensington, and Tierrasanta, while others required I ask questions directly of the residents themselves. One unifying element common to all my methods is that they were primarily qualitative. While at times I gained better understanding from simple quantitative data, either from the surveys or from secondary sources, my research questions are more concerned with how Kentlands works rather than the extent to which it works. Thus, even my standardized surveys were designed to elicit qualitative responses.

I used four different kinds of methods. First, I conducted preliminary and preparatory analyses in order gain a better understanding of the three neighborhoods I examine in this thesis. Next, I conducted focused observations of these three neighborhoods. Finally, I gained primary data from distributing surveys to homes in all three neighborhoods and conducting semi-structured interviews with residents of Kentlands. Though I describe these methods in a sequential fashion here, it should be noted that information gleaned from various methods informed and helped evolve the implementation of other methods as I completed the research for this thesis. Throughout the ensuing discussion of these methods I note where preliminary findings from one method informed the execution of others.

The specific methods I chose afforded me a particular set of advantages: in-depth interviews elicited a breadth and depth of primary data that no other type of analysis could provide; the semi-structured nature of the interviews allowed me to maintain a specific focus on my research questions while still allowing the interview subjects to speak their minds; the use of standardized surveys allowed me to assess my qualitative data quantitatively, and also enabled me to directly compare otherwise very different neighborhoods; and participant observation provided me with a firsthand perspective on the workings of the built environment of the three neighborhoods in this study. The two traits I aimed to observe in
this thesis, travel behavior and sense of community, also lend themselves particularly well to
the qualitative nature of my methods. Sense of community is a nuanced phenomenon that is
difficult to quantify, while Clifton and Handy (2003) make note of the importance of
including more qualitative methodology into travel behavior research. My use of these
methods is discussed in greater detail in the following sections.

**Preliminary and Preparatory Analysis**

In order to understand how to frame my questions and arguments, both with regards
to New Urbanism in general and Kentlands as a unique example of it, it was essential to first
understand how the discourses and debates around New Urbanism have been framed in the
past and how Kentlands itself has been portrayed, both internally and externally, relative to
these discourses. The discourses and debates on New Urbanism are described in the literature
reviewed in Chapter 2. The media that helps shape the image of Kentlands in particular
includes academic literature, but also depictions from the mass media, real estate listings, and
materials produced by New Urbanists and by representatives of Kentlands itself (such as the
Kentlands Citizens Assembly, or KCA, the local homeowner’s association). The analysis of
texts particular to Kentlands is important because specific portrayals of Kentlands may have
affected the behaviors or attitudes of some of its residents, or may have influenced who chose
to move there. For instance, if Kentlands is aggressively marketed as a place where people
walk and share a strong sense of community, this portrayal might either influence who has
chosen to buy homes or open businesses in Kentlands, or affect the actions of those who live
there by encouraging a particular set of behaviors among its residents.

It should be reiterated here that Kentlands predates the term New Urbanism and the
cohesive set of principles that define it. Despite lacking a brand with which to market
Kentlands, much of the early media depictions of the neighborhood describe its pedestrian-
oriented environment and its community-oriented goals. For example, a 1989 local news
article includes the following description of real estate listings for Kentlands before the first
homes were even completed: “Hoping to attract a public disheartened by suburban sprawl,
they seem to suggest that you can go home again, to the small-town America that inspired
Wilder and misty-eyed audiences since 1939 (Pinnell 1989, 81; emphasis in original).” These
types of depictions were universal and widespread, and were not limited to local media: *The*
Washington Post (Foote 1988), The New York Times (Brown 1988), and even Time (Andersen 1991) and Newsweek (no author 1995) all published similarly effusive articles praising Kentlands as an innovative neighborhood in which people walked and could have close relationships with their neighbors.

Today’s real estate listings for Kentlands are not marked as prominently by language describing a potential sense of community, but nearly universally contain language touting its walkability (Figure 3). This may be due to the fact that Kentlands is sufficiently well known, particularly in metropolitan Washington, that it is no longer necessary to aggressively market its community-oriented design. This is not to say that aspects of community are still not mentioned, but that pedestrianism is more often cited as a selling point and is often mentioned first when community is included as well. While the health benefits of walking are certainly a selling point for Kentlands, as the social emphasis on personal health and well-being has increased in recent years, the ads I examined, other than mentioning Kentlands’ “walking paths,” frame its walkability exclusively in terms of the proximity of homes to important amenities (most often schools and retail stores).  

![Figure 3. A recent real estate listing for a home in Kentlands, with walkable amenities mentioned first. Source: Elaine Koch Real Estate. http://www.elainekoch.com (last accessed 11 October 2009).](http://www.elainekoch.com)

\[8\] These conclusions are based on a non-scientific survey I conducted of real estate ads for homes in Kentlands. The ads were found both online, at several different times throughout the researching of this thesis, and from four free real estate magazines I collected during my two visits to Kentlands.
Marketing Kentlands in terms of its walkability and sense of community are not new phenomena, but in its original marketing materials sense of community was more prominently highlighted than walkability. For example, an early promotional brochure, modeled in the form of a newsletter, stated the following by quoting the founder of Kentlands: “‘Instead of building a place to live,’ Mr. Alfandre said recently, ‘we are trying to create a way to live.’ ‘We’re trying to achieve a feeling of community. One way we’ve tried to do it is to design a town around people and values instead of buildings and streets and cars’ ” (no author 1989). The community’s web page has also historically been an important marketing tool, and according to the president of the KCA, a recent site overhaul was designed to explicitly emphasize Kentlands’ New Urbanist design goals (according to Adrienne Gillen, during an interview conducted 6 January 2009) (Figure 4).


Cleary, when a person is considering moving to Kentlands, he or she will have every opportunity to become aware of the community’s emphasis on pedestrianism and sense of
community. This makes the possibility more likely that self-selection is an important factor in producing certain behavioral outcomes. If people are looking for a place in which they can walk to destinations and have active, local social lives, then they may consider Kentlands as a place in which they can fulfill those goals. As I discuss in Chapters 6 and 7, it seems likely that self-selection has indeed played an important role in producing the outcomes visible in Kentlands, and the ways in which the community is marketed may have influenced much of this self-selection. This is not nearly the case in Kensington or Tierrasanta, however. The official web presence of each neighborhood is limited, and neither neighborhood’s sites emphasize walkability or sense of community. Real estate listings only seldom mention the amenities of each neighborhood after describing features of the homes themselves, and describe them in terms of their proximity rather than their walkability; sense of community is never directly mentioned.

In addition to the analysis of marketed portrayals of these neighborhoods, I also compared demographic data from all three neighborhoods. Varying census geographies made it difficult to produce precise figures for each neighborhood, but for the purposes of qualitative comparison it was still important to be aware of any major demographic differences that might account for differences in behaviors I observed in the survey data. In the case of Kentlands, which is in a census block group far larger than the community itself, its population and area (and therefore its density) was calculated based on estimates from within the community. The other data presented here includes some of its surrounding neighborhoods (Table 1). These data strengthened my understanding of the similarities and differences between the three neighborhoods in ways that visual observation could not.

The demographic data depicted in Table 1 reveal far more similarities than differences between the three neighborhoods. While different demographics might have provided interesting fodder for discussion in this thesis, the similarities indicate the built

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9 The only official web presence of Tierrasanta is the Tierrasanta Community Council’s web page. Kensington is only semi-officially represented by a variety of business-oriented web sites.

10 The construction of the residential area of Kentlands was ongoing into the late 1990s, but the geography of census enumeration boundaries was likely determined before it was completed. Thus, the large size of Kentlands’ block group and co-contiguous census tract are indicative of an area with a smaller population, despite Kentlands’ size.
Table 1. Comparative Demographics between Neighborhoods in this Study

<table>
<thead>
<tr>
<th></th>
<th>Kentlands</th>
<th>Kensington(^{11})</th>
<th>Tierrasanta(^{12})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>5,000</td>
<td>8,916</td>
<td>7,604</td>
</tr>
<tr>
<td>Area</td>
<td>0.55 square miles</td>
<td>1.32 square miles</td>
<td>2.42 square miles</td>
</tr>
<tr>
<td>Density</td>
<td>9,090/square mile</td>
<td>6,755/square mile</td>
<td>3,142/square mile</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>$92,043</td>
<td>$51,459</td>
<td>$61,760</td>
</tr>
<tr>
<td>Median Home Value</td>
<td>$288,700</td>
<td>$243,967</td>
<td>$280,477</td>
</tr>
<tr>
<td>Owner Occupied Homes</td>
<td>76.9%</td>
<td>47.0%</td>
<td>58.9%</td>
</tr>
<tr>
<td>Journey to work time</td>
<td>32.2 minutes</td>
<td>23.9 minutes</td>
<td>19.3 minutes</td>
</tr>
<tr>
<td>Gender composition</td>
<td>91m/100f</td>
<td>94m/100f</td>
<td>96m/100f</td>
</tr>
<tr>
<td>Median age</td>
<td>35.5 years</td>
<td>37 years</td>
<td>36.6 years</td>
</tr>
<tr>
<td>Percent under 5 years</td>
<td>9.9%</td>
<td>6.8%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Percent over 65 years</td>
<td>5.8%</td>
<td>11.3%</td>
<td>9.5%</td>
</tr>
<tr>
<td>White</td>
<td>77.3%</td>
<td>60.3%</td>
<td>81.0%</td>
</tr>
<tr>
<td>Black</td>
<td>4.7%</td>
<td>9.5%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Asian</td>
<td>13.3%</td>
<td>6.5%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>5.2%</td>
<td>23.4%</td>
<td>8.2%</td>
</tr>
</tbody>
</table>

Adapted from: United States Bureau of the Census 2000

environment of each neighborhood should be one of the most important variables
corresponding to the behaviors reported by their residents. There are some visible differences
worth addressing, however. Kensington’s income is considerably lower than the other two
neighborhoods, despite its reputation as a wealthy area, because the more heavily populated
areas south of Adams Avenue have a much lower median household income than the more
affluent but less populated areas north of Adams Avenue. However, I distributed more than
half of the surveys to homes north of Adams in Kensington, so the income figure in Table 1
is likely far less than the average income of the survey respondents.\(^{13}\) Also, Tierrasanta’s
population density is deflated due to large areas of open space within the census tracts used
to determine its demographics.

\(^{11}\) Data for both Kensington and Tierrasanta comes from two census tracts. When necessary, figures in this
table have been weighted based on the percentage of the total population living in each tract.

\(^{12}\) Like in Kentlands, the census tracts in Tierrasanta incorporate land and populations not within the study
area. Also, part of the study area is outside of the census tracts used to determine these figures. All figures are
meant to convey approximate demographics.

\(^{13}\) For the same reasons, other factors correlated with income, such as race and median home value, are
also slightly misrepresentative of the population that received the surveys in Kensington. The area north of
Adams Avenue is on average, whiter, wealthier, and less densely populated than the area south of Adams Avenue.
PERSONAL AND PARTICIPANT OBSERVATION

A major component of the data collection for this thesis consisted of firsthand observations, primarily in Kentlands but also in the control neighborhoods of Kensington and Tierrasanta in San Diego. Because my research questions are mostly related to the transportation habits of the residents of Kentlands, and how these habits might differ in Kensington and Tierrasanta, my observations were geared towards determining how one might move differently through the built environment of each of these neighborhoods. Because I was further interested in how sense of community might be related to transportation choice, I also observed how people might use the spaces within the three neighborhoods, not only with regards to transportation but also concerning their roles as citizens and consumers. A major component of this part of my observations included noting what spaces and amenities were available to the people of all three neighborhoods, such as retail outlets, restaurants, cafes, and bars, or civic spaces such as schools, libraries, and parks. In addition to noting the location and situation of these amenities, I spent as much time as I could observing how people were actually using them.

I spent a total of eleven days in Kentlands, and during that time I conducted interviews, distributed surveys, and made observations. Unfortunately, my visits took place in the winter, when levels of pedestrianism are relatively low due to the weather. Information gleaned from surveys and interviews helped me piece together how seasonal differences affect behaviors in Kentlands. I was, however, able to observe how the rhythm of life changed throughout the day and the week, as I spent each of these eleven days entirely on site, only leaving in the evening.

During my visit, I observed and used all of the transportation options a resident might have. I walked as many streets and walking paths within the community as possible, to and from residences, civic institutions, and businesses. Though I did not have access to a bicycle, walking served as a proxy for biking, as I made note of the presence of bike-specific design elements, such as bike racks and bike lanes on roads, while I walked. I rode the bus lines to and from the Metro light rail stations nearby. I also rode the Metro into and out of Washington, where I was based and where many Kentlands residents work. I had access to a car, so I drove extensively in and around the community, and made note of traffic patterns, the availability of parking, speed limits, and other automobile-related variables. These are all
the basic modes of transportation that a typical Kentlands resident might rely on during his or her day-to-day routine, and observing and experiencing firsthand how transportation works within and away from Kentlands helped me formulate ideas about how Kentlands works as a place and what modes of transportation are more or less viable, convenient, or efficient than others. Finally, as I alluded to with regards to traveling between Kentlands and Washington, I observed how Kentlands was situated on a continuum of scales, ranging from the area immediately outside its boundaries to the entire Washington metropolitan area. While Kentlands can theoretically influence the behaviors of its residents as a self-contained environment, in reality people leave the neighborhood for any number of reasons daily, so it was important for me to understand how the environment beyond Kentlands might affect the behaviors of the people living within it.

While one can fairly easily observe how transportation systems function by experiencing how they work firsthand, sense of community is more difficult to observe, especially in a relatively short period of time. In this thesis I primarily explore how Kentlands residents experience sense of community through surveys and interviews. However, there were certain ways in which I was able to observe how sense of community might be fostered in Kentlands. As New Urbanist doctrine describes, certain planning elements, such as public spaces, or architectural elements, such as front porches, are supposed to help foster a sense of community in residents. Therefore, I paid particular attention to the presence and location of these types of features. While outdoor public spaces were not well utilized during my visits because of the cold weather, I was able to observe some indoor locations where community behavior takes place, such as bars and cafes, known as “third places,” which Oldenburg describes as vital components of local community social life outside of one’s home or place of work (Oldenburg and Brissett 1982, Oldenburg 1989). Finally, during my visit I was given permission to observe structured community areas and behaviors in Kentlands at the clubhouse and at a homeowner’s association (KCA) meeting. I made similar observations in Kensington and Tierrasanta, although since the focus of this thesis is on the New Urbanist environment of Kentlands these observations were less intense. I benefited from being able to visit both neighborhoods frequently, however, and I was able to make acute observations on how the transportation systems work within and outside of both. Matters relating to sense of community were primarily explored through the surveys I
distributed in these neighborhoods, but my proximity to them also enabled me to better observe how public places and third places are used and how this use varies daily and seasonally.

**SURVEYS**

I distributed two-page, ten-question surveys in Kentlands, Kensington, and Tierrasanta in order to help determine how transportation habits and sense of community vary between different neighborhood types (see Figures 52 and 53 in the Appendix for the full survey). I deliberately limited the survey to two pages in length to avoid intimidating potential survey takers with an extensive survey. A byproduct of this is that I had to exclude certain potentially useful questions from the survey, such as those that ask for demographic information, in favor of questions that led directly to answers to my research questions. Conversely, as some respondents may have been reluctant to answer demographic questions, their absence might have encouraged more recipients of the surveys to actually complete and return them.

I included identical questions in the surveys I distributed to all three neighborhoods. The set of questions included in the survey was tailored primarily to answer my research questions as they related to transportation behaviors, but also included two questions about community relationships and behaviors. My decision to include questions about community, and indeed any research questions I have posed in this thesis related to sense of community, did not evolve until after I had conducted and analyzed the interview data from Kentlands. As such, I distributed an earlier, similar version of the survey electronically to an e-mail list provided by the Kentlands Community Foundation (KCF). None of the responses to these electronic surveys were used or analyzed for this thesis.

In addition to designing the surveys to help me answer my research questions, I worded specific questions on the surveys so as to elicit open-ended responses and to avoid prompting certain types of responses. For example, Question 2 of the surveys simply asks: “Why did you choose to move to (your neighborhood)?” Providing the respondent with categories from which they could choose would have prevented the rich, detailed responses I received from the open-ended wording of the question, and also possibly skewed the responses in a particular direction based on the wording of the categories I might have
chosen. I worded this question and others to allow the survey takers to speak for themselves as much as possible, despite the short format of the questions. There was also no explicit connection between the questions related to transportation habits and the questions related to sense of community. If I had made the theoretical connection between the two evident to the survey takers I may have received skewed responses in favor of such a connection existing.

I distributed the surveys by hand to a random selection of households in all three neighborhoods. I limited the study area in all three neighborhoods to homes no greater than one mile from the central retail area of each neighborhood, as traveled on streets or walking paths. In Kentlands and Kensington, this included every home in each neighborhood; in Tierrasanta, which is much larger, I limited the study area to a one-mile radius as it extended along roads away from its retail core. In order to assure that a variegated selection of homes in each neighborhood received surveys, I divided each study area into zones of roughly equal size, and delivered 25 surveys to each zone. I distributed a total of 125 surveys in Kensington and Tierrasanta. Because the surveys were packaged in San Diego State University envelopes, and because name recognition for San Diego State is far greater in San Diego than in Maryland, I distributed 150 surveys in Kentlands to ensure I would receive enough returned surveys to provide an adequate sample size.

I first delivered surveys in Kensington. In order to elicit a higher rate of response, I knocked on doors and, if greeted by a resident, briefly explained the nature of my study and asked if I could leave a survey with them. If there was no response, the message “Academic survey material enclosed, thanks for your help” was handwritten on the envelope and the survey (along with an explanatory letter and waiver) was left on the home’s doorstep. While Kensington is home to a variety of housing types, to avoid the illusion of trespassing I limited the distribution of surveys to homes with doors facing the street, eliminating “granny flats” or guest houses behind homes and enclosed apartment buildings from my sampling. As such, a significant majority of the surveys were distributed to single-family detached homes. Seeking a minimum of 40 responses, I received a total of 51, for a response rate of 40.8 percent.

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14 In most cases I would deliver surveys to every other house on a street, with the exception of houses or buildings where I could not access the front door or which had “No soliciting” signs displayed.
In the first zone in which I tried to distribute surveys in Tierrasanta, a private security officer quickly became wary of my presence, and I realized there were identical “no soliciting” signs on each door. As a result, I redrew my zone map to exclude this area, and decided to forego the step of knocking on doors in favor of leaving the surveys on doorsteps with the same handwritten message. This method elicited 49 responses, for a response rate of 39.2 percent, an insignificant difference from the rate of return in Kensington. While there are condominiums and a seniors-only apartment building in the study area in Tierrasanta, the only residences whose doors faced onto public streets or walkways were detached, single-family homes, and thus all the surveys I distributed there were delivered to this type of home. The same delivery strategy was used in Kentlands as in Tierrasanta, and 51 out of 150 surveys were returned for a response rate of 34 percent. Like in Tierrasanta, and for the same reasons described above, all the surveys I delivered in Kentlands were left at single-family homes.

In order to organize the survey data for analysis, I created a spreadsheet for each neighborhood and transcribed each individual survey into its applicable spreadsheet. Each survey was assigned a number and was organized into the spreadsheet horizontally, while the questions and question components were organized vertically. This allowed me to analyze patterns within individual surveys, as well as patterns of responses to individual questions within each neighborhood. Lastly, once I analyzed the data from within each neighborhood, the two San Diego neighborhoods were compared to Kentlands to see how Kentlands residents responded differently. While my observations in each neighborhood proved invaluable to grounding my understanding of the survey responses, the survey data itself was by far the most important aspect of the comparative element of this study, as it enabled me to write about how people in a New Urbanist environment actually behave in and use the space around them differently from people in different types of neighborhoods. Because of the logistical limitations that prevented me from interviewing residents in San Diego, the surveys were also the only source of primary data that I could use to compare Kentlands to different neighborhood types. A more detailed account of the results of the survey data analysis can be found in Chapter 6.
INTERVIEWS

Due to various logistical constraints and my focus on New Urbanism, I conducted interviews only at Kentlands and not with residents or authorities from Kensington and Tierrasanta. In Kentlands, I conducted informational interviews with several stakeholders related to the physical and social maintenance of Kentlands, as well as personal interviews with Kentlands residents. In some cases, I interviewed people simultaneously in both capacities, asking them about their knowledge and roles in governance and planning in Kentlands, as well as the questions I would ask of regular residents about their lives in the community. Because of the anonymous nature of the personal interviews, I have separated different types of responses from these individuals so that their responses to personal questions remain anonymous.

I conducted informational interviews with representatives from the Kentlands Citizens Assembly (the local homeowner’s association), the Kentlands Community Foundation (a community outreach organization that operates within Kentlands but is not legally bound to it), the planning department of the city of Gaithersburg, and past and present representatives of DPZ, Duany and Plater-Zyberk’s architectural firm that maintains an office in Kentlands. These interviews were invaluable because they provided important background information and enabled me to better understand Kentlands’ past, present, and future. While much was written about Kentlands in its nascent stages, less is written now, so firsthand knowledge of the events taking place in the community not only helped fill in some informational gaps, but further helped me ground the information I learned from the surveys and personal interviews into a more realistic context.

In total I conducted 15 personal interviews with 20 different Kentlands residents: ten individuals and five married couples who I interviewed jointly. I found the interview subjects opportunistically, beginning with a contact I had made at one of the local organizations who provided me with some willing participants. From there, I used the “snowball” method to find further subjects (Valentine 2005, 116-117), by which my initial subjects recommended friends and acquaintances who might be willing to be interviewed. All interviews but one took place in person,15 either in the subject’s home or in a public gathering place, which was

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15 One subject, who I had met previously, was ill but agreed to be interviewed over the phone.
usually the local Starbucks. All subjects consented to the interviews being recorded. The interviews ranged in duration from about 30 minutes to 75 minutes, and averaged roughly 45 minutes.

The interviews could best be described as semi-structured, and largely employed methodology described by Valentine (2005), in which questions were worded in a way that ideally enabled interview subjects to share their own ideas, in most cases without being directly prompted by specific or closed-ended questions. There was no definitive order in which I asked questions, and there was no restriction on the type or number of questions I asked or the topics that were discussed. There was, however, a list of questions and topics that I made a point to ask during each interview. Using a linguistic strategy that Valentine describes, I began each interview by asking the subject(s) to “tell me about how they came to live in Kentlands.” I carefully worded this and other questions so as not to “impose an answer” upon my subjects, but rather to encourage them to tell a story about their experiences (Valentine 2005, 120). In addition to the aforementioned opening question, questions that were universally asked include the following:

1. What types of places in and near Kentlands do you walk or bike to? Where do you drive to? Do you use public transportation, and if so, where do you take it?
2. What factors influence your transportation mode choices? In other words, why do you choose one mode of transportation over another?
3. What type(s) of neighborhood(s) did you grow up in? What were your transportation choices and habits like in these neighborhoods?
4. What type(s) of neighborhood(s) did you live in before moving to Kentlands? What were your transportation choices and habits like there?
5. Were there any adjustments in your transportation choices and habits upon moving to Kentlands?
6. What is your social life like, and is it focused primarily on Kentlands or elsewhere? How did you meet the people you know in Kentlands?
7. What things do you like or dislike about Kentlands? Is there anything you would change if you could?

The themes explored in the interviews are in many ways similar to the themes explored in the surveys. However, because of the format and the lack of the time and space restrictions that limited the scope of the surveys, I was able to delve deeper into some of the themes about which I wanted to learn more. For instance, I asked survey respondents how their transportation choices or habits may have changed from those they practiced in
neighborhoods in which they lived prior to their current neighborhood. My goal for these questions was to see if the pedestrian-friendly environment of Kentlands is actually effective in making people walk, especially when they may have inhabited an environment in which walking to a destination was practically impossible. The interviews also allowed me to ask residents more about their histories of transportation use. On the surveys I was limited to asking about their transportation mode use only in their previous neighborhood, but in the interviews I was able to ask people what the neighborhoods in which they grew up were like, as well as more nuanced questions about the formation of their transportation habits. With the survey data I could only notice correlations; with more in-depth information such as this from the interviews, I had a better chance at determining if some kind of causality existed.

As mentioned, the more in-depth information I gained from the interviews changed the nature and direction of this thesis significantly. When I began conducting the interviews, my research questions were focused exclusively on issues related to transportation, because I had initially thought that sense of community would be too nebulous a phenomenon to test or observe empirically. While I had always intended to ask questions about social life in Kentlands in order to provide a richer background to the stories I would write on how people there made transportation choices, the first several interviews I conducted made it apparent that community-related matters were more important than I had predicted. As a result, the set of interview questions listed above evolved as I conducted the interviews, and it quickly became apparent that sense of community, albeit vague and difficult to determine, was an important aspect of nearly everything that happened in Kentlands in the eyes of the people I interviewed. From there, the research questions and surveys evolved into the forms in which I present them in this thesis, with more attention paid to aspects of community.

This is one of many examples of the ways in which interviews provided me with more useful and in-depth primary data than the surveys. After I completed the interviews, I transcribed the recordings and read the transcripts repeatedly, highlighting passages of text that fit into certain themes, or codes, common to all or some of the interviews (as described by Crang 2005). The coding process was iterative, in that repeated readings of the transcripts and codes revealed new codes and more specific subcodes than I had originally imagined upon first conducting the interviews. For example, the first set of codes I created was fairly predictable, given the nature of the research questions I was asking. It included codes such as
“pedestrianism,” “sense of community,” “work,” and “driving.” However, after repeated readings and recodings, a new set of codes developed, including more specific codes such as “environmental ethics,” “involvement,” and “feelings of home.” These new codes became the backbone of how I interpreted the interviews and comprise a large part of my conclusions about Kentlands as a place (see the Appendix for a full list of interview codes).
CHAPTER 4

ASSESSMENT OF KENTLANDS AS A PLACE

I begin this chapter with a discussion of how I determined the criteria my New Urbanist study site needed to meet, and describe how Kentlands meets these requirements. Because New Urbanism is an intersection of architecture and planning, much of my description of these neighborhoods is organized into those two categories. Thus, after a brief history of the development of Kentlands, I will discuss its architecture and aesthetics, then describe it from a planning perspective, including how the geographic situation of Kentlands at various scales affects life in the community. In my accounts and descriptions I draw both from my own firsthand observations and from primary and secondary sources, including background interviews and secondary sources ranging from newspaper articles to academic literature. In order to begin addressing my research questions, I next provide my assessment of the viability of the major transportation choices available to residents in Kentlands: walking, biking, public transportation, and driving. I conclude by providing an assessment of how the built environment can potentially influence sense of community. Throughout this discussion I make note of ways in which Kentlands well embodies New Urbanist design tenets, and other ways in which it does not pose as the best example of the style (or of good planning in general).

SELECTION OF THE STUDY SITE

I began this thesis only knowing that I wanted to test the efficacy of New Urbanism in reducing automobile dependence. As such, I needed to find a New Urbanist development that could serve as a worthy example of it. Determining how to test “New Urbanism” was difficult, however, because it comes in so many forms and at so many scales. Thus, beyond simply testing New Urbanism, it was necessary to develop a specific set of criteria. Because I wanted to test if New Urbanism could prevent people from using their cars as much, I wanted my study site to provide its residents with realistic opportunities to use a wide variety of modes of transportation, including walking, biking, driving, and public transportation. If a
person has a realistic choice between these four modes of transit, then the environment in which that person lives can be considered a significant variable in influencing his or her choices.

To this end, I developed a set of criteria for my study site, all of which Kentlands satisfied, 16 First, I wanted my study site to be suburban in both character and location. As discussed in Chapter 1, much of the interest in New Urbanism is a result of its potential to cure specifically suburban problems such as automobile dependence, so I decided it would be important to study New Urbanism in a suburban context. Furthermore, urban, in-fill examples of New Urbanism have the potential to be successful in reducing automobile dependence more so because of their location and situation then because of their design. If a development is surrounded by urbanization, where walking or using public transportation is the norm, they might expect not to drive much. Or, in the case of a dense urban setting with limited parking, operating a car might be inconvenient, thereby making the built environment of the development itself a limiting factor in influencing transportation choice.

Also with regards to location, I wanted my study site to be located within a major metropolitan area, and to be linked to the rest of the metropolitan area by public transportation. While a community like Seaside could be described as suburban insofar as its density, unlike most suburbs it is mostly self-contained and isolated: Seaside is over thirty miles from the two nearest metropolitan centers, the small cities of Fort Walton Beach and Panama City. As a result, its residents are compelled to remain within the community for many trips. This makes walking potentially more practical, but once again, this might be more a result of the place’s situation than of its planning considerations. If residents have a realistic choice between amenities located within their community and those located elsewhere, the execution of the built environment within the community becomes an important variable in whether people seek amenities closer to their homes or not. This, in

16 Other sites I seriously considered, and the reasons they were eliminated, included: Stapleton, in Denver, CO because it was not yet complete; Prospect New Town in Longmont, CO, which was too small and too far removed from metropolitan Denver; Fairview Village and Orenco Station in suburban Portland, OR, both of which were still under construction and had small populations at the time of my research; and Celebration, outside Orlando, FL, which has no direct public transportation links, but also because its development by the Walt Disney Company has resulted in an extraordinary amount of attention and press that might have affected results in some significant way.
turn, can influence the mode of transportation they use. The inclusion of public transportation was important, of course, because it provides residents with another transportation mode choice.

Next, I wanted my study site to be relatively wealthy, or at least wealthy enough so that virtually all residents could afford to own and operate a car. If a significant portion of a neighborhood cannot afford a car, then people’s decisions to walk or use public transportation are less a choice than they are a necessity (Holtzclaw et al. 2002). This eliminated developments falling under the U.S. Department of Housing and Urban Development’s (HUD) HOPE VI program, many of which are described or even marketed as New Urbanist, in which low-income housing is purposefully mixed with middle- and higher-income housing.

Finally, I wanted my study site to have been completed at least five years ago, and I wanted it to have a relatively large population. Since New Urbanism is still an emerging planning approach, many New Urbanist communities are either still under construction or have only recently been completed. Thus, many of their residents might not have had time to be influenced by the new environment that such a community might offer, or social links affecting sense of community might not have had time to develop. I wanted a populous community not only because it would afford me a sufficient sample size for the survey and interview data, but because a higher critical mass of people has a greater potential for a greater number of social links, and thus a greater potential for sense of community to develop.

Kentlands met all of these requirements better than any other New Urbanist community I encountered. It is located in suburban Gaithersburg, Maryland, in the Washington metropolitan area. It is connected to the rest of the Washington area by two bus lines that connect it to Washington’s Metro light rail system. While census geography has yet to catch up to Kentlands’ growth, placing it in a large block group with several other nearby neighborhoods, it is indisputably wealthy, as its block group has a median household income of $92,043, versus the Montgomery County median of $71,551 (U.S. Bureau of the Census 2000). Finally, it is large, sporting a population of roughly 4,000 to 5,500 according to various estimates, and has been complete since 1998, giving it over a decade to develop whatever collective transportation habits or sense of community it may.
**HISTORY AND DEVELOPMENT OF KENTLANDS**

Kentlands was planned and constructed between 1988 and 1998 on 352 acres in Gaithersburg, Maryland, about 23 miles northwest of Washington. It was the next development of its scale and style that DPZ designed after completing work on Seaside (Duany Plater-Zyberk and Company Kentlands project page, Kentlands home page). The land had been a working farm owned by the Kent family until it was sold to local developer and builder Joseph Alfandre in 1987. At the time, Alfandre chose only to develop the western half of the land, which had a varied topography, mature trees, man-made ponds, and contained the Kent family’s home and other buildings (Brown 1988, Foote 1988, Hamblen 1988, Pinnell 1989) (Figure 5). The eastern half of the plot, which was flatter and had been used to plant crops, was initially left undeveloped and is now the site of Lakelands, a New Urbanist community that is organizationally separate from Kentlands but which effectively shares its commercial center (Figure 6).

Alfandre hired DPZ to design Kentlands based on a reputation built largely on the success of Seaside. The process by which Kentlands was planned, called a charrette, was considered innovative at the time but is now a standard procedure in New Urbanist planning (and is gaining favor in urban planning in general). In a charrette, planning and design professionals, government representatives, and business owners collaborate and brainstorm ideas about how a community should be designed and built, while members of the general public are often allowed to observe and provide input to the design team at certain points in the process. Kentlands’ charrette lasted seven full days, and included trips to observe traditional neighborhoods in the Washington area, including Georgetown in Washington, Old Town in Alexandria, Virginia, and Annapolis, Maryland (Boles 1988, Foote 1988, Hamblen 1988). As a result, Kentlands bears an aesthetic resemblance, if not a resemblance in its planning strategy, to the above communities. While charrettes do not result in any exact plans or building designs, Kentlands’ charrette produced a layout that strongly resembles its current form (Boles 1988, Brown 1988). It also stressed the maintenance of the existing topography and landscaping on the Kent farm, as well as plans for reusing most of the farm’s buildings (Brown 1988).

Original plans for Kentlands called for the inclusion of a conventional indoor shopping mall on the community’s northern edge (Brown 1988, Pinnell 1989), though
financial problems led to an abandonment of this plan and the eventual construction of what is now an automobile-oriented retail area anchored by several big box stores (Brown 1988, Miller no date). While the idea of an automobile-oriented mall would no doubt be considered antithetical to New Urbanism’s mission today, when Kentlands was planned the tenets of New Urbanism had yet to achieve the definition they have today, and communities like Kentlands were merely designed as practically as possible using “neotraditional” design principles. In Kentlands, and in many suburban New Urbanist communities since, even
implementing the simplest of these principles was made difficult by local zoning laws dictating that homes be located on a certain minimum lot size, that they be set back a minimum distance from the street, and that they not be intermixed with homes of drastically different size, style, or value (Duany, Plater-Zyberk, and Speck 2000, 221-224). In the case of Kentlands, the mayor and city council of Gaithersburg had to grant special permission to DPZ to allow Kentlands to be built at all (Hamblen 1988).
**ARCHITECTURE AND AESTHETICS IN KENTLANDS**

Kentlands was designed by architects, rather than planners or developers, and it is not surprising that careful consideration was taken in determining the aesthetics of the community. This is the case in many New Urbanist developments, resulting in a series of functional aesthetic considerations common to most New Urbanist communities (Table 2).

**Table 2. Major Architectural and Aesthetic Features Common in New Urbanist Communities and Their Presence in Kentlands.**

<table>
<thead>
<tr>
<th>FEATURE</th>
<th>REASON</th>
<th>PRESENCE IN KENTLANDS</th>
<th>SOURCE(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front Porches</td>
<td>Provides semi-public space for interactions</td>
<td>Present on colonial-style homes, but sporadic</td>
<td>Brown, Burton, and Sweaney 1998</td>
</tr>
<tr>
<td>Alleys</td>
<td>Keeps garages, garbage cans, and power lines away from home facades; provides space for recreation</td>
<td>Nearly universal</td>
<td>Ford 2001</td>
</tr>
<tr>
<td>Regional Aesthetic Influence</td>
<td>Creates sense of place, potentially sense of community</td>
<td>Georgian and colonial styles, common in DC area, predominate</td>
<td>Katz 1994, La Frank 1997</td>
</tr>
<tr>
<td>Diversity in size, style</td>
<td>Attracts a more diverse population, better aesthetics</td>
<td>All non-condo homes are relatively large, but do vary in size, shape, and style</td>
<td>Duany, Plater-Zyberk, and Speck 2000</td>
</tr>
<tr>
<td>Density</td>
<td>Puts homes closer to amenities, people in closer proximity to one another</td>
<td>High population density. Small lot sizes, many row houses</td>
<td>Cervero and Kockelman 1997</td>
</tr>
<tr>
<td>Adaptive re-use</td>
<td>Increases sense of place, decreases cost and environmental impact</td>
<td>Kent farm buildings re-used for various purposes</td>
<td>Katz 1994</td>
</tr>
</tbody>
</table>

Like most New Urbanist developments, Kentlands is designed to feel older than it actually is. At over 20 years old in some parts, it is older than many of its surrounding neighborhoods, but it is meant to feel much older than that. Its architecture is evocative of the Washington-area neighborhoods its designers visited during the charrette, such as Georgetown and Old Town Alexandria, all of which were first settled in the 18th century and still retain aesthetic identities reminiscent of that era. Architecturally, Kentlands employs a variety of styles. Its dominant motif, found on a plurality of buildings, is the Georgian colonial style prominent throughout the Washington area, with brick being the most often-used construction material. The Georgian, brick-dominant style is so prevalent that even the two gas stations in Kentlands are built with the same bricks as the houses (Figures 7 and 8). Other architectural styles present in Kentlands include colonial, Victorian, art deco (in commercial buildings in Market Square), and, in some of the larger condominium buildings, modern utilitarian.

Figure 7. Bricks are the predominant construction material in Kentlands, as seen in these row houses.
It is also appropriate to include the design of the landscape in a critical discussion of the architecture of Kentlands. Unlike neighboring Lakelands, which occupies the flatter, formerly cultivated area of the Kent family farm, Kentlands’ topography varies greatly, with a significantly hilly section on the western edge of the neighborhood. Also, since the Kentlands half of the Kent estate was not plowed for crops, it was home to a large number of mature trees, a majority of which remain. The effect of these mature trees is not only physical, in that they provide shade, but psychological, in that they promote an image of a mature community that is interconnected with its natural environment (Dwyer, Shroder, and Gobster 1994) (Figures 9 and 10). Even economic evidence suggests that people highly value trees in their neighborhoods (Dombrow, Rodriguez, and Sirmans 2000).

As evidenced by the wide variety of architectural styles present in Kentlands, DPZ made a concerted effort to promote architectural diversity. In addition to the variety of styles, there are many variations within these styles, such as varying façade widths or house sizes.\footnote{It is implied that the inclusion of varying house sizes indicates varying home costs, which will enable...}
Figure 9. Mature trees in Kentlands provide shade and make the community feel older.

The prevailing wisdom behind this architectural diversity is that it will attract a diverse array of people, be they of differing ages, income levels, ethnicities, or tastes. Furthermore, these styles are often intermixed randomly throughout the community, as sections of brick row houses may be adjacent to a block of large, clapboard-sided colonial mansions. A related problem that came to my mind shortly after arriving was the seemingly random use of the front porch, one of New Urbanism’s iconic design elements. Many areas of detached housing contain a random assortment of houses with front porches, perhaps in an effort to variegate the housing stock so that no two adjacent houses appear identical (Figure 11). The effect of this, however, is that those who have porches on their homes may be less likely to use them, people of varying economic means to settle in a community. In reality, in Kentlands as well as in many other planned communities, there is very little if any truly “affordable” housing, resulting in a population that is heterogeneous only in its levels of relative wealth and privilege. I discuss some of the possible implications of this in Chapter 7.
Figure 10. Lakelands, conversely, does not benefit from mature trees.

Figure 11. Architectural diversity visible on a single block in Kentlands.

lessening the potential advantages that porches can afford (Brown, Burton, and Sweaney 1998).

As a whole, however, Kentlands feels like an artfully crafted neighborhood, especially relative to typical American suburban design. While nobody should be fooled into thinking it has existed since the 18th century, one might be forgiven for thinking it is
considerably older than its age of 10 to 20 years. The buildings are impeccably maintained, from the gas stations to the private homes, if not from the efforts of an enthusiastic body of residents then from the stringent design and maintenance codes enforced by the Kentlands Citizens Assembly (KCA). For example, no vinyl siding is allowed, and no roofing material is allowed other than cedar shake (Kentlands Community Directory and Information Guide 2008, 6). When I attended one of the monthly meetings of the KCA, a significant amount of time was spent on strategizing how best to deal with the minor infractions of the design code that had been noticed during a recent round of exterior inspections. The place is so well maintained that it cannot possibly feel truly old at this time; it may take decades of simple entropy for it to actually look and feel its age. One resident related in an interview that upon his first visit to Kentlands he wondered if it had not originally been constructed as a movie set. The maintenance standards also provide little room for homeowners to express individuality. The collection of homes speaks loudly of the neighborhood, but, for better or for worse, the individual homes themselves say little about the uniqueness of the people that live inside. Residents are not even allowed to install birdfeeders on their property, among a host of other restrictions. The most common form of individual expression was the flying of flags for various collegiate and professional sports teams, as there are no restrictions on flags.

Despite some of these arcane and stringent codes, Kentlands is aesthetically pleasing by most people’s definitions, and certainly feels older than it is. The strict adherence to certain building materials makes the architecture at least feel more authentic, especially in contrast to Lakelands, where many specific design codes are in place but where vinyl siding and tar-shingled roofs are allowed and indeed predominate. Perhaps Kentlands’ greatest aesthetic asset, however, is its landscaping, in particular its older trees. Great care was taken in saving as many original trees as possible during construction. In addition to the physical benefits they provide the pedestrian, such as shade, these lend a feeling of age to Kentlands, as tall, shady trees cannot be reproduced as quickly or easily as a building can (see again Figures 9 and 10).

More important than any of the actual architectural styles used, of course, is how the architecture creates an aesthetically-driven sense of place, and how this sense of place affects the behaviors of the people that inhabit it. For the purposes of this thesis, I am particularly concerned with whether the architecture in Kentlands promotes pedestrianism and sense of
Collectively, the architecture not only strives to project an air of establishment and a sense of regional identity (as prescribed in the *Charter of the New Urbanism*), but more so it aims to meet one particular part of one specific point on the *Charter*, which states that “streets and squares should be safe, comfortable, and interesting to the pedestrian” (*Charter for the New Urbanism*, emphasis mine). Karen Falconer Al-Hindi eloquently sums up the New Urbanist attitude towards architecture by writing that it “privileges the relationship between the building and the street over the structure itself (Falconer Al-Hindi 2001, 203).” If pedestrians in Kentlands find the architecture there interesting, and if the buildings create a safe, inviting, and enclosed space on the street, then, if the predictions of New Urbanists are true, more people will be more enticed to walk through the neighborhood and fewer will drive. I discuss the extent to which Kentlands residents report their neighborhood’s design to be influential on their behaviors in Chapter 7.

**PLANNING IN KENTLANDS**

While many of the most prominent New Urbanists are architects by trade, all would likely concede that aesthetics alone would do very little towards achieving New Urbanism’s goals without a strong planning approach. Indeed, since Kentlands was built there has been a trend in the Washington area to build using bricks and the Georgian colonial style of architecture that Kentlands used. However, not every new development receives the attention that Kentlands has because few of these communities combine aesthetic considerations with the planning principles in place in Kentlands. The three main planning principles that all New Urbanist developments employ are an interconnected street network, mixed-use development, and high density. While other planning principles are evident in Kentlands, I argue that these three broadly defined principles are most important in enabling a neighborhood to fulfill the goals of New Urbanism. As such, I have organized my description of the planning considerations visible in Kentlands into these three categories.

When critically analyzing the design of Kentlands it is important to admit that its planning, like the planning of any community, was and continues to be a social and political process (see Innes 1996). The final product of Kentlands is the result not only of DPZ’s efforts, but the influence of local government, business interests, and social norms about urban design, including the market demand for homes in certain types of communities.
Kentlands is only different from any other planned community in that, during its original charrette (and during subsequent charrettes aimed at charting the future of the community), all of these interests were invited and encouraged to provide input into the planning of the community. It is further distinguished by the eagerness of the local government in Gaithersburg to allow exceptions to its zoning ordinances. As such, the final planning product is not simply the utopian brainchild of architects, but rather reflects how that vision has been shaped by a multitude of forces and stakeholders.

**Street Network and Connectivity**

Kentlands is bounded by busy, multi-lane roads on three sides and by its sister community of Lakelands on the fourth. The streets within Kentlands are all interconnected and do not follow a strict hierarchy, with the exceptions of the wider thoroughfares of Tschiffely Square Road and Kentlands Boulevard (Figure 12). Even Main Street in Kentlands is no wider than any other secondary road in the community. While the street network does connect with all three of the roads that serve as the boundaries of Kentlands, there are only two roads feeding into Kentlands off of each of these boundary roads, limiting automobile access to the neighborhood to a select few points.

There seems to be no logical reasoning for the organization of the street network in Kentlands other than its constraint by topography, which was largely unaltered when the land was converted from farmland. While they have had success in gaining exceptions to local zoning laws, DPZ has had trouble with many developers when designing street networks for their neighborhood-scale New Urbanist projects, as anything resembling a simple grid system is dismissed offhand as too plain, boring, or undesirable (Duany and Plater-Zyberk 1992). Despite the seemingly random organization of streets in Kentlands, its streets are highly interconnected, and when topography has prevented the engineering of a more interconnected system, pedestrian pathways have been included. The only road resembling a cul-de-sac, Treehaven Street, is a loop both starting and ending on the same street, which is also served by a walking path that connects it to another road. An interconnected street network is essential in increasing pedestrianism because it facilitates movement through a neighborhood. Simply put, the more direct routes there are between places, the shorter the
distance of a trip is likely to be, thereby increasing the probability that the trip will be made on foot; one study finds a 26 percent reduction in vehicle miles traveled among residents of the most interconnected neighborhoods relative to residents of the least interconnected neighborhoods (Frank et al. 2006). Furthermore, the lack of a hierarchy of streets within Kentlands works favorably in that it diffuses traffic onto multiple routes rather than concentrating it on a single road, but has the potential to be disorienting, as there is seldom an obvious route from one part of the community to another.

For instance, Kentlands and Lakelands share a street called Main Street, which is fronted by businesses as well as residences (sometimes paired together in an arrangement that Kentlands calls “live-work units”). However, unlike most Main Streets, which are often relatively straight and provide a strongly defined central area to the towns or neighborhoods they serve (Pendola and Gen 2008), Kentlands’ Main Street meanders haphazardly through
the two developments, providing little in the way of definition of centrality. Furthermore, Market Square, rather than Main Street, seems to be the true commercial center of Kentlands, yet an opportunity to better integrate the two was lost when a nondescript office building was placed between them.

All told, Kentlands enjoys a highly interconnected, albeit potentially disorienting, transportation network. While the street network itself may seem confusing, an abundance of pedestrian-only walkways provide more direct routes through the neighborhood for those traveling on foot, and there are multiple paths linking the residential areas with the pedestrian-oriented retail areas that provide further connectivity. I elaborate on the viability of walking as a mode of transportation in Kentlands and how this connectivity affects it later in this chapter.

**Mixed-Use Planning and Amenities**

Stated simply, there is no chance people will walk anywhere from their homes if they do not have worthwhile destinations to which they can walk (Duany, Plater-Zyberk, and Speck 2000, 64). Mixed-use planning has often been shown to be positively correlated with alternative modes of transportation (for example, Cervero and Duncan 2003). There are numerous amenities located within Kentlands, and the location of these amenities relative to residences qualifies it as a mixed-use development. There are three distinct but adjacent retail areas, all located to the north of the residential parts of Kentlands (Figure 13). The oldest and northernmost of these, called Kentlands Square, is located north of Kentlands Boulevard. It is automobile-oriented and anchored by a K-Mart, a Lowe’s and a supermarket, with large parking lots and easy access to the main roads that it borders (Figure 14). The southern retail areas, called Market Square and Main Street, are located adjacent to homes in both Kentlands and Lakelands and are pedestrian-oriented, with less parking available. Main Street and

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18 The word “worthwhile” is obviously subjective and can have different meanings to different people. Moudon et al. (2006) attempt to quantify certain types of destinations as being major drivers of pedestrian transportation, finding that restaurants and grocery stores are the most significant drivers of pedestrianism, followed less significantly by banks. Interestingly, parks and walking trails, whose inclusion are hallmarks of so much New Urbanist design, were found not to be significantly associated with increased pedestrian activity in this study.
Figure 13. The relative locations of the three adjacent retail districts in Kentlands. Source: Google Earth. Version 5.0. Google, Mountain View, CA.

Market Square contain a diverse array of non-retail and retail businesses, including several restaurants and cafes and a movie theater in Market Square (Figures 15 and 16). Intermixed throughout the residential area of the neighborhood are civic amenities such as parks, playgrounds, and open space, as well as a private clubhouse and recreation area, a public elementary school, and a church. While many of the homes are close to either the civic amenities or the retail centers in Kentlands, the only truly mixed-use area in the community is along Main Street, where a combination of “live-work” units and apartments above stores predominate. Many traditional and neotraditional neighborhoods have an abundance of truly mixed use development, wherein blocks or even individual buildings are home to both
Figure 14. Large parking lots in Kentlands Square, the community’s auto-oriented retail area.

Figure 15. The pedestrian-oriented retail district of Market Square, home to many shops and restaurants.
businesses and residences, but the only such area in Kentlands is the three-block-long section of Main Street. Otherwise, despite the relative spatial proximity of residences to businesses, space in Kentlands is organized in a more or less Euclidean fashion. The only businesses that exist outside of the main retail areas are a children’s dance studio and a branch office of DPZ. However, the densely configured arrangement of these elements, as described in the next section, still provides an effectively mixed-use environment nonetheless.

Kentlands also incorporates civic institutions into its plan, but they are dispersed throughout the residential part of the community rather than concentrated in any one area (Figure 17). There are three main areas containing civic institutions in the neighborhood: the clubhouse and recreation area, which includes a fitness center, swimming pool, tennis courts and basketball courts for the exclusive use of Kentlands residents and their guests; the Arts Barn and the Kent Mansion, which have been adapted from existing buildings on the Kent family estate and are used for various community functions; and Rachel Carson Elementary School, a public school, which is adjacent to a Mormon church (Kentlands developer Joseph
Alfandre is a Mormon). The first two of these areas are both fairly centrally located within the residential area of Kentlands. The church and the elementary school, conversely, are located near the southern periphery of the neighborhood, though all residences in Kentlands are still well within the city-mandated 1.5-mile radius of the school in which busing is not provided. While the surveys I distributed framed questions in terms of the entire household,

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19 Figures indicating the religious breakdown of Kentlands residents, Mormon or otherwise, are not available. Two survey respondents reported walking to church, though they did not specify that it was the local Mormon church; many more reported driving to church. Further, no survey respondents listed the presence of the church as a reason to move to Kentlands. The Mormon Church has a relatively small presence in Maryland, likely indicating that relatively few Kentlands residents attend the local church. It seems probable that a religious facility for a denomination better represented in Kentlands would be a better driver of pedestrianism and perhaps sense of community.
few respondents in any of the three communities mentioned children’s transportation of any mode to or from school. Nevertheless, Kentlands seems well suited to encourage pedestrianism at least to Rachel Carson Elementary School and Lakelands Middle School.

Research compiled by the Active Living Network indicates that, in addition to the obvious factor of proximity (DiGuiseppi et al. 1998), factors such as few traffic lights or busy intersections (Timperio et al. 2006, McMillan 2007), the presence of windows facing the road (Martin and Carlson 2005, displaying Newman’s principle of defensive space), and a strong sense of safety among parents (Kerr et al. 2006). All of these features are present in Kentlands, and only the presence of busy roads might prevent students from walking to nearby Quince Orchard High School.

Density

Finally, Kentlands embodies density, not only in the gross number of people per square mile, but in the way in which its businesses and homes are arranged. Density is important simply because the spatial arrangements created by interconnectivity and mixed-use planning are meaningless if the neighborhood’s elements are not located close enough to one another for the average person to walk to them. While a figure representing an average lot size in Kentlands is not available, there are very few individual lots exceeding a quarter acre in size, while in some areas as many as eleven row houses sit on one half acre. Based on a population estimate of 5,000 residents and an area of 352 acres, Kentlands boasts a population density of roughly 9,000 people per square mile. Many large American cities are able to achieve these levels of density, such as nearby Washington, DC, with 9,776 people per square mile (U.S. Bureau of the Census, 2009 estimates). It is rare, however, to find them in suburban areas (Gaithersburg’s overall density is 5,816 per square mile based on a 2008 population estimate), and still rarer to find them in the form of single-family homes with private yards, as is the case in much of Kentlands.

Density, as mentioned, is not simply defined by a numeric value, but also by the configuration of elements in the built environment. In addition to the close configuration of the row houses and even the detached houses, there are several blocks of condominiums and apartments in Kentlands, primarily located near the periphery of the neighborhood, that create further density. Many of these blocks, including a seniors-only building, are located
immediately adjacent to the retail areas in Kentlands. The way businesses in Kentlands are arranged varies, however. The Main Street and Market Square districts embody high density development, in which storefronts are located immediately adjacent to one another and are close to the street, as opposed to Kentlands Square, the typical strip mall-type development in which much of the space is taken up by parking lots and the buildings are often physically separated from each other by large empty spaces. This appears to be evidence of how Kentlands’ planning was influenced by political and social forces: an automobile-based shopping center was likely the best choice for the developers at the time because it was expected to best fill the market demand for retail space in the late 1980s, regardless of whether it met the standards of New Urbanism.

Other planning considerations in Kentlands are well in line with New Urbanist design norms, as prescribed at length by Duany and Plater-Zyberk (1992) and Duany, Plater-Zyberk, and Speck (2000). Sidewalks are provided on both sides of every street, streets are relatively narrow and employ a variety of traffic calming devices, building setbacks are at universal depths and are short relative to street widths, alleyways are included behind most houses, and so forth. A majority of these small-scale planning considerations are included with the goal in mind of making walking a safe and attractive option for residents. I discuss how these features manifest themselves in greater detail when I provide an assessment of walkability in Kentlands later in this chapter.

**The Geographic Situation of Kentlands**

For a community of its size, most would describe the amenities in Kentlands as abundant and attractive. However, there are a finite number of retail establishments actually within Kentlands, and even fewer businesses that offer the kind of high-paying, white-collar jobs that are necessary to afford most of the housing within the community. Of course, the space Kentlands occupies is not isolated. Rather, it is surrounded by other neighborhoods, towns, and cities, all with their own features and amenities, whose proximity and qualities surely influence how life plays out within Kentlands. This is true of any place, particularly in the metropolitan setting (see Schwartz 1993 and Haughwout 1997). For example, the city of Washington cannot fully function without its suburbs, while the suburbs cannot function without their proximity to the city of Washington. The same can be said of any place at
virtually any scale. Thus, it is important to understand how Kentlands is situated relative to the places that surround it.

Analyzing how Kentlands’ geographic situation affects the lives of its residents does not entail criticizing those who designed the community. When the Alfandre Company gave DPZ the commission to develop the Kent estate, the areas surrounding the farm were beyond their control. Regardless, it is still important to think about and to discuss how Kentlands works in its place with relation to other places. While a trip within the boundaries of the community can be analyzed within the “vacuum” of that community, the reality is that no such vacuum exists. Amenities within Kentlands compete for the use and patronage of Kentlands (and Lakelands) residents with amenities outside of Kentlands, just as the amenities in Kentlands try to attract residents from elsewhere. As a result, it will often be necessary for Kentlands residents to leave the community; this should come as no surprise. Thus, it is important to consider what other types of destinations are available to a person leaving Kentlands, how these places differ qualitatively from those available within Kentlands, and where they are located, as these factors in turn can affect how residents make transportation decisions. If a Kentlands resident indeed decides to run an errand within the community, then the dynamics that affect transportation decision-making within the Kentlands environment apply. This section, however, is more concerned with the dynamics between Kentlands and its surrounding environment at varying scales. It is also important to consider that even the decisions on where to run errands are not made wholly with cold rationality, but instead normally fall into an individual’s daily or weekly routines, which in turn can be influenced by myriad factors and constraints (see Kwan 1999 and Kwan 2000 for a discussion on this phenomenon and how it differs by gender). The geographic situation of Kentlands is merely one of these limiting factors.

The smallest, most immediate scale into which one can place Kentlands is that of the areas immediately surrounding the neighborhood, perhaps best defined as the places within a short walk from the outer boundaries of Kentlands. In this regard, I argue that Kentlands is well situated, at least insofar as encouraging and enabling as many residents as possible to walk more and drive less. Like many non-New Urbanist suburban subdivisions, Kentlands is bounded by multiple-lane roads with which it has little relationship other than the capacity of those roads to get people into or away from Kentlands. None of Kentlands’ structures faces
or has an address on these roads (Darnestown Road to the south, Quince Orchard Road to east, and Great Seneca Highway to the north). In fact, in several locations where the streets of Kentlands feed onto these roads, there are brick structures resembling gates which, though not controlled by any security mechanism, at least serve to clearly delineate the space of Kentlands from that of the outside world (Figure 18). Despite this clear division, there are a variety of worthwhile destinations immediately across these roads from Kentlands to which residents can comfortably walk if they are brave enough to cross up to six lanes of traffic to get there. Near the southwest corner of Kentlands, at the intersection of Darnestown and Quince Orchard Roads, is Quince Orchard High School, the public school into which Kentlands is districted; a branch of the Gaithersburg Public Library; and several small retail centers, one of which is home to a supermarket and a pharmacy/convenience store, a business type that is lacking within Kentlands itself and has the potential to attract Kentlands residents to leave the community. While an older development of townhouses called The Orchards, not under the auspices of Kentlands, actually sits between Kentlands and this intersection, a walking path connects it with Kentlands, providing easy pedestrian access for Kentlands residents to the amenities located there (as well as for Orchards residents to access Kentlands). In addition to the Quince Orchard-Darnestown intersection, there are two high-paying employers nearby to Kentlands to which residents can reasonably walk: the corporate headquarters of MedImmune, a biotechnology and pharmaceuticals company, located immediately across Great Seneca highway to the north of Kentlands, and offices of the National Geographic Society, which are located immediately on the eastern edge of Kentlands’ sister community of Lakelands (Figure 19).

Finally, a separate mention of Lakelands must be included in this section. Lakelands immediately borders and in many ways is finely interrelated with Kentlands, but there are no separate amenities located in Lakelands from which Kentlands residents can benefit. It has its own clubhouse and recreational facilities, and shares the commercial areas with Kentlands.

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20 Setha Low (2003, 229-232) describes how many communities successfully employ the strategy of “faking security” by installing false gates, sometimes complete with unmanned gatehouses, which effectively keep most outsiders at bay even though they may enter freely and legally. However, Kentlands’ faux gates are far less ostentatious than the ones Low describes, and the neighborhood’s connection to a commercial center serves to open it to outsiders better than most planned unit developments.
Its existence, however, is important in that it adds a core population that helps support more business in the immediate area, from which Kentlands residents indeed do benefit greatly. In fact, the Main Street and Market Square retail areas were not even completed until 1998, around the time of Lakelands’ completion, evidencing the necessity of a higher population nearby to support the level and style of retail present there. Lakelands and Kentlands together form one of the largest New Urbanist developments in the United States, but I did not include Lakelands in this study because it is aesthetically and culturally\textsuperscript{21} different from Kentlands, in addition to being a much newer development.

\textsuperscript{21} While many people in Kentlands know people in Lakelands and vice versa, many people I talked to were quick to distinguish the culture of Kentlands from that of Lakelands. One jokingly referred to the differences between the two communities by likening them to East and West Berlin during the Cold War. According to the Kentlands residents I spoke to, Lakelands is dominated by young families, whereas Kentlands sports a more demographically diverse population.
While it is certainly possible to walk to any of these nearby locations from Kentlands, with the exception of Lakelands I would be reluctant to do so because of the nature of the roads one must cross. When one has access to a car, as I suspect almost every adult resident of Kentlands does, it would simply seem more comfortable to make a quick, five-minute drive rather than crossing six lanes of traffic at an intersection where motorists are probably not accustomed to seeing pedestrians (Figure 20). When I attempted to walk to MedImmune, I gave up before I even got to the six-lane road I would have had to cross, as the northernmost parking lot of the Kentlands Square has no comfortable paths on which to walk and is busy with cars exiting and entering from Great Seneca Highway. When my apparent path narrowed to approximately two feet in width, with no buffer between myself and cars piloted by drivers anxious to be on their way home, I gave up and turned around.

The next scale at which one should analyze Kentlands’ geographic situation is at the scale of the city of Gaithersburg and some of its immediately surrounding municipalities. At this scale, there are several retail cores from which a resident of Kentlands can choose to
Figure 20. Kentlands is bound by busy, multi-lane roads, such as Darnestown Road (left) and Great Seneca Highway (right), pictured with the MedImmune offices in the background.

visit. While the retail space at Kentlands obviously has the advantage of proximity, other shopping areas are inevitably more attractive to some, resulting in lengthy car trips that might otherwise be avoided. The shopping areas with which Kentlands competes, based largely on information gained from interviewing residents, are the Lakeforest Mall in the northern part of the city of Gaithersburg, a relatively new mixed-used development called the Washingtonian Center in nearby Rockville, and, to a much lesser extent, downtown Gaithersburg. Upon visiting downtown Gaithersburg, it is apparent that the other three shopping districts have effectively eliminated it as a viable place to do business for most retailers.\(^2\) Its main draw, however, is that it is located close to the MARC (Maryland Area Rail Commuter) train station, which is used by many Kentlands residents to commute into Washington. The other two shopping centers are commercially viable and contain a variety of stores and amenities that surely provide the retail district in Kentlands with competition. With regards to jobs, Gaithersburg and Rockville in particular have an abundance of high paying jobs, but other than the two campuses located near Kentlands, none are within walking distance and very few are located along either of the bus lines, leaving driving as the only viable option to reach most of them from Kentlands.

\(^2\) Interestingly, DPZ has been hired to enact a new plan for downtown Gaithersburg that could potentially change this situation.
The final scale at which Kentlands’ geographic situation should be analyzed is the metropolitan scale. The Washington metro area is home to a high proportion of high-paying jobs, both in government and the private sector. Montgomery County boasts a particularly high level of high-paying jobs, many in the biotechnology and government sectors, especially so along the I-270 corridor between Gaithersburg and Chevy Chase. While people commute daily to Capitol Hill from as far away as West Virginia, Kentlands is located at the periphery of the contiguously built-up area of Washington’s suburbs. While the region is well served by the Metro light rail system and the MARC commuter trains, traffic remains a daunting problem for the many people who must negotiate it daily to get to their place of work. Kentlands is also located a relatively short distance from the nearest Metro station at Shady Grove, and even shorter to the MARC station in downtown Gaithersburg, which feeds into Washington’s Union Station. Still, its location at the periphery of the metropolitan area makes distance an important factor in transportation decision making, as many in Gaithersburg work in southern Montgomery County and in Washington. It also constrains the direction of travel for most, as few in Kentlands and Gaithersburg work anywhere to the north, resulting in heavy unidirectional traffic. While high traffic is generally problematic for a variety of reasons, from the perspective of transportation choice within Kentlands, it might make public transportation a more viable option.

**Viability of Transportation Modes**

The following sections detail the viability of various modes of transportation available to Kentlands residents.

**Walking and Biking**

Aside from the entirely subjective factors that influence pedestrianism in Kentlands, such as aesthetics, architecture, and the cachet of its walking destinations, it is important to consider how easy or difficult it is to walk from place to place in Kentlands based on simpler factors, such as the connectivity of its network of streets and walking paths or the safety of these routes. While the streets in Kentlands can look a bit bewildering on a map, they are fairly easy to navigate on foot, even with little time to acclimate oneself to the layout of the neighborhood. During my initial visit to Kentlands I was able to stop relying on a map of the community after two days, after which I only became disoriented once while walking. The
only particularly confusing feature of the street network is the length and curvature of some streets. Chestertown Street, for instance, runs for over three quarters of a mile (compared to distances of no greater than one mile between any two points in the community when accounting for walking paths). Yet to follow it for its length on any functional trip would result in one traveling much farther than necessary, as it curves in a semi-circle around the main residential area of Kentlands. On several occasions, though it would be inaccurate to say I was “lost,” I still found myself turning down streets that I later realized made my walk longer than it needed to be. That being said, it is a testament to the design of community as a whole that I was able to navigate it as easily as I was on foot within a short time of arriving.

In some ways, the street layout of Kentlands might be favorable to a grid pattern, in that it lends distinction to certain intersections or areas from others due to variations in angles (see Duany and Plater-Zyberk 1992), and plays into the notion conveyed in the Charter that streetscapes should be “interesting” to the pedestrian (Charter for the New Urbanism). If I could aclimate myself in a matter of days, a permanent resident should have no problems negotiating the streets of Kentlands on foot.

In addition to the ease with which one can reach his or her destination by walking in Kentlands, the safety of walking within the community must also be considered.23 As I alluded to earlier, a wide variety of traffic calming devices graces the streets of Kentlands (Figure 21). These devices largely serve to slow traffic and make walking safer, both psychologically and in reality. Because DPZ designed Kentlands, it is easy to spot these devices, as its architects have written extensively about them in their literature. In Kentlands the streets are narrow (Duany, Plater-Zyberk, and Speck 2000, 64-72) and, while not embodying the curvilinear form of so many suburbs, do not run straight for long stretches, causing cars to drive more slowly (Duany, Plater-Zyberk, and Speck 2000, 69). Despite most homes having private garages located on alleyways, parallel parking spots on streets are used widely enough to slow cars further and to provide a physical buffer between cars and pedestrians (Duany, Plater-Zyberk, and Speck 2000, 160). Crosswalks are provided at all busy intersections, and curb radii are small, making street crossings shorter and safer (Duany,

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23 Here I refer to safety from automobiles. Safety from crime, both real and perceived, is also an important element in encouraging pedestrianism, and is discussed in Chapters 6 and 7 as an important theme in both the survey and interview data from Kentlands.
Figure 21. Traffic calming devices used in Kentlands, including a curb choker (bottom), parallel parking, and a visible, mid-block crosswalk in the background.


In the short period of time in which I visited it was difficult to determine exactly how much safer these measures made me, although DPZ cites a host of empirical studies finding that pedestrian safety and driver safety are increased by their use. At no point during my period of observations did I feel threatened or intimidated by automobile traffic in the residential portion of Kentlands. The only major pedestrian crossings in Kentlands where these principles are not immediately visible is along Kentlands Boulevard, a four-lane road interrupted by traffic circles at several points. Because cars must only stop if yielding to an oncoming car to their left, crossing Kentlands Boulevard, a necessary task to reach many of the retail establishments in Kentlands, was often daunting. The only other problem I could foresee is a direct result of the street network’s efficiency in diffusing traffic. Because cars are less likely to encounter other cars during drives through the community, drivers can
develop the tendency to speed, bringing danger to themselves and to pedestrians. I only experienced this phenomenon while driving, however. I had no difficulties sharing space with cars while I was on foot.

The generally safe pedestrian streets in Kentlands are also supplemented by the inclusion of numerous walking paths, which not only shorten the distance between two points but completely eliminate the danger inherent to automobiles. Some of these walkways are long and cross patches of open space or gaps between streets, making a journey shorter than it would be if one followed the streets. Others are shorter, sometimes passing between houses to link two parallel streets (Figure 22). Another option for pedestrians is to walk in the alleyways (called “mews” in Kentlands terminology) behind most homes in the community (Figure 23). These alleyways host fewer cars and slower traffic than do streets, and in some cases can also shorten journeys similarly to the walkways. The alleys also serve the dual purpose of creating streetscapes free of garage doors, trashcans, and power lines, as well as providing recreational space.

Figure 22. A pedestrian walkway that shortens the distance between two parallel streets. Here, several houses have their front doors facing the walkway rather than the street.
The only mode of transportation I was not able to directly experience in Kentlands was biking. However, my extensive pedestrian travel enabled me to pay special attention to the ways in which Kentlands’ design caters to the use of bicycles. Because traffic is generally slow-moving and dispersed throughout the residential sector of Kentlands, no special design considerations are required to make biking safe there. However, they are also absent along the busier roads, such as Tschiffely Square Road and Kentlands Boulevard, where bikes would have to constantly compete with automobiles. Furthermore, with the exception of Market Square there is a general lack of bike racks throughout Kentlands, particularly so in the automobile-oriented retail area, where structures like parking lot lamps must be used instead if one wishes to lock up his or her bike. The addition of more bike racks seems like a simple improvement that could greatly increase the level of bicycle use in Kentlands.

**Public Transportation**

The two bus lines that run through Kentlands both eventually reach the Metro system at two stations in the nearby city of Rockville, from which the lines head into Washington. The Metro system is generally lauded as comfortable, quick, and efficient, as far as
metropolitan-scale light rail systems are concerned, and given the Washington area’s reputation for traffic, it is an attractive option for suburban commuters. As such, it is indeed possible for a resident of Kentlands to work in Washington and exist without a car. However, there are two major problems that prevent the buses that run through Kentlands from being attractive choices for commuters.

One bus line, Route 76, takes a significantly shorter time to reach the Shady Grove Metro stop than does the other, Route 56, which goes to the Rockville station, the next stop down the Red Line from Shady Grove on its way to Washington. I rode both lines during my visits, and while several people got on at several stops along Route 76 in Kentlands, I was the only person boarding the 56 bus in Kentlands, and was one of only five people on the bus at any point during my trip, which took place at about 3 in the afternoon. Route 76 received very little use when I rode it to and from Kentlands several times in the early afternoon, but was well used in the later afternoon, particularly on a Friday. It seems that one bus line, perhaps with more frequent service, might serve Kentlands better. At their most frequent these buses run every 15 minutes, but the windows during which the service is that frequent are small, at only two hours each during the morning and evening rush hours. Furthermore, while riding the bus may be convenient when going to the Metro Station, from which trains leave as frequently as every two minutes during peak hours, arriving back at Shady Grove or Rockville and having to wait for a bus home, sometimes for up to 45 minutes and sometimes in inclement weather, could make the entire process seem unpalatable. Indeed, the one time I took the Metro from Washington to Shady Grove and took the bus to Kentlands, I narrowly missed one bus and had to wait a half hour for another one to come. Several residents related similar stories to me during interviews. Predictably, the parking lot at the Shady Grove Metro station, which also happens to be the northwestern terminus of the busy Red Line, is always full during the week, as driving to the Metro and then riding into Washington is for most people a far more realistic option than waiting almost an hour for a bus home after working all day. Finally, the MARC train station in downtown Gaithersburg connects the area to Washington’s Union Station, but there is no direct bus service from Kentlands, so anyone who uses the service realistically must drive or bike there.
Driving

The Charter, in addition to all its ideas promoting a pedestrian-oriented lifestyle, is realistic in conceding that “in the contemporary metropolis, development must adequately accommodate automobiles (Charter for the New Urbanism).” While the design of Kentlands is certainly meant to encourage walking, driving is clearly an easy option for anyone who has the choice. As easily navigable as it is on foot, Kentlands is just as easy to negotiate behind the wheel, if not more so, in that a minor wrong turn somewhere in the neighborhood’s street network takes perhaps only a minute to correct, whereas a wrong turn on foot might carry a pedestrian a block out of her way before she realizes her error.

Parking is an important variable in determining the ease of driving to a destination, and it is more than adequately provided at Kentlands. Parallel parking is legal along virtually every street, with delineated spaces in many areas that are long enough to accommodate the largest cars. Parking lots are included at the three civic areas within the residential core of the community, and the major retail areas of Kentlands Square, Market Square and (to a lesser extent) Main Street are all served by large parking lots. When driving during my visit I rarely had to park more than fifty feet from the door of my destination, and I only once had to park someplace other than where I had originally intended. Furthermore, very little of the parking is regulated, and none of the parking spots are metered. The only restrictions include one- or two-hour limits on parallel spots in Market Square and along Main Street, and residential restrictions on the parallel parking near Market Square after 5 p.m. When discussing parking during the interviews with residents, I was told that only on the busiest shopping days in December was parking ever particularly difficult, and even then, one resident quipped: “if you don’t mind walking another twenty feet, it’s not an issue!”

Several traffic-calming devices are used, such as roundabouts along Kentlands Boulevard, street-narrowing curb chokers in several locations, and on-street parking throughout the community, which Duany and Plater-Zyberk (1992) and Duany et. al. (2000) describe in detail. These devices are merely designed to slow a driver down, yet given the scale of Kentlands, where virtually every trip within the community is less than one mile in length, having to drive slowly should not be a disincentive. As such, the traffic calming devices in Kentlands do not discourage driving, nor does any design consideration in any New Urbanist development explicitly do so. The only argument I heard that indicated driving
might be inconvenient in Kentlands stated that certain garages are difficult to enter and exit from certain alleyways, making the task of parking one’s car at home a disincentive to drive at times.

The implication is that walking needs to be presented as the more viable or more attractive choice, rather than vilifying or inconveniencing those who have cars and choose to use them. Yet, it seems logical that if there is no real disincentive to drive, then people will probably drive more than is necessary, even if this amount is still less than it would be in a conventional suburb. The places in the United States that boast the highest levels of pedestrianism and public transit use are the densely populated central cities, such as New York, Boston, and San Francisco, where parking is at a premium and density has created traffic situations that often make driving unpleasant (Holtzclaw et al. 2002). In virtually all places where both walking and driving are viable options, many people will choose to drive (Cervero and Kockelman 1997, Moudon et al. 1997), regardless of the exercise benefits, the added aesthetics one experiences, or the potential social benefits of walking. Kentlands is one of these places. Again, Kentlands could not have been created, let alone successful, without allowing for easy automobile access. For one, the retail stores in Kentlands rely on customers from outside as well as inside Kentlands (and Lakelands), and Montgomery County and much of the Washington metropolitan area is largely automobile dependent to begin with. Of course, driving may be the only viable option for certain trips outside of the neighborhood, or even within the neighborhood, if the errand involves purchasing heavy or cumbersome goods.

COMMUNITARIAN SPACES

I assess the extent to which the built environment of Kentlands can influence sense of community primarily through survey and interview data, which I will discuss in Chapters 6 and 7. However, it is useful to examine which aspects of the built environment exist that might encourage the interpersonal interactions that lead to the formation of community. Without doing so, the responses I received regarding how residents in Kentlands interact within the community would not be grounded in the context of knowing what spaces or avenues are available to them. The features of the built environment I observed that can potentially foster communitarian behavior include open space, civic spaces, and third places.
Open Space

Kentlands, despite its density and urban feel, sports an abundance of open space. While the homes and businesses themselves are densely configured, there are many gaps in between groups of buildings in which people can congregate. Many smaller parcels of open space are maintained as parks, with mowed grass, benches, and in some cases playground equipment for children. While Kentlands is mixed demographically, it has a significant population of young families with children, and these areas in particular can serve as a natural space of congregation for this demographic. Indeed, despite the cold weather, I observed many of these spaces being used, both by parents with young children and by older, unsupervised children. In many cases, especially so for the spaces with playgrounds, these maintained open spaces face directly onto the fronts of homes, so that at all times someone is likely observing the activity taking place there (Figure 24). Thus, the inclusion and placement of these spaces not only defines them as places for congregation but as places in which Oscar Newman’s community-affirming theory of “defensible space” is played out, in which urban design promotes public safety and sense of community (Newman 1972). Other open spaces include the areas and walking paths surrounding the lakes to the south and east of the residential parts of Kentlands, the central plaza of Market Square (Figure 25), and several wooded areas between houses, most of which are also traversed by walking paths. In addition to the inclusion of the streets themselves as public spaces, as outlined in the Charter, these numerous open spaces provide residents with many opportunities to freely and safely congregate within their community.

Anthropologist Setha Low has written extensively about how access to ostensibly “public” open spaces is restricted in so many planned unit developments, through means such as the posting of “no trespassing” signs and the use of private security guards, resulting in semi-private space (Low 2003, 2006). Kentlands, to its credit, does not fit this description, perhaps simply because such practices are at odds with the New Urbanist ethos. It does not retain a private security force, nor does it post signs indicating that access to any space is restricted (with the notable exception of the clubhouse recreation and pool area). It seems to instead rely on Newman’s defensible space for security. Although like so many subdivisions it faces inward, in that it has little physical connection to the roads and other communities that surround it, Kentlands otherwise does not attempt to insulate itself from outsiders.
public space, replete with park benches, exists near Market Square (Figure 24), which is frequented by many people from outside the community. A walking path connects Kentlands with the lower-income Orchards community to the southwest; ironically, the Orchards’ homeowners association vetoed a direct road link that DPZ had proposed during the planning process for Kentlands (Duaney, Plater-Zyberk, and Speck 2000). Even the street signs in Kentlands are regular, standard-issue Gaithersburg signs, subtly suggesting that the general public may freely enter.

My participant observation in Kentlands can serve as an example that the community is not overly wary of outsiders. While many people in Kentlands knew of my presence during my visits, most did not. Even so, my presence was never questioned, despite my constant use of a camera and notebook. Even when walking uninvited up to random houses to distribute surveys, I was never bothered or questioned, but was greeted nicely several times. The same could not be said of one part of Tierrasanta, where private security became alerted to my
Figure 25. Public open space, complete with benches and one of Kentlands’ few bike racks, in Market Square.

presence almost immediately. Open space in Kentlands is available for use by outsiders, at least to the extent that they can find it. What is difficult to determine, however, is the extent to which people from outside Kentlands actually take advantage of these spaces, if at all.

**Civic Spaces**

I define civic spaces in Kentlands primarily as indoor spaces, such as the clubhouse and the Kent family farm buildings, though an area such as Market Square, where outdoor concerts and gatherings are sometimes held in good weather, could certainly qualify as a communal space in which civic activities take place. In general, the civic spaces in Kentlands are designated primarily for the use of formal, organized gatherings. There are three areas that contain civic spaces: Rachel Carson Elementary School, the Kent family buildings, and the clubhouse. The function and purpose of the elementary school is obvious, though the extent to which it is used beyond its function as a school is up to the members of the
community. There are four closely configured buildings that were formerly private buildings of the Kent family farm before Kentlands was developed that now serve as civic spaces. The Firehouse, Arts Barn, and Kent Mansion were donated to the City of Gaithersburg and collectively are used for various artistic and community functions, such as performances, art showings, meetings, and gatherings. The fourth building, the Carriage House, is home of the Kentlands Community Foundation, which serves as a charitable organization and liaison between Kentlands residents and the greater Gaithersburg and Montgomery County communities. Finally, the clubhouse compound is a private civic space reserved for use of Kentlands residents. It includes the clubhouse, which hosts a variety of club meetings as well as official KCA meetings, and has social gathering spaces and a fitness center; and an enclosed outdoor recreation area, including basketball and tennis courts and two swimming pools (Figure 26).

Figure 26. An aerial view of the private clubhouse and recreation area in Kentlands. The green space to the right is a public park. Source: Bing Maps. http://maps.bing.com (last accessed 15 December 2009).
Third Places

While Kentlands has an abundance of open spaces and civic spaces, it has a relative lack of “third places,” which are typically businesses that cater to the informal gathering and socializing of people (Oldenburg 1989). This is not to say that there are few of them; there is a Starbucks and a wine bar in Market Square, an independent coffee shop on Main Street, and several restaurants and eateries, some of which have bars, that can also serve as informal gathering places. Starbucks and the wine bar in particular were consistently busy every time I visited them during my observations and were mentioned often during the interviews as important gathering places in the community. Furthermore, the clubhouse can also be seen as a third place, albeit a well-regulated one, as it has space for Kentlands residents to gather. However, for a population that approaches 5,000 people, it seems that there is a potential for more such places within Kentlands. My assessment of Kentlands’ relative lack of third places was borne out by the survey and interview data. I discuss this idea in more detail, as well as the ways in which the interviews and surveys corroborated or refuted the rest of my ideas and observations, in Chapters 6 and 7.
CHAPTER 5

COMPARING KENTLANDS TO KENSINGTON AND TIERRASANTA: HOW NEW URBANISM DIFFERS FROM OTHER NEIGHBORHOOD TYPES

In this chapter I introduce the two neighborhoods in San Diego, Kensington and Tierrasanta, which I compare to Kentlands. The purpose of the comparative element of this thesis is to be able to distinguish whether there is anything special or unique about how the people in Kentlands use their neighborhood. Without examining how the behaviors of residents of other neighborhood types differ, it would be difficult to say whether the New Urbanist environment of Kentlands represents a special case or whether it produces similar outcomes to those of other neighborhood environments. In this chapter I discuss how Kensington and Tierrasanta, two neighborhoods in San Diego, California, compare to Kentlands with regards to their built environments (refer back to Figure 2, p. 4 for a locational map of Kensington and Tierrasanta).

Because I employed a similarly strict set of criteria for the neighborhoods in the comparative element of this research, I begin by describing the process by which I selected Kensington and Tierrasanta as case studies. Next, I describe Kensington and Tierrasanta similarly to how I described Kentlands in Chapter 4. For each neighborhood, I provide a brief history of their design and development, a description of the relevant planning elements, and an assessment of how their built environments can potentially influence transportation mode choice and sense of community. My goal is to provide a richer background to the analysis of the survey data and to be able to ground the data within the context of each neighborhood when comparing the three neighborhoods.

CRITERIA FOR STUDY SITE SELECTION

Because my research questions ask whether the built environment of Kentlands affects the behavior of its residents, it logically follows that the neighborhoods I chose to
compare to Kentlands would have different built environments. However, it was also important that these neighborhoods had some similarities with Kentlands. Firstly, I wanted to compare three different neighborhoods with similar ranges in transportation choices. It was equally important, however, that the built environments of these neighborhoods were different in certain ways, so that the residents of each neighborhood might make different transportation choices.

A neighborhood’s street network is one easily analyzable characteristic that can be used to gain insight into how transportation functions for its residents. McNally and Kulkarni (1997), in their study of Orange County, California, classify neighborhoods by three types based on street networks: traditional neighborhood, planned unit development, and hybrid (Figure 27). Traditional neighborhoods typically follow a grid pattern; planned unit developments have a strongly defined hierarchy of streets, wherein the smaller streets are usually curvilinear and often end in cul-de-sacs; and hybrids exhibit traits of both, with a generally interconnected street network that may or may not follow any kind of pattern. These classifications are important because there are expected behavioral outcomes associated with each neighborhood type. There are two obvious problems with such classifications, however: classifying a neighborhood into one of these categories is an ambiguous process, and land use patterns, such as the location and distribution of commercial and civic amenities, are not taken into account (Ewing and Cervero 2001). Yet McNally and Kulkarni’s classifications are still useful, as there is no doubt that street network configuration has an effect on how people move through a neighborhood. Haklay et al. (2001) posit that street network morphology is one of two important factors influencing human movement through urban space, the other being land use and the location of amenities. To that end, I argue that there are land use patterns that are associated with, if not directly linked with, each one of the three street network types described above (see also Southworth 1997 for a discussion of this relevant to New Urbanism and Kentlands in particular). For instance, in traditional neighborhoods amenities are often organized along particular streets, or “paths” (Lynch 1960), which serve as the focal point of the neighborhood, while in planned unit developments they are often located in a single, non-linear location, such as a mall or strip mall, or dispersed throughout a neighborhood.
Kentlands does not accurately meet either the traditional or planned unit definitions, but rather has elements of both. It has a completely interconnected street network, but does not follow a pattern of any kind. Its commercial amenities are contiguous, but are at the edge of the neighborhood and are not along a single corridor, while its civic amenities are dispersed. Indeed, it is meant to emulate the traditional neighborhood, yet it is by definition a planned unit development, if not by style and character than by the planning process that created it. Insofar as its planning is concerned, Kentlands is in between the two ends of the
continuum. My goal, then, was to investigate how neighborhoods on either end of the spectrum differed in their behavioral outcomes from Kentlands. However, I required these two neighborhoods to have transportation choices at least theoretically equal to those found in Kentlands, and that they not be drastically different in character or demographics from Kentlands. This eliminated any number of suburban neighborhoods not near a trolley or bus line, neighborhoods without important amenities located within a reasonable walking distance, or an area such as downtown San Diego, which fits the model of a traditional neighborhood but which is very different in character from Kentlands because of its density.

More specifically, the requirements I set for both neighborhoods were as follows: (1) They needed to have a sizable number of residences within one mile of a central retail district. While most studies place the distance threshold beyond which most people will not walk at one quarter mile (Duany, Plater-Zyberk, and Speck 2000, 198-199; Moudon et al. 2006), every home in Kentlands is within one mile of Market Square, and since my study included the whole of Kentlands it was appropriate to hold the other neighborhoods should be held to the same standard; (2) They must be linked to the rest of San Diego, and preferably to areas with jobs and amenities, by at least one public transportation line running directly through the study area; (3) They must have a high level of household income relative to the metropolitan area to ensure that virtually any resident could afford to own and operate an automobile; and (4) They must have a population and population density similar to that of Kentlands, so as to allow for a sufficiently large sample size and so as to avoid possible variations in survey responses based on density alone.

Kensington and Tierrasanta both met all of these requirements. Kensington exemplifies the traditional neighborhood type, while Tierrasanta exemplifies the planned unit development type. For the remainder of this chapter, I will describe these two neighborhoods, how they met my specific study site requirements, and how they are different from or similar to Kentlands.

**KENSINGTON**

The following sections discuss the neighborhood of Kensington.
Viability as a Study Site

Kensington is an inner suburb located within the city limits of San Diego, roughly five miles from Downtown San Diego as the bird flies. It is located on the central, urban mesa of the city, adjacent to other, similar neighborhoods such as Normal Heights and City Heights, from which it is primarily separated by obvious boundaries such as Interstate 15 and a series of canyons (Figure 28). Kensington was built in the early 20th century, long before the changes in planning policy and culture that influenced the growth and design of much of American suburbia, and as a result it has a traditional design pattern, with a grid of streets focused on a central retail corridor.

Figure 28. A map showing the street network and boundaries of Kensington. Source: Google Maps. http://maps.google.com (last accessed 15 September 2010).
Beyond serving as a good example of traditional neighborhood design, Kensington satisfied all of the criteria I established for the neighborhoods I wanted to compare to Kentlands: (1) It is compact, with an area of 1.3 square miles (845 acres), and the centralized location of its amenities puts virtually all homes in the neighborhood within the one mile threshold established in Kentlands; (2) It is served by three bus lines that link it to other parts of the San Diego area, particularly those with high paying jobs; (3) The two census tracts that are almost completely co-contiguous with Kensington support an average median household income of $51,459, compared with a San Diego County median of $47,067, indicating that a great majority of residents should be able to own and operate a car; and (4) It has a population of 8,916, which is sufficiently large to meet the minimum sample size requirements set for this study, at a density of 6,755 people per square mile (U.S. Bureau of the Census 2000), which while less dense is not drastically different from the density of Kentlands. While it might not be the perfect example of a traditional neighborhood, particularly because its street network lapses from a grid pattern at its edges, an example perfect for the purposes of this research does not exist at all in San Diego. Kensington easily met all of the particular requirements that allow a comparison to Kentlands given the research questions in this study.

**History and Style**

Kensington was built in the 1910s and 1920s along the Adams Avenue streetcar line, which connected it to downtown San Diego. While it is now well within the city limits of San Diego, at the time of its construction it was located outside of the city and was on the outer edge of the metropolitan area’s built-up urban core (Stutz 1992, 217). Its original developers had planned for it to have an English aesthetic. They gave it the name of one of London’s more famous districts, named some of its streets after streets in London, and built several large, Tudor-style homes during its early phase of development.

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24 Recall from Table 1 (page 26) that this is a weighted figure that is influenced by the more populated, lower-income southern part of Kensington, closer to El Cajon Boulevard. The homes to which I distributed surveys likely had a much higher median household income, as 60 percent were distributed to the much wealthier areas north of Adams Avenue.
However, in 1915, during Kensington’s nascent stages, the Panama-California Exhibition took place in Balboa Park, which popularized the Spanish revival style of architecture (Ford 2005, 16-17). The Spanish revival style, most commonly defined by the use of stucco exteriors and red tile roofs, was quickly adopted by Kensington, which is now known as a prime example of the style (Figure 29) (Ford 2005, 106-109). A majority of homes in the neighborhood remain in this style, but other home styles are prevalent in the neighborhood as well, include a few remaining Tudor homes and many bungalows. A preponderance of homes in Kensington are single-story and sit on small lots of roughly one-eighth acre. While there are several boxy, so-called “dingbat” apartment buildings in Kensington, particularly in the south end of the neighborhood close to El Cajon Boulevard, historic preservation efforts have largely prevented the replacement of older, smaller homes with larger apartment blocks that has occurred throughout much of the nearby neighborhoods of Normal Heights and City Heights.

Figure 29. Spanish revival-style homes in Kensington.
The commercial district along Adams Avenue has existed since its days as a streetcar thoroughfare. Architecturally and aesthetically, the Kensington section of Adams Avenue does not follow a cohesive aesthetic style, as some buildings are utilitarian and modern while others maintain the Spanish revival theme present throughout the residential parts of the neighborhood. With few exceptions, buildings along Adams Avenue are single-story and rely on street parking. Two strip-mall type buildings with their own small parking lots and one three-story office and retail block serve as exceptions to this norm. While Adams Avenue does not convey a cohesive aesthetic message through its architecture, there is a neon “Kensington” sign that hangs over Adams Avenue (although as of this writing the sign has been removed for renovation and its return is uncertain), as well as several prominent businesses utilizing the Kensington name with conspicuous signage. Despite what the Adams Avenue business district lacks in aesthetic cohesiveness, significant efforts have been made to convey an obvious sense of location and place.

With regards to how this aesthetic cohesiveness in Kensington might affect pedestrianism, I return to the *Charter of the New Urbanism*. The philosophy put forth in the *Charter* essentially states that architecture and aesthetics are an important component in urging residents to be pedestrians rather than drivers. If a neighborhood’s aesthetics are pleasing to its residents, then they will be more likely to take advantage of the planning considerations that enable them to become pedestrians. Of course, as I have described in Kentlands, the planning of a community must also be completed with the pedestrian in mind, and Kensington is no different.

**Planning**

From a planning perspective, Kentlands follows the traditional neighborhood street network pattern so far as topography allows. The neighborhood is bound by canyons on three sides which constrain its configuration, making curvilinear streets running parallel to canyon edges the most efficient use of space in some parts (Figure 30). The core of the neighborhood, near Adams Avenue and extending south to El Cajon Boulevard, follows a mostly-regular grid pattern. Furthermore, the part of Kensington that follows a grid pattern utilizes alleys between most streets, allowing for the placement Kensington, however.
Sidewalks are present throughout the neighborhood, and streets are relatively wide compared to the level of traffic they bear and the heights of the buildings that line them.

Following the trend in which traditional neighborhoods have a central corridor of businesses and amenities, Adams Avenue serves as the community’s Main Street (Pendola and Gen 2008), making it the obvious focal point of public life within the neighborhood. With the exception of a single convenience store and the neighborhood’s elementary school, all of Kensington’s commercial and civic amenities are on Adams Avenue (Figure 31). There are an abundance of third places where people can gather, including four restaurants, two bars, two coffee shops, and a public park with a small playground. A branch of the San Diego Public Library is also located in the center of the park. Other business along Adams Avenue include a gas station, a liquor store and deli, a pet supply store, two hair salons, a bank branch, and several non-retail businesses, such as realtors, insurance offices, and travel agencies. As of this writing, there is also a vacant lot along Adams Avenue, on which a mixed retail and office block has been proposed (McDonald 2008, Kensington Terrace home...

page. Finally, while El Cajon Boulevard, at Kensington’s southern boundary, is not the focal point of the neighborhood, there are a variety of businesses located there from which Kensington residents benefit and gain use. In reality, El Cajon Boulevard serves as the central corridor of a series of neighborhoods along its length, but in the minds of most San Diegans it serves as a boundary line between neighborhoods rather than as a focal point within them.

While the amenities within Kensington are an important element in influencing how it functions as a neighborhood and how its residents behave, its surrounding areas are also important to consider. Kensington is adjacent to three other neighborhoods, City Heights, Talmadge, and Normal Heights, which are home to an abundance of businesses and amenities. Conspicuously absent from Kensington is a supermarket; while essentials are available from the neighborhood’s two liquor/convenience stores, there is a supermarket on Adams Avenue in Normal Heights less than a half mile west of Kensington’s boundaries. While there is only a single elementary school in Kensington, a public middle school and high school are located in City Heights and Talmadge, respectively, just beyond Kensington’s borders. Although there are few high-paying jobs within Kensington itself, it is situated relatively close to downtown, San Diego State University, and Hillcrest, all of which have high concentrations of high paying jobs, and it is linked to all three by Interstates 15 and 8, and by public transportation in the way of bus lines that pass through the neighborhood. A discussion of Kensington’s geographic situation leads naturally into a discussion of the availability and viability of various modes of transportation. Given the location and distribution of amenities within and near to Kensington, the planning considerations within
the neighborhood, and how it links to its surrounding neighborhoods and the rest of the San Diego area, one can begin to comment on how transportation works for residents of Kensington.

**Viability of Transportation Modes in Kensington**

The following section discusses the viability of various modes of transport in the neighborhood of Kensington.

**Walking and Biking**

The homes in Kensington farthest from Adams Avenue are almost exactly one mile away, making its “walkshed,” or the distance one must (or can) walk (Short and Pinet-Peralta 2010), similar to that of Kentlands. Because Kensington is compact and because Adams Avenue runs roughly through its geographic center, a large number of homes are located within a quarter mile of Adams Avenue. Every street in Kentlands has sidewalks on both sides, while parallel parking throughout the neighborhood creates a physical buffer between pedestrians and automobile traffic. Trees in Kensington are mostly mature, but a preponderance of them are palm trees, which afford pedestrians little shade. The neighborhood is also almost completely flat, which makes walking less difficult. Streets in Kensington are relatively wide, and there are no marked crosswalks aside from on Adams Avenue, but its grid pattern serves to diffuse the traffic in its residential sections, making most secondary streets easy to cross. The regularity of its grid pattern is disrupted for the good of the pedestrian between El Cajon Boulevard and Adams Avenue, as the streets running north-south jog, further slowing traffic. Adams Avenue itself poses the only highly trafficked pedestrian street crossings. Despite the fact that automobile traffic on Adams Avenue is heavy, there are marked crosswalks at only three intersections in Kensington, one of which is not paired with a traffic light and therefore does not provide pedestrians with a walk signal, and another of which is located on the neighborhood’s western edge near Interstate 15. As a result, I observed (and have indeed participated in) numerous incidences of jaywalking, yet I saw cars stop for such pedestrians only a fraction of the time. Since most people walking to a destination in Kensington are likely walking to Adams Avenue, this lack of crosswalks could cause some people to avoid walking out of fear or annoyance.
The quality and quantity of places to which one can walk is just as important as the physical factors that can influence a person’s choice to walk. Even if a neighborhood is physically walkable, if there is no place within walking distance that people actually want to visit, then the benefits of walkability are lost. Kensington is home to a wide variety of heavily frequented places within the neighborhood and benefits from still more destinations immediately outside the neighborhood’s boundaries. From my personal observation, the third places in Kensington are particularly popular. The restaurants, bars, coffee shops, and the public park along Adams Avenue are often busy, regardless of the time of day or the day of the week. While I cannot be sure if the people frequenting these places are coming from within Kensington, it at least indicates that these places are desirable destinations to which Kensington residents could walk if they so chose.

There are no special concessions for cyclists in Kensington, although many of the same characteristics that make it an attractive neighborhood in which to walk make biking viable as well, particularly the lack of auto traffic on secondary streets. Adams Avenue itself can be potentially intimidating to cyclists, as the lack of traffic lights allows cars to drive fast, and parallel parking narrows the available lane space. There is also a complete lack of bike racks along Adams Avenue, although ubiquitous street light poles and other infrastructural features can serve as a proxy. Finally, it should be noted that San Diego’s fair weather can also influence residents of Kensington (or Tierrasanta) to walk or bike rather than drive. While it is a seemingly obvious influence, San Diego’s weather is an important variable that differentiates the two San Diego neighborhoods from Kentlands, where precipitation is more frequent and the temperature range is more pronounced.

**Public Transportation**

The San Diego Metropolitan Transit System (MTS) operates a bus line that runs along Adams Avenue through Kensington, with two stops in the neighborhood, as well as another line along El Cajon Boulevard on the neighborhood’s southern boundary, along which there are also two stops. The Adams Avenue line, Route 11, travels to Downtown San Diego in one direction, via the neighborhoods of Normal Heights, University Heights, Hillcrest, and Midtown, and to San Diego State University (SDSU) in the other direction. High-paying jobs are concentrated in Downtown, Midtown, Hillcrest, and the College Area
around SDSU, while cultural and commercial amenities are available along the length of the route. During business hours service operates every 15 minutes, although budget problems at the time of this writing have forced a cancellation of Sunday service on Route 11. The El Cajon Boulevard line, Route 1, terminates in Hillcrest in one direction and the Amaya Trolley station in the city of La Mesa in the other, via the neighborhoods of Talmadge, Rolando, and Downtown La Mesa, all of which have relatively few high paying jobs but a wealth of commercial amenities. Finally, another bus line, Route 15, runs along El Cajon Boulevard. While it does not stop within Kensington’s defined boundaries, there is a transit center located just outside of the neighborhood to which many Kensington residents can comfortably walk. Route 15 connects Kensington with SDSU in one direction and Downtown San Diego in the other, making limited stops and providing a faster journey of only 25 minutes (San Diego MTS trip planner).

Public transportation is surely a viable option for some residents of Kensington. Parking can be expensive and difficult to find in many of the job-heavy areas that Kensington’s bus lines serve, particularly Downtown San Diego and SDSU. However, while SDSU is only a ten-minute ride on public transportation, a trip downtown requires 45 minutes on Route 11 and 25 minutes on Route 15. With two major freeways located nearby, it seems unlikely that many Kensington residents would regularly take the bus downtown. This underscores a point about public transportation that is applicable to all three neighborhoods examined in this study: in most of the United States, public transportation is only competitive when other modes of transportation, particularly driving, are disincentivized. A report commissioned by the Transportation Research Board, entitled Strategies to Attract Auto Users to Public Transportation, spells this out plainly. It spends more time discussing how to organize and price parking in popular destinations to make driving undesirable than it does on improving public transportation itself (Dueker, Strathman, and Bianco 1998).

Ridership data provided by SANDAG, an intergovernmental agency that oversees transportation in San Diego County, indicates that the bus lines in Kensington are moderately used.\(^{25}\) The two stops on Route 11 in Kensington saw a combined daily average of 163

\(^{25}\) Comparative ridership data for Kentlands was not available to me, as several calls to officials with
passengers either getting on or off the bus. While it would seem that there is a stronger combination of incentives and disincentives in favor of taking the bus to SDSU rather than in the direction of Downtown, roughly twice as many passengers used stops in Kensington while either going to or coming from that direction. Similar patterns are visible for Route 1, though many people utilizing those stops likely live outside of the study area in Kensington.

Driving

Driving within the neighborhood of Kensington is relatively easy. The grid system disperses traffic along any number of possible routes and makes it difficult to become lost. Streets are wide and easy to maneuver. The only disincentive that might influence a Kensington resident to avoid driving for a trip within his or her neighborhood is the relative lack of parking available on and near Adams Avenue, as most businesses do not have their own off-street parking lots. There are two public lots off of Adams Avenue on Kensington’s western edge, next to Interstate 15, and there are two retail buildings paired with their own modest parking lots. I have often observed these lots to be full, leaving on-street parallel parking as the only option for those using their car to access the Adams Avenue business district. Particularly at nights and on weekends, when the third places in Kensington are heavily frequented, parking can be difficult, which might dissuade someone from driving within (or to) Kensington.

Rather than with walking, it seems more appropriate to consider driving as a viable option competing with public transportation for trips leading outside of the neighborhood, when trip length makes walking less attractive or impossible. To that end, driving seems likely to make the most sense for many Kensington residents. The neighborhood is located next to I-15, which runs north-south and connects with east-west running I-8 just north of Kensington, providing easy access to much of the San Diego area. Further, driving along Adams Avenue and El Cajon Boulevard is far quicker than riding the bus, either in order to reach destinations along those corridors themselves or to access other neighborhoods such as Hillcrest and Downtown. The advantages public transportation has over driving are, in most cases, purely economical, or perhaps in some cases ethical in the minds of those who want to

Montgomery County Transit, which oversees the bus lines in Kentlands, were unreturned.
avoid increased carbon emissions. From a practical standpoint, an automobile seems like the most viable form of transportation for trips outside of Kensington.

**COMMUNITARIAN SPACES IN KENSINGTON**

Collectively, the small park along Adams Avenue, the library that sits within it, and the elementary school in the neighborhood’s south end are the only public, civic spaces available within Kensington. While the park in particular is well used, especially by young parents and their children, there is otherwise a relative lack of public, community-oriented spaces within Kensington, given its population of close to 10,000.

However, I argue that the lack of civic space is offset by the relatively high number of private, third places along Adams Avenue in Kensington. The cafes and restaurants along Adams Avenue are consistently busy, and when the weather is favorable many customers utilize the outdoor seating areas that all of them have. These businesses surely benefit from the central location of Adams Avenue within the community, as compared to Kentlands, in which some homes are significantly closer to businesses than others. Combined with the pedestrian orientation of the business district, at the very least an image of a vibrant community is visible in Kensington to those who walk through it. Whether this projected image of community translates to an actual sense of community among residents remains to be seen. However, I argue that the third places and civic spaces in Kensington can only help foster pedestrianism in a neighborhood that in many ways is already designed to favor those who choose to walk.

**TIERRASANTA**

The following section discusses the neighborhood of Tierrasanta.

**Viability as a Study Site**

Tierrasanta is an outer suburban area, also within the city limits of San Diego. It is located roughly four miles due north of Kensington and more than eight miles from Downtown San Diego as the bird flies. Like Kensington, it is located near the intersection of and bounded by two freeways: Interstate 15 and State Highway 52 (Figure 32). Also like Kensington, it is constrained by the topography of the many canyons that surround it and run through it. However, unlike Kensington or Kentlands, Tierrasanta does not border any other
Figure 32. The area of Tierrasanta proper (shaded), with the internal boundary demarcating the extent of the study area. Source: Google Maps. http://maps.google.com (last accessed 15 October 2010).

neighborhoods (Figure 33). While it is located close to Kearny Mesa, a non-residential section of the city, Tierrasanta is physically isolated from the rest of the city to the point where it is often considered its own town in all but the legal and governmental sense. This isolation provides much of the popular imagery of Tierrasanta, and has earned it the nickname of “The Island in the Hills.”

Tierrasanta served as my example of a planned unit development neighborhood, but as its boundaries are popularly defined it is actually an agglomeration of a series of smaller planned unit developments. Part of Tierrasanta consists of military housing, other parts are blocks of condominiums, while others still are comprised of single-family homes grouped by style and size and separated from other homes of differing styles and sizes. In the following description and discussion, the name “Tierrasanta” will sometimes refer to the area as a whole (which I call Tierrasanta proper), whereas other times it may refer specifically to my smaller study area. As in Kentlands, the breakdown of census geography makes it difficult to
provide demographic statistics that are specific to my study area alone, so any demographic data here refers to two census tracts that cover much but not all of the study area and includes small portions of land outside the study area.

Regardless of where I have delineated my study area, Tierrasanta proper provides a good example of planned unit development that also meets the specified criteria for this research project: (1) While Tierrasanta proper is sprawling and many of its amenities are decentralized, it is home to a large retail core, called Tierrasanta Town Center, near to which
is a high school, a middle school, and a public library branch. Importantly, there are also a significant number of homes located within one mile of this core of amenities; (2) Tierrasanta is served by a bus line that links it with Kearny Mesa and Mission Valley, two areas rich in amenities and home to some high-paying jobs; (3) While not as wealthy as Kentlands, the census tracts that cover much of the study area in Tierrasanta have an average weighted median household income of $61,760, higher than the county-wide median income of $47,067 (U.S. Bureau of the Census 2000); and (4) The population of the two census tracts covering much of the study area is 7,604, and has a population density of 3,142 per square mile. While the density of these two tracts is significantly lower than that of Kentlands, large areas of undeveloped land deflate the figure; one of these tracts, which is completely developed, has a density of 6,945 people per square mile, which is closer to that of Kentlands.

**History and Style**

Tierrasanta was built gradually between the early 1970s and the early 1990s on land formerly owned by the United States Navy (Tierrasanta community profile). Some of the housing on the community’s southern edge remains as military housing (Stutz 1992, 220). The area included in the study site was developed by 1982. The whole of Tierrasanta was master planned, but other than the central location of Tierrasanta Town Center, each section of Tierrasanta was plotted separately in its own style, leaving the area without a cohesive planning or design motif. Much of the architecture in Tierrasanta is utilitarian or modern. While some buildings employ the stucco siding or red tile roofs present in Kensington and throughout much of Southern California, Tierrasanta’s buildings do not employ some of the more detailed features, such as archways and wrought iron accents, which distinguish many of Kensington’s homes. Many houses in the study area are in a modified a-frame style with

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26 It should be noted that the military housing in Tierrasanta is not included in the study area, primarily because most of it lies farther than one mile from Tierrasanta Town Center, but also because its median household income is far below the county average. Furthermore, military families represent a unique segment of society that would pose difficulties in a study such as this. Because of the similar status of all active duty military families, they likely represent a different type of community from the rest of Tierrasanta, even if these communities often interact. The problem also existed in which many houses might have been vacant as a result of deployments.
deliberately exposed beams as their signature feature. All told, however, there is no distinct architectural or aesthetic style to the built environment of Tierrasanta proper.

Tierrasanta’s houses are less densely configured than those of Kentlands or Kensington, leaving more room for trees, many of which are mature. Mediterranean-type trees, such as cypresses and other evergreens, are more popular than palm trees, affording some shade in many places. While there are condominium and apartment buildings in various locations throughout greater Tierrasanta, there are only two sections of them within the study area, and the logistics inherent to the distribution of the surveys prevented me from recruiting respondents from them. 27 Other than the requisite red tile roofs, Tierrasanta’s two retail centers, Tierrasanta Town Center and Tierra Center, employ the typically utilitarian style and large parking lots of the average American strip mall.

Planning

Tierrasanta is more an agglomeration of small, distinct neighborhoods surrounding an automobile-oriented retail center than it is a cohesive entity. That being said, there is little traditional about it, and it accurately can be categorized as a planned unit development. I will generally limit the discussion of Tierrasanta’s planning to my study area, as there is much to say about planning in this small cross section of Tierrasanta alone, but where appropriate I will discuss the planning of Tierrasanta proper, particularly with regards to its amenities.

Tierrasanta proper is not directly connected or adjacent to any other neighborhood. It is surrounded on its north and west edges by freeways, on its eastern edge by Mission Trails Regional Park, and on its southern edge by steep-sided canyons, golf courses, and two large rock quarries. While circumstances such as topography and the location of freeways have served to physically limit access to Tierrasanta, its physical isolation was deliberately planned and maintained, and is to this day used to market the place to homebuyers. Tierrasanta Boulevard, for instance, which serves as the main thoroughfare in the study area, terminates less than one half mile away from Mission Gorge Road, which serves the

27 Refer to my explanation of these circumstances in the “Surveys” section of Chapter 3; I encountered the same problems in Kentlands and Kensington as well.
physically nearby neighborhoods of Grantville, Allied Gardens, and San Carlos; however, in order to reach these areas from Tierrasanta, one must use I-15.

There are three distinct planning patterns present in my study area of Tierrasanta. The first, found in a subdivision called Portofino, lies immediately to the north of Tierrasanta Town Center and Tierrasanta Boulevard (Figure 32). It is only served by five roads: a rectangular loop in its interior, and four access roads at each of the cardinal directions linking it to the primary roads that form its boundaries. The homes in Portofino surround a central area containing private recreation facilities. Most of the homes face interior walkways rather than any of the roads, while their garages face onto interior alleyways (Figures 34, 35).

![Figure 34. Homes in the Portofino section of Tierrasanta face onto walkways rather than streets.](image)

The second area, which is not named, lies north of Portofino across Clairemont Mesa Boulevard, and is served by a single looped road with two access roads feeding onto its primary roads. There are 15 cul-de-sacs off of the main loop, as well as many smaller, collective driveways serving four houses each, as such that many houses do not face onto a public road (Figure 35). The third area, located to the south and east of Tierrasanta Town
Figure 35. The alleyways of Portofino are visible at the bottom of this image. The “second housing area” to the north is marked by a series of cul-de-sacs and is less interconnected. Source: Bing Maps. http://maps.bing.com (last accessed 15 December 2009).

Center, consists of three separate areas with a common planning element. This area represents the prototypical suburb to which New Urbanism is a reaction. Its roads are a mixture of curvilinear and dead-end streets, while its houses and their garages face directly onto these streets (Figure 36). The amenities within the study area, and indeed throughout Tierrasanta proper, are dispersed. Aside from the central complex of Tierrasanta Town Center and its neighboring middle school and park, there are elementary schools throughout the area, a high school across Santo Road from the Portofino neighborhood, several parks, the Tierra Center retail area and another retail center located on the northern edge off of Highway 52, a private recreation center including a clubhouse, pool, and tennis courts in Portofino, a public recreation center outside of the study area, and numerous churches (Figure 37). These amenities are all isolated from each other.

The roads in Tierrasanta proper follow a strict and easily definable hierarchy, with main roads branching into secondary roads and then cul-de-sacs. Specifically in the study
Figure 36. The third type of neighborhood in Tierrasanta is defined by curvilinear streets and garage door facades.

Figure 37. The relative locations of some of Tierrasanta’s amenities. Elementary schools (ES), middle schools (MS), and other amenities are dispersed throughout the community. Source: Google Maps. http://maps.google.com (last accessed 15 October 2009).
area, there are three main roads: Tierrasanta Boulevard, which runs roughly east-west and connects the area to Kearny Mesa, and along which is located Tierrasanta Town Center; Clairemont Mesa Boulevard, which run parallel to Tierrasanta Boulevard and also connects it to Kearny Mesa; and Santo Road, which runs north-south and connects the two other roads. All of these primary roads are multi-lane in each direction and are divided by some kind of median. As in the rest of Tierrasanta, off of these roads are secondary roads, which are narrower and not divided, and then off these roads are the smaller cul-de-sacs.

VIABILITY OF TRANSPORTATION MODES IN TIERRASANTA

The following section discusses the viability of various modes of transport in the neighborhood of Tierrasanta.

Walking and Biking

Despite its suburban location and character, it seems reasonably possible to walk to many destinations within the study area of Tierrasanta. There are many homes within one mile of Tierrasanta Town Center, and in Tierrasanta proper there are still more homes within one mile or less of various other amenities. There are also a significant number of homes within the more realistic walking distance of one-quarter mile of important amenities. Portofino in particular, the most densely populated section of the study area, is located just across Tierrasanta Boulevard from Tierrasanta Town Center, and because of the many walkways on which its houses face, pedestrian routes are often more direct than driving routes. Mature trees in some areas provide shade, particularly in Portofino, but are mostly absent elsewhere. While much of Tierrasanta sits atop a flat mesa, some parts of the study area, have steep hills that might make even recreational walking prohibitively difficult. There are sidewalks throughout the study area of Tierrasanta. The three divided, primary roads in the study area are heavily trafficked throughout the day, with Tierrasanta Town Center accounting for most of the traffic on Tierrasanta Boulevard and Serra High School creating much of it on Santo Road. Signaled crosswalks are available at all major intersections in the study area, but because of the relatively few number of streets, pedestrians on some routes need to walk a significant distance out of their way to use a crosswalk (Figure 38). While there are many incentives to walk in Tierrasanta, particularly from Portofino, the busy, multi-
lane roads that traverse it might make the task daunting (Figure 39). The topography, added distance from amenities, and isolation of the other two neighborhood types in the study area make walking from them seem even less likely to be viable.

Bike lanes are available on Tierrasanta Boulevard only and are not well signed or marked. Bike racks are available in the private park and recreation area at the center of Portofino, but not elsewhere in the study area, including at Tierrasanta Town Center. However, biking might be an attractive choice for some in Tierrasanta, as distances, hills, and heavy traffic might make walking unattractive, whereas the still relatively short distance between many homes and amenities might make driving seem unnecessary.

**Public Transportation**

Tierrasanta is served by one MTS bus line that connects it with Kearny Mesa in one direction and with the Fashion Valley Mall and trolley station in Mission Valley in the other by, way of the neighborhoods of Serra Mesa and Linda Vista. The line makes turns through several streets in Tierrasanta, thereby providing service at a close proximity to a significant percentage of the population in the study area. Kearny Mesa is a large, non-residential
area containing numerous restaurants and retail outlets, offices, warehouses, and industrial complexes, and thus is home to a high amount of amenities and jobs in the service and secondary sectors. In particular, it has a high concentration of Chinese, Korean, and Japanese businesses, ranging from fast food restaurants to banks. A trip to Kearny Mesa from Tierrasanta takes only 12 minutes on the bus, however Kearny Mesa itself is a large area, and the bus line that serves Tierrasanta, Route 25, only services a small portion of it along Clairemont Mesa Boulevard. Furthermore, off street and parallel parking is abundant throughout Kearny Mesa, removing some incentive people may have to avoid driving there from Tierrasanta. Mission Valley is also home to a wide variety of amenities and jobs. However, it takes 45 minutes to travel from Tierrasanta to Mission Valley on Route 25, a journey that only takes roughly ten minutes (without traffic delays) in a private car on the freeway. Parking is also abundant everywhere in Mission Valley, making a bus trip from Tierrasanta there seem likely to be one of necessity rather than of choice. Furthermore, given

Figure 39. The busy intersection between Tierrasanta Boulevard and Santo Road illustrates how Tierrasanta can be intimidating to pedestrians.
that Route 25 only runs hourly from 7 a.m. to 6:20 p.m., and does not run on weekends (San Diego MTS trip planner), it would seem that few would take it by choice if they had access to a car.

This subjective assessment is supported by SANDAG’s ridership data for Route 25 in Tierrasanta. An average of 122 passengers boarded or alighted daily at Tierrasanta’s nine bus stops, most of which were going to or coming from Mission Valley and the neighborhoods in between. While this is not an insignificant number, it is far fewer than the 163 riders who used only two stops on Route 11 in Kensington.

**Driving**

Tierrasanta seems to have been designed specifically to accommodate cars. There are many visible features of the built environment that indicate this: Other than the walking paths that organize most of the houses in Portofino, pedestrians must follow streets to reach their destination, and the streets are organized as such that most trips between two places within the neighborhood deviate greatly from a straight line. Its main roads have four lanes and central dividers, allowing traffic to move at a high rate of speed. Once a motorist reaches his destination, finding parking is likely to be easy: Tierrasanta Town Center has a parking lot that is larger than the building itself. When one considers the physical isolation of Tierrasanta, and the fact that virtually all of its amenities are available in other neighborhoods as well, it seems probable that a high majority of people who patronize the businesses and amenities in Tierrasanta are coming from within the community. The large parking lot at Tierrasanta Town Center, then, is likely designed to accommodate cars that have made a relatively short trip (Figure 40). Clearly, a significant amount of driving takes place within Tierrasanta.

To evaluate the extent to which driving is viable in Tierrasanta is also to consider how it stacks up against other transportation options. Walking can be inconvenient for many reasons, and Tierrasanta’s physical isolation causes public transportation trips to take a long time. Combined with its proximity to two major freeways, it seems that residents of Tierrasanta will usually drive to meet their transportation needs, either within or outside of the community.
While Tierrasanta Town Center was designed strictly with the automobile in mind, it still contains several businesses that can serve as third places. As in Kentlands and Kensington, the Starbucks in Tierrasanta is consistently busy; I often observed people enjoying conversations with friends while sitting at outdoor tables facing onto the massive parking lot of Tierrasanta Town Center. Another coffee shop and a variety of restaurants are also present here and in Tierra Center, the other retail center in the study area. While many people are surely driving to these locations, pedestrianism may be bolstered by the simple fact that Tierrasanta is isolated and that these businesses are surely attracting most of their customers from within the community. Simply put, people in Tierrasanta have something worth walking to, and may do so if they so choose. Unlike Albertson’s, the supermarket in Tierrasanta Town Center, these are the types of businesses from which people do not need to carry large or heavy goods, making walking even more viable.
Tierrasanta also benefits from a large number of schools, both within and outside the study area. There is a high school, two middle schools, and an elementary school all within close proximity of one another. Compared to Kensington and Kentlands, which has a greater population but only a single elementary school within its boundaries, this wealth of schools provides a wide variety of civic amenities and spaces from which Tierrasanta residents can benefit. The downside to the high number of schools is that children in Tierrasanta are divided among many schools. While perhaps a boon for small class sizes, this might limit the possibilities for community links that New Urbanist theory claims correlates strongly with pedestrianism. There is also an abundance of parks and open spaces, as well as several churches immediately outside the study area, which can serve to bolster sense of community in Tierrasanta.

Interestingly, Tierrasanta embodies many of the controlling mechanisms on its public open space that Low (2003, 2006) describes, despite its physical isolation. The parks and benches in Portofino, for instance, bear signs reading “For Private Use of Portofino Residents Only.” During my visits, however, I rarely saw anyone using any of the open spaces, unlike in Kentlands, where I witnessed children playing on playground equipment despite the cold weather, and Kensington, where the only open public space, the park along Adams Avenue, is constantly utilized by many people.
CHAPTER 6

ANALYSIS OF SURVEY RESULTS: HABITS AND BEHAVIORS OF KENTLANDS RESIDENTS VERSUS RESIDENTS OF KENSINGTON AND TIERRASANTA

In the previous chapters I have examined and analyzed the built environments of Kentlands, Kensington, and Tierrasanta primarily through my own personal observations. I was able to subjectively assess how the built environment of each neighborhood can potentially affect transportation choice among residents, as well as how the nature and relative locations of various amenities might affect sense of community.

In this chapter, I will instead compare how the actual residents of these three neighborhoods describe their transportation habits and communitarian behaviors based on their responses to the surveys I distributed. My analysis of the survey data will be grounded by the observations and conclusions I made for all three neighborhoods in the previous two chapters. This analysis will primarily help to determine if there are any significant differences between the behaviors of the residents of Kentlands from the residents of different neighborhood types. Furthermore, it will enable me to ground the more in-depth data I acquired from conducting interviews in Kentlands, which I discuss in Chapter 7, with a more quantitative and randomized set of data, as both the surveys and interviews were geared towards answering the same set of research questions. I will, however, make reference here to findings from interviews where it helps illustrate a point.

I begin this chapter with a brief discussion of how I analyzed the questions on the surveys. Next, I describe my interpretation of the data from Kentlands in terms of transportation habits and community-related activities, the two major themes I examine in this thesis.\textsuperscript{28} I also discuss the possible relationship between the two major themes, as well as

\textsuperscript{28} I do not include the results from every individual survey question in this chapter. For tabulated results to
explore the role of self-selection of residents. The chapter continues with a commentary on the differences and similarities between the results from Kentlands and from Kensington and Tierrasanta, and finishes with some preliminary conclusions that I will build on in the final two chapters.

**Coding of Survey Data**

Certain survey questions, such Question 1 (How long have you lived in your neighborhood?) did not require any particular type of thought or analysis in order to extract meaningful, relevant data. Most of my questions were open-ended, however, and as a result I had to interpret the responses and divide them into codes in order to proceed with my analysis. Similarly to how I coded the interview transcripts, this was an iterative process, during which I read and re-read the responses and slowly fleshed them out into categories of responses representing the most important themes for each question. However, unlike the interview transcript analysis, in which the boundaries between codes were often fuzzy and the number of codes was potentially infinite, I had to create a finite list of codes that encompassed every response, because I wanted to be able to quantify some of the survey data. For instance, Question 2, which asks “Why did you choose to move to (your neighborhood)?”, elicited a wide range of responses, and most people gave several different reasons. A full list of the codes, and the types of responses that fit into each code, is available in the Appendix.

**Survey Results from Kentlands**

I received 51 completed surveys from residents of Kentlands. None of the respondents in Kentlands left any questions blank, so unless otherwise noted, all percentages expressed in tables and figures here are out of 51 responses. Some questions, however, elicited multiple responses types, such as the questions for which I coded responses and created my own categories. In these cases, the figures here express the percentage of total responses that fell into a particular category.
Some important themes arose from my analysis of the survey data from Kentlands that begin to address some of my research questions. The data reveals clear information about the past and present transportation habits of Kentlands residents, how Kentlands has changed the behaviors of many of its residents, and the extent to which Kentlands residents participate in social or community-related activities in their neighborhood. In addition to gaining information on the behaviors of residents, I was able to draw some preliminary conclusions about the presence and importance of self-selection in influencing the behavioral outcomes reported in the surveys.

**Present and Past Transportation Habits in Kentlands**

Kentlands residents reported a widespread availability and level of use of most modes of transportation. They reported a universal availability of automobile and pedestrian travel, and overall high rates of mode choice availability (Figure 41). Since I chose the case study sites with the hopes that all residents would have access to a wide range of transportation modes, this result was not entirely surprising. While the nature of this thesis is not about the perception of transportation choices available, it was important that I ask the survey takers to report which modes they considered to be available to them because it reflects more accurately on their breadth of transportation mode choice than do my observations and analyses of Kentlands’ built environment. For instance, if residents report that public transportation is generally not available to them for whatever reason, then the presence of public transportation is effectively rendered meaningless, even if there is a bus stop a block from their home.

In addition to reporting a high level of availability of all transportation modes, Kentlands residents reported high levels of use these modes as well (Figure 42). This indicates that most Kentlands residents are taking advantage of all the transportation mode choices their neighborhood makes available to them. Car and pedestrian travel were universally used, while a majority of residents used public transportation and rode bicycles as well. Many survey takers responded that they only walked or biked for recreation or exercise rather than to a particular destination, however. Still, a vast majority of residents reported walking to at least one destination from their home on a regular basis.
Figure 41. Percentage of Kentlands residents reporting availability of transportation mode types from their home.

Figure 42. Percentage of Kentlands residents reporting use of transportation mode types. ‘Bike Destination’ and ‘Walk Destination’ refer to respondents who reported using these modes to travel to destinations, rather than merely for recreation of exercise.
I was able to determine the percentage of the survey respondents who used each mode by tallying their responses to Question 5 (see full survey in the Appendix for this and all subsequent references to numbered survey questions). While the open-ended nature of the question was designed to help me more precisely gauge the frequency and nature of the use of these transportation modes, in retrospect it appears that it would be impossible to glean anything substantial or quantititative from coding or counting the types of responses within each transportation mode. Examining these specific responses did enable me to make some general observations about transportation habits in Kentlands, however. For instance, most of the survey respondents in Kentlands drive to work, as well as to most destinations outside of the community, whereas within the neighborhood walking is more popular. Also, despite the logistical problems with taking the bus to the Metro station in Shady Grove I described in Chapter 4, it appears that a fair number of respondents in Kentlands (29.4 percent) at least occasionally do just that. Many more drive to the Metro station, though, which likely accounts for a majority of the survey takers reporting to use public transportation.

The most salient pieces of information regarding the current transportation habits of the survey respondents from Kentlands are that almost all of them walk to destinations and that a significant majority use public transportation. When speaking of reducing automobile dependence, I did not expect to see people abandoning their cars, and in fact all of the survey takers from Kentlands own and use a car. Rather, any use of pedestrianism or public transportation as a functional mode of transportation is a much better marker of a reduction in automobile dependence. As I described in Chapter 4, Kentlands is well equipped to facilitate the lifestyle of anyone who chooses to exclusively use their car, even within the confines of the neighborhood; it is compact, the roads are easily navigable, and parking is abundant. Yet 90.2 percent of respondents still reported regularly walking to one or more destinations. The walking destinations listed by the survey takers from Kentlands varied widely, but there were some common themes visible. Supporting the findings of Moudon et al. (2006), restaurants, cafes, and grocery stores seemed to be a significant driver of pedestrianism, as they were listed by over half of the respondents who listed walking

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29 When I refer to destinations here, I refer to any response given for Question 5 other than “recreation,” “pleasure,” “exercise,” or “walking the dog.”
destinations. While Moudon et al.’s statistical analyses do not attempt to explain the importance of food-based destinations, geographers have described the cachet of local food consumption (Bell and Valentine 1997, Eckmann 2006), which might help drive sense of place and pedestrianism in Kentlands and elsewhere. Other common destinations included parks, seeing friends, and other retail establishments. It was difficult to code the responses to this question in any meaningful way, however, as the open-ended nature of the question resulted in many vague responses.

Of the five people (or 9.8 percent) who did not walk to any destinations, four reported similar habits in the neighborhoods they lived in before moving to Kentlands. While the environment of Kentlands has not persuaded or allowed all of its residents to reduce their automobile use, it has for many. Comparing the data from Questions 5 and 7 reveals some of the most interesting results from Kentlands. The level of destination-based use of every transportation mode was higher in Kentlands than in residents’ previous neighborhoods (Figure 43). Conversely, the percentage of people who walked or biked solely for recreation or exercise was lower, probably because people were reaping the same health benefits while walking or biking to destinations. Automobile use was nearly universal across the board (one person did not use a car in his or her previous neighborhood).

Figure 43. The percentage of Kentlands residents reporting regular use of transportation modes in their previous neighborhoods and in Kentlands. Note the sharp increase in destination-based walking.
Question 7, unlike Question 5, asked respondents to describe their level of use rather than to list the destinations to which they traveled with each mode. In retrospect, it would have been more useful to ask respondents to list their frequency of use in Kentlands as well, especially since asking them to list destinations did not yield particularly useful information. Nevertheless, the wording of Question 7 yielded one especially interesting result: 35 of the 51 respondents (68.6 percent) reported using their automobile for all or most of their transportation needs before moving to Kentlands. This explains why the levels of use of all other modes of transportation were higher in Kentlands. While all the survey respondents from Kentlands use their cars, few of them are completely dependent on them for their transportation needs, accounting for higher levels of pedestrianism, biking, and public transit use. Kentlands residents further corroborate this idea by reporting at a rate of 94.1 percent that Kentlands has equal or better transportation options than their previous neighborhoods (with 68.6 percent saying Kentlands has better options).

It seems, then, that many people move to Kentlands from automobile-dependent environments, and that Kentlands encourages most of them to use alternative modes of transportation more often.\(^{30}\) The survey results themselves do not make it clear what factors of the built or social environment influenced this change in behaviors. When asked what factors influence their case-by-case transportation choices, Kentlands residents indicated that mundane practicalities alone influenced these decisions, such as the weather, the weight or bulk of what they were purchasing, and how much time they had available. Regardless of the reasons at play, these results represent a favorable outcome if Kentlands was designed to encourage reduced automobile dependence.

**The Social and Civic Lives of Kentlands Residents**

As I stated earlier, the first several interviews I conducted at Kentlands led me to consider that there may be a correlation between having an active local social and civic life

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\(^{30}\) While the percentage of respondents who reported using an automobile actually rose to 100 percent in Kentlands from 98 percent in former neighborhoods, this reflects a single respondent who formerly lived in a large city and did not own a car. In making this statement, I am concluding that walking, biking, and public transportation are meeting some transportation needs in Kentlands that they could not meet in the respondents’ former neighborhoods. While all of the respondents currently use a car in Kentlands, it seems that they are collectively less reliant on them to meet their transportation needs.
and increased levels of pedestrianism in Kentlands. The inclusion of the last two questions on the survey supports the notion that Kentlands residents are generally socially active at the local scale of Kentlands. Most of the respondents (88.2 percent) reported participating in at least one type of social activity within Kentlands. This is not to say that residents of Kentlands are more socially active than residents of the average neighborhood (though they might be). Despite Robert Putnam’s (2000) observation that more and more people would rather “bowl alone” than develop relationships with other people, most people still yearn for strong relationships with others, and particularly so at the local level. As a poignant example, Low (2003, 66-70) relates the story of a woman who would rather live in a dingy one-bedroom apartment in Manhattan, where her friends live, than in the much larger, nicer home in a gated community she currently inhabits on Long Island, simply because she feels no connection to the community there. What is potentially special about Kentlands is that there appears to be a strong incidence of geographic sense of community present, despite Gusfield’s (1975) conclusion (supported with work by Durkheim 1984) that relational sense of community is a stronger social force in modern society than is geographic sense of community (as described in McMillan and Chavis 1986, 9). More recently, Guest and Wierzbicki (1999) have offered empirical evidence that geography is a decreasingly important factor in forming social ties. Put simply, people tend to have spatially dispersed social networks based on common interests rather than their location. Though Kentlands residents surely build their relationships based on common interests, it seems that most of them are finding people or outlets for at least some these interests within the confines of their neighborhood. This is also contradictory to evidence highlighted by McKenzie (1994, 25) that found that common interest developments (CIDs, of which Kentlands is one) hinder community participation.

During my analysis of Question 9, I coded the types of activities in which residents participated, allowing me to gain greater insight into exactly what kinds of social interactions are most prevalent in Kentlands (Figure 44). Informal social activities were the most often-cited type, which is not surprising given the relative lack of preparation and effort necessary for such interactions as compared to some of the formal activities reported by Kentlands residents. However, this particular result was enlightening in a way, as my observations and interviews had led me to predict that an abundance of organized social activities, such as
clubs or community-sponsored festivals and gatherings, could have been the primary driver for bolstering sense of community. While these organized activities were indeed cited by many, the informal activities were still cited more often. To say nothing of the import of the numerous organized opportunities for socialization in Kentlands, this again runs contrary to the idea that residents of a CID will only interact “in order to protect their property rights, not out of recognition of community interdependence” (Silverman and Barton 1987, as quoted in McKenzie 1994, 25).

Furthermore, most residents reported participating in activities falling into more than one of the categories I assigned, indicating not only high levels of social activity in Kentlands but broadly varied types of interaction on the part of individuals. The average socially active respondent claimed participation in 2.02 different categories of participation, while some even completely filled the space given for Question 9 with long lists of their activities in Kentlands. People in Kentlands are giving themselves multiple channels to create new social relationships and to reinforce existing ones. This data does not explain, however, exactly how these social interactions are formed; my discussion of the interviews from Kentlands in Chapter 7 will shed some light on this matter.

In addition to being socially active, most Kentlands residents (36 out of 51 respondents, or 70.6 percent) reported having close friends living in the neighborhood. When

![Figure 44. Percentage of responses (n=91) from Kentlands falling into author-coded categories of locally-oriented social interaction.](image)
asked in the second part of Question 10 whether having friends in Kentlands affected how they felt about living there, 29 of the 36 reported that they gained in some meaningful way from having close, local social ties. Further, 64.7 percent reported positive feelings about the neighborhood regardless of whether they had friends located there or not. This indicates that social networks are indeed strong in Kentlands, and that these relationships bolster strong positive feelings about the neighborhood. The interviews I conducted corroborate this: while every person I talked to had positive feelings for Kentlands, the people who seemed to enjoy living there the most were the ones who boasted of having close friends in the community. Many who reported in the survey that they did not have close friends living in Kentlands indicated that they at least had good relationships with their neighbors, which also enhanced the experience of living there. The general idea that sense of community and social ties are strong in Kentlands is bolstered by the responses to Question 2, which asked survey takers to describe what they like about the neighborhood; a full two thirds of respondents described community-related reasons as positive attributes of Kentlands.

It is also highly probable that the relative economic and ethnic homogeneity of Kentlands are at least partially responsible for the development of the seemingly robust community life reported there. As Emily Talen (1999) and Karen Falconer-Al Hindi (2001) point out with regards to sense of community in New Urbanism, a homogenous population is more likely to have strong social links within it than is a heterogeneous community. This is not to say that individual ethnic minorities will necessarily feel excluded; the one non-white couple I interviewed enjoyed perhaps the most robust local social lives of anyone I talked to in Kentlands, and suburban Maryland boasts a sizeable, albeit often segregated, black middle class (Harrell 2008). I can speak directly to the influential presence of economic homogeneity, however. In four of the interviews people expressed concern, either past, present, or both, with the presence of apartments and condominiums near their single-family homes, even despite a diversity of housing types being one of the hallmarks of New Urbanism. While all worried about a potential drop in property value because of the possible presence of renters (a phenomenon described by Low 2003, 58-60), three of the four expressed concerns about the quality of people that might live in such dwellings (even though in each case my interpretation was that these concerns were primarily felt upon first arriving in Kentlands). There is a definite undercurrent among at least a portion of the
population of Kentlands that they would prefer to live in a stable community populated by homeowners, which, given the median home value in Kentlands, indicates people of considerable economic means.

**Cross-Analysis of Survey Themes and the Presences of Self-Selection**

The high percentage of Kentlands residents who use each mode of transportation makes it difficult to draw any specific conclusions about relationships between communitarian behavior and transportation habits, especially pedestrianism. Virtually all of the survey respondents reported some level of social activity in the community, and virtually all reported walking to destinations regularly. While I had hoped to be able to notice patterns emerging between those who walked more and those who had high levels of social activity, no such patterns were evident. Universally high rates of pedestrianism and universally high levels of social activity make it impossible to distinguish any trends about either factor.

Clearly, a broad correlation exists between the collectively high levels of social interaction in the community and the collectively high levels of reported pedestrianism, although causality of any kind is impossible to prove given the data I gathered from the surveys. Perhaps a more interesting correlation exists between those who bike to destinations (as opposed to solely for recreation or exercise) and those who are socially active in Kentlands. Of the 17 survey respondents (33.3 percent of the total) who reported biking to destinations, all were socially active in Kentlands, participating in an average of 2.82 categories of interaction (as opposed to 2.02 for the average socially active resident). This may again be the result of a correlation rather than any kind of causality, but this correlation may bear further investigation regardless.

Cross-analyzing other questions from the surveys revealed possible evidence of self-selection of residents. Handy, Cao, and Mokhtarian (2005) describe the dilemma inherent to assessing observed travel behaviors in neotraditional and New Urbanist neighborhoods: self-selected residents may have deliberately chosen a neighborhood in which they can practice certain desired behaviors, such as walking, which reduces the efficacy of the neighborhood’s design in influencing desired travel behaviors, even if the outcome is still the same. The question of whether “neighborhood design influences travel behavior or whether travel
preferences the choice of neighborhood” (Handy, Cao, and Mokhtarian 2005, 428) is present in any study similar to this one.

Comparing the responses to Questions 2 and 3 on the surveys helped me conclude that self-selection is indeed present on some level among Kentlands residents. Question 2 asked respondents to list the factors that led them to choose to move to Kentlands (Figure 45). Practical, rational reasons such as economics, circumstances, and location were indeed important factors in choosing Kentlands. However, it is clear from the even higher levels of responses in the categories of community, amenities, and walkability that the main New Urbanist goals of mixed use development, enhanced sense of community, and increased pedestrianism were all relatively important to people who moved to Kentlands. Over half of the total responses fell into one of these three categories. Even though two-thirds of the survey takers were accustomed to using their cars for most of their transportation needs before settling in Kentlands, 45.1 percent of them recognized that it was possible to walk places and cited it as an important reason for buying or renting in Kentlands rather than another neighborhood.

![Figure 45. Percent of total responses (n=146) from Kentlands residents falling into author-coded categories of reasons for choosing to move to Kentlands.](image)

These reasons retained their high response rates in Question 3, which asked survey takers to describe what they liked about Kentlands now (Figures 46). While amenities, walkability, and community represent a higher proportion of responses to Question 3 than to Question 2,
slightly fewer people actually mentioned walkability and amenities as reasons for presently liking Kentlands than did as reasons for moving there. Community-related reasons, however, were mentioned far more often in Question 3 than in Question 2, indicating that perhaps Kentlands is more successful in fulfilling homebuyers’ desires to experience sense of community than it is in allowing for more pedestrian-oriented lifestyles. Finally, reasons that can be described as “practical,” such as location and economics, were cited far less often, as were reasons I coded into the category of “general positive.” This is not surprising, as the practical reasons for choosing a home are likely to recede in importance to a homeowner over time, and the benefits people receive from their homes and neighborhoods seem easier to define over time (Figure 47).

Once more, causality is impossible to prove with this data. However, I can still make some broad conclusions about self-selection based on the information from these responses. Self-selection appears to be a more important influence on people walking in Kentlands than it is in forming community. Many people cited walkability as an influential factor in choosing to move to Kentlands, indicating that a large percentage of people wanted to live in a neighborhood where they could walk. While walkability was still cited as an important reason for presently liking Kentlands, fewer people mentioned it as important and it comprised a smaller percentage of the total responses. It does not appear that the walkable
environment of Kentlands is making an impression on many people who were not already aware of it.

Community-related factors were also often cited as an important reason for choosing Kentlands, indicating that some people saw potential in the neighborhood to lead an active and involved local social life too. Low (2003, 53-71) describes how many people “search for community” when deciding where to live, and that different people believe they will find it in different types of neighborhoods, ranging from suburban gated communities (her focus) to central cities. However, in the case of Kentlands the number of people mentioning community as a reason for presently liking the neighborhood was nearly double the number who cited it as a reason for moving there. Clearly, many people are reaping the benefits of strong community ties in Kentlands. Many of these people, however, either did not see the potential of the neighborhood to influence sense of community, or at least did not find it to be a sufficiently important reason to move there.
Comparing Survey Results from Kentlands to Kensington and Tierrasanta

While the survey results revealed some interesting information about Kentlands, I could not say anything conclusive about Kentlands or New Urbanism without comparing my findings with the survey results from Kensington and Tierrasanta. That being said, because my focus is on Kentlands, I tailor my discussion here on how the results from Kensington and Tierrasanta are similar to or different from Kentlands, rather than what they say about the neighborhoods themselves.

I received 51 surveys from Kensington residents and 49 from Tierrasanta residents. Some respondents from both neighborhoods occasionally left questions blank, however, so percentages listed here may not express proportions of the exact number of surveys received.

Comparison of Transportation Habits

A pronounced trend emerged throughout my analysis of the survey data for all three neighborhoods in which Kentlands produced the most favorable transportation outcomes, followed by Kensington and then Tierrasanta. I define favorable here in terms of the desired goals of New Urbanism, in which automobile dependence is reduced and alternative modes of transportation are more frequently used. This trend was present in every question regarding transportation availability, choice, and usage.

Despite the theoretical availability of all four major transportation modes in each neighborhood, Kentlands residents reported equal or higher levels of availability than did residents of Kensington or Tierrasanta for all modes (Figure 48). The reported actual usage of these modes followed the same trend (Figure 49). Not surprisingly, Kentlands residents reported being significantly more positive about their available transportation choices, both in general and relative to neighborhoods in which they previously lived (See tables in the Appendix for full results).

I attribute the higher use of public transportation in Kentlands to the Washington Metro system, which has a much higher ridership than the San Diego bus and trolley system and which many Kentlands residents use to commute to work in Washington and southern

31 While the choices of “car pool” and “other” were available on the survey in Question 4, I was able to conclude little about the results for each, and thus they have been excluded from this analysis.
Figure 48. Percentage of survey takers from each neighborhood reporting transportation modes available to them from their homes.

Figure 49. Percentage of respondents from each neighborhood reporting regular use of each mode of transportation.
Montgomery County. Nevertheless, the higher levels of reported availability and use of walking and biking says something significant about Kentlands as a neighborhood. The lower figures for Tierrasanta are not surprising, considering the automobile-based built environment and hilly topography I described in Chapter 4; to be fair, over half of the Tierrasanta residents who took the survey reported regularly walking to at least one destination, which I suspect is a far greater rate than one would find in most auto-oriented suburbs. Kentlands and Kensington, however, reported similar levels of use of destination-based walking and biking (with Kentlands slightly higher in both cases). These results are of note because Kensington is the type of traditional neighborhood that Kentlands is trying to emulate, both with its planning approach and with its behavioral outcomes. If Kentlands is meant to recreate the transportation patterns of a traditional urban neighborhood in a suburban setting, then it has succeeded at least relative to Kensington.

Finally, Kentlands also had the greatest rate of success in influencing its residents to use alternative modes of transportation relative to previous transportation habits (Figure 50). Kentlands showed the greatest increases in reported rates of public transportation use, destination-based biking, and destination-based walking. Interestingly, the trend present throughout the data, in which Kentlands displays the most favorable results, is reversed for walking in general, in which case Tierrasanta saw the greatest increase from previous neighborhoods and Kentlands the lowest. This result could be due to the presence of self-selection in Kentlands I discussed earlier in this chapter. If Kentlands residents sought out a neighborhood in which they could walk, it is likely that they were used to the act of walking but perhaps not used to being able to walk to destinations. The possibility of this phenomenon is bolstered by my findings from the interviews, in which five people specifically related to enjoying walking before moving to Kentlands despite at one time living in an environment where destination-based, non-recreational walking was impossible. Indeed, almost half of the respondents from Kentlands (47.1 percent) reported walking only for recreation or exercise in their previous neighborhoods. Perhaps they saw an opportunity to gain the added benefit of being able to walk to amenities in Kentlands. This would account for the merely slight increase in overall walking in Kentlands coupled with the drastic
increase in destination-based walking.

The significance of the increases in alternative mode use in Kentlands became more evident when compared to the percentages of survey takers who reported using their cars for all or most of their transportation needs in previous neighborhoods. While 68.6 percent of Kentlands residents previously used their cars all or most of the time, only 51.1 percent of Kensington residents and 48.9 percent of Tierrasanta residents reported doing so. Thus, not only did Kentlands produce the best outcome, from the perspective of reducing automobile dependence and encouraging alternative modes of transit, it also did so with a group of people who were collectively less accustomed to using other modes of transportation before moving there.

**Comparison of Community-Based and Social Behaviors**

Respondents from all three neighborhoods reported having close friends in the neighborhood at similar levels. Participation in social activities was more varied, however. Overall participation in social activities was greatest in Kentlands (88.2 percent of respondents), followed by Kensington (74.5 percent) and then Tierrasanta (63.3 percent). The
Kentlands residents who reported participating in some kind of local social activity also reported a broader range of types of activities: while socially active respondents from Kentlands participated in an average of 2.02 types of social activity, respondents from Tierrasanta (1.55 per respondent) and Kensington (1.34 per respondent) reported fewer on average. Thus, Kentlands residents are not only more likely to participate in some kind of social activity in the neighborhood, but those who do participate are more likely to participate in multiple kinds of social activity. This data follows the trends visible regarding reported transportation habits in all three neighborhoods, in which Kentlands had the highest rate of use of alternative modes of transportation, followed by Kensington and then Tierrasanta. While causality is still difficult to prove here, the continuation of this trend increases the possibility that the correlation between high pedestrianism and high social interaction in Kentlands is a meaningful one.

Analyzing the types of activities in which the residents of each neighborhood participate reveals some potentially interesting information as well. Informal social activities, such as dinner parties, block parties, barbecues, and time spent with friends, comprised a high percentage of responses in all three neighborhoods, and was the most commonly reported type of activity in Kentlands and Kensington. After conducting interviews and observations in Kentlands, I had thought that a strong presence of organized social activity might be heavily influencing the rate of social interaction there. It seemed possible that a highly organized and broad calendar of events and activities might be more responsible for high levels of social interaction in Kentlands, rather than organic social relationships or factors of the built environment, for instance. Organized interaction, such as membership in common interest clubs, church attendance, and participation in local government, or attendance of special events, such as concerts or seasonal festivals, were indeed important components of social life in Kentlands, comprising 44 percent of the responses among them. However, they were slightly more important in Kensington (45.1 percent of responses) and Tierrasanta (52.1 percent). Thus, if these types of formalized interactions are indeed driving sense of community in Kentlands, it does not appear to be a special case.

The issue of third places that I addressed in Chapters 4 and 5 is also brought to bear here. I observed the third places in Kensington and Kentlands to be busy, but it seemed that Kentlands might be lacking in third places given its population. Indeed, Kensington, with the
most third places despite the smaller size of its commercial district, reported high levels of patronage of local businesses (23.5 percent of responses), while it was less prominent in Kentlands (13.2 percent of responses) and virtually nonexistent in Tierrasanta (4.2 percent, or two individuals, who patronize yard sales and the local farmers market rather than gathering socially at a coffee shop or bar).

**The Presence of Self-Selection in Kensington and Tierrasanta**

I chose Kensington and Tierrasanta for this study because their walkable amenities and available transportation outlets were similar to those of Kentlands. Thus, each neighborhood at least theoretically had equal potential to reduce automobile dependence, increase pedestrianism, and enhance sense of community. The survey takers from Kensington and Tierrasanta, however, were not necessarily looking for these attributes when they chose their neighborhood. Kentlands residents responded at a greater rate that amenities, walkability, and community were collectively more important attributes for choosing the neighborhood than did Kensington and Tierrasanta residents. Perhaps the different ways the neighborhoods are marketed and portrayed influenced these results. For instance, Kentlands residents might have been more aware of their neighborhood’s potential walkability than Kensington residents before moving in, even though both neighborhoods have highly walkable built environments. Interestingly, Tierrasanta residents cited community-related reasons as influential in choosing the neighborhood at a greater rate than did Kentlands or Kensington residents. Most of these responses indicated the survey taker chose Tierrasanta because it was a family-oriented neighborhood good for raising children, physically isolated and safe from crime (similar to the vein throughout Setha Low’s work in which she likens the housing preferences of so many Americans, even those that “search for community,” to one born out of fear). However, community gained greatly in importance among Kentlands and Kensington residents between Questions 2 and 3, while it fell slightly in Tierrasanta. While Kentlands sports higher rates of alternative transportation mode use and local community activity than Kensington, Kensington was not far behind in most cases. In fact, the importance of walkability, amenities, and community grew more for Kensington residents than for residents the other two neighborhoods (Figure 51). It seems that Kensington residents perhaps realized some of the benefits their neighborhood afforded them
Figure 51. Percentage by neighborhood (out of all responses) to Question 3 falling into the three categories representing New Urbanist goals.

only after moving there. Thus, while Kentlands and Kensington achieve similarly positive outcomes regarding transportation and community, self-selection appears to be a more significant factor in producing these outcomes for Kentlands.

CONCLUSIONS

Clear trends were present throughout the data indicating that Kentlands experienced more positive outcomes in achieving the New Urbanist goals of reduced automobile dependence and enhanced sense of community, followed secondly by Kensington and lastly by Tierrasanta. Kentlands residents walked and biked to destinations the most, were the least likely to be reliant on their cars for transportation needs, and appreciated the amenities, walkability, and sense of community present in their neighborhood more than the residents of the San Diego neighborhoods. They were also more likely to participate in social activities in their community, and were more likely to participate in multiple types of activities as well. The magnitude of these differences is amplified by the fact that Kentlands residents were more likely to have lived in neighborhoods in which driving was a necessity and walking or biking to destinations was rare. It is clear that something in the built and social environments of Kentlands is exerting great influence on its residents to reproduce the types of behaviors
for which New Urbanism strives. Also, it is clear that the other neighborhood types, despite similar levels of walkable amenities, did not experience these same outcomes. While the responses from Kensington were often similar to those of Kentlands, they always indicated a less favorable outcome in achieving New Urbanist goals. Tierrasanta’s outcomes were consistently worse in all cases, although it should be noted that pedestrianism and community involvement are still considerably present there despite its automobile-oriented design. This is most likely a testament to the simple proximity of amenities to homes in Tierrasanta. If homes are built close to amenities, then some people will inevitably walk, while other variables in the built environment then determine exactly how many people will walk. Furthermore, viewed holistically, residents of all three neighborhoods appear to be happy with where they live, if for different reasons. Kentlands residents derive great satisfaction from being able to walk to important amenities and from having strong local social ties. Tierrasanta residents, on the other hand, enjoy their peaceful, quiet lifestyle, one that is so often associated with suburban living and which is magnified by Tierrasanta’s isolated location and situation.

What are not clear, however, are precisely which factors of the built and social environments have resulted in these outcomes. In some cases the survey questions fell short of answering some of my research questions. The open-ended nature of some of the survey questions meant that survey takers did not respond to them in ways that might have shed some light on some of my research questions. Furthermore, the nearly ubiquitously high levels of pedestrian travel and participation in social activities in Kentlands made it difficult to derive any specific connections between the two. This indicates a strong correlation, of course, but it is impossible to even guess if it is a causal one. Had fewer people reported walking or local social participation, I might have been able to see if there was a trend in which people who walked were more likely to be socially active, or vice versa.

Finally, much of the evidence from the surveys points to the possibility that self-selection among residents is an important factor in the positive behavioral outcomes of Kentlands residents. The importance placed on walkability, the presence of amenities, and sense of community among reasons for choosing to move to Kentlands indicates that people were looking for these things in a neighborhood. At the very least it seems that they realized Kentlands’ potential to promote these behaviors, whether they were actively searching for
them or not. Thus, it seems likely that rather than the environment of Kentlands exerting influence on its residents to drive less and become socially active, at least some residents actively recognized and sought Kentlands as a place in which they could successfully practice these behaviors. Along with Kentlands “outperforming” Kensington and Tierrasanta in every metric, the evidence indicating the presence of self-selection may be the most salient finding gleaned from the survey data. As I discuss in the next chapter, the interviews also suggest that self-selection is a factor, but suggest a more nuanced situation.
CHAPTER 7

ANALYSIS OF INTERVIEW DATA FROM KENTLANDS

In order to truly understand the nature of community-related behaviors and transportation habits in Kentlands, it was necessary to talk directly with some of the neighborhood’s residents. To that end, during my primary observational visit I conducted a series of 15 personal interviews with a total of 20 Kentlands residents: ten interviews were with individuals, while five were with married couples. The first interview came as a result of my contact with the Kentlands Community Foundation. From there, other contacts were made opportunistically through the snowball method, and I interviewed every resident who expressed a willingness to be interviewed. The interview subjects represented a diversely aged array of people, ranging in age from early 30s to mid 70s. Most, but not all, were married and had children. Some were retired, some had young and school-aged children, while others had grown children who had moved away. Some had moved to Kentlands as recently as the past two years, while others had been there from the early days of the neighborhood’s existence. A few people simply replied to my questions and awaited the next one, while many had a lot of things to say, some of which were not related to the questions I asked. The shortest of the interviews lasted about thirty minutes, while the longest lasted nearly an hour and a half.

The nature of these conversations, however, was far different from how I imagined them to be. While I have structured this thesis so that the discussion of these interviews follows the discussion of the survey data, I should reiterate that what I learned from these interviews influenced the structuring of the survey, rather than vice versa. My original thesis did not ask questions about “sense of community,” a nebulous phenomenon at the center of so much writing on New Urbanism, but one that I anticipated would be difficult to observe or gauge within the realm of this study. After completing my first few interviews, however, it became obvious to me that it was a subject I simply could not ignore. While my focus
remained on transportation habits, I began to allow the conversation to steer towards community-related matters more and more as the interviews progressed.

The interviews were semi-structured; the only true structure by which they were bound was the ubiquitous inclusion of a series of questions and themes I made sure to touch upon during each one, a list of which is included in Chapter 3. Other than my consistent use of the same opening questions (‘How long ago did you move to Kentlands?’, and ‘Tell me about how you came to live here’), I did not ask any of the questions in any particular order, allowing the conversations to progress in whatever direction myself and the subject(s) saw fit. It was because of this open-ended characteristic of the interviews that the topics of sense of community and local social activity were often broached. While it was immediately apparent that local community relationships were an important aspect of their lives, the possibility that there was some kind of relationship between their transportation habits and sense of community, presumably as a result of increased interaction in public space, did not immediately reveal itself.

After completing the interviews, I transcribed the recordings. From these typed transcriptions I highlighted certain quotes and passages that spoke to important themes or ideas related to my research questions, and then coded them into meaningful categories (as described by Crang 2005). Because my focus was initially on transportation, and secondarily on community-related aspects of life in Kentlands, many of my initial codes were transportation-related. Through repeated readings of the transcripts and codes, however, I was eventually able to better visualize the extent of the data and develop a more refined set of codes (Knigge and Cope 2006). As I paid more and more attention to the community-related codes I had developed, I began to notice a trend in which the two might be interrelated. The often-overlapping set of codes I created as a result of this process helped guide my interpretation of the raw interview data (see the Appendix for a list of the most important codes).

What follows is my account of the insight I gained after analyzing the transcripts of the interviews. Throughout this narrative I will relate what I found from analyzing these interviews to my observations and survey data from Kentlands. I begin my discussion of the interviews by discussing how and why these residents of Kentlands make their transportation decisions. I continue by exploring the ways in which sense of community, communitarian
behavior, and social activities are important in their lives, and how the neighborhood’s environment facilitates their development. During my discussion of community-related matters, I offer some commentary on how sense of community and pedestrianism seem to be mutually reinforcing. Finally, I discuss how the information gained from these interviews supports the idea that self-selection is playing an important role in producing the outcomes I observed. Throughout this narrative I also discuss ways in which the information gleaned from these interviews was confirmed by or differed from the survey results from Kentlands.

**The Transportation Habits of Kentlands Residents**

The surveys from all three neighborhoods indicated that rather than being consciously influenced by more subtle aspects of the built or social environment of their neighborhood, people choose their mode of transportation more often because of practicality and convenience: reasons such as time, distance, the weather, and the nature of the trip were nearly universally cited by survey respondents, while aesthetics were cited by just two Kentlands residents and sense of community by one respondent from Kensington. This does not mean that the planning, aesthetics, or social environment of Kentlands have not played important roles in influencing transportation behavior; for instance, elements of the built environment may make it more practical to walk within Kentlands than drive, and the survey takers, in answering the question as it was worded, responded as they did. On the surface, the interviews with Kentlands residents corroborated the idea that practicalities governed transportation choices on a daily basis. All the people I interviewed related to making their transportation choices after some kind of quickly calculated cost-benefit analysis. Variables such as the time available, the distance of their destination, the number of places they needed to visit, what they needed to purchase, the weather outside, and whether they had to negotiate these errands with or without their children were all important enough to mention as important influences on case-by-case mode choice decisions. I originally coded these types of responses as “mundane/practical.”

However, as I began to read further into some of the coded responses I had placed into this category, it became apparent that something more substantial was at play when people were making transportation choices for trips within Kentlands itself. Repeatedly, when asked about the types of destinations to which they would walk or drive, I was told that
driving was usually perceived as a necessity, while walking was seen as a privilege that was to be used whenever possible. “I try to arrange it so that if I need banks or services, grocery stores where I don’t need (to carry) a big load, yeah, I do walk,” stated one retired male who has lived in Kentlands for more than ten years. While on the surface it may appear as if this person’s decisions were governed by practicalities, such as the weight of his purchases, the first words of his statement are more telling: “I try to arrange it.” People such as this man were instead telling me that they walked whenever they could because they were making a conscious decision to do so. Some component of the built or social environment was at play in their cost-benefit analyses that tipped the balance in favor of walking rather than driving (see Cervero 2002, which frames the link between the built environment and travel mode choice in many ways, including monetary and non-monetary cost valuation). To be sure, every person I interviewed owned and used a car and, as I related in my observations of the built environment of Kentlands in Chapter 4, keeping, driving, and parking a car in Kentlands is not logistically difficult. Yet people were telling me that as long as it was not raining and they did not have to carry two heavy gallons of milk home, the benefits of walking, however they defined them, usually outweighed the benefits of driving.

The next step was to look for clues in the interview transcripts and codes that might provide some indication as to exactly what these influential factors might be. This proved to be difficult, however, as many people communicated their decisions as simple normalities: “I just do,” replied a young, married father, relatively new to Kentlands, when asked why he walked within the neighborhood. When asked to elaborate, he said: “Because you can.” While these terse generalities can be interpreted as brusque and without deeper meaning, they point to factors in the built environment that at least enable, if not encourage, people to walk. Of all the quotes I spent time pondering, “Because you can” eventually began to seem the most eloquent in summing up what was at play in influencing pedestrianism in Kentlands. Because important amenities are located close to their homes, and because the routes to these amenities are safe and pleasant in addition to being short, walking to them is not only possible but seems like the reasonable thing to do. It has long been asserted that New Urbanist neighborhoods should improve the “accessibility” of the people that live in them,
meaning the ease with which they can access services and amenities (Handy 1992, Boarnet and Crane 2001).\footnote{Conversely, Weber and Kwan (2003) have found that neighborhood characteristics have far less to do with determining accessibility than do characteristics peculiar to the individuals and households inhabiting the neighborhoods. This study does not account for how choices in transportation mode are made for trips within the neighborhood, however.}

The relationship between the proximity of amenities to residences is easy to understand, and most people did not elaborate much on the matter; either a destination was close enough to walk to or it was not. I was given many detailed reasons, however, why walking routes were more or less attractive due to other variables. First, the interview subjects considered Kentlands to be safe for pedestrians, both from automobiles, for the many reasons I described in Chapter 4, and from crime: several of the women I interviewed described feeling safe even while walking alone at night (an important attribute of the neighborhood, especially given the increased desire to security and safety as described by Low 2003).

Next, the point from \textit{The Charter of the New Urbanism}, in which it is recommended that “streets and squares be interesting to the pedestrian,” (Charter for the New Urbanism) was echoed by many of the interviewees. “I love the fact that I can get lost in my own community,” said a middle-aged woman who has lived in Kentlands for over five years, referring to the neighborhood’s aesthetic variability rather than the less-than-logical organization of its streets. She continued: “I like the fact that (the streets) meander, I like the fact that there’s height and depth (to the buildings), I like the water features, I like the wildlife. It really does my heart good to see wildlife.” Another, a retired man, echoed the sentiment that variability was an important driver of his pedestrianism: “You could take a different route every day of a year and not repeat walks if you wanted to.” The New Urbanist emphasis on variability, exemplified in Kentlands both by the different types of architectural styles and by the interconnected street network that enables multiple possible paths through the community, appears to be important to the neighborhood’s residents. Thus, while the rational practicality of proximity makes walking within Kentlands possible, its interesting aesthetics makes walking desirable.
The people I interviewed in Kentlands also simply seemed to want to walk, and in many ways they have made it a priority in their daily lives. Many of them related to developing a particular walking routine, in which they found the most efficient way to complete their errands within Kentlands on foot. There seemed to be a collective emotional attachment to walking among the people I interviewed, beyond the rational factors that made it an attractive choice. “I just love that I can walk. I’m glad I can do it,” said one younger mother and newer Kentlands transplant matter-of-factly. “It’s lovely, the European feel of just being able to walk. I wouldn’t trade it for anything,” said an older, retired woman. The desire to walk seemed to span functional, destination-based walking and recreational walking as well. “Getting out and walking is an important part of my day, whether I have anywhere I have to go or not,” said another middle-aged man and longtime resident.

Others related various moral, ethical, personal, and political reasons for walking rather than driving, phenomena that Johansson, Heldt, and Johansson (2006) have found to be important factors in influencing transportation mode choice. Regardless of the neighborhood’s transportation habits, a strong environmental ethic exists there, as evidenced not only by the presence of a popular Go Green club, which promotes environmentalism in Kentlands, but by the words of the interview subjects. One middle-aged woman, always an avid walker but never an environmentalist, framed her involvement in Go Green as an act of local politics, despite her self-professed conservative political views and aversion to national environmental organizations. Another woman, a younger mother, described her distaste for those who exclusively drove in Kentlands in no uncertain terms:

“I think that there are some people that are not going to give up on their car regardless, even if they live in this neighborhood. And that shocks me. But those are the same people that are also driving completely politically incorrect cars, and it shocks me why some people live here if they’re not gonna embrace it.”

Most, however, framed their political and ethical opinions in relation to how it affected their behaviors rather than their opinions of others. A desire to not burn fossil fuels, coupled with a desire to shop at local stores, led many of them to limit much of their discretionary travel to within the confines Kentlands. Many I talked to said they would often feel “bad” or “silly” if they drove somewhere within Kentlands, provided the weather or the weight of whatever they were buying did not make walking onerous. Three people I talked
to, without solicitation, admitted feeling guilty for driving to meet me at the local Starbucks
to be interviewed, even despite the dismal weather and, in the case of one, a sick child at
home. Many more told me that they made shopping at stores in Kentlands a priority, not only
out of the convenience, but for the ethical implications of keeping their dollars within the
community. The desire to shop locally, coupled with the ethical or moral compulsion to
avoid using fossil fuels when not necessary, means that many of these people were
expressing their ethics by driving significantly less.

There is a strong possibility that some of the collective “green” ethics present in
Kentlands are a result of the community’s relative wealth and privilege. Alex Williams
(2007) writes that many people define green in terms of consumption patterns, and that the
consumption choices often defined as green are often financially unattainable for a majority
of the population. However, at least in the case of their choice to walk within the
neighborhood rather than drive, these ethics are being manifested by a lack of consumption.

Yet without the right kind of built environment, the desire, the compulsion, or the
ethical decision to walk places would be moot. Some ways in which the built environment
enabled pedestrianism were less obvious than others. One phenomenon I discovered from
reading the interview transcripts was the important impact that saved time had on
pedestrianism. This was not a result of walking being quicker than driving, as it usually is
not. Rather, the environment of Kentlands helps create more available time in one’s day to
make walking more viable.33 In many of the interviews I was told of how people generally
had more free time in their average day since moving to Kentlands. I argue that the
compactness of the built environment of Kentlands, both of the individual homes and of the
neighborhood overall, is responsible for this. Many of the people I interviewed lived in
townhouses, which require far less property maintenance than a large suburban home with a
large yard would. The same young, married father, who described himself as “extremely
busy,” moved into a townhouse in Kentlands from a larger suburban home nearby, which he
had trouble maintaining: “I just couldn’t handle it. No time. The yard, the pool, I didn’t go in
the pool for like two years, you know, (I thought) it’s kind of a big waste to have all this

33 Kim and Kwan (2003), building on Hagerstrand’s (1970) theorization of an individual’s accessibility as
a three dimensional “space-time prism,” write of the close connection between time considerations and the
many variables affecting how people travel through space.
good stuff. So, we moved into a townhouse here, and just the pressure came off, I got about an hour, hour and a half a day of extra time moving in here.” Without having to spend many hours each week maintaining his property, the short amount of extra time that walking somewhere required was less of an issue. While many in Kentlands expressed that downsizing for economic reasons was an incentive to move there, it has had the added byproduct, whether they are conscious of it or not, of providing them with more time as well.

Finally, the compactness of the neighborhood itself provides its residents with generally shorter trips to many important amenities, which saves them time regardless of whether they walk or drive to them. Collectively, this extra time has apparently enabled people in Kentlands to do a number of things for which they previously might not have had time. Because they report that walking is something for which they make time, then it logically follows that pedestrianism is increasing as a result of this extra available time. It also stands that whatever else a Kentlands resident might be interested in doing would also benefit from this extra time. Later in this chapter I describe how the people I interviewed were particularly involved in volunteerism and community-related activities; while I do not revisit the matter of increased free time in that section, I argue here that the extra time afforded to them makes their participation in these activities easier as well.

**ADJUSTING TO THE BUILT ENVIRONMENT OF KENTLANDS**

In addition to whether Kentlands caused its residents to walk within the community, I was interested in whether there was some level of adjustment in transportation habits present when people moved to the community from elsewhere. In particular, I was concerned with whether people could adjust to and take advantage of the availability of walking to places in Kentlands when they had formerly lived in environments were automobile travel was the only viable option. To this end, the nature of the interviews allowed me to more deeply explore the relative importance of the previous transportation habits of Kentlands residents than could the surveys. In addition to asking the interview subjects about what their lives were like in the neighborhoods they lived in before moving to Kentlands, I also asked them about their transportation habits in their formative years. I wanted to know not only if habits formed prior to moving to Kentlands influenced transportation habits in the present, but if such ingrained habits might be rooted farther back in one’s life.
The people I interviewed grew up in a wide variety of places, ranging from New York City to farms in rural New England and Virginia, and inhabited an equally diverse array of places immediately before moving to Kentlands. In short, there was no great correlation between these environments and the transportation choices they now made in Kentlands. During some interviews the possibility of such a connection was directly broached, and in all cases the interviewee replied that there was little or no influence present between how they got around in previous neighborhoods and how they used their transportation choices in Kentlands. There was, however, a theme present in which the interview subjects recognized the potential to walk to destinations in Kentlands when they first considered moving there. This theme was also present in the survey data, in which a high number of respondents cited walkability as an important reason for choosing Kentlands (mentioned by 45.1 percent of respondents from Kentlands, versus 11.8 percent of Kensington respondents and 2 percent of Tierrasanta respondents). During the interviews, though, I was able to delve deeper into why walkability was an attractive asset for those who chose to move to Kentlands. The people who moved to Kentlands from urban environments collectively saw value in the ability to maintain the benefits they reaped from having amenities close by. Those who moved from rural or car-oriented suburban environments saw the same value in being able to walk to amenities, but rather as a pleasant alternative to the automobile dependence to which they were accustomed.

Several interviewees indeed discussed experiencing some type of adjustment into destination-based walking. One middle-aged woman and seven-year Kentlands resident, who before moving to Kentlands lived in Texas and was entirely reliant upon her car to get around, described the experience as like breaking a habit: “It took me a while to realize you don’t have to drive everywhere… You do have to think, you know, I can walk. I can walk around the corner to get a carton of milk, I can walk up to get my hair done, I can walk to the drug store, I can walk to the dry cleaners, I can meet my friends at the restaurant, I can walk to the post office.” Another woman related being used to the physical act of walking, having grown up on a farm, but admitted that there was a mental adjustment to realize that walking could be used as a means of transportation and not merely as a form of exercise. For several others, the proximity of the amenities in Kentlands initially meant that they would only have to drive for a couple of minutes, rather than over a great distance, to reach amenities. All of
the people who related these stories to me now regularly walked to destinations within Kentlands.

**TRANSPORTATION IN AND OUT OF KENTLANDS**

While transportation mode choices for trips within Kentlands are generally between walking and driving, the possibility of public transportation comes into play when it becomes necessary to leave the neighborhood. Two of the interview subjects worked within walking distance of their homes in Kentlands, and another worked from home, but most who still worked commuted. Several among the contingent of six retirees I talked to retired from their jobs after moving to Kentlands, and they too were also able to relate their commuting stories. Retired or still working, most of them worked either in Washington itself or somewhere in Montgomery County between Gaithersburg and Washington. For those that did commute, sheer practicality usually outweighed other factors in how they got to work. Most either drove directly to their job, or drove to either the MARC station in downtown Gaithersburg (to which there is no direct public transportation available from Kentlands) or to the Metro station in nearby Shady Grove. Even the choice of riding the MARC or the Metro into Washington was framed as one of convenience and practicality. According to the interview subjects and my own observations and experiences, parking is difficult and expensive in much of Washington, gasoline is expensive, and traffic on Interstate 270 and the Beltway can be very heavy during rush hours, making either rail system an easy choice over driving.

There is a bus line serving Kentlands that goes to and from the Shady Grove Metro station, and most of the people I interviewed had utilized it at some point. Some even went as far as riding it daily at one time or another. Yet none of them stuck with riding the bus, for the same reasons I observed when I rode it: service is too infrequent, and depending on the time that one’s Metro train arrives at Shady Grove, the wait may be up to one hour for the return trip to Kentlands. Because of this, driving to Shady Grove was the norm for the residents I talked to. Even though they may relish being able to walk and not being beholden

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34 The six retirees represent two individuals and two married couples.
to their cars, it seems that practicality is still the ultimate influence on their transportation choices.

Nevertheless, many of the people I interviewed expressed a strong moral or philosophical commitment to public transportation in general (see again Johansson, Heldt, and Johansson 2006). Several of them cited this as the reason for even attempting to take the bus from Kentlands to Shady Grove. “I really believed in taking public transportation,” lamented one woman who used to work in central Washington and eventually had to abandon taking the bus because of its inconvenient return schedule. Even if the bus lines through Kentlands are underutilized, the attitudes expressed by the people I talked to indicate that, if executed differently, public transportation in general could thrive in Kentlands, further reducing automobile use. These attitudes alone are contrary to the way most suburbanites view public transit (see Baldassare, Ryan, and Katz 1998), though several of the people I talked to indicated they observed a stigma against riding the bus present among many of their neighbors. A proposed light rail line that would connect Kentlands with Shady Grove or the Rockville Metro station may go a long way towards taking advantage of the existing positive attitudes about public transportation exhibited by the people I interviewed, while catering to the large number of people who cannot be convinced to ride a bus.

Of course, a job is not the only reason a Kentlands resident might need to leave the neighborhood. Some amenities are lacking in Kentlands, and sometimes even the amenities available within Kentlands are not as attractive as competing amenities outside of the community. In these cases, driving is a virtual necessity. Unfortunately for the prospects of reducing automobile use, much of the retail in Kentlands was described to me as less attractive than retail available elsewhere in Montgomery County. Certain types of stores, such as a bookstore and a pharmacy/convenience store, were often described to me as desirable retail locations that Kentlands was lacking. There is a CVS in the retail area near the public library and Quince Orchard High School, well within walking distance for many in Kentlands and even closer for some than Market Square, but several people told me that they would rather drive there than cross the busy multi-lane roads on foot (see again Figure 19). The two other competing retail areas I mentioned in Chapter 4 (the Lakeforest Mall and Washingtonian Center) were also popular shopping destinations for many of the people I talked to. In an ironic twist, one of them, a semi-retired man and longtime resident who took
pride in walking in Kentlands, admitted to regularly driving four miles to the Washingtonian Center because he preferred the gym there to the Bally’s location in Kentlands. While this individual case does not say anything profound about Kentlands’ ability to promote pedestrianism, it speaks loudly as an example of the need to provide meaningful destinations in order to drive pedestrianism. While the Kentlands residents I interviewed still found plenty of places worth walking to in their neighborhood, they expressed a general dissatisfaction with some of them, and lamented what Kentlands’ commercial center could be if certain stores or businesses were replaced with others.

COMMUNITY-RELATED LIFE IN KENTLANDS AND HOW IT IS INTERRELATED WITH PEDESTRIANISM

The interviews I conducted in Kentlands corroborate what the surveys told me about community-related behaviors in the neighborhood. People in Kentlands lead active social lives, have close personal relationships with some and cordial relationships with many of the neighbors, and are often involved in multiple veins of formal social activity, such as organized clubs, volunteerism, or neighborhood committees.

The particular people I interviewed reported high levels of volunteerism. Almost all of them were either currently active or had formerly been active in some way with the Kentlands Citizens Assembly, the Kentlands Community Foundation, or one of their numerous associated groups and committees responsible for maintaining the built and social environments of the community. Because of the strictly regulated and maintained environment of Kentlands, many such positions and committees exist, requiring the involvement of many people. *The Kentlands Community Directory and Information Guide* (2008, 5) includes a calendar with 49 organized social events throughout the year, each of which must be planned and implemented. The opportunities to take part in these events, coupled with the opportunities to volunteer to help make them happen, are numerous.

Whenever the conversation was steered towards volunteerism, however, few if any concrete reasons were given as to why it was so important in Kentlands, or at least among the particular people that I talked to. As much as it seems to be with pedestrianism, volunteerism appears to be something that the people I interviewed enjoyed doing or felt obligated to do. In both cases, when speaking of the reasons for walking or the reasons for volunteering, I was given little direct indication as to what drove this compulsion. While I tried to avoid
asking questions that were worded to prompt responses, in some interviews I directly asked whether there existed a culture of volunteerism (and pedestrianism, for that matter) present in Kentlands, in which residents explicitly urged other residents to volunteer and take part in community-related activities. While a few of the interviewees related rare instances in which they urged friends to become more involved in the community, it seemed to be just a rare occurrence. Furthermore, none of the people I asked reported to being urged themselves to participate in the community. While a culture of participation and volunteerism exists, it appears to self-propagate by example rather than through direct encouragement.

Other factors may be at play, however. Evan McKenzie, in addition to acknowledging the simple need for volunteers that the presence of a private homeowner’s association creates, writes that less-than-altruistic motives, including maintaining or increasing one’s own property values or simply a desire to wield power, may influence the high levels of volunteerism observed in some communities (1994, 183-184). As one might guess, none of the people I interviewed cited one of these reasons when discussing their volunteer efforts. While a desire to maintain property values is surely an important component to so many decisions made by stakeholders in Kentlands, I argue that it is not a primary influence in promoting volunteerism there. I contend that the biggest driver behind property value maintenance in Kentlands is the enforcement of its stringent design code. The design code was crafted by DPZ from the neighborhood’s inception and has been altered very little since; thus, it seems unlikely that much volunteer work in Kentlands is done with the intent of self-enrichment, as whatever power a volunteer might have within Kentlands likely has little influence on property values. The design code, while perhaps repressive of individual expression, has maintained a distinct aesthetic in Kentland. These aesthetics were often cited as an important factor in influencing people to choose a house in Kentlands, and for influencing positive feelings about the neighborhood in general, and are likely more influential in reinforcing home values than are the actions of any individuals in Kentlands. Furthermore, despite well-documented instances of residents feeling resentment towards the powers of their homeowners associations (e.g. throughout Low 2003), I received only one complaint about the KCA’s actions or authorities: a single survey respondent was upset about the cost of maintaining the cedar shake roof that all Kentlands residents must have.
One thing that became apparent during the interviews and the subsequent analysis is that abundant avenues exist through which Kentlands residents may observe and emulate their neighbors. More simply, people in Kentlands often see their neighbors and interact with them, deliberately or not. A prominent theme emerged from the interviews in which Kentlands residents described a strong culture of open, public life in the neighborhood. After I conducted my first few interviews and noticed a trend of outgoing, publicly oriented people, I became interested in finding people to interview who might offer a different perspective on life in Kentlands. I began to ask the people I interviewed whether they knew someone in the neighborhood who was not active in the community in some way, with the hopes of interviewing such a person. While it stands that someone not involved in the community would be less likely to know other members of their community, many of the interview subjects did relate to knowing such people. However, in multiple cases I was told that these people were not happy in Kentlands and had moved.

Rather than having to draw my own conclusions as to what caused this unhappiness, I was told directly by several people: the density of the built environment means that people are often visible to their neighbors. Houses are close to one another and to the street, and while the row houses in particular are deliberately raised up from street level to afford residents some privacy, pedestrians can often see people inside their homes and vice versa. While even the attached townhouses have private yards, they face onto communal alleys and are directly adjacent to neighboring yards, so that immediate neighbors can see each other’s yards from their own homes and yards. Furthermore, while only a few residents I interviewed had front porches, those who did used them. Just as New Urbanist design theory had intended, these porches were serving to make people more spend more time in publicly visible space. The environment of Kentlands is designed for people to see and be seen. Those who are not comfortable with this arrangement, I was told, do not enjoy living in Kentlands and often leave. While traditional suburbs afford private, shy, or reclusive people the ability to remain private, Kentlands does not. So, while self-selection is an important factor in attracting residents to Kentlands and producing the transportation choice outcomes visible there, the environment of the neighborhood appears to further select the types of people that inhabit it by causing certain types of people to move away. This, however, represents what Setha Low describes as the other outcome of strong sense of community: the dividing of
people into groups of “insiders,” who are socially active in the community, and “outsiders,” who for whatever reason do not feel welcomed into the tight-knit social structure of the community (Low 2003, 65). While the people I interviewed might describe these outsiders as reclusive, it may be the case that some of these people completely opted out of the social structure of the neighborhood after feeling excluded for some reason.

The other result of the pushing out of certain kinds of people is that those who remain are particularly attuned to living a lifestyle in which they are in active and engaged relationships with those around them, be they close friends or merely cordial neighbors. One couple, longtime residents living in their second home in Kentlands, lamented that their new home did not have a front porch (as their old one did), and because they missed the interactions they experienced from their porch they went so far as to recreate the experience with chairs in their front yard. While the active courting of random interaction on the part of that couple may be an extreme example, virtually all of the people I interviewed described some level of openness towards meeting new people through a variety of avenues. Other ways of meeting people in the neighborhood that Kentlands residents described to me included: participation in a wide variety of mutual interest clubs; random interactions at the community swimming pool in the summer; bringing their children to one of the numerous playgrounds scattered throughout the neighborhood; and walking their dogs (which McNichols and Collis 2000 show to have a positive effect on random interaction). For example, one extremely busy woman I interviewed even described her closest friends in Kentlands as people she met walking her dog.

In addition to the potential for random interactions between parents who bring their kids to the playground, the people I talked to who were raising or had raised their children in Kentlands described other ways in which their children’s lives enhanced their own relationships within the neighborhood. For instance, the PTA and other activities at Rachel Carson Elementary School serve as an important outlet for many. The school’s important role in the community was made evident by the number of bumper stickers I saw in the neighborhood that advertised the school as if it were an elite university. Also, the pool in Kentlands, in addition to serving as a popular gathering spot, plays host to a youth swim team that was formed organically by a group of parents rather than by authorities from the neighborhood government. Several people described the swim team as integral to the
formation of their local social lives; one person I interviewed even said he met his best friends through their children’s mutual participation on the swim team. However, while the outcomes associated with access to the community’s pool are positive, they provide another example indicating that the relative privilege and wealth experienced by Kentlands residents is a significant influence on achieving some of New Urbanism’s goals. A HOPE VI project with neotraditional design characteristics would likely not have a pool, for instance, and thus would not benefit from the community-building activities that are afforded to Kentlands residents who use the pool.

The phenomenon of adults meeting other adults through their children’s activities is not unique to Kentlands or to anywhere; interaction through kids-related activities was one of the five major types of local social interaction, according to my coded survey responses (see Chapter 6 and Appendix). One couple that moved to Kentlands after raising their children in an automobile dependent suburb described the PTA as their only outlet for local social interaction. They added, however, that they never became friends with any of the other parents, possibly because their interaction with them was limited exclusively to PTA meetings. What might make Kentlands special, then, is that after an organized interaction takes place, such as participation in the PTA, the built environment of the neighborhood facilitates further contact and interaction between the same people, enabling more meaningful social relationships to develop. In the way the New Urbanist literature has spelled out the mechanism, it is expected that random public interactions between people who do not know each other will bolster sense of community. It seems more likely, though, and more realistic, that people who have already met through some more formal avenue of interaction will be compelled to strike up a conversation should they see each other later in public. Said one resident about making friends with other swim team parents:

“These people that didn’t have the opportunity to talk to each other are now talking to each other, and all of a sudden, they find out that they have something else in common… once you’ve had that contact, walking the neighborhood you’d see some of those same people in a different context, and so for me those other contexts would deepen the relationship that had started there.”

The above quote and other similar stories serve as evidence that pedestrianism in the New Urbanist environment of Kentlands can bolster sense of community. I also found some evidence in the interview transcripts that the mechanism is working in reverse: people talked about the strong sense of place and community they felt when walking in Kentlands, and
described how experiencing these feelings made walking a more desirable activity, be it for pleasure or to a destination.

In some cases, this message came subtly. When asked about what influenced them to walk, people generally first talked in terms of practical reasons, and only later (and often indirectly) related that the experience of walking was enhanced by a sense of connection with and belonging to the neighborhood. One way I became aware of this was because of the frequency of Halloween as a conversation topic. Several people told me similar stories about the transformative experience of their first Halloween in Kentlands, and those who did made a point to emphasize how important the occasion is for life in the community. Similar sentiments were expressed by even by a retired couple who did not raise their children in Kentlands. As described to me, almost everyone in Kentlands is either on the streets or in their homes giving out candy. One person in particular then spoke about remembering how the powerful, community-driven experience of Halloween made him feel when walking in the neighborhood later. Be it because of a singular experience like Halloween or through a general feeling of connection or sense of place within the community, the pedestrian experience is enhanced for people in Kentlands, which might then encourage them to walk more.

Others described community-based incentives to walk in more direct terms. Since these people had strong social ties within the community, and since they knew that their friends would often walk in the community, walking provided an opportunity for them to see these friends. One middle-aged man, a longtime resident with grown children, described how the regular occurrence of seeing someone he knows while walking in Kentlands has altered the way he plans his day. For instance, if he has to run several errands on foot that should take an hour to complete, he said he budgets about two hours to the task because he generally expects to stop multiple times for conversation with people he knows. He joked that even a trip to retrieve his mail merits budgeting five minutes, but that it was a routine he eagerly anticipated.

Finally, in addition to providing a social and built environment that facilitates interaction, Kentlands residents described how particular spaces within their neighborhood made socialization easier. While my firsthand observations and the survey data have led me to believe that the neighborhood would benefit from the introduction of more third places,
the gathering places that do exist in the neighborhood are at least well utilized by the neighborhood’s residents. At the suggestion of the subjects, I conducted about half of the interviews in these third places, most of which took place in the local Starbucks (one took place in a popular wine bar in Market Square). The importance of these gathering places, both in facilitating new social relationships and in maintaining existing ones, was made obvious to me by the frequency with which they were mentioned during interviews. As if what I was told during the interviews was not enough to prove this point, on several occasions a friend or acquaintance warmly greeted the person I was interviewing; in one case this person agreed to an interview when I finished talking to his friend.

Open and public spaces also served an important role in bringing members of the community together. In addition to the pool and playgrounds, residents spoke of virtually all the outdoor space in Kentlands as civic space in which interaction was encouraged or even expected. This, too, falls conveniently in line with a prominent point from The Charter of the New Urbanism, which states: “The primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.” Without elaborating further on how the architecture and planning of Kentlands has helped achieve this, the end goal of this point, in which streets are seen as spaces to be shared and used by all, has been unequivocally achieved, at least according to the people I interviewed and surveyed. I was told numerous stories of small- and large-scale organic interaction on the streets of Kentlands, including porch, alley, and block parties, neighborhood-wide games of capture the flag, and the aforementioned Halloween festivities, and observed repeated mention of these types of activities in the surveys.

The one area in which Kentlands did not appear to meet New Urbanism’s social goals was a stated lack of interaction between people of different ages. This is not to say that there is not a diversity of age cohorts within the neighborhood, as there clearly is. Rather, these cohorts do not interact as much as New Urbanism’s diversity-oriented goals predict they should. While three people indicated they consciously appreciated the diversity in age among their neighbors, I heard far more stories of people who seemed to interact almost exclusively with people close to their age. For example, three of the retired couples I interviewed talked of the numerous local clubs and organizations to which they belonged, both formal and
informal, where they got together with other local seniors. On the other hand, a father in his thirties quipped to me: “There’s so many retirees here, and I don’t know any of them.”

**THE ROLE OF SELF-SELECTION**

The interviews I conducted indicate that the social lives of Kentlands residents are busy, broad, and fulfilling, and that everyone regularly walked to destinations in the community for a variety of reasons. The question remains, however, of whether these people moved to Kentlands because they were seeking a place in which they could enact these behaviors, or whether the neighborhood actively changed the way they behaved. The survey data suggests that many people were at least initially attracted to Kentlands for its potential to provide such a lifestyle. My interpretation of the interviews corroborates this to an extent, but not as strongly. Everyone I spoke to recognized that the amenities in Kentlands would make their lives more convenient. Nearly everyone also realized that walking in Kentlands was safe and easy. However, not everyone immediately made the connection that they could combine the proximity of Kentlands’ amenities with the walkability of the built environment to complete their errands on foot: the convenience of a two-minute drive rather than a ten-minute walk was often mentioned during the interviews. Even the people I talked to who described an immediate transition from an automobile-dependent lifestyle to walking in Kentlands mostly described their reasons for choosing the neighborhood in other terms. While practical reasons such as location and cost were important reasons for choosing a house in Kentlands, the most prominent theme that emerged was one I call “love at first sight.” The people I interviewed heard about Kentlands through various avenues, such as random conversations on airplanes or because family members had been contracted to do work during the neighborhood’s construction. Regardless of the means by which people learned out about Kentlands, many seemed to want to move there as soon as they laid eyes on it; many described the aesthetics of the neighborhood and of the individual homes as important reasons for this. The survey data revealed that the aesthetics of the community were an important influence on attracting residents (15 of the 51 survey takers listed aesthetic reasons for choosing Kentlands), yet it was difficult to draw any meaningful conclusions about their importance simply by taking this number at face value. The interviews revealed
just how important they could be in attracting residents and in enhancing the sense of place and driving pedestrianism in the community.

Still, some of the people I interviewed saw Kentlands as its New Urbanist designers would probably hope them to. Many immediately saw the potential to walk to the neighborhood’s amenities, and immediately did just that. Some said the aesthetics and layout of the neighborhood led them to instinctively believe that they would encounter a strong sense of community there, without knowing about how New Urbanist planning and theory tries to accomplish it. One man, who had lived in numerous places throughout the country before settling permanently in Kentlands, described the process by which he chose where to live this way: “Personally, what really affected where we moved was the quality of the people I thought I was gonna get when I moved there. And I always didn’t get what I expected, but that’s, for me what (influenced decisions). Luckily, I got the right people here.”

Finally, in the most obvious example of self-selection possible, two people I interviewed were even acutely aware of the principles of New Urbanism, and related to knowing exactly how they were supposed to influence pedestrianism and sense of community, before moving to Kentlands. It seems that the New Urbanist brand has become sufficiently well recognized that some people are seeking to live in Kentlands simply because they know it as an example of New Urbanism.

Even if all the residents of Kentlands selected themselves to live in the neighborhood to fulfill a desired lifestyle, the positive outcomes that Kentlands has produced would still exist. The most obvious remaining question about self-selection, then, is whether we should temper our views on the efficacy of Kentlands to produce these outcomes, or whether we should only be concerned that the outcomes have been produced. I offer my conclusion to this question, as well as some other conclusions and discussion of avenues of possible further research, in the next and final chapter.
CHAPTER 8

CONCLUSIONS

My interest in New Urbanism was born out of skepticism. I initially became interested in an ongoing development in northern San Diego called Del Sur that was using some neotraditional design principles, which I proceeded to visit and observe. Before looking at Del Sur, my previous knowledge of New Urbanism was confined to limited classroom discussion and popular media accounts of the Walt Disney Company’s town of Celebration, Florida. I was not impressed with Del Sur’s attempt to recreate the image of urbanity in a suburban location isolated from jobs, amenities, and public transportation. While I found it preferable to many of the other subdivisions near it, I did not see the point in a community that offered only a few of the advantages of urban life but not most of them. From there, I began to learn more about New Urbanism, which eventually led me to this project. I remained skeptical throughout much of the preliminary research, even as I learned about communities like Kentlands that do far more than places like Del Sur.

The way I criticized Del Sur was reminiscent of so many of the criticisms I have read of New Urbanism that find fault in what it is not rather than what it is. Del Sur at least had walkable streets, a dense configuration, and recreational amenities, with plans for mixed-use and commercial development later on. These attributes should prove beneficial to the neighborhood’s residents in the future. So many of the principles of New Urbanism do not require further theoretical vetting: years of urban history and research in the fields of geography, sociology, planning, and public health have proven that certain designs work and others do not. The problems with New Urbanism, then, are those of implementation. The questions remain whether these same principles are applicable in a suburban setting, and which of these principles are more or less important in producing the desired outcomes of New Urbanism. I struggled with finding a single development to use as a case study site for this thesis because no single community fully embodied every aspect of New Urbanist planning theory. To me, Kentlands’ greatest shortcoming was, and still is, that it is not a
transit-oriented development, despite the bus lines that serve it. Other communities I considered fell short of completely fulfilling New Urbanist ideals in their own ways.

However, once I settled on Kentlands and learned more about its built environment and its people, it became obvious that it works in the ways in which it is supposed to work. Its lack of reliable and well-used public transportation, particularly direct access to light rail, is a function of circumstances, resulting from a disconnect between private developers and local or regional political entities and public planning agencies, rather than of its design. There are plans for a light rail system, called the Corridor Cities Transitway (CCT), which might serve Kentlands, but funding problems have pushed back groundbreaking on the project until 2016 at the earliest (according to Ron Robinson, a planner with the City of Gaithersburg, during an interview conducted 7 January 2009). Financial and political problems such as these have persistently prevented Kentlands and countless other planned communities from evolving into more functional neighborhoods, despite the best intentions of all parties involved. If Kentlands is ever directly connected to light rail its ability to reduce automobile dependence will surely improve, but until then it is easy to be critical of this shortcoming. However, I argue, like Ford (1999) and Ellis (2002), that instead the discourse should focus on how the individual principles of New Urbanism work in concert in any single development, and that developers should focus on implementing as many of these beneficial principles as circumstances allow. Rather than discussing what Kentlands could be, then, this thesis is about what Kentlands is capable of accomplishing now. Next, I will spend the remainder of this thesis discussing how and why Kentlands has been successful in fulfilling its New Urbanist goals, the ways in which it may have fallen short, and discuss possible further avenues for research in this field.

**Behavioral Outcomes in Kentlands: An Example of New Urbanist Success**

Unequivocally, people walk to destinations in Kentlands. While I did not seek to quantify the extent to which they walked, the survey and interview data both indicate that nearly everyone in Kentlands takes advantage of the walkable design of the community. I originally predicted that some people might have developed a reflexive habit of using their car despite the walkability of the environment, but found little evidence of this. Perhaps it is the case that transportation habits generally do not become ingrained and reflexive, and that,
as Moudon et al. (1997) found, if given safe routes and amenities to walk to, most people will walk. Many of the subjects in this study reported living in car-dependent suburbs before moving to Kentlands, and even these people almost unanimously reported regularly walking to destinations in the neighborhood. I found no correlation between previous neighborhood habits and current habits, nor did any evidence emerge during the interviews in which habits, patterns, or preferences for transportation modes developed in one’s formative years.

Beyond the fact alone that people walk, various elements in the built and social environments of the neighborhood are successful in influencing them to walk. The neighborhood’s density, interconnectivity, and mixed use planning put destinations within reach for pedestrians. Defensible space and traffic calming make these walking routes safe, and an emphasis on aesthetics makes the routes attractive and interesting. It remains difficult to say which of these elements are more or less important than the others; I easily observed all of them in the environment, and they were all mentioned often throughout the surveys and interviews. Even something as simple as the inclusion of mature trees has had a major impact on influencing pedestrianism in Kentlands: during the interviews, one couple claimed they never would have moved there if not for the trees, while another woman mentioned how the trees in Kentlands set it apart from King Farm, another neotraditional community nearby, within walking distance of the Shady Grove Metro station, that lacked large trees.\textsuperscript{35} Trees are not unique to New Urbanist communities, of course, and can be found in abundance in many car-oriented suburbs. Thus, density, amenities, and the myriad variables that makes walking safe stand out to me as the most important elements of the built environment working in Kentlands favor towards influencing its residents to walk, particularly in a suburban setting where these attributes are rarely found.

While public transportation is only moderately used in Kentlands, both the surveys and interviews indicate that the attitude towards alternative modes of transportation is positive in Kentlands. My research questions did not specifically ask about attitudes regarding transportation modes, but the data revealed useful information to that end regardless. I argue that, for many of the same ethical and political reasons people in

\textsuperscript{35} King Farm was in the nascent stages of its settling and development when I conducted my research, and its commercial center was not yet complete. Had it been complete, it would perhaps have served as a more interesting case study site, due to its proximity to light rail.
Kentlands cited for walking rather than driving, they are open to the idea of public transportation as well. I do not know whether these attitudes are common in other New Urbanist neighborhoods, but it leads to the intriguing question of whether the built environment of a neighborhood can even influence attitudes about transportation. Simply put, though, Kentlands is effective in enabling or encouraging its residents to drive their cars less and use other modes of transportation more.

The social environment also plays an important role in driving pedestrianism. People in Kentlands feel a connection to their neighbors and to the community at large, both because they participate in myriad locally based activities in Kentlands and because the built environment makes people visible in public, almost forcing interaction to take place. At the very least, these strong feelings of connection to the community enhance the experience of walking in Kentlands. It was difficult to tell whether there was a direct causal relationship between pedestrianism and one’s level of involvement in the community, though a strong correlation exists between the two in Kentlands. Data from Kensington and Tierrasanta support this as well, as a trend exists in which Kentlands produced better outcomes both in reducing automobile dependence and increased community involvement than Kensington, and Kensington better than Tierrasanta.

Comparing Kentlands to Kensington and Tierrasanta was a particularly useful element of this study. While I would not have been surprised to see strikingly similar behaviors in all three neighborhoods, this was not the case. Kentlands was clearly differentiated from the other two neighborhoods in the behavioral outcomes of its residents, despite seemingly equal outlets for transportation choice and community involvement. This was especially interesting, given that Kensington is precisely the type of neighborhood that New Urbanism tries to emulate. For Kentlands to outperform Kensington in this study, even if only narrowly by some metrics, speaks loudly of Kentlands’ success in achieving the goals of New Urbanist design.

My observations shed some light on the reasons behind the differences in transportation habits between the three neighborhoods: as I described in Chapters 4 and 5, the built environment of Kentlands makes walking easier, safer, and more pleasant for a variety of reasons. The reasons for the differences in community involvement, however, are more difficult to determine. Evidence from the interviews suggests that the built environment of
Kentlands helps evolve pre-existing acquaintances into deeper friendships, because its density places people in public space more often. If planning cannot create sense of community at all, as Emily Talen (2000b) suggests, then perhaps this is the extent of the built environment’s agency in promoting sense of community in Kentlands. In another study, Freeman (2001) found no correlation between density and the formation of social ties in suburban neighborhoods. If one takes Freeman’s findings at face value, then something else must be occurring in Kentlands to promote sense of community. Perhaps the people who have moved to Kentlands are simply predisposed to becoming involved in the community. Whatever the case may be, people in Kentlands reported higher and broader levels of community involvement than were found in Kensington and Tierrasanta, and also reported a higher rate of positive feelings associated with their friendships than did residents of the other two neighborhoods (See Table 11 in the appendix). Clearly, sense of community exists in Kentlands and is integral to its success as a place, whether the built environment is responsible or not.

**PROBLEMS, SHORTCOMINGS, AND AVENUES FOR FUTURE RESEARCH**

Some of the most interesting and easily understandable results from my study came from the survey data. The surveys benefited greatly from the information I gained from the interviews, which enabled me to slightly reconfigure the surveys. Conversely, because interviews are generally a much richer source of qualitative data, this study might have benefited further if I had allowed the surveys to inform the interviews instead. I could have asked more involved or direct questions about exactly how social links developed in Kentlands, about the reasons responsible for the positive feelings experienced when walking through the neighborhood, or other interesting themes that emerged in the interview transcripts but which I could not pursue much further given the scope of this study. Had my study site been located closer to San Diego, repeated observations and follow-up interviews might have enabled me to further explore these themes. Even with allowing the interviews to shape the surveys, the surveys still had some possible shortcomings. I likely would have gained more useful information if I had asked about the frequency with which residents used various modes of transportation rather than the destinations to which they traveled. Demographic information, such as age, ethnicity, gender, and income would also have been
useful, given the lingering questions about the agency of wealth, privilege, and homogeneity possibly having significant influence on the strong sense of community in Kentlands.

Conducting interviews in Kensington and Tierrasanta also would have enriched my analysis and strengthened my ability to compare them to Kentlands. Furthermore, it is generally hard to compare behavioral outcomes between different neighborhoods because there are too many variables at play. While the survey data exhibits clear trends between the neighborhoods, more such comparative studies are needed to say for sure whether New Urbanism really outperforms other neighborhood types or if Kentlands is merely a special case. While some obvious trends and correlations emerged from the survey data I collected from all three neighborhoods, it was difficult to establish causality or even direct correlation between the themes of pedestrianism and sense of community. While I did not expect to find much evidence linking the two, many themes became apparent in the interviews suggesting that the two were not only linked but that they were mutually reinforcing. It would certainly be possible to conduct a study, using either quantitative or qualitative methods, that focuses solely on further exploring this link.

There was also likely some inherent bias on the part of those who chose to participate in my study, and particularly in those who agreed to be interviewed. While the high rates of volunteerism present among the interview subjects was also somewhat visible in the survey data, many of the people I talked to had been deeply involved in the organized reproduction of Kentlands as a successful New Urbanist place. Although as residents they were still exhibiting the behaviors that New Urbanism is designed to promote, they likely represented an above-average level of commitment to the lifestyles and behaviors that Kentlands tries to foster. During the interviews, the theme of “buying in” often arose, in which many who move to Kentlands begin to become consciously aware of (and act upon) what makes their neighborhood special. Heath et al. explore the notion of buying in, and even note a strong correlation between neighborhoods with high rates of residential buy-in and high rates of pedestrianism (2006, S63). I can confidently say that everyone I interviewed had “bought in.”

While the recruiting methods available to me led me to a less-than-random sample of the population, I may have found the results to be slightly different had I been able to recruit a wider range of people.
As previously mentioned, I also have concerns that, despite a diversity of ages in Kentlands, its otherwise homogenously wealthy and white population may be somewhat responsible for some of the positive results I found there. If, as Falconer-Al Hindi (2001) suggests, homogeneity positively influences sense of community more than other variables, then some of the potency of the built environment is lost. Even homogeneity in the built environment, as maintained through the enforcement of strict design and maintenance regulations, may help reinforce the collective attitudes of the neighborhood that influence sense of community. Whether this is the case for Kentlands is impossible for me to say, but because of Kentlands’ success in achieving New Urbanist goals, there is great promise for HUD’s HOPE VI program, in which low income housing is incorporated into neotraditional developments. If future studies can show that pedestrianism and, more importantly, sense of community can flourish in HOPE VI developments, then concern over the agency of homogeneity may be less warranted.

Both of the previous two concerns once more bring about the question of self-selection as a possible influence on the behavioral outcomes I observed in Kentlands. The interview and survey data suggest that self-selection has indeed played a role producing the positive outcomes I found in Kentlands. Further, self-selection may very well increase in Kentlands, as the recent rebranding of the community’s web site has been enacted with the goal of playing up its New Urbanist principles and attracting people eager to lead a lifestyle that the environment of Kentlands can provide (according to Adrienne Gillen, KCA president, during a personal interview conducted 6 January 2009). The positive outcomes in Kentlands remain, of course, regardless of whether they were caused strictly by the built environment or almost entirely as a result of the predispositions of the residents. I argue that the problem of self-selection is more philosophical than policy-oriented; if the outcomes are positive, then the question is whether we should concern ourselves with how they were achieved. If New Urbanism is merely fulfilling a market demand for walkable communities in suburban contexts, in the end it is still reducing automobile dependence and the means are irrelevant. If one is concerned with working towards creating a built environment that can truly transform behaviors, then self-selection is an important variable that must be rigorously accounted for. If it is desirable to eventually replicate the principles of New Urbanism in more varied settings and for a more varied market, such as low-income homebuyers, then we
should be concerned with whether the built environment is responsible for positive results. No such debate exists in the theoretical literature on New Urbanism, though perhaps one should.

Lastly, in addition to encouraging more empirical work on New Urbanism in general, I also see room for far more qualitative and ethnographic empirical research on individual communities. Douglas Frantz and Catherine Collins’ (1999) account of their time living in Celebration, Florida, during its nascent years is currently the only such account, but the authors admit that, despite everything they learned, the newness of the community made it difficult to draw any hard conclusions about what it might become. Similarly approached accounts of more mature New Urbanist communities, such as Kentlands or even Celebration today, might offer deep and valuable insight into how such neighborhoods truly function with regards to their transportation habits and community structures.

**Final Thoughts**

In writing this thesis I have tried to explore how people in a prototypical New Urbanist community use and are affected by the space of their neighborhood. While my original goal was simply to test the efficacy of the built environment of Kentlands towards reducing automobile dependence, aspects of the social environment and the heavily interconnected relationships between the social and built environments became increasingly apparent. Despite my initial skepticism, Kentlands surprised me with how successful it was in meeting the stated goals of New Urbanism. In a series of mechanisms far more complex than most of the literature would have one believe, which Emily Talen refers to as “catalytic” (1999, 1372), its built environment is reinforcing positive aspects of its social environment, which are in turn resulting in a more enlightened use of the built environment by its residents in the form of increased pedestrianism. While increased pedestrianism may be the most obvious end goal of New Urbanism, and the one with the most easily identifiable policy implications, it may not be the most noble of its goals: “From the beginning, I’ve always thought the idea behind Kentlands was about community,” told me Mike Watkins, a former Kentlands town architect with DPZ and current resident (during an interview conducted 8 January 2009). In addition to the extensive exploration I have conducted into how transportation works for the residents of Kentlands, I hope I have at least scratched the
surface of how social relationships in Kentlands affect and are affected by transportation habits.
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APPENDIX

SURVEY MATERIALS AND RESULTS
COMPLETE SURVEY

1) How long have you lived in Kentlands?

2) Why did you choose to move to Kentlands?

3) What do you like about Kentlands? Is there anything you think is special about it?

4) Circle all of the modes of transportation that are generally available to you from your home.

   Automobile  Public Transportation
   Bicycle    Car pool
   Walking    Other

5) Please list or describe all of the places you travel on a regular basis via the following modes of transportation. Feel free to be as specific as you’d like, and please consider that while it is warm now, you may use other modes of transit when the weather is different.

   Automobile

   Bicycle

   Walking

Public Transportation (list type)

Other (list mode)

6) Do you feel like you have a choice in how you get to most of your regular errands and engagements, or no? What affects your decisions when choosing how to get somewhere? For example, why might you choose to walk somewhere rather than drive?

Figure 52. Page 1 of the survey, as it appeared to respondents in Kentlands.
7) In the neighborhood(s) in which you lived in the ten or so years before you moved to Kentlands, describe your level or frequency of use of the following modes of transportation. What sort of places did you go, and why did you use one mode over another?

Automobile________________________

______________________________

Bicycle________________________

______________________________

Walking________________________

______________________________

Public Transportation________________________

______________________________

Other____________________________

8) How would you describe your range in transportation choices in your previous neighborhood(s)? How do they compare with Kentlands?

9) Do you participate in any social activities in your neighborhood? What kinds?

10) Finally, do you have close friends in your neighborhood? How does having friends or not having friends nearby affect your feelings about Kentlands?

Thank you! Your help is greatly appreciated!

Figure 53. Page 2 of the survey as it appeared to respondents in Kentlands.
### Table 3. Responses to Survey Question 1: “How long have you lived in (neighborhood)?”

<table>
<thead>
<tr>
<th>Neighborhood</th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.3 years</td>
<td>15 years</td>
<td>17.9 years</td>
</tr>
</tbody>
</table>

### Table 4. Responses to Survey Question 2: “Why did you choose to move to (neighborhood)?”

<table>
<thead>
<tr>
<th>Category</th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>12.3%</td>
<td>35.3%</td>
<td>20.7%</td>
</tr>
<tr>
<td>General Positive</td>
<td>14.4%</td>
<td>41.2%</td>
<td>20.7%</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>10.3%</td>
<td>29.4%</td>
<td>13.5%</td>
</tr>
<tr>
<td>Economics</td>
<td>6.2%</td>
<td>17.6%</td>
<td>9%</td>
</tr>
<tr>
<td>Amenities</td>
<td>21.9%</td>
<td>62.7%</td>
<td>9%</td>
</tr>
<tr>
<td>Community</td>
<td>12.3%</td>
<td>35.3%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Quiet/Safe</td>
<td>2.7%</td>
<td>7.8%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Walkability</td>
<td>15.8%</td>
<td>45.1%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Circumstance</td>
<td>4.1%</td>
<td>11.8%</td>
<td>8.1%</td>
</tr>
</tbody>
</table>

In Table 4 the first numbers (in bold) represent the percentage of total responses given falling into each category, while the second numbers represent the percentage of respondents giving a reason falling into that category.
Table 5. Responses to Survey Question 3: “What do you like about (neighborhood)?”

<table>
<thead>
<tr>
<th>Category</th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>3.6%</td>
<td>9.8%</td>
<td>13.5%</td>
</tr>
<tr>
<td>General Positive</td>
<td>12.1%</td>
<td>33.3%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Aesthetics</td>
<td>15%</td>
<td>41.2%</td>
<td>15.1%</td>
</tr>
<tr>
<td>Economics</td>
<td>2.1%</td>
<td>5.9%</td>
<td>0.8%</td>
</tr>
<tr>
<td>Amenities</td>
<td>22.1%</td>
<td>60.8%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Community</td>
<td>24.3%</td>
<td>66.6%</td>
<td>22.2%</td>
</tr>
<tr>
<td>Quiet/Safe</td>
<td>6.4%</td>
<td>17.6%</td>
<td>9.5%</td>
</tr>
<tr>
<td>Walkability</td>
<td>14.3%</td>
<td>39.2%</td>
<td>10.3%</td>
</tr>
</tbody>
</table>

The same categories used in Table 2 appear in Table 5, with the exception of circumstance, which was not an applicable response to Question 3. The first numbers (in bold) represent the percentage of total responses given falling into each category, while the second numbers represent the percentage of respondents giving a reason falling into each category.

Table 6. Responses to Survey Question 4: “Circle all the modes of transportation that are generally available to you from your home.”

<table>
<thead>
<tr>
<th>Mode</th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile</td>
<td>100%</td>
<td>100%</td>
<td>98%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>68.6%</td>
<td>68.6%</td>
<td>55.1%</td>
</tr>
<tr>
<td>Walking</td>
<td>100%</td>
<td>96.1%</td>
<td>89.8%</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>90.2%</td>
<td>74.5%</td>
<td>59.2%</td>
</tr>
<tr>
<td>Car Pool</td>
<td>19.6%</td>
<td>23.5%</td>
<td>26.5%</td>
</tr>
</tbody>
</table>
Table 7. Responses to Survey Question 5: “Please list or describe all of the places you travel on a regular basis via the following modes of transportation.”

<table>
<thead>
<tr>
<th></th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Bicycle total</td>
<td>56.9%</td>
<td>49%</td>
<td>38.8%</td>
</tr>
<tr>
<td>Bicycle Destination</td>
<td>33.3%</td>
<td>31.4%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Walking Total</td>
<td>100%</td>
<td>98%</td>
<td>92.5%</td>
</tr>
<tr>
<td>Walking Destination</td>
<td>90.2%</td>
<td>88.2%</td>
<td>62.5%</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>66.7%</td>
<td>35.3%</td>
<td>28.6%</td>
</tr>
</tbody>
</table>

Figures in Table 7 refer to the percentage of respondents reporting regular use of each mode. The categories of “Bicycle destination” and “Walking destination” refer to respondents who listed destinations, rather than only reasons such as recreation or exercise.

Table 8. Responses to Survey Question 6: “Do you feel like you have a choice in how you get to most of your regular errands and engagements, or no? What affects your decisions when choosing how to get someplace? For example, why might you choose to walk somewhere rather than drive?”

<table>
<thead>
<tr>
<th></th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>47.1%</td>
<td>23.4%</td>
<td>23.7%</td>
</tr>
<tr>
<td>No</td>
<td>7.8%</td>
<td>31.9%</td>
<td>45.8%</td>
</tr>
<tr>
<td>Ambiguous</td>
<td>41.2%</td>
<td>42.6%</td>
<td>31.3%</td>
</tr>
</tbody>
</table>

Figures in Table 8 refer to the percentage of respondents answering the first part of the question. Not all respondents replied with “yes” or “no,” indicating the need for the category of “ambiguous.” Factors that affected decisions were not relevant to the study, and thus were not coded or tallied.
Table 9. Responses to Survey Question 7: “In the neighborhood(s) in which you lived in the ten or so years before you moved to (your current neighborhood), describe your level of frequency of use of the following modes of transportation.”

<table>
<thead>
<tr>
<th>Mode</th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile</td>
<td>98%</td>
<td>97.9%</td>
<td>95.7%</td>
</tr>
<tr>
<td>Auto most/all</td>
<td>68.6%</td>
<td>51.1%</td>
<td>48.9%</td>
</tr>
<tr>
<td>Bicycle</td>
<td>35.3%</td>
<td>40.4%</td>
<td>31.9%</td>
</tr>
<tr>
<td>Bicycle Destination</td>
<td>9.8%</td>
<td>19.1%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Walking</td>
<td>82.4%</td>
<td>76.6%</td>
<td>66%</td>
</tr>
<tr>
<td>Walking Destination</td>
<td>35.3%</td>
<td>38.3%</td>
<td>44.7%</td>
</tr>
<tr>
<td>Public Transportation</td>
<td>41.2%</td>
<td>38.3%</td>
<td>27.7%</td>
</tr>
</tbody>
</table>

Figures in Table 9 refer to the percentages of respondents reporting regular use of each mode in their previous neighborhoods. The category “Auto most/all” refers to percent of total respondents who reported using their cars for all or most or all or their transportation needs. The categories “Bicycle Destination” and “Walking Destination” refer to the same types of responses from Question 5.

Table 10. Responses to Survey Question 8: “How would you describe your range in transportation choices in your previous neighborhood(s)? How do they compare with (your current neighborhood)?”

<table>
<thead>
<tr>
<th>Choice</th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current neighborhood</td>
<td>68.6%</td>
<td>42.9%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Old neighborhood(s)</td>
<td>5.9%</td>
<td>22.4%</td>
<td>17%</td>
</tr>
<tr>
<td>Same/similar options</td>
<td>25.5%</td>
<td>34.7%</td>
<td>59.6%</td>
</tr>
</tbody>
</table>

Figures in Table 10 refer to the percentage of respondents reporting which neighborhood afforded them better transportation choices. The second part of the questions was inconsistently answered and was only used for background information in the study.
Table 11. Responses to Survey Question 9, part 1: “Do you participate in any social activities in your neighborhood?”

<table>
<thead>
<tr>
<th></th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>88.2%</td>
<td>74.5%</td>
<td>63.3%</td>
</tr>
<tr>
<td>No</td>
<td>11.2%</td>
<td>25.5%</td>
<td>36.7%</td>
</tr>
</tbody>
</table>

Table 12. Responses to Survey Question 9, part 2: “What kinds of social activities do you participate in within your neighborhood?”

<table>
<thead>
<tr>
<th>Activity</th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kid-related</td>
<td>12.1%</td>
<td>24.4%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Informal social</td>
<td>30.8%</td>
<td>62.2%</td>
<td>45.1%</td>
</tr>
<tr>
<td>Organized interaction</td>
<td>22%</td>
<td>44.4%</td>
<td>25.5%</td>
</tr>
<tr>
<td>Special events</td>
<td>22%</td>
<td>44.4%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Patronage</td>
<td>13.2%</td>
<td>26.7%</td>
<td>23.5%</td>
</tr>
</tbody>
</table>

The author developed the categories in Table 12 after coding responses. The first numbers (in bold) represent the percentage of total responses given falling into each category, while the second numbers represent the percentage of respondents who gave a reason falling into that category (out of the number of respondents answering “yes” from the first part of the question).

Table 13. Responses to Survey Question 10: “Do you have close friends in the neighborhood? How does having friends or not having friends nearby affect your feelings about Kentlands?”

<table>
<thead>
<tr>
<th></th>
<th>Kentlands</th>
<th>Kensington</th>
<th>Tierrasanta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes/Positive</td>
<td>56.9%</td>
<td>43.1%</td>
<td>42.9%</td>
</tr>
<tr>
<td>Yes/Neutral</td>
<td>13.7%</td>
<td>13.7%</td>
<td>20.4%</td>
</tr>
<tr>
<td>No/Neutral</td>
<td>17.6%</td>
<td>15.7%</td>
<td>16.3%</td>
</tr>
<tr>
<td>No/Positive</td>
<td>7.8%</td>
<td>27.5%</td>
<td>14.3%</td>
</tr>
<tr>
<td>No/Negative</td>
<td>3.9%</td>
<td>0%</td>
<td>6.1%</td>
</tr>
</tbody>
</table>

In addition to “yes” or “no” replies, the author coded responses expressing positive, neutral, or negative feelings.
## Codes for Survey Responses

### Table 14. A Selection of the Most Prominent Response Types Coded into Each Category for Questions 2 and 3 of the Survey

<table>
<thead>
<tr>
<th>Code Category</th>
<th>Types of responses coded into category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aesthetics</td>
<td>House styles, architecture, trees, landscaping, aesthetic and architectural variety</td>
</tr>
<tr>
<td>Amenities</td>
<td>The presence of: businesses of all types, recreation and community facilities, open spaces, and schools</td>
</tr>
<tr>
<td>Circumstance</td>
<td>Inherited home, moved because of divorce, moved for job, worked for builder during neighborhood’s construction</td>
</tr>
<tr>
<td>Community</td>
<td>Friendly, neighborly, nice people, lots of kids activities (as opposed to ‘safe for kids’), family oriented, close-knit</td>
</tr>
<tr>
<td>Economic</td>
<td>Good price, good value, expected appreciation of home value, downsizing for cost or maintenance reasons</td>
</tr>
<tr>
<td>General Positive</td>
<td>‘Just loved it,’ ‘felt right,’ ‘Because it was New Urbanism,’ ‘liked neighborhood design’</td>
</tr>
<tr>
<td>Location</td>
<td>Proximity to: job(s), freeways, public transportation</td>
</tr>
<tr>
<td>Quiet/Safe</td>
<td>Crime-free, low traffic, safe for kids, safe for women, isolated</td>
</tr>
<tr>
<td>Walkable</td>
<td>Presence of sidewalks, walking paths, trails that made pedestrian trips easier, and traffic calming devices that made walking safer; presence of amenities within walking distance of homes</td>
</tr>
</tbody>
</table>

Note that the category of circumstance was not applicable to Question 3. Many people responded to the effect that they appreciated the presence of desirable amenities to which they could walk. I tallied such responses into both the ‘walkable’ and ‘amenities’ categories.

### Table 15. A Selection of the Most Prominent Response Types Coded into Each Category for Questions 5 and 7 of the Survey

<table>
<thead>
<tr>
<th>Code Category</th>
<th>Types of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Destination-based</td>
<td>Any concrete, physically located destination, such as: businesses, appointments and errands, friends homes, work, recreational facilities and open spaces, and others</td>
</tr>
<tr>
<td>Non-destination-based</td>
<td>Any trip made without a concrete destination in mind, such as: for recreation, for fun, for exercise, walking the dog, and ‘around the neighborhood’</td>
</tr>
</tbody>
</table>
It was important to distinguish between destination-based and non-destination-based transportation, as many people walk for recreation in auto-oriented neighborhoods such as Tierrasanta who may not use walking as a form of transportation.

Table 16. A Selection of the Most Prominent Response Types Coded into Each Category for Question 9 of the Survey

<table>
<thead>
<tr>
<th>Code Category</th>
<th>Types of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal social interaction</td>
<td>Socializing with friends, barbecues, dinner parties, block parties</td>
</tr>
<tr>
<td>Kids-related interaction</td>
<td>Play dates, playground interaction, children’s sports, swim team, PTA</td>
</tr>
<tr>
<td>Organized social interaction</td>
<td>Clubs and organization, community meetings, neighborhood governance, volunteerism, attendance of religious services or related gatherings</td>
</tr>
<tr>
<td>Patronage</td>
<td>Meeting friends at local restaurants, cafes, or bars, happy hours, movies at local theaters</td>
</tr>
<tr>
<td>Special events</td>
<td>Concerts, parades, formal holiday-related celebrations, seasonal festivals, food festivals</td>
</tr>
</tbody>
</table>

While many of the kid-related activities could easily be considered organized social interaction, I felt that separating them into a distinct category enabled me to better understand the importance that children have on reinforcing sense of community in a neighborhood.
## Codes for Interview Responses

Table 17. Codes for Transportation-Related Responses Given During Interviews with Residents of Kentlands

<table>
<thead>
<tr>
<th>Major Code Category</th>
<th>Subcodes</th>
</tr>
</thead>
</table>
| Transportation in Kentlands                                                        | Walking as transportation  
Walking as recreation/exercise  
Walking as routine  
Walking as a practicality  
Driving/parking  
Driving to mass transit  
Public transportation as a practicality  
Biking as a mode of transportation  
Attitudes about mode choice  
Future of transit in Kentlands (CCT, etc.)                                      |
| Transportation Habits (past and present)                                           | Used to driving as primary mode of transit  
Used to act of walking/recreational walking  
Used to walking as mode of transit  
Becoming aware of alternative modes                                               |
| Adjustment of Behaviors and Choices                                                | Adjusting to walking  
Adjusting to walking as mode of transit  
Changing attitude about public transit  
Adjusting to public transit as mode of transit                                    |
| Drivers (or detractors) of Pedestrianism                                           | Feeling of safety from crime  
Enjoy neighborhood aesthetics  
Variability of built environment  
Connection to community  
Opportunity to socialize/see friends  
As a practicality  
Environmental responsibility  
Desirable amenities  
Lack of specific desirable amenities  
Infrastructure/sidewalks/traffic calming  
Trails/walkways                                                                      |
| Specific aesthetic considerations as drivers of pedestrianism (and sense of community) | Importance of mature trees  
Small-town feel  
Urban feel  
Diversity of styles/architecture                                                     |

The codes in Table 17 are organized into larger, related major code groups, which are then broken down into more specific subcodes. Note that this list is not comprehensive, as some
codes were created but did not add to the analysis or have enough quotes or information to result in any conclusive evidence, and that this list is the result of an iterative process by which certain codes were abandoned, renamed, or regrouped with other codes. Some codes also overlap one another in places, as certain quotes or passages may have been categorized into multiple codes.

Table 18. Codes for Community- and Socially-Related Responses Given During Interviews with Residents of Kentlands

<table>
<thead>
<tr>
<th>Major Code Category</th>
<th>Subcodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sense of community</td>
<td>Neighborliness/helping neighbors</td>
</tr>
<tr>
<td></td>
<td>Avenues for interaction</td>
</tr>
<tr>
<td></td>
<td>Built environment as a driver of “Leavers” that exclude selves</td>
</tr>
<tr>
<td></td>
<td>Importance of children’s lives in reinforcing</td>
</tr>
<tr>
<td></td>
<td>Age diversity</td>
</tr>
<tr>
<td></td>
<td>Age cohorts interacting/not interacting</td>
</tr>
<tr>
<td>Meeting people and reinforcing existing relationships</td>
<td>Through dog walking</td>
</tr>
<tr>
<td></td>
<td>Through volunteering</td>
</tr>
<tr>
<td></td>
<td>Through business connections</td>
</tr>
<tr>
<td></td>
<td>Through kids activities</td>
</tr>
<tr>
<td></td>
<td>At third places</td>
</tr>
<tr>
<td></td>
<td>From front porch</td>
</tr>
<tr>
<td></td>
<td>In common interest groups/clubs</td>
</tr>
<tr>
<td></td>
<td>How process differs from other suburbs/neighborhoods</td>
</tr>
<tr>
<td>Service/Volunteerism</td>
<td>Through charrettes</td>
</tr>
<tr>
<td></td>
<td>Charitable work through churches and KCF</td>
</tr>
<tr>
<td></td>
<td>Service to distant vs. local communities</td>
</tr>
<tr>
<td></td>
<td>Obligation to serve</td>
</tr>
<tr>
<td></td>
<td>Desire to serve</td>
</tr>
<tr>
<td></td>
<td>Numerous avenues for serving</td>
</tr>
<tr>
<td>Ethics</td>
<td>Obligation to be involved</td>
</tr>
<tr>
<td></td>
<td>Obligation to help neighbors</td>
</tr>
<tr>
<td></td>
<td>Obligation to know neighbors</td>
</tr>
<tr>
<td></td>
<td>Environmental responsibility</td>
</tr>
<tr>
<td></td>
<td>As manifested in transportation choices</td>
</tr>
</tbody>
</table>

The codes in Table 18 are organized into larger, related major code groups, which are then broken down into more specific subcodes. Note that this list is not comprehensive, as some codes were created but did not add to the analysis or have enough quotes or information to result in any conclusive evidence, and that this list is the result of an iterative process by
which certain codes were abandoned, renamed, or regrouped with other codes. Some codes also overlap one another in places, as certain quotes or passages may have been categorized into multiple codes.