URBAN DESIGN AND MARKETING: HOW CITIES CAN USE SPATIAL QUALITIES TO ATTRACT BABY BOOMERS

By

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To my family and friends

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The intent of this thesis is to understand the urban design qualities preferred by baby boomers and how those qualities can be marketed to attract that demographic. Two Florida cities, The Villages at Lake Sumter Landing and New Smyrna Beach established over a century apart are analyzed using two methodologies for measuring and comparing street design and urban form. The methodologies are used to determine what urban design qualities of streets and their surrounding contextual urban form are aesthetically pleasing and functionally effective.

This thesis argues that small cities seeking to attract new residents need to develop a marketing campaign based on amenities associated with its urban design qualities. Based on the findings from this study and the supportive literature, it is understood that a higher number of people engage with the built environments they live in as a response to street design aesthetics. According to the literature, concept marketing requires use of a cohesive vision. This research suggests that established communities use the smart growth concept as a tool for sustainable future development. In addition, smart growth is method to attract baby boomers with urban design

strategies conducive to the elderly population seeking a unique environment to age through retirement.

CHAPTER 1
INTRODUCTION

The intent of this thesis is to understand the urban design qualities of streets and their surrounding contextual urban form that are aesthetically pleasing and functionally effective. In addition, this thesis contends that cities can use urban design qualities as a tool to attract particular demographics; specifically, smart growth is a development tool that can be utilized as a concept to market communities to the baby boom generation. For the purposes of this thesis smart growth is discussed according to literature from the real estate and planning professions. Two Florida cities, The Villages at Lake Sumter Landing and New Smyrna Beach are utilized as case studies to discuss application of urban design strategies that promote concept marketing strategies.

This thesis focuses on the preferences of the baby boom generation as they will soon comprise the largest demographic in the United States. This segment of the population was chosen for analysis due to their financial state and stage of life preparing them for retirement with the highest level of disposable income. This study will focus on the strategies cities can implement to attract this segment as they seek locations for permanent residence in an environment suitable for aging in place through retirement. Thus far Florida has maintained its popularity as a retirement state, however, recent studies project that baby boomers will require more engaging environments than presently offered in Florida and as such they will relocate in cities with amenities conducive to their desired lifestyle. This study suggests that small Florida cities attempting to attract permanent migrants initiate a campaign using concept marketing of smart growth development as a tool to entice retirees.

Attracting a specific cohort through the sale of experiences such as lifestyle, amenities, and services is often marketed to consumers based on some predetermined concept and thus is referred to as concept marketing. In the case of community concept marketing, effort is focused on building an identity to the external environment with the intention of capitalizing on underutilized resources to generate growth and development (Phillips, 2002). Concept markets are only limited to the resources and time a community is willing to put forth and thus creative solutions are often successful. This thesis will discuss smart growth in relation to established concept marketing themes. It is not suggesting that smart growth is one of these themes rather it is pointing out that themed concepts have been successful and therefore if a community chooses to market themselves with a smart growth campaign it may look to aspects of these concept markets that are similar and have been successful. Concept marketing will be detailed in Chapter 2.

This thesis will discuss the parallels between the principles of smart growth development and the principles of concept marketing. The principles detailed present similarities to smart growth regarding methods to develop future projects for the betterment of the community. Smart growth is a planned initiative to create fully functioning places with a sustainable plan for the economy and ecological factors. Similarly, concept markets encourage sustaining the economy by attracting individuals and thus revenue.

Smart growth development as a concept has potential to be marketed to seniors looking to relocate to an environment conducive to aging in place through retirement. Smart growth offers a lifestyle of sustainable living with frequent opportunities for social

interaction, ease of accessibility to services, and a general sense of place. A detailed explanation of smart growth principles is included in Chapter 2. The real estate market for smart growth development has been on the incline with an interest from those over age 60 and under age 40.

Smart growth requires urban design strategies regarding the appearance and function of the urban form, which is defined according to multiple indicators. This thesis will use the framework of two studies to discuss indicators of street design and indicators of urban form. A study by Clemente et al., (2005), *Identifying and Measuring Urban Design Qualities: An Illustrated Field Manual* operationalizes street design into five indicators: imageability, enclosure, human scale, transparency, and complexity. These indicators explain the perception of human space according to measurable characteristics seen in the urban design. A study by Robertson (2001), *Downtown Development Principles for Small Cities*, operationalizes urban form into eight principles for downtowns including strong private/public partnerships, vision/plans, multiple functions, heritage, waterfront, pedestrian friendliness, design guidelines, and less parking. These principles express strategies to develop an overall healthy city core. Of the two frameworks that supplied the theoretical basis for this thesis, the Clemente et al., study will also be used in the methodology. Robertson presented eight principles; however, the methodology uses a Porta and Renne study to measure aspects of urban form including land use diversity, permeability, and accessibility.

For the purposes of analyzing the case study cities, this thesis utilizes two methods to measure street design and urban form. The first method of observation was conducted to measure design within a street segment according to instruction from

Measuring Urban Design Qualities: An Illustrated Field Manual. The goal of this tool is to provide empirical evidence linking the propensity to walk to the qualities deemed important for an active street life according to imageability, enclosure, human scale, transparency, and complexity. The second method of observation was conducted using a study by Porta and Renne (2005) *Linking urban design to sustainability: formal indicators of social urban sustainability field research in Perth, Western Australia*. The goal of this tool is to provide quantitative data regarding land use diversity, permeability, and accessibility.

Findings determine that street design in The Villages outperforms New Smyrna Beach in all five indicators. Conversely, urban form in New Smyrna Beach outperforms The Villages in all three indicators. This thesis concluded that people are inclined to prefer architectural attributes of street design and functional aspects of urban form. This research suggests that established communities use the smart growth concept as a tool for sustainable future development as well as a strategy to attract baby boomers with urban design strategies conducive to the elderly population seeking a unique environment to age through retirement.

CHAPTER 2
URBAN DESIGN AND MARKETING

Understanding the relationship between urban features and their ability to attract and actively engage aging citizens requires discussion of the elderly demographic as well as attributes of urban design and urban fabric that compose the built environment. To discuss such preferences and attributes this thesis will refer to smart growth development patterns that are deemed effective in attracting particular demographics. The term smart growth spans multiple professions thereby providing a means to link literature from planning and real estate; smart growth has multiple applications dependent upon the author's point of view or field of study. The planning profession views smart growth on a regional level versus the real estate profession with interest in specific developments. For the purposes of this thesis, smart growth will be discussed from the real estate point of view and defined according to principles associated with small scale development as compared to issues of regional scale.

The first section of the literature review, "Baby Boomers in Retirement", briefly examines studies concerned with the migratory patterns of elderly Americans. The discussion includes data from the US Census Bureau and the University of Florida, Bureau of Economic and Business Research (BEBR) concerning the growing population of Americans migrating to Florida after retirement age.

Section two, Place Making Utilizing Concept Marketing and Smart Growth, discusses the numerous marketing strategies used by cities to attract revenue. This section will discuss research concerning tendencies of elderly to prefer smart growth development patterns. Further, it will discuss these documented preferences for

communities with age friendly qualities as these are integral to the real estate market that is striving to attract new residents requiring a change in housing needs.

Sections three and four, Street Design and Urban Fabric, address common planning initiatives implemented to analyze communities and coordinate progressive actions to ensure sustainable economic and population growth. Street Design discusses the measurable features of a built environment such as imageability, enclosure, human scale, transparency, and complexity. These qualities associate highly rated design with increased user desirability resulting in enhanced daily experiences. Section four, Urban Fabric, reviews techniques associated with elevated success for small towns seeking to attract new revenue.

Baby Boomers in Retirement

Rapidly changing demographic shifts of Americans transitioning to retirement will undoubtedly alter the economic context of cities' form, function, and constituents. The shift in lifestyle and daily necessities will affect cities due to increased need for services such as healthcare, recreation, and daily services. This section will discuss the population shift presently occurring as baby boomers reach retirement age and have the ability to choose a new place of residence based on their preferences. Florida (2008) argues the baby boom generation should be discussed in two groups; empty nesters age 45-64 and retirees age 65 and above. Individuals in the retiree category are more apt to make decisions based upon preferences for recreation, social interaction, and health care. It is likely that retirees will travel long distances to satisfy their needs. Approximately 37 % the retiree category is willing to move more than 500 miles to be in a city of their choosing as compared to only 25 % of empty nesters who may still be employed (Florida, 2008).

According to the US Census, the population of Americans aged 65 and over accounted for approximately 39 million people or 13% of the population in 2008. Further, the census estimates that segment of the population to account for 72 million people, representing nearly 20% of the population by 2030 (US Census, 2008). According to the Center for Disease Control and Prevention (CDC), in 2007 the calculated life expectancy of a man and woman aged 65 respectively are 17.2 and 19.9 years. These retirement years will change the structure of the American lifestyle as the majority of the population shifts out of the full-time workforce.

Floridian cities have an opportunity to capitalize on the migratory patterns of the Baby Boom generation as shown by research that snowbirds are motivated to change their primary place of residence (Smith & House, 2006). Research shows that as the American demographic shift occurs cities will see an influx of elderly returning to the city core seeking community and services (Florida, 2008; Stafford,2009). Cities that have prepared for this demographic shift will be in a place to receive baby boomers seeking a new location for primary residence; at the very least they will receive an increase in tourism. Both permanent residents and tourists will increase the stream of revenue from the generation with traditionally higher rates of discretionary spending.

In conjunction with Richard Florida, Kevin Stolarick has developed an analysis of US Census data in coordination with four indicators expressed in an index of the best cities to live according to life stage (as cited in Florida, 2008). The indicators for the retirement category of the baby boom include: first, the number of baby boomers currently living in a city; second, the condition of the economy; third, amenities and quality of life factors such as physical safety, weather, and access to health-care based

on measures of crime rates, quantity of doctors, and average temperature shifts and; fourth, cost of living based on an index of health-care costs. The final results reveal several cities in Florida rank among the best places for retirees over 65 years of age classified by large, medium, and small regions; large regions include Miami and Tampa, medium regions include Palm Bay, Sarasota, and Cape Coral, and small regions include Port St. Lucie, Naples, and Pensacola (Florida, 2008, p. 281). According to a recent AARP study, Sarasota, FL ranked fourth and Gainesville, FL ranked eleventh among the best places to reinvent one's life (American Association of Retired Person [AARP], 2003). Retirees are selecting cities "based on the availability of jobs and affordable housing, culture and entertainment options, access to outdoor recreation, safety, proximity to universities and educational institutions and health care" (Florida, 2008, p. 278). Richard Florida argues the state of Florida is losing its appeal to the aging demographic. However, according to Storlarick's study it could be argued that Florida still has mass appeal. The study also presents several cities in states not traditionally considered for retirement; however, the index determined by Stolarick in conjunction with the BEBR study discussed in the following paragraph, expresses sustained growth in the aging demographic for Florida.

A 2006 study from the BEBR discusses migratory patterns in "Snowbirds, Sunbirds, and Stayers: Seasonal Migration of Elderly Adults in Florida". Although the study is designed to focus on the number of temporary residents in Florida, data from the study also shows the potential for temporary residents to become permanent residents over the next one to two decades. Logistic regression analysis of survey data was used in the BEBR study to determine differences in characteristics of in-migrants,

out-migrants, and non-migrants. The data expressed the timing, duration, and origins of elderly migrating to Florida. Further, the study revealed socioeconomic demographics data such as annual income, age, and education status of each group further distinguishing the potential. "Although the differences were not always large or statistically significant, snowbirds generally had higher incomes, high proportions married, lower proportions employed, better health, and longer stays at their temporary residences" (Smith & House, 2006, p. S235). The methodology of migratory estimates developed by BEBR can be used to "construct similar estimates in other places, helping businesses, service providers, and public officials plan for the impact of fluctuations in the size of elderly population" (Smith & House, 2006, p. S232). This thesis will not focus on recreating this methodology, rather, it will take into account results from BEBR as well as the US Census Bureau to discuss changes in migration that will affect urban form and economic development in Florida.

Prior to the publication of Snowbirds, Sunbirds, and Stayers literature has shown that Florida receives the most snowbirds compared to other states that also receive an influx of temporary seasonal residents (Rose and Kingma, 1989). Texas and Arizona are two highly infiltrated states experiencing peaks snowbird seasons; in 2005 Florida entertained approximately 818,000 temporary residents (Smith, House 2006); as compared to 300,000 in Texas (Martin et al., 1987) and 273,000 in Arizona (Happel and Hogan, 2002). More recent estimates from those states compared with Florida would likely show an increase in temporary residents adjusting for the notable time difference between Florida's survey and Texas' survey; the Baby Boomers have come into retirement since the survey conducted in Texas in 1987. Regardless of determining

differences between states with above normal seasonal migration, the fact remains that Florida has an opportunity to capitalize upon that growth. Literature demonstrates Florida has been a leader among states as a destination for elderly seeking permanent migratory status (Longino and Bradey 2003; Smith & House, 2006).

Florida now has the opportunity to embrace temporary in-migrants seeking to change their place of primary residency. According to Smith and House (2006), 33% of snowbirds have been coming to Florida for at least 15 years. Data shows that temporary migration to Florida is a precursor to permanent migration. "Of all persons 55 or older who moved permanently to Florida between 2000 and 2003, 23% reported that they had lived part of the year in the state prior to moving permanently. Furthermore, 30% of snowbirds reported that it was likely that they would move to the state permanently at some time in the near future" (Smith & House, 2006). Cities are now faced with the question of how to attract migrants to their city. The next section will review concept marketing, which is one method used by communities to attract individuals and thus revenue by capitalizing on underutilized resources.

Place Making Utilizing Concept Marketing and Smart Growth

The creation of desirable places occurs most successfully with an insightful plan. The plan is often precluded by some conceptual schematic design and planning process involving consideration of economic conditions and the city's potential to attract residents and businesses. Concept marketing is loosely defined as any solution that requires special attention to a particular element of the community with pursuit to use that element as a marketing tool to attract businesses and patrons. Concept marketing is limitless to the imagination of its creators although funding is far less than limitless and requires appropriate planning from both the private and public sectors. This

discussion will focus in part on smart growth as a marketing concept that has proven successful in the past, as a method of attracting temporary and permanent migrants, with expectation of increased desirability to baby boomers and young families alike. Smart growth defines a method to develop good urban form from the point of view of multiple curricula including real estate, urban design, and planning policy. Reviewing literature from each realm offers comprehensive research conveying differing interests of young families, middle agers, and empty nesters as related to urban form. This section will discuss community concept marketing as an economic development tool with a range of examples from cities throughout Florida and the United States.

Richard Florida (2008) argues that "just as places have come to specialize in the kind of job opportunities they offer and amenities they provide, most have also come to specialize in the stage of life they best fit" (p. 218). Many cities are suited towards a specific demographic due to factors such as the current age of citizens, climate range, economic conditions, and development patterns locating services and residences within walking proximity (Stafford, 2009; Florida, 2008). Research in the real estate field links preferences of aging populations to increased interests in smart growth patterns of development. Preferences regarding small scale development projects such as downtown rehabilitation are linked to increased quality of life factors. (Kannan, Logan, Siejk, n.d.). Census research quantifying permanent migratory patterns of baby boomers will not be available for several years, nor will information quantifying the desires of baby boomers considering relocation. Recent ascension of this generation to retirement status has not permitted necessary time to produce such statistics.

Therefore, this section relies upon insightful real estate research concerning trends towards smart growth.

In theory, it could be argued that smart growth is merely a concept designed to lure unknowledgeable people to a development pattern utilized since the beginning of civilized settlement. Technically, smart growth does not present new development concepts; rather it could be argued that smart growth is a marketing scheme. This section argues smart growth is an interfusion of tested marketing concepts (discussed in the following paragraphs) and thus offers a means of discussing real estate factors in coordination with the effects of urban form and design. Application of smart growth principles lays a foundation to create the "experience economy", which according to Gilmore and Pine (1999) is considered to be the future of economic development strategies.

Concept Marketing

As defined by Rhonda Phillips (2002), "community concept marketing is an intentional, goal-driven effort to build a community's identity to the external environment. It capitalizes on underutilized resources to generate growth and development" (p. 1). In addition to attracting patrons, local governments should invest in marketing campaigns to "promote the community as an attractive location for business" (Banovetz, Dolan, & Swain, 2000, p .25). Attracting businesses and patrons requires that cities first conduct a market analysis; "know who your customers are, who your POTENTIAL customers are, what they want today, what they will want tomorrow- and provide those things" (Palma, 2004, p. 159). Specifically, concept marketing encourages communities to develop an identity based on an underlying feature or to simply create a new identity. Rather than trying to outdo malls, strip centers, and discounters, downtowns need to

focus on their unique niches to “create, carve out, and become known for its particular niches in the marketplace…downtown can reinvent itself and successfully co-exist with other commercial giants” (Palma, 2004, p. 159). This is often referred to as branding, and has occurred successfully in cities throughout Florida as an action to “garner external investment, tourism, and other revenue-generating activities” (Phillips, 2002, p. 1).

Adler discusses concept marketing as the theming of cities and argues that it is void of contextual reference to the city’s origins, however this refers to garish chains that have become associated with tourist traps such as The Hard Rock Café. In this instance tourists are seeking the familiar entertainment experience strategically placed in a new city (Adler, 1995). Adler presents an argument on a situational basis regarding sites specifically designed to engage individuals in generic one size fits all entertainment. Rather, successful concept marketing develops a holistic approach to integrate planning and design as well as public/private partnerships that go beyond a single revenue booster such as the popularized, albeit successful, method of development to attract tourism dollars.

The most common approaches have been operationalized by Phillips into five categories and defined as popular culture, corporate culture, retail, tradition, and surrealistic (Phillips, 2002). Phillips draws insight from authors concerning concept marketing; however, she does not directly site anyone in the framework development of the five principles. For the purposes of this thesis, the concept markets for popular culture and corporate culture will not be discussed as they do not relate specific principles to urban form unlike the other three approaches. Smart growth combines

features of three categories that relate specific aspects of concept marketing to urban form and street design; for the purposes of this paper retail, tradition and even surrealistic marketing concepts will be discussed in parallel with smart growth concepts to distinguish similarities.

> Retail- Appealing to the enthusiastic shopper, some communities build their concepts around shopping opportunities. The venue may be offered in conjunction with revitalization of a historic downtown district, it might focus on themed shopping, such as antiquing, or it can concentrate on outlet shopping.
>
> Tradition- Heritage and cultural aspects of a community are increasingly utilized to serve as the foundation for developing marketing concepts. This marketing approach focuses on applications using historic preservation and ethnicity.
>
> Surrealistic- The category runs the gamut from creating the atmosphere of completely surreal to recapturing the historical ambiance of a community. Concept marketing approaches based on surrealism require boldness and a high level of creativity and generally go beyond what is normally anticipated in a community economic development effort.

The Parallels of Concept Marketing and Smart Growth

Smart growth offers politicians, designers, and community members a system to develop aspects of Phillips' concept markets as each market has several attributes that correlate to smart growth principles. This section will discuss smart growth in relation to concept marketing themes; however, it is not suggesting that smart growth is one of Phillips' themes. Rather, it is pointing out that these themes have been successful and therefore if a community chooses to market themselves with a smart growth campaign it may look to aspects of these concept markets bearing similarities as a guideline to success.

The Smart Growth Network is an organization formed by the U.S. Environmental Protection agency as well as non-profits partners including environmental groups,

historic preservation organizations, developers, and real estate interests. The organization was formed to “boost the economy, protect the environment, and enhance community vitality” (Smart Growth Network, n.d.). It defines 10 principles to achieve a smart growth community that are as follows: 1) compact building design, 2) a range of housing opportunities and choices, 3) walkable neighborhoods, 4) community and stakeholder collaboration, 5) distinctive, attractive communities with a strong sense of place, 6) predictable, fair, and cost effective development, 7) mix land uses, 8) preserve open space, farmland, natural beauty and critical environmental area, 9) a variety of transportation choices and 10) strengthen and direct development towards existing communities (Smart Growth Network, n.d.). Several of the principles are more appropriately discussed on a regional level, however, guidelines such as developing walkable neighborhoods, mixing land uses, creating a sense of place, and compact building design can be applied to small scale development over several city blocks.

Smart growth is a planned initiative to create fully functioning places with a sustainable plan for the economy and ecological factors. Similarly, concept markets of retail, tradition, and surrealism also seek to encourage development in a specific direction. Several characteristics of such markets are inherent within a holistic smart growth plan. The following paragraphs discuss Phillips’ concept markets with comparison to smart growth principles.

Retail concept marketing is a tool used to for downtown revitalization, often in accordance with The National Trust for Historic Preservation’s Main Street Program. Creation of a retail district could enhance principles of smart growth such as compact building design, community and stakeholder collaboration, sense of place, and directing

development towards existing communities. Ybor City in Tampa, Florida is a prime example of retail revitalization themed within its historic roots as the Cigar Capital. With the addition of retail, mixed-use, office, entertainment, and high density residential, the area's tax base has increased significantly allowing revenues to further improve infrastructure (Phillips, 2002). In addition, the Ybor City Development Corporation created a 30-second TV commercial that "has been instrumental in communicating consistent brand messaging…showcasing Ybor City's finest attractions and activities through a diverse cast of local talent" (Florida Redevelopment Association, 2009, p. 15). Such development has encouraged smart growth principles such as preservation of historic structures, enhanced public transportation with trolley and bus services, increased residential densities, safe walking zones, and created a strong sense of place.

Traditional concept marketing is a tool used to reignite the history of a community architecturally and/or culturally often considered heritage tourism for economic development purposes. This type of marketing requires strategic coordination and cooperation between public and private parties to incentivize investments (Phillips, 2002; Stipe, 2000). Such a marketing scheme enhances principles of smart growth such as encouraging community and stakeholder collaboration as well as maintaining existing infrastructure and creating a cohesive sense of place. Cape May, New Jersey presents an example of a community redeveloping based on its historical roots as a seaside resort of Victorian-era architecture. Upon revitalization, instigated by the nonprofit Mid-Atlantic Center for the Arts in the 1970s, Cape May has seen a 30 % increase in summertime visitors from 23,800 to 31,000 with a small increase in

permanent residents from 4,668 to 5,000 as of 2000. Overall the city has seen a sevenfold increase in yearly visitation and a 50 % increase in bed and breakfasts. Eighty percent of concept marketing and development is funded with ticket sales to sites and events (Phillips, 2002).

Surrealistic concept marketing is a tool used to push the envelope of imagination and take a theme beyond what is expected in order to produce a dreamlike atmosphere. “The juxtaposition of elements within a community to create, or re-create, a new environment…a concept that has no historical or cultural basis, and with proper application, sell itself as this new entity” (Phillips, 2002, p. 126). This marketing scheme departs from most smart growth principles although it aggressively seeks to create a strong sense of place. Extreme examples include Las Vegas, Nevada and although not permanently inhabited, Walt Disney World and Walt Disney Land. According to Phillips, surrealism requires shock value, scale, and scope to incorporate appropriate activities and venues. Calistoga, Florida has developed an economy based on physic services and venues to feed and board customers. Mount Dora, Florida exhibits a New England architectural style unlike any other in Florida thus causing visitors to experience the difference in shock value and scale. This concept was enhanced from the original architecture developed in the late 1800s. In the 1990s, the city developed a historic preservation ordinance to protect the structures. In addition, nine parks host events ranging from lawn bowling to nature education with the private sponsorship of the Village Merchants Association. From 1980 to 1990 the population increased 11 % with a further 25 % increase from 1990 to 2000; a considerable portion of the population

increase is attributed to retirees. The small city with a population of 10,000 attracts approximately 300,000 visitors yearly (Phillips, 2002).

Smart Growth as a Marketing Tool Attracting Baby Boomers

Smart growth presents basic principles of traditional growth patterns seen across America as development occurred prior to automobile traffic. Providing residents with highly walkable and easily accessible environments is not a novel idea although it has not been a common practice for several decades. Research demonstrates a rising interest in smart growth development patterns in conjunction with aging citizens as such development models encourage aging in place and typically bolster aesthetics around cohesive patterns (Stafford, 2009; Logan n.d.). Marketing smart growth as a concept can be likened to the "Experience Economy" as described by Gilmore and Pine (1999) whereby, it is explained that the experience economy is a fourth level from that of three basic economic offerings: commodity, good, or service. The three basic offerings escalate in value from commodity to good to service with experience far surpassing the value of services. Marketing of place thrives on the high value placed on experiences. Smart growth becomes a foundation for the experience economy as it produces a mixture of the concept markets described by Phillips to fulfill the criteria set forth by Gilmore and Pine to ensure an optimal experience.

Gold and Ward explain that "place marketing is defined as a process whereby local activities are related as closely as possible to the demands of the targeted customer…(with the intention) to maximize the efficient social and economic functioning of the area concerned, in accordance with whatever wider goals have been established" (1994, p. 41). One method of place marketing as is described by Dover is smart growth, which "is about making places, not just developments…there is a premium

associated with placemaking that homebuilders can leverage to speed up sales and command better prices per square foot" (Dover, n.d., p. 1). Gilmore and Pine (1999) discuss the difference between an economy of commodities versus an economy of experiences with regards to the latter having potential to harness power over the future economy. Experiences are provided in development patterns that offer daily services and lifestyle services as compared to conventional suburbs exhibiting sprawl and cookie cutter houses, which are void of any sense of place. Successful new development and rehabilitation focus on the sale of an experience as is expressed by Benson (2007) in the following excerpt.

> The market is ready for smart growth, so how can we market it effectively? First, understand what it is you're selling. It's not a town center; it's greater convenience and social interaction. It's not a pocket park; it's eyes on the street and playing Frisbee on a Sunday afternoon. The job of branding and marketing is to communicate at every "touch point" with the buyer just how a smart growth community will enhance his or her **quality of life**. Buyers choose a community and a home based on the **experiences** they believe they will have- the positioning for smart growth communities must be about delivering those experiences. (p. 1)

Research shows a growing interest in smart growth communities from all segments of the population with approximately one third of the consumer real estate market preferring such development (Logan, n.d.). According to the 2004 National Community Preference Survey conducted for Smart Growth America and National Association of Realtors, approximately 55 % of respondents would prefer a smart growth community. Findings of the report state the priorities of individuals determining where to live; selected priorities are shown as ranked in the following progression from highest level of importance: 75 %, easy access to the highway; 72 % sidewalks and places to take walks; 60 %, living in a place that's away from it all; 51 %, being within walking distance to stores and restaurants; 46 %, being within walking distance of public

transportation; 40 %, being within walking distance of a place of worship; 26 %, living in a place that is at the center of it all. Findings detailing the level importance of community diversity express 65 % of the population desiring to live in a community with people at all stages of life with 47 % racial diversity, 45 % income mix, and 38 % housing mix. Findings detailing lacking features in communities states public transportation within walking distance is the second largest deficiency, with places to bike in third, shops or restaurants within walking distance in fourth, places to walk or exercise for fun in fifth. Findings detailing state government priorities express that 44 % of respondents would prefer to see states revitalize cities compared to 24 % for creating new development outside cities. Reviewing preferences based on age expresses that those aged 59 and up are more interested than younger generations in developing communities where one does not need to drive. Logan et al., (n.d.) support the survey findings and express that "community centers will need to evolve in sophistication to capture the retiring boomers' interest. A town-center amenity that can be conveniently accessed by foot, rather than only by car, enhances its fit with the desired lifestyle" (Logan, n.d., p. 7)

As the American demographic shifts, empty nesters express the highest level of interest in smart growth development. According to Logan et al., (n.d.), "the aging of the baby boomers is likely to influence the size of the market, as their impending change in life stage drives them to make different housing choices than in the past" (p. 5). Elderly looking to make a permanent lifestyle change are typically seeking amenities and services such as those presented in a smart growth development pattern. This is represented by 46 % of elderly migrants, which is the largest category of migratory

elders as compared to only 28 % of migratory elders seeking assistance (Walters, 2002).

It is not expected that baby boomers will approach aging like their predecessors, however, it is likely that aging citizens will continue to prefer low-maintenance properties allowing them time to enjoy the amenities of smart growth communities such as shopping and recreation within walking distance as social interactions are essential to the retirement lifestyle. Despite a lack of age restriction, Amelia Park on Amelia Island, Florida is attracting retirees with its mixed use development patterns and co-location of services including medical, retail, and entertainment. Approximately 40 % of the population is fully or partially retired and 80 % of residents are age 50 and above. Research speculates that smart growth development will continue to occur in the form of urban infill projects rather than greenfield developments as baby boomers seek urban amenities (Logan, n.d.).

Concept Marketing as a Place Making Tool to Attract Boomers

Concept marketing for the purpose of place making requires similar methods of operation as the tourism industry; due to a lack of information specifically relating concept marketing with baby boomer preferences for permanent relocation this section will review literature from the tourism industry. Research regarding the connection between attracting tourists as temporary migrants will be used to prove the importance of creating a sense of place to entice permanent migrants. As stated in Sunbirds, Snowbirds, and Stayers (BEBR, 2006) approximately 23 % of residents age 50 and above were once temporary visitors to Florida and 30 % of visitors plan to become permanent residents in the near future. Concept marketing is one strategy for cities seeking to attract some portion of that 30 % who plans to become permanent residents.

In some cases, cities may have the potential resources and infrastructure to market smart growth as their concept. Tourism products such as heritage tourism enhance preservation efforts inherent in smart growth principles and are desirable features within concept marketing as seen in Phillips' explanation of surrealism and tradition. Concept marketing has the potential to develop a site into a theme park of sorts as seen in surrealism, however, smart growth development lays groundwork for a sustainable growth pattern concerning economics, sociability, and ecologies. Literature reviewing the implications of development with intent to attract residents will be discussed as these actions have the potential to disrupt host communities.

The creation of place, as discussed by Phillips, is often dependent upon an un-established concept; as such, the host community is open to the potential adverse effects associated with developing a concept dissimilar to the community's history. Although development based on some authentic aspect of the community might be less offensive or disconcerting to current residents, its potential to attract new residents may be less successful. The value of products no longer takes precedence; rather, success lies within consumer driven desire for experiences (Apostolakis, 2003; Gilmore & Pine, 1999). Staged authenticity is the product developed by hosts; it may alter the original activity and thus, over time, the alteration could eventually become the norm even for the host (Chabra, Healy & Sills, 2003). According to Gilmore and Pine (1999), staged products will drive the future economy as consumers are willing to pay a premium for experiences they deem to have high value. Heritage sites are one example of a city containing unique and usually authentic experiences based on a prefabricated stock of cultural resources.

Demand is represented by “desire to directly experience and consume diverse past and present cultural landscapes, performances, food, handicrafts, and participatory activities” whereas supply is “a tool for community economic development and is often actively promoted by local governments and private businesses” (Chhabra, et al., 2003, p. 703). Apostolakis (2003) suggests that authenticity is the link between the demand and supply of products as means of marketing to both motivate and attract individuals. Scholars debate the meaning of authenticity and more importantly whether true authenticity is necessary in order for people to have a satisfying experience. Chabra et al., (2003) explain that “satisfaction…depends not on its authenticity in the literal sense of whether or not it is an accurate re-creation of some past condition, but rather on its perceived authenticity…Not every component of the experience need be authentic (or even satisfactory) so long as the combination of elements generates the required nostalgic feelings” (2003, p. 705).

If history repeats itself, the baby boom generation will dominate the leisure travel industry, as did the retirement population of the 1990s (Hoseason et al., 2001). This demographic characterizes themselves as “younger, fitter, better educated and more widely travelled than their predecessors” and thus require higher levels of education and entertainment to fulfill their experience (Hoseason et al., 2001, p.227). It could be argued that future generations will continue to require a higher quality of experience and thus a cyclic pattern of maintaining more satisfying experiences to avoid places becoming commodities will further continue the degradation to a community’s origins. Smart growth principles seek to preserve structures and encourage community and

stakeholder collaboration to develop distinctive communities with a strong sense of place.

Best Practices of Urban Design

Urban design is “concerned with the quality of the public realm- both physical and sociocultural- and the making of places for people to enjoy and use” (Carmona et al., 2006, p. 3). The perception of space is typically enhanced through implementation of well-designed urban streets and forms. Successful urban designs require expertise from diverse disciplines dedicated to collaboration of knowledge and compromise of opinions in both the public and private realms. Many successful cities have applied planning and design processes that have been developed into best practices. Although innumerable resources have constructed best practices checklists, this section will use the guidance of two studies and thus be discussed in two parts: Street Design and Urban Form. These studies have been selected because each reviews comprehensive research and literature from their respective studies as well as research from experts in the fields of economic development, walkability, and revitalization.

Part one, Street Design, will use a 2006 study from the Active Living Research Program authored by Ewing, Handy, Brownson, Clemente, Winston, *Identifying and Measuring Urban Design Qualities Related to Walkability* to discuss the qualitative measures of determining an individual’s propensity to walk in the following categories: imageability, enclosure, human scale, transparency, and complexity. Part two, *Principles of Downtown Revitalization*, will use Kent Robertson’s eight principles for downtown development in small cities as a foundation to discuss the most common best practices of urban design used to enhance economic development. The eight principles are as follows: the importance of a strong private/public partnership, develop a

vision/plan for downtown, downtown should be multifunctional, take advantage of downtown's heritage, link downtown to the waterfront, downtown should be pedestrian friendly, establish design guideline, do not overemphasize the importance of parking. The next section will briefly discuss the perception of space as it is fundamental to informing researchers of personal preferences and individual responses to aspects of the built environment.

Perception of Space

Carmona et al., (2003) explain that "visual appreciation of urban environments is also a product of perception and cognition- that is, what stimuli we perceive, how we perceive them, how we process, interpret and judge the information gathered, and how it appeals to our mind and emotions" (p. 130). This thesis is concerned with the urban design qualities of streets and their surrounding contextual urban form that are aesthetically pleasing and functionally effective.

Comprehensive research expresses the connection between environmental attributes and the perception of users who respond to such features (Bell et al., 1990; Carmona et al., 2003). Ittleson (as cited in Bell, 1990, p. 29) explains that perception is divided into four realms: cognitive, affective, interpretative, and evaluative. The first three realms concern the ability to make sense of an environment, feelings about the space, and interpretation to compare a new environment with prior experiences. The final realm of perception, evaluative processing, is the point at which a person determines whether something is good or bad and hence makes a determination of personal preference.

Understanding personal preference is the key to developing spaces that will attract and appease multiple people requiring various stimuli. Research has confirmed that

commonalities exist between forms that are significantly more preferred among majorities (Ataov, 1998). The reaction has been defined as “aesthetic response” which notes favorable emotional appraisals or evaluations of the environment (Ulrich, 1983).

Street Design

Research measuring the quality of urban design generally reviews in depth initiatives requiring street connectivity, neighborhood density and distance to services, however it has been discovered that subtler qualities of street design encourage active urban lifestyles (Ewing et al., 2006). According to Ewing et al., measuring these factors leads to empirical evidence to substantiate previously untested urban design presumptions. Each of the qualities relates the inclination for an individual to prefer a type of built environment in accordance to human perception of space and aesthetics. The qualities discussed in the next five sections are as follows: imageability, enclosure, human scale, transparency, and complexity.

Imageability

Lynch (1960) explains that imageability is “that quality in a physical object which gives it a high probability of evoking a strong image in any given observer” (p. 9). Southworth (1985) suggests that “Imageability may be achieved by image making. Image making is based on the history of a place, or it can express the current social-cultural scene. Sometimes it is appropriate to give form to the fantasies or aspirations of a place’s users “(p. 54). According to Lynch (1960) five elements are the basis of an imageable city: paths, edges, districts, nodes, and landmarks. Imageability according to Ewing et al., (2006) can be defined by architecture, well placed views, historic structures, and other identifying features. Times Square in New York City exemplifies imageability with the iconic landmark of One Times Square, neon signs,

advertisements, elaborate architectural styles, and countless bustling people. These distinguishing elements make this space highly imageable and therefore highly memorable.

Enclosure

Enclosure refers to the degree to which streets are defined by such objects as buildings, walls, trees, and other vertical elements that create a room like quality (Ewing et al., 2006). The urban room provides orientation and directionality due to vertical enclosures typically formed by walls, the urban floor, and often structural objects placed at either end of the street segment (Jacobs, 1993).

Enclosure expresses the height to width ratio between the street floor and any vertical objects such as buildings, walls, trees, and art that develop a street into a three dimensional room (Ewing et al., 2006; Carmona et al., 2006). According to Carmona et al., a ratio between 1:2 and 1:2.5 is most suitable for creating a good sense of street enclosure. A ratio of 1:4 provides a high proportion of sky allowing the eye to move beyond the space as outward views are not contained. A ratio of 1:1 is highly restrictive and can cause a sense of claustrophobia as the street wall equals the width of the street floor and thus is the minimum considered comfortable (Carmona et al., 2006; Hedman et al., 1984). Conversely, Jacobs (1993) argues that comfort levels are likely determined by street level occurrences such as sun light, temperature, and wind rather than building height. Building heights extending beyond the street width create extreme enclosure as building tops are not entirely visible without looking into the sky. In addition to height to width ratio, enclosure is determined upon the proportion of street wall within a street segment. Buildings displaced from the sidewalk by parking lots or extensive lawns are deterrents to enclosure. According to Ewing et al., (2006),

buildings do not create a sense of enclosure if set back from the sidewalk more than 10 feet. Street design should take into account temperature controls provided by trees, varying building heights, and reliefs in the façade to enable access to sun during cold months and protection during hot months (Carmona et al., 2006; Jacobs, 1993).

Human scale

Human scale refers to a size, texture and articulation of physical elements that match the size and proportions of humans and, equally important, correspond to the speed at which humans walk (Ewing et al., 2006). Scale is related to small scale objects such as street trees, street furniture, pedestrian scale lighting, architectural details, and pavement patterns that bring a sense of proportion to inhabitants (Ewing et al., 2006; Jacobs, 1993; Hedman, 1984)

According to Jacobs (1993), relying upon research by Blumenfeld and Maertens, a person standing still and facing a structure at a 27 degree angle, can comfortably view the height and width of a building at three stories high with a width of 36 feet and a street width of 72 feet. Two story structures represent a more intimate scale at a width of 24 feet with a street width of 48 feet. However, a person does not experience a street from a stationary point and therefore it is more important to consider perspective views through motion with the viewer scanning both directions at approximately 30 degrees (Jacobs, 1993).

According to Ewing et al., (2006), a high proportion of active windows on a building façade enhances walkability as it adds a higher level of human scale. However, Hedman (1984) argues that an endlessly repeated window module is useless such that "to effectively define the height of a street space it is necessary to interrupt the vertical

thrust of the tall building, and to forcefully conclude facades at a height appropriate to the creation of a gracious street space" (p. 63).

Transparency

Transparency refers to ones perception of human activity beyond the street edge; the happenings that can be seen through midblock openings, storefront windows, fences and landscaping provide the user with a better understanding of the space (Ewing et al., 2006). Jacobs (1993) explains that "the best streets have about them a quality of transparency at their edges, where the public realm of the street and the less public, often private realm of property and buildings meet" (p. 285). The transparency of edges often occurs through surfaces, which Curran (1983) explains "can tell us about the uses of a building and how they link with the access systems of the city" (p. 126).

Windows and doors create a sense of what is happening beyond the walls, despite not actually entering (Ewing et al., 2006; Jacobs, 1993). "Windows visually extend the interior domain out and beyond the containing surfaces of buildings, while also expressing, within the public domain, the nature of the interior uses" (Curran, 1983, p. 126). Clear visibility, while not necessary for residential structures, is a necessity in commercial districts; windows and doors covered by draperies, blinds, or dark tinting decrease the level of transparency and thus one's perception of the space beyond. Transparency can be achieved visually without windows or doors such as tree branches extending beyond a wall, denoting a possible garden or open space (Jacobs, 1993).

Complexity

Complexity refers to physical elements utilized to enhance visual richness; it is dependent upon a high occurrence of architectural features, street furniture, signage, landscape, and human activity (Ewing et al., 2006). Humans desire "an environment

with a richness of detail that is larger than our immediate ability to process it" (Cold, 2000, p. 7). Although visual stimulation increases interests, preference for complexity decreases after a certain point (Nasar, 1998, p. 75). Designs that are overly controlled lack a sense unpredictability that can decrease complexity (Ewing et al., 2006). Jacobs (1993) explains that an orderly arrangement of elements such as building heights and setbacks creates a level of coherence.

Structures compose a large proportion of the street wall and thus are significant contributors to the level of complexity on a street. Multiple structures in one block add to complexity more than standalone buildings. Experimentation to determine human preferences of design techniques related to surface detail, silhouette complexity, and façade articulation have concluded surface detail has the largest impact on human perception, followed by silhouette complexity and façade articulation (Groat 1989; Stamps, 2000).

The indicators discussed in this section relate personal preference based on human perception of the built environment. The level of quality in each indicator directly affects human response acting as a stimulant or impediment upon an individual's inclination to prefer a particular built environment. The following section will discuss indicators of the urban fabric concerned with holistically maintaining a community.

Urban Fabric

Research regarding the best methods to develop successful communities has been provided by numerous authors; this section will use guidance from *Downtown Development Principles for Small Cities*, which claims small cities "see a healthy core as integral to their overall heritage, tax base, sense of community, identity, economic development appeal, and image" (Robertson, 2001, p. 9). According to Robertson,

most literature concerning downtown development is focused on large cities, however, the planning process for large and small cities varies and thus his principles are derived from surveys and literature regarding populations of 50,000 or less.

This section will use Kent Robertson's eight principles for downtown development in small cities as a foundation to discuss the most common best practices of urban design used to enhance economic development. The eight principles are as follows: the importance of a strong private/public partnership, develop a vision/plan for downtown, downtown should be multifunctional, take advantage of downtown's heritage, link downtown to the waterfront, downtown should be pedestrian friendly, establish design guideline, do not overemphasize the importance of parking. This section will use the principles as a framework to discuss the contentions of Robertson and several other authors and organizations such as the National Main Street Center.

The importance of a strong private/public partnership

Forming a direct line of communication between public agencies and private citizens enables succinct prioritization and strategic planning to benefit businesses and the community. According to Robertson (1997), successful downtowns are often equipped with "two interrelated ingredients" established in the partnership between public and private. A downtown development manager and devoted volunteers are suited to undertake "marketing, recruitment, promotions, and event planning, and to serve as a unified voice representing downtown interests" (Robertson, 2001). Successful reinvesting and reinventing in downtown sustains the most beneficial growth with partnerships between public sector, business sector, and civic sector (Palma, 2001, p. 158). It is critical that their efforts are supported by city and state governments.

The local government is not lacking in control over private development although it could be argued that initiating sustainable growth is not the top priority. The federal government operates on a derivative regulatory system, which can only exercise powers given to it by the states; Amendments 9 and 10 to the U.S. Constitution allow states to retain the power to regulate citizens in their personal conduct and use of property known as police power. This includes the power to regulate historic properties key to smart growth principles. Although the federal government lacks direct control, it maintains power through control of funds from personal and corporate income tax that can be returned to states in the form of grants and loans. Money is given on a conditional basis to states for federal programs providing states adhere to federal regulations (Stipe, 2003). The city can demonstrate its commitment by granting downtown high priority in the comprehensive plan and budgeting process, by investing in public improvements such as sidewalks, streets lights and infrastructure, and by providing incentives for building façade improvements and business expansions (Robertson, 2001).

According to the National Trust for Historic Preservation's Main Street Program, success is determined by the use of the Main Street Four Point Approach. This approach is guided by eight principles, several of which correlate to Robertson's principles and will be discussed throughout this section. Two principles specifically discuss the integration of public and private enterprises for the greater good. Organization is the first goal of the Four Point Approach with an emphasis on Self Help and Partnerships from the guiding principles. Principle 3, Self Help, promotes the importance of local leaders to mobilize business owners and residents to invest time

and money into their downtown with the premise that nobody else will put in the necessary effort if they don't lay the groundwork. Principle 4, Partnerships, stresses the importance of both public and private agencies to understand the limitations and rely on their strengths to develop an efficient partnership. The Four Point Approach recommends that "a governing board and standing committees make up the fundamental organizational structure of the volunteer-driven program. Volunteers are coordinated and supported by a paid program director as well. This structure not only divides the workload and clearly delineates responsibilities, but also builds consensus and cooperation among the various stakeholders." (National Trust for Historic Preservation [NTHP], n.d.).

Develop a vision/plan for downtown

A fitting revitalization method is often discovered in a vision plan intended to arm the city with a flexible goal (Robertson, 2001). Carmona et al., (2006) define visioning as "generating and developing various possible solutions through an iterative process of imaging and presenting, usually informed by personal experience and design philosophies" (p. 56). "The plan should clearly articulate the goals, objectives, and priorities for downtown development, transportation dimensions, design elements, specific locations for various types of desired projects, and linkages between primary downtown locations" (Robertson, 2001, p. 14).

Flexibility is inherent in the visioning process due to the public sector's limitation to regulate rather than mandate land use and design; in this way the private sector is exposed to the choices of their counterparts. Due to the open-endedness of development a visioning plan is key to a cohesive product (Paumier, 2004). A vision plan is often executed with a SWOT (strengths, weaknesses, opportunities, and threats)

analysis to determine the most appropriate steps regarding advancing towards a goal (Carmona et al., 2006; Robertson, 2001). The SWOT analysis is used to evaluate flaws the urban form and develop potential solutions.

According to Principle One of the National Trust for Historic Preservation's Main Street Program, a comprehensive plan is necessary for successful, sustainable, long-term revitalization and must include activity in each of the Main Street's Four Points regarding organization, promotion, design, and economic restructuring. The vision plan is not complete without all four components (NTHP, n.d.).

Downtown should be multifunctional

The function of downtown has experienced several shifts since its origination; initially developed with residential and employment within in close proximity until the advent of automobiles when residential became separated. A new shift encouraging residential incorporation into the downtown urban fabric is noted as a strategy by two-thirds of cities in the Survey of Small City Downtowns (Robertson, 1999). Cities seek methods to create active street life by increasing the co-location of services, types of services at different hours, and a mix of visitors and residents (Carmona et. al., 2006; Paumier, 2004; Robertson, 2001). Location of civic buildings (police office, city hall, court house, post office) as well as churches, nightlife, convention centers, sports facilities, theaters, professional offices- bring people in from outside of downtown. The mixture of services, institutions, and residences ensures stability in the economy; the possible loss of any element will not entirely depreciate the economy (Paumier, 2004).

Take advantage of downtown's heritage

The downtown district of many cities is a composition of historic streets, buildings, homes, parks, and civic buildings. According to the National Trust for Historic

Preservation's Main Street Program, Principle Five, Identifying and Capitalizing on Existing Assets, it is imperative that all aspects of downtown revitalization are contingent upon the unique historical characteristics inherent in the downtown (NTHP, n.d.). Historic preservation as an economic development tool requires discussion from viewpoints of the private investor as well as the benefiting public. Randall Mason (2005) explains that historic preservation produces economic benefits for both the public and private. "Preservation projects can be profitable, and preservation policies do make sound fiscal sense" (Mason, 2005, p. 21). In practice, preservation affects the most progress with equal participation from both the public and private.

In 1966 the National Historic Preservation Act defined historic preservation as a tool of community planning and thus developed methods to encourage private investment including tax policies such as tax incentives, rehabilitation credits or deductions against state income taxes and local property taxes, and revolving loan funds. The latter has been successful in large scale preservation plans such as the Historic Charleston Foundation, Historic Savannah Foundation, and the Pittsburgh History and Landmarks Foundation. "Entire neighborhoods of derelict structures have been revived by private purchasers, returning millions of dollars to local tax bases and creating a lucrative market for heritage tourism" (Stipe, 2003, p. 336-337).

According to Robertson (1999) in a Survey of Small City Downtowns, preservation, architecture, and heritage are the most frequently noted assets. Small cities with a population of 25,000 to 50,000 residents in freestanding municipalities symbolize the typical American downtown outside of mega cities. Historic preservation ranks highest as a development strategy and is the number one method actually utilized as a strategy

for economic development. Further it is the number seven strategy to be utilized by cities for future planning. Evidence shows historic preservation is a successful tactic to enhance economic stability and local governments have the power to protect such sites (Robertson, 1999; Robertson, 2001; Stipe, 2003).

According to Donovan Rypkema (as cited in Tyler et al., 2009) in a speech on sustainability at the National Trust for Historic Preservation conference, “heritage visitors stay longer, visit twice as many places, and on a per-trip basis spend two-and-a-half times more money than other visitors” (p. 284). Essentially, heritage tourists have a greater per-trip economic impact. Strategic marketing would enhance the service sector to capture both the local and tourist market in development of a successful business market.

Tyler (2009) explains that theaters exemplify specific preservation projects that go beyond the basic commodity of movies or the basic service of displaying the movie. Theaters provide a regular series of experiences from the sights, sounds, smells, and interactions. This is particularly true in reference to historic theaters with their unique lighting, fantasy landscapes, organs, and live bands. Downtown theaters, new or old, promote pedestrian activity beyond normal operating hours, thus providing businesses with incentive to keep their doors open and opportunity to capitalize on late-night shoppers. A case study of City Opera House in Traverse City, Michigan, indicates renovation of a historic structure as part of the downtown redevelopment plan that profitably benefited the theater as well as local businesses. Traverse City cultivated a plan to market itself as a destination resort and proceeded to promote the renovation to both the town’s people as well as curious tourists through persuasive illustrations and

graphics. Estimated economic benefits generated from renovation of the Opera House are approximated at “$5,000 per seat per year, or an annual yield of $3,600,000 into the downtown community” (Tyler, 2009, p. 288).

Link downtown to the waterfront

Historically, downtowns were located near accessible ports on waterfronts that dictated the character and development of main street activities including manufacturing, trade, and lodging. The increase of interstate highway shipping led to the inevitable demise of many port city economies. Waterfronts maintaining daily shipping services create active viewpoints and act as an educational tool relaying information about the cities manufacturing and economy (Torre, 1989). According to Breen and Rigby (1994), water bodies heighten one’s sense of place and thus maintain downtown attraction despite physical deterioration.

The waterfront should be clearly defined both visually and physically for pedestrians to access the city’s retail spine; streets terminating with views of the water increase visual understanding of the space and increase the likelihood of use (Paumier, 2004; Robertson, 2001). Waterfronts were considered the second most attractive asset according to the survey of small cities conducted by Robertson (1999). Waterfronts located on rivers provide increased accessibility to the city such as small waterway communities that combine both residential and industrial vessels as seen in Stockholm, Sweden (Torre, 1989). Waterfronts located on small scale lakes or creeks have potential to provide recreational activities such as swimming, rowing, water-skiing. In conjunction with land amenities including parks, public restrooms, and boat ramps the waterfront is geared to create a balance of activities, which Torre argues is the number one goal of waterfront development (1989).

Downtown should be pedestrian friendly

Downtowns are inherently pedestrian friendly; founded on principles of walking and high density not often established in suburbs or commercial/industrial parks. Despite an aesthetically pleasing environment, a vibrant downtown is likely unattainable without pedestrian activity to enliven sidewalks and store fronts. Therefore, vibrancy relies heavily on pedestrian friendly streets uninhibited by torn down buildings, surface parking lots, and blank walls that are enjoyable, practical, and an efficient mode of transportation (Robertson, 2001). “Economically, the more a person is enticed to walk, the more storefronts he/she will encounter, thereby increasing the pool of potential customers for business to draw from” (Robertson, 2001). Efforts to increase pedestrian activity include light fixtures, street trees, flowers, benches, ground treatments, widened sidewalks, road diets, reduced traffic speeds, parking signage, crosswalks and crossing signals, and bicycle racks. Downtowns should strive to link activity centers such as retail, dining, event centers, plazas, employment and residences to increase foot traffic. Emphasis should be placed on attractive building facades, awnings, and interesting store windows to increase the level on interest for slow speed passersby (Robertson, 2001).

Establish design guidelines

Downtowns have typically developed a distinctive character during their growth, potentially providing distinguishing environments worthy of being visited and revisited. Acknowledging heritage as the number one asset according to the Survey of Small Cities by Robertson, it is important to maintain the integrity of these structures. Preservation is often upheld through strict or lax design guidelines as determined by the city. This ensures that preservation of aged structures and new construction considers

the original context to prevent flaws that require years and decades to remedy. “For buildings old and new, technical guidance is needed for matters concerning setbacks, windows, signage, awnings, rooflines, doorways, materials, color, and massing, and how these factors relate to surrounding structures” (Robertson, 2001, p. 14).

The Main Street Approach’s third point, Design, recommends “capitalizing on its best assets” to develop an engaging atmosphere that “conveys a positive visual message about the commercial district and what it has to offer” (NTHP n.d.). In addition to Robertson’s design suggestions, the Main Street Approach suggests that, “design activities also include instilling good maintenance practices in the commercial district, enhancing the physical appearance of the commercial district by rehabilitating historic buildings, encouraging appropriate new construction, developing sensitive design management systems, and long-term planning” (NTHP n.d.).

Do not overemphasize the importance of parking

The number of parking spaces in downtown settings is often a controversial issue for both patrons and retail/service operators desiring upfront parking. Patrons are accustomed to big box parking lots with never ending spaces and have been deceived into thinking massive surface parking embodies convenience. However, patrons often experience difficulty in the search for proximate parking due to usage by store operators and employees. “They impede pedestrian circulation, constitute an unsightly use of land, add less to the tax base than most alternate uses, reduce downtown densities, and usually serve to detract from downtown’s overall value and appeal” (Robertson, 2001).

Despite Robertson’s argument against emphasis on downtown parking, research also presents the benefits of parking noting that it is a necessity in most cities to entice

people to the downtown (Dorsette, 2000). The city and businesses should implement parking policies such as validation to promote short term parking within the downtown while placing employee parking within a four-five block radius or near a transit shuttle (Paumier, 2006). "It is important to remember that parking itself never attracts people to downtown, and therefore should constitute a supporting role, not be the centerpiece of downtown development efforts" (Robertson, 2001).

Summary

The first of the Baby Boom generation reached retirement age in 2008 and will continue until 2026. Research shows that retirees of this generation are more likely to move long distances based on personal preferences in the decision to permanently change their place of residence. Projections of migratory patterns suggest that Baby Boomers will be relocating to Florida in search of a community offering an environment to age in place through their retirement years.

Smart growth development patterns associated with small scale development of downtowns and neighborhoods reflect principles enabling aging in place such as co-location of services including residential, retail, civic, and healthcare in communities created with character and a sense of place. Studies expressing the interests of elderly show they prefer to have walkable communities with access to public transit, recreation, and shopping. The majority also prefers communities offering impromptu social interactions as well as mixed demographics of age, race, and religion. Despite personal preferences, many people do not choose to live in such communities for reasons beyond the scope of this study. However, this literature review does discuss potential strategies for cities seeking to attract residents through a marketing campaign based on the concept of smart growth principles.

Research expresses the connection between environmental attributes and the perception of users whom respond to such features. Street design indicators have been measured to prove that common architectural preferences exist thereby creating a template for appeasing preferences. The perception of space is measured through observation of imageability, enclosure, human scale, transparency, and complexity. Further research expresses the level interconnectedness through urban form as expressed in land use diversity and accessibility. Smart growth development encourages aesthetically pleasing designs that enable walkability and use friendliness.

CHAPTER 3
MEASURING THE BUILT ENVIRONMENT

A multiple-case design is a common methodology used to compare multiple variables and/or places and is often considered a more robust study compared to single-case designs (Yin, 2003). For the purposes of this thesis the multiple-case methodology was selected for its ability to compare two sites with the expectation of contrasting results; whereby, each site is an individual case although the study as a whole contains several sights and so according to Yin, in this way it is a multiple case study design (Yin, 2003, p. 53). Further, Yin recommends using a replication method when using a multiple-case study design; therefore, this thesis requires each of the following observations to be conducted with identical procedure in each city. Comparison of the multiple case studies requires two systems for observation; one based purely on observation and the second based on diagrammatic mapping.

The first method of observation was conducted to measure design within a street segment according to instruction from *Measuring Urban Design Qualities: An Illustrated Field Manual* developed by the Robert Wood Johnson Foundation authored by Clemente, Ewing, Handy, and Brownson (2005). Through repeated observation the manual measures imageability, enclosure, human scale, transparency, and complexity. Prior to this study, the authors believe that urban designers presumed these qualities were important for active street life, but had little empirical evidence to back the claim. Until urban design could be measured, and the propensity to walk could be related empirically to these measures, this presumption remained untested (Clemente et al., 2005). This thesis will follow the instructions from the manual to determine the level of quality related to urban design features in the selected case study cities.

The second method of observation was conducted using *Linking urban design to sustainability: formal indicators of social urban sustainability field research in Perth, Western Australia* by Porta and Renne as a template to develop diagrammatic maps used for analysis. Diagrammatic mapping is common in the planning practice to analyze the strengths and weaknesses of an urban form. Analyzing the strengths and weaknesses are often part of a comprehensive study to determine the strength, weaknesses, opportunities, and threats known as a SWOT analysis which is most appropriate at the site specific scale (Carmona et al., 2006). Porta and Renne argue that recent planning initiatives concerned with sustainability cannot be measured without determining indicators to understand urban design as it can "promote and/or hinder economic, environmental, and social processes" (Porta and Renne, 2005, p. 52). Further, they explain that these indicators were developed with the intention that "traditionally designed town centers or suburbs are more sustainable in respect to social equity, economic stability, and the protection/enhancement of the environment, compared to conventionally designed places" (Porta and Renne, 2005, p. 52).This thesis will use the indicators from the Porta and Renne study that have been adapted from a measurement tool developed by the Western Australia Department for Planning and Infrastructure and the Public Transport Authority of Western Australia concerning travel behavior, local economy, natural environment, built environment, social environment, and policy context. This study used the adapted version as it is has selected only those indicators related to measuring the urban fabric.

The manual and indicators discussed will be referred to respectively as the Street Manual and the Urban Fabric Indicators as these names provide less complex wording

and represent the key measurement functions of each composition. Both The Villages and New Smyrna Beach were tested with each of these tool sets. The following sections will review the process of selecting each case study city and define study boundaries within each city. A discussion of the observation methods will preclude data discovered during the field work and mapping process. Finally, the data will be charted to highlight critical information.

Case Study City Selection

The Villages at Lake Sumter Landing, FL and New Smyrna Beach, FL were selected for the purposes of this research as each city contains qualities of either street design or urban form typically considered successful in relation to downtown main street corridors. The cities were selected in expectation of contrasting results with foresight of the differences in the level of quality that would be found in each city regarding street design and urban form. Both cities contain a town center and main street; The Villages town center is part of a master plan as opposed to the traditional progression of city center development in New Smyrna Beach, however, each serves a similar purpose as a hub for commerce. In each city the indicator tool sets described in the following sections were replicated to ensure each site received equal assessment of both the urban and street variables.

The Villages at Lake Sumter Landing, Florida was established from a green field beginning in the 1970s as a city solely for those currently in or nearing retirement. The Villages are located in three counties including Sumter, Marion, and Lake. Presently, the population is comprised of approximately 75,000 people aged 50 and above. Community rules require that if a couple purchases a home, at least one person must be 55 or older. Additionally, people below the age of 19 are only allowed to visit

someone in the community for 30 days; however, 19 and older may stay on a yearly basis. The city lacks a history or context from which to develop future planning initiatives. Rather, the story told through the city has been invented by developers and creators of Universal Studios Theme Park. The Villages is home to two downtown corridors: Spanish Springs Town Square and Lake Sumter Landing Market Square. This research focuses on one of the squares. The benefit of using The Villages lies within its highly progressive marketing of downtown to a specific demographic.

The Villages were selected due to the expectation that it would have significantly higher scores per the indicators rating street design. The concept and development of the community were void of any prior framework, infrastructure, or buildings to inhibit the design process thus allowing creation of a modern exciting built environment. The town center offers optimal high end retail space as the closest mall, Lake Square Mall, is located 12 miles away in Leesburg.

New Smyrna Beach, Florida was first inhabited by non-Native Americans in 1767 and incorporated in 1887 establishing this town with distinct development patterns including a historic central business district as well as two other commercial districts. This thesis will focus on Canal Street in the historic district where there is a broad range of demographics and land uses. The benefit of using Downtown New Smyrna Beach for this research lies within its lack of progress. Compared to other Floridian cities, New Smyrna Beach has not maintained it presence as a viable location for businesses to locate or for residents and tourists to visit. The downtown is situated for increased retail as the nearest shopping mall is the Volusia Mall located 18 miles away in Daytona Beach, FL. Presently, the demographic aged 65 and above is 8,952 people which,

accounts for 57 % of the New Smyrna Beach population. The demographic aged 35-64 accounts for 36 %, of the population, while those aged 15-34 accounts for only 7 %.

This research will use New Smyrna Beach as a case study to determine what qualities of its urban fabric and street design are or are not successful according to documented indicator tool sets. This site was selected with expectation of significantly higher scores per the indicators rating urban fabric as the downtown was developed prior to development of the automobile, thereby increasing pedestrian friendliness.

The Street Manual

The Street Manual is intended to determine the level of walkability beyond issues of general urban fabric such as Urban Fabric Indicators. The goal of this tool is to provide empirical evidence linking the propensity to walk to the qualities deemed important for an active street life (Ewing et al., 2006). This manual offers researchers a qualitative guide to produce objective measurements of the following indicators: imageability, enclosure, human scale, transparency, and complexity.

Several of the indicators for this manual are time sensitive so the measurements were taken at the same time of day for each city. It is assumed that these streets are most active around standard meal times although many of the businesses in New Smyrna Beach are not open for the dinner crowd around 5 o'clock. To ensure that study parameters are the most similar, lunchtime was selected as the most appropriate option. Measurement began at 11:00 and was completed at 2:30. Time sensitive indicators such as how many people were on the street and presence of outdoor dining furniture were observed first to ensure similar results. Street Manual instructions require the observer to perform a series of tasks as follows:

Step one- record measurements on the score card

Step two- multiply each measurement by its corresponding multiplier
Step three- add a constant unique value to each indicator
Step four- compute totals

Step one, recording measurements, is detailed by the Street Manual into several criterion for each indicator. The following paragraphs will discuss the process of measuring each criterion and will be discussed in the order of the indicators measured. Each criterion begins by requiring the observer to walk the entire length of the study area. For the purposes of this thesis the street segment has been divided by block so that each city contains five study areas.

Indicator #1- Imageability

- Criterion One- Record the number of courtyards, plazas, and park on both sides of the street- include plazas between buildings, courtyards with tables and chairs, small gathering areas.
- Criterion Two- Record the number of major landscape features on both sides of the street- include only natural landscape features.
- Criterion Three- Record the proportion of historic building frontage for buildings fronting the sidewalk on both sides of the street- include only structures built prior to 1961.
- Criterion Four- Record the number of buildings with identifiers on both sides of the street- include buildings with unique architecture, storefront signs, and business signs.
- Criterion Five- Record the number of buildings with non-rectangular shapes on both sides of the street- include buildings with pitched roofs, ornamental trim, and chimneys.
- Criterion Six- Record the presence of outdoor dining on both sides of the street.
- Criterion Seven- Record the number of people within 50 feet of the observation point- include people walking, standing or sitting. Exclude people sitting at outdoor dining locations. Conduct this observation a total of four times and average the values before applying the multiplier.
- Criterion Eight- Record the noise level on both sides of the street- rate noise on a level of 1-5 from 1) very quiet, 2) quiet, 3) normal, 4) loud, 5) very loud. . Conduct

this observation a total of four times and average the values before applying the multiplier.

Indicator #2- Enclosure

- Criterion One- Record the number of long sight lines- rate on a scale of 0-1 from 0) cannot see far to left or right or within 1000 feet ahead, 1) can see far to the left or right or beyond 1000 feet ahead. Exclude views down cross-streets or pedestrian paths.

- Criterion Two- Record the proportion of street wall on one side- include building facades set back no more than ten feet from the sidewalk. Record as a decimal in increments of tenths.

- Criterion Three- Record the proportion of street wall on the opposite side of criterion two- include building facades set back no more than ten feet from the sidewalk. Record as a decimal in increments of tenths.

- Criterion Four- Record the proportion of sky ahead- include the field of vision straight ahead. Record as a decimal in increments of twentieths.

- Criterion Five- Record the proportion of sky across the street. Record as a decimal in increments of twentieths. Repeat observation for the opposite side of the street. Average the values before applying the multiplier.

Indicator #3- Human Scale

- Criterion One- Record the number of long sight lines- rate on a scale of 0-1from 0) cannot see far to left or right or within 1000 feet ahead, 1) can see far to the left or right or beyond 1000 feet ahead. Exclude views down cross-streets or pedestrian paths.

- Criterion Two- Record the proportion of windows at street level- include windows from the first floor of buildings that front the sidewalk. Record as a decimal in increments of twentieths. Repeat observation for the opposite side of the street. Average the values before applying the multiplier.

- Criterion Three- Record average building heights- average the heights of multiple buildings for a value before applying the multiplier.

- Criterion Four- Record the number of small planters- include planters beneath street trees, flowerbeds, flowerboxes, and large urns. Exclude small pots that are easily moved indoors.

- Criterion Five- Record the number of pieces of street furniture or other street items- include tables, chairs, benches, parking meters, trash cans, newspaper boxes, mail boxes, bike racks, bollards, hydrants, flags, banners, merchandise

stands, street vendors, pedestrian scale street lights, lanterns attached to buildings, balloons, groupings of small flower pots, and ATMs.

Indicator #4- Transparency

- Criterion One- Record the proportion of windows at street level- include windows from the first floor of buildings that front the sidewalk. Record as a decimal in increments of twentieths. Repeat observation for the opposite side of the street. Average the values before applying the multiplier.

- Criterion Two- Record the proportion of street wall- include building facades set back no more than ten feet from the sidewalk. Repeat observation for the opposite side of. Record as a decimal in increments of tenths. Average the values before applying the multiplier.

- Criterion Three- Record the proportion of active uses from buildings fronting the sidewalk- include shops, restaurants, and other uses that generate significant pedestrian traffic. Exclude blank walls, parking lots, vacant lots, abandoned buildings, and offices.

Indicator #5- Complexity

- Criterion One- Record the number of buildings on both sides of the street.

- Criterion Two- Record the number of basic building colors- include the basic building colors. Exclude several shades of the same basic color.

- Criterion Three- Record the number of basic accent colors- include building trim, street furniture, awnings, and signs.

- Criterion Four- Record the presence of outdoor dining on both sides of the street.

- Criterion Five- Record the number of pieces of public art on both sides of the street- include monuments, sculptures, murals and any artistic display that has free access.

- Criterion Six- Record the number of walking pedestrians within 50 feet of the observation point. Conduct this observation a total of four times and average the values before applying the multiplier.

Upon completing observations and recording of values into the score card, each value is applied to its unique multiplier. Totaling final indicator scores requires taking the sum of each value and adding a unique constant.

The Urban Fabric Indicators

The Urban Fabric Indicators found in *Linking urban design to sustainability: formal indicators of social urban sustainability field research in Perth, Western Australia* by Porta and Renne will be used as a template to create diagrammatic maps for comparison of city patterns related to land use diversity, permeability, and accessibility. The following paragraphs will review each pattern.

Indicator 1- Land Use Diversity

Land use diversity measures the variety of land uses within the one-quarter mile radius. Diversity is shown in figure ground mapping with color coded buildings to show the type and quantity of each structure including residential from single to multi-family, public, recreational, commercial, and light industry. The maps follow traditional color coding per American Planning Association guidelines. The bar graphs are labeled according to the quantity of buildings per type of use and then by the percentage of each type of building within the ¼ mile radius.

Indicator 2- Permeability

Permeability, known also as street connectivity, measures the type and number of intersections within the one-quarter mile radius. Determining the number and types of intersections requires mapping of the following intersections: four ways, t junctions, and cul-de-sacs. Each intersection type is given a score according to the scoring guide developed by Porta and Renne (2005). Each four way intersection is allocated two points. For the purposes of this study, a round-about will be considered a four way intersection. Each t-junction is allocated one point. Each cul-de-sac is allocated negative one point.

Indicator 3- Accessibility

Accessibility measures the number of pedestrian connections such as sidewalks and pedestrian alleys. The level of accessibility is measured within the one-quarter mile radius from the main street segment for each of the following street types: roads with no sidewalks allocated negative one point, pedestrian alleys including golf cart paths allocated half of a point, roads with sidewalks on one side allocated one point, and roads with sidewalks on two sides allocated two points.

Table 3-1. The Villages- Lake Sumter Landing- Canal Street Block A- Old Camp Road to Pedestrian Alley

Imageability	Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	1	0.41	0.41
Number of major landscape features (both sides)	0	0.72	0
Proportion historic building frontage (both sides)	0	0.97	0
Number of buildings with identifiers (both sides)	2	0.11	0.22
Number of buildings w/ non-rectangular shapes (both sides)	2	0.08	0.16
Presence of outdoor dining (both sides)	2	0.64	1.28
Number of people			
Walk through 1	14		0
Walk through 2	10		0
Walk through 3	18		0
Walk through 4	17		0
Total	59		0
Total divided by 4	14.75	0.02	0.295
Noise level			
Walk through 2	3		0
Walk through 3	3		0
Walk through 4	3		0
Total	12		0
Total divided by 4	3	-0.18	-0.54
			2.44
Imageability Score			4.265
Enclosure	**Value**	**Multiplier**	**Total**
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	1	0.72	0.72
Proportion street wall across (single side)	1	0.94	0.94
Proportion sky ahead (both sides)	0.3	-1.42	-0.426
Proportion sky across (each side)	0.125	-2.19	-0.27375
Add constant			2.57
Enclosure Score			3.53025
Human Scale	**Value**	**Multiplier**	**Total**
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.6	1.1	0.66
Average building heights (each side)	17.5	-0.003	-0.0525
Number of small planters (both sides)	6	0.05	0.3
Number of pieces of street furniture/street items(both)	15	0.04	0.6
Add constant			2.61
Human Scale Score			4.1175
Transparency	**Value**	**Multiplier**	
Proportion windows at street level (each side)	0.6	1.22	0.732
Proportion street wall (each side)	1	0.67	0.67
Proportion active uses (each side)	1	0.53	0.53
Add constant			1.71
Transparency Score			3.642

Table 3-1. Continued

Complexity	Value	Multiplier	
Number of buildings (both sides)	2	0.05	0.1
Number of basic building colors (both sides)	5	0.23	1.15
Number of basic accent colors (both sides)	4	0.12	0.48
Presence of outdoor dining (both sides)	2	0.42	0.84
Number of pieces of public art (both sides)	0	0.29	0
Number of walking pedestrians			
Walk through 1	7		0
Walk through 2	3		0
Walk through 3	8		0
Walk through 4	5		0
Total	23		0
Total divided by 4	5.75	0.03	0.1725
Add constant			2.61
Complexity Score			5.3525
Final Block Score			20.90275

Table 3-2. The Villages- Lake Sumter Landing- Canal Street. Block B- Pedestrian Alley to Parking Lot Road

Imageability	Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	4	0.41	1.64
Number of major landscape features (both sides)	0	0.72	0
Proportion historic building frontage (both sides)	0	0.97	0
Number of buildings with identifiers (both sides)	4	0.11	0.44
Number of buildings w/ non-rectangular shapes (both sides)	4	0.08	0.32
Presence of outdoor dining (both sides)	1	0.64	0.64
Number of people	18		0
Walk through 1			
Walk through 2	19		0
Walk through 3	10		0
Walk through 4	16		0
Total	63		0
Total divided by 4	15.75	0.02	0.315
Noise level			0
Walk through 1			
Walk through 2	3		0
Walk through 3	3		0
Walk through 4	3		0
Total	3		0
Total divided by 4	12		0
			2.44
Imageability Score			5.795

Table 3-2. Continued

Enclosure	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	1	0.72	0.72
Proportion street wall across (single side)	1	0.94	0.94
Proportion sky ahead (both sides)	0.2	-1.42	-0.284
Proportion sky across (each side)	0.1	-2.19	-0.219
Add constant			2.57
Enclosure Score			3.727
Human Scale	**Value**	**Multiplier**	**Total**
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.9	1.1	0.99
Average building heights (each side)	20	-0.003	-0.06
Number of small planters (both sides)	20	0.05	1
Number of pieces of street furniture/street items(both)	15	0.04	0.6
Add constant			2.61
Human Scale Score			5.14
Transparency	**Value**	**Multiplier**	**Total**
Proportion windows at street level (each side)	0.9	1.22	1.098
Proportion street wall (each side)	1	0.67	0.67
Proportion active uses (each side)	1	0.53	0.53
Add constant			1.71
Transparency Score			4.008
Complexity	**Value**	**Multiplier**	**Total**
Number of buildings (both sides)	4	0.05	0.2
Number of basic building colors (both sides)	7	0.23	1.61
Number of basic accent colors (both sides)	6	0.12	0.72
Presence of outdoor dining (both sides)	1	0.42	0.42
Number of pieces of public art (both sides)	0	0.29	0
Number of walking pedestrians	10		0
Walk through 1			
Walk through 2	17		0
Walk through 3	8		0
Walk through 4	5		0
Total	40		0
Total divided by 4	10	0.03	0.3
Add constant			2.61
Complexity Score			5.86
Final Block Score			24.53

Table 3-3. The Villages- Lake Sumter Landing- Canal Street Block C- Parking Lot Road to Pedestrian Alley

Imageability	Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	3	0.41	1.23
Number of major landscape features (both sides)	0	0.72	0
Proportion historic building frontage (both sides)	0	0.97	0
Number of buildings with identifiers (both sides)	3	0.11	0.33
Number of buildings w/ non-rectangular shapes (both sides)	3	0.08	0.24
Presence of outdoor dining (both sides)	0	0.64	0
Number of people			
walk through 1	10		0
Walk through 2	17		0
Walk through 3	9		0
Walk through 4	21		0
Total	57		0
Total divided by 4	14.25	0.02	0.285
Noise level	2		0
Walk through 1			
Walk through 2	2		0
Walk through 3	3		0
Walk through 4	3		0
Total	12		0
Total divided by 4	2.5		0
			2.44
Imageability Score			4.525

Enclosure	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	1	0.72	0.72
Proportion street wall across (single side)	1	0.94	0.94
Proportion sky ahead (both sides)	0.2	-1.42	-0.284
Proportion sky across (each side)	0.1	-2.19	-0.219
Add constant			2.57
Enclsure Score			3.727

Table 3-3. Continued

Human Scale	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.925	1.1	1.0175
Average building heights (each side)	20	-0.003	-0.06
Number of small planters (both sides)	17	0.05	0.85
Number of pieces of street furniture/street items(both)	26	0.04	1.04
Add constant			2.61
Human Scale Score			5.4575
Transparency	**Value**	**Multiplier**	**Total**
Proportion windows at street level (each side)	0.925	1.22	1.1285
Proportion street wall (each side)	1	0.67	0.67
Proportion active uses (each side)	1	0.53	0.53
Add constant			1.71
Transparency Score			4.0385
Complexity	**Value**	**Multiplier**	**Total**
Number of buildings (both sides)	3	0.05	0.15
Number of basic building colors (both sides)	8	0.23	1.84
Number of basic accent colors (both sides)	4	0.12	0.48
Presence of outdoor dining (both sides)	0	0.42	0
Number of pieces of public art (both sides)	0	0.29	0
Number of walking pedestrians	4		0
Walk through 1			
Walk through 2	7		0
Walk through 3	8		0
Walk through 4	9		0
Total	28		0
Total divided by 4	7	0.03	0.21
Add constant			2.61
Complexity Score			5.29
Final Block Score			23.038

Table 3-4. The Villages- Lake Sumter Landing- Canal Street Block D- Pedestrian Alley to Lake Sumter Landing Road

Imageability	Recorded Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	1	0.41	0.41
Number of major landscape features (both sides)	0	0.72	0
Proportion historic building frontage (both sides)	0	0.97	0
Number of buildings with identifiers (both sides)	2	0.11	0.22
Number of buildings w/ non-rectangular shapes (both sides)	2	0.08	0.16
Presence of outdoor dining (both sides)	1	0.64	0.64
Number of people	18		0
Walk through 1			
Walk through 2	16		0
Walk through 3	13		0
Walk through 4	19		0
Total	66		0
Total divided by 4	16.5	0.02	0.33
Noise level	3		0
Walk through 1			
Walk through 2	3		0
Walk through 3	3		0
Walk through 4	3		0
Total	12		0
Total divided by 4	3		0
Add constant			2.44
Imageability Score			4.2

Enclosure	Recorded Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	1	0.72	0.72
Proportion street wall across (single side)	1	0.94	0.94
Proportion sky ahead (both sides)	0.1	-1.42	-0.142
Proportion sky across (each side)	0.05	-2.19	-0.1095
Add constant			2.57
Enclosure Score			3.9785

Table 3-4. Continued

Human Scale	Recorded Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.8	1.1	0.88
Average building heights (each side)	25	-0.003	-0.075
Number of small planters (both sides)	18	0.05	0.9
Number of pieces of street furniture/street items(both)	25	0.04	1
Add constant			2.61
Human Scale Score			5.315
Transparency	**Recorded Value**	**Multiplier**	**Total**
Proportion windows at street level (each side)	0.8	1.22	0.976
Proportion street wall (each side)	1	0.67	0.67
Proportion active uses (each side)	1	0.53	0.53
Add constant			1.71
Transparency Score			3.886
Complexity	**Recorded Value**	**Multiplier**	**Total**
Number of buildings (both sides)	2	0.05	0.1
Number of basic building colors (both sides)	9	0.23	2.07
Number of basic accent colors (both sides)	11	0.12	1.32
Presence of outdoor dining (both sides)	1	0.42	0.42
Number of pieces of public art (both sides)	0	0.29	0
Number of walking pedestrians	9		0
Walk through 1			
Walk through 2	10		0
Walk through 3	8		0
Walk through 4	11		0
Total	38		0
Total divided by 4	9.5	0.03	0.285
Add constant			2.61
Complexity Score			6.805
Final Block D Score			24.1845

Table 3-5. The Villages- Lake Sumter Landing- Canal Street Block E- Lake Sumter Landing Road to Lake Shore Drive

Imageability	Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	3	0.41	1.23
Number of major landscape features (both sides)	1	0.72	0.72
Proportion historic building frontage (both sides)	0	0.97	0
Number of buildings with identifiers (both sides)	6	0.11	0.66
Number of buildings w/ non-rectangular shapes (both sides)	6	0.08	0.48
Presence of outdoor dining (both sides)	6	0.64	3.84
Number of people	35		0
Walk through 1			
Walk through 2	42		0
Walk through 3	29		0
Walk through 4	31		0
Total	137		0
Total divided by 4	34.25	0.02	0.685
Noise level	4		0
Walk through 1			
Walk through 2	3		0
Walk through 3	3		0
Walk through 4	4		0
Total	14		0
Total divided by 4	3.5		0
Add constant			2.44
Imageability Score			10.055
Enclosure	**Value**	**Multiplier**	**Total**
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	1	0.72	0.72
Proportion street wall across (single side)	0	0.94	0
Proportion sky ahead (both sides)	0.2	-1.42	-0.284
Proportion sky across (each side)	0.15	-2.19	-0.3285
Add constant			2.57
Enclosure Score			2.6775

Table 3-5. Continued

Human Scale	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.9	1.1	0.99
Average building heights (each side)	12.5	-0.003	-0.0375
Number of small planters (both sides)	27	0.05	1.35
Number of pieces of street furniture/street items(both)	24	0.04	0.96
Add constant			2.61
Human Scale Score			5.8725
Transparency	**Value**	**Multiplier**	
Proportion windows at street level (each side)	0.9	1.22	1.098
Proportion street wall (each side)	0.5	0.67	0.335
Proportion active uses (each side)	1	0.53	0.53
Add constant			1.71
Transparency Score			3.673
Complexity	**Value**	**Multiplier**	
Number of buildings (both sides)	6	0.05	0.3
Number of basic building colors (both sides)	10	0.23	2.3
Number of basic accent colors (both sides)	8	0.12	0.96
Presence of outdoor dining (both sides)	6	0.42	2.52
Number of pieces of public art (both sides)	0	0.29	0
Number of walking pedestrians	15		0
Walk through 1			
Walk through 2	20		0
Walk through 3	18		0
Walk through 4	21		0
Total	25		0
Total divided by 4	6.25	0.03	0.1875
Add constant			2.61
Complexity Score			8.8775
Final Block E Score			31.1555

Table 3-6. New Smyrna Beach- Canal Street Block A- Dixie Highway to Orange Street

Imageability	Recorded Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	0	0.41	0
Number of major landscape features (both sides)	0	0.72	0
Proportion historic building frontage (both sides)	0.9	0.97	0.873
Number of buildings with identifiers (both sides)	4	0.11	0.44
Number of buildings w/ non-rectangular shapes (both sides)	3	0.08	0.24
Presence of outdoor dining (both sides)	0	0.64	0
Number of people			
Walk through 1	2		0
Walk through 2	0		0
Walk through 3	3		0
Walk through 4	0		0
Total	5		0
Total divided by 4	1.25	0.02	0.025
Noise level			
Walk through 1	4		0
Walk through 2	3		0
Walk through 3	3		0
Walk through 4	4		0
Total	14		0
Total divided by 4	3.5		0
Add constant			2.44
Imageability Score			4.018

Enclosure	Recorded Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	0.9	0.72	0.648
Proportion street wall across (single side)	0.9	0.94	0.846
Proportion sky ahead (both sides)	0.2	-1.42	-0.284
Proportion sky across (each side)	0.1	-2.19	-0.219
Add constant			2.57
Enclosure Score			3.561

Table 3-6. Continued

Human Scale	Recorded Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.875	1.1	0.9625
Average building heights (each side)	20	-0.003	-0.06
Number of small planters (both sides)	6	0.05	0.3
Number of pieces of street furniture/street items(both sides)	7	0.04	0.28
Add constant			2.61
Human Scale Score			4.0925
Transparency	**Recorded Value**	**Multiplier**	**Total**
Proportion windows at street level (each side)	0.875	1.22	1.0675
Proportion street wall (each side)	0.9	0.67	0.603
Proportion active uses (each side)	0.525	0.53	0.27825
Add constant			1.71
Transparency Score			3.65875
Complexity	**Recorded Value**	**Multiplier**	**Total**
Number of buildings (both sides)	5	0.05	0.25
Number of basic building colors (both sides)	2	0.23	0.46
Number of basic accent colors (both sides)	4	0.12	0.48
Presence of outdoor dining (both sides)	0	0.42	0
Number of pieces of public art (both sides)	0	0.29	0
Number of walking pedestrians			
Walk through 1	2		0
Walk through 2	0		0
Walk through 3	1		0
Walk through 4	0		0
Total	3		0
Total divided by 4	0.75	0.03	0.0225
Add constant			2.61
Complexity Score			3.8225
Final Block A Score			19.15275

Table 3-7. New Smyrna Beach- Canal Street Block B- Orange Street to Palmetto Street

Imageability	Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	1	0.41	0.41
Number of major landscape features (both sides)	0	0.72	0
Proportion historic building frontage (both sides)	0	0.97	0
Number of buildings with identifiers (both sides)	5	0.11	0.55
Number of buildings w/ non-rectangular shapes (both)	4	0.08	0.32
Presence of outdoor dining (both sides)	0	0.64	0
Number of people	3		0
Walk through 1			
Walk through 2	2		0
Walk through 3	3		0
Walk through 4	0		0
Total	8		0
Total divided by 4	2	0.02	0.04
Noise level	3		0
Walk through 1			
Walk through 2	3		0
Walk through 3	3		0
Walk through 4	3		0
Total	12		0
Total divided by 4	3		0
Add constant			2.44
Total			3.76

Enclosure	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	0.9	0.72	0.648
Proportion street wall across (single side)	0.9	0.94	0.846
Proportion sky ahead (both sides)	0.2	-1.42	-0.284
Proportion sky across (each side)	0.125	-2.19	-0.27375
Add constant			2.57

Human Scale	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.85	1.1	0.935
Average building heights (each side)	17.5	-0.003	-0.0525
Number of small planters (both sides)	9	0.05	0.45
Number of pieces of street furniture/street items(both)	8	0.04	0.32
Add constant			2.61
Human Scale Score			4.2625

Table 3-7 Continued

Transparency	Value	Multiplier	Total
Proportion windows at street level (each side)	0.85	1.22	1.037
Proportion street wall (each side)	0.9	0.67	0.603
Proportion active uses (each side)	0.525	0.53	0.27825
Add constant			1.71
Transparency Score			3.62825
Complexity	**Value**	**Multiplier**	**Total**
Number of buildings (both sides)	6	0.05	0.3
Number of basic building colors (both sides)	4	0.23	0.92
Number of basic accent colors (both sides)	4	0.12	0.48
Presence of outdoor dining (both sides)	0	0.42	0
Number of pieces of public art (both sides)	1	0.29	0.29
Number of walking pedestrians	2		0
Walk through 1			
Walk through 2	2		0
Walk through 3	3		0
Walk through 4	0		0
Total	7		0
Total divided by 4	1.75	0.03	0.0525
Add constant			2.61
Complexity Score			4.6525
Final Block B Score			19.8095

Table 3-8. New Smyrna Beach- Canal Street Block C- Palmetto Street to Live Oak Street

Imageability	Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	0	0.41	0
Number of major landscape features (both sides)	0	0.72	0
Proportion historic building frontage (both sides)	0.9	0.97	0.873
Number of buildings with identifiers (both sides)	4	0.11	0.44
Number of buildings w/ non-rectangular shapes (both)	2	0.08	0.16
Presence of outdoor dining (both sides)	0	0.64	0
Number of people			
Walk through 1	1		0
Walk through 2	2		0
Walk through 3	4		0
Walk through 4	1		0
Total	8		0
Total divided by 4	2	0.02	0.04
Noise level	3		0
Walk through 1			
Walk through 2	3		0
Walk through 3	3		0
Walk through 4	3		0
Total	12		0
Total divided by 4	3		0
Add constant			2.44
Imageability Score			3.953

Enclosure	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	0.5	0.72	0.36
Proportion street wall across (single side)	1	0.94	0.94
Proportion sky ahead (both sides)	0.2	-1.42	-0.284
Proportion sky across (each side)	0.125	-2.19	-0.27375
Add constant			2.57
Enclosure Score			3.31225

Table 3-8. Continued

Human Scale	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.625	1.1	0.6875
Average building heights (each side)	17.5	-0.003	-0.0525
Number of small planters (both sides)	7	0.05	0.35
Number of pieces of street furniture/street items(both sides)	10	0.04	0.4
Add constant			2.61
Human Scale Score			3.995
Transparency	**Value**	**Multiplier**	**Total**
Proportion windows at street level (each side)	0.625	1.22	0.7625
Proportion street wall (each side)	0.75	0.67	0.5025
Proportion active uses (each side)	0.575	0.53	0.30475
Add constant			1.71
Transparency Score			3.27975
Complexity	**Value**	**Multiplier**	**Total**
Number of buildings (both sides)	4	0.05	0.2
Number of basic building colors (both sides)	2	0.23	0.46
Number of basic accent colors (both sides)	3	0.12	0.36
Presence of outdoor dining (both sides)	0	0.42	0
Number of pieces of public art (both sides)	0	0.29	0
Number of walking pedestrians	1		0
Walk through 1			
Walk through 2	0		0
Walk through 3	0		0
Walk through 4	2		0
Total	3		0
Total divided by 4	0.75	0.03	0.0225
Add constant			2.61
Complexity Score			3.6525
Final Block C Score			18.1925

Table 3-9. New Smyrna Beach- Canal StreetBlock D- Live Oak Street to Magnolia Street

Imageability	Value	Multiplier	Total	
Number of courtyards, plazas, and parks (both sides)	1	0.41		0.41
Number of major landscape features (both sides)	0	0.72	0	
Proportion historic building frontage (both sides)	0.6	0.97	0.582	
Number of buildings with identifiers (both sides)	4	0.11	0.44	
Number of buildings w/ non-rectangular shapes (both)	4	0.08	0.32	
Presence of outdoor dining (both sides)	1	0.64	0.64	
Number of people	5		0	
Walk through 1				
Walk through 2	3		0	
Walk through 3	3		0	
Walk through 4	6		0	
Total	17		0	
Total divided by 4	4.25	0.02	0.085	
Noise level	3		0	
Walk through 1				
Walk through 2	3		0	
Walk through 3	3		0	
Walk through 4	3		0	
Total	12		0	
Total divided by 4	3		0	
Add constant			2.44	
Total			4.917	
Enclosure	Value	Multiplier	Total	
Number of long sight lines (both sides)	0	-0.31	0	
Proportion street wall (single side)	0.8	0.72	0.576	
Proportion street wall across (single side)	0.5	0.94	0.47	
Proportion sky ahead (both sides)	0.2	-1.42	-0.284	
Proportion sky across (each side)	0.1	-2.19	-0.219	
Add constant			2.57	
Enclosure Score			3.113	
Human Scale	Value	Multiplier	Total	
Number of long sight lines (both sides)	0	-0.74	0	
Proportion windows at street level (each side)	0.75	1.1	0.825	
Average building heights (each side)	22.5	-0.003	-0.0675	
Number of small planters (both sides)	7	0.05	0.35	
Number of pieces of street furniture/street items(both)	6	0.04	0.24	
Add constant			2.61	
Human Scale Score			3.9575	

Table 3-9. Continued

Transparency	Value	Multiplier	Total
Proportion windows at street level (each side)	0.75	1.22	0.915
Proportion street wall (each side)	0.65	0.67	0.4355
Proportion active uses (each side)	0.5	0.53	0.265
Add constant			1.71
Transparency Score			3.3255
Complexity	**Value**	**Multiplier**	**Total**
Number of buildings (both sides)	4	0.05	0.2
Number of basic building colors (both sides)	3	0.23	0.69
Number of basic accent colors (both sides)	4	0.12	0.48
Presence of outdoor dining (both sides)	1	0.42	0.42
Number of pieces of public art (both sides)	0	0.29	0
Number of walking pedestrians	4		0
Walk through 1			
Walk through 2	3		0
Walk through 3	2		0
Walk through 4	0		0
Total	9		0
Total divided by 4	2.25	0.03	0.0675
Add constant			2.61
Complexity Score			4.4675
Final Block D Score			19.7805

Table 3-10. New Smyrna Beach- Canal Street Block E- Magnolia Street to Riverside Drive

Imageability	Value	Multiplier	Total
Number of courtyards, plazas, and parks (both sides)	2	0.41	0.82
Number of major landscape features (both sides)	1	0.72	0.72
Proportion historic building frontage (both sides)	1	0.97	0.97
Number of buildings with identifiers (both sides)	0.75	0.11	0.0825
Number of buildings w/ non-rectangular shapes (both sides)	4	0.08	0.32
Presence of outdoor dining (both sides)	0	0.64	0
Number of people	4		0
Walk through 1			
Walk through 2	2		0
Walk through 3	5		0
Walk through 4	3		0
Total	14		0
Total divided by 4	3.5	0.02	0.07
Noise level	3		0
Walk through 1			
Walk through 2	3		0
Walk through 3	3		0
Walk through 4	3		0
Total	12		0
Total divided by 4	3		0
Add constant			2.44
Imageability Score			5.4225

Enclosure	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.31	0
Proportion street wall (single side)	0.6	0.72	0.432
Proportion street wall across (single side)	0.8	0.94	0.752
Proportion sky ahead (both sides)	0.2	-1.42	-0.284
Proportion sky across (each side)	0.125	-2.19	-0.27375
Add constant			2.57
Enclosure Score			3.19625

Table 3-10. Continued

Human Scale	Value	Multiplier	Total
Number of long sight lines (both sides)	0	-0.74	0
Proportion windows at street level (each side)	0.325	1.1	0.3575
Average building heights (each side)	17.5	-0.003	-0.0525
Number of small planters (both sides)	10	0.05	0.5
Number of pieces of street furniture/street items(both)	8	0.04	0.32
Add constant			2.61
Human Scale Score			3.735
Transparency	**Value**	**Multiplier**	**Total**
Proportion windows at street level (each side)	0.325	1.22	0.3965
Proportion street wall (each side)	0.7	0.67	0.469
Proportion active uses (each side)	0.2	0.53	0.106
Add constant			1.71
Transparency Score			2.6815
Complexity	**Value**	**Multiplier**	**Total**
Number of buildings (both sides)	4	0.05	0.2
Number of basic building colors (both sides)	2	0.23	0.46
Number of basic accent colors (both sides)	4	0.12	0.48
Presence of outdoor dining (both sides)	0	0.42	0
Number of pieces of public art (both sides)	1	0.29	0.29
Number of walking pedestrians	2		0
Walk through 1			
Walk through 2	1		0
Walk through 3	2		0
Walk through 4	2		0
Total	7		0
Total divided by 4	1.75	0.03	0.0525
Add constant			2.61
Complexity Score			4.0925
Final Block E Score			19.12775

Table 3-11. Street indicator totals by indicator and block

Indicator	Block A	Block B	Block C	Block D	Block E	Totals
Imageability VIL	4.27	5.80	4.53	4.20	10.06	28.84
Imageability NSB	4.02	3.76	3.95	4.92	5.42	22.07
Enclosure VIL	3.53	3.73	3.73	3.98	2.68	17.64
Enclosure NSB	3.56	3.51	3.31	3.11	3.20	16.69
Human Scale VIL	4.12	5.14	5.46	5.32	5.87	25.90
Human Scale NSB	4.09	4.26	4.00	3.96	3.74	20.04
Transparency VIL	3.64	4.01	4.04	3.89	3.67	19.25
Transparency NSB	3.66	3.63	3.28	3.33	2.68	16.57
Complexity VIL	5.35	5.86	5.29	6.81	8.88	32.19
Complexity NSB	3.82	4.65	3.65	4.47	4.09	20.69
VIL Block Total	20.91	24.53	23.04	24.18	31.16	123.82
NSB Block Total	19.15	19.81	18.19	19.78	19.13	96.06

Table 3-12. Intersection type

Intersection Type	Number	Points Allocated	Score
Four Ways			
The Villages	4	2	8
New Smyrna Beach	32	2	68
T Junction			
The Villages	5	1	5
New Smyrna Beach	18	1	18
Cul-de-sac			
The Villages	0	-2	0
New Smyrna Beach	0	-2	0
Total			
The Villages	9		13
New Smyrna Beach	50		86

Table 3-13. Street and sidewalk type

Street Type	Number	Points Allocated	Score
Streets with no sidewalk			
The Villages	4	-1	-4
New Smyrna Beach	0	-1	0
Pedestrian Alleys			
The Villages	11	.5	5.5
New Smyrna Beach	5	.5	2.5
Streets- single sidewalk			
The Villages	1	1	1
New Smyrna Beach	0	1	
Streets- double sidewalks			
The Villages	6	2	12
New Smyrna Beach	18	2	36
Total			
The Villages			14.5
New Smyrna Beach			39.5

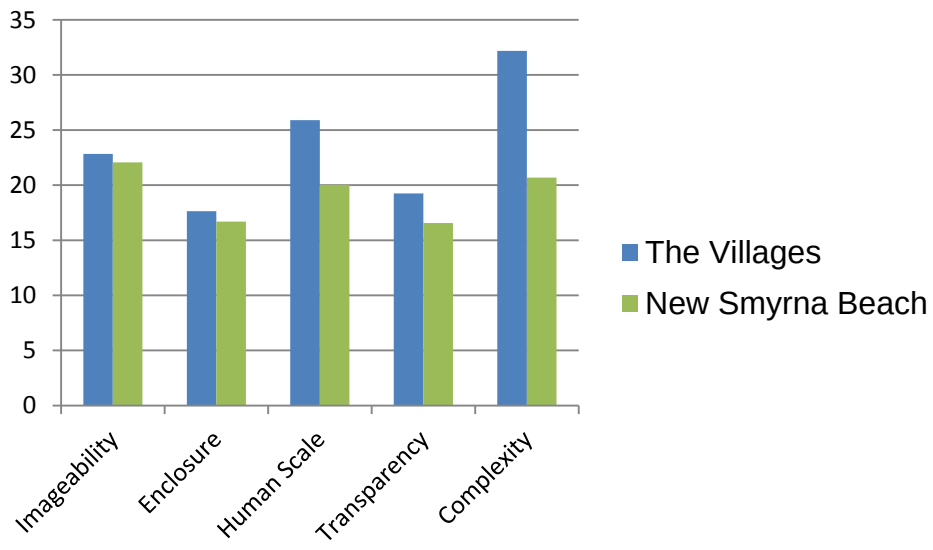

Figure 3-1. Indicator totals

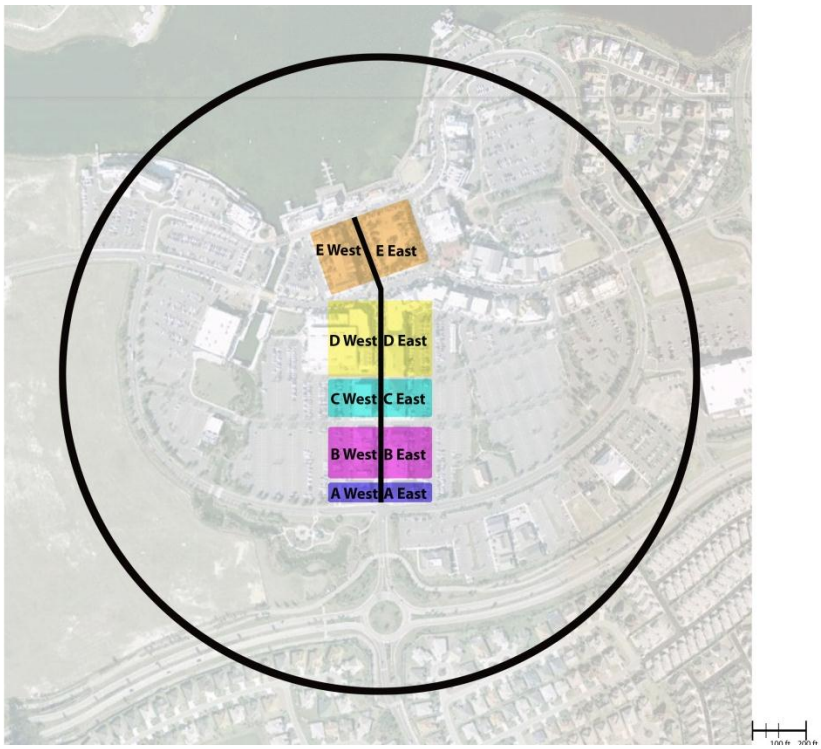

Figure 3-2. The Villages Block

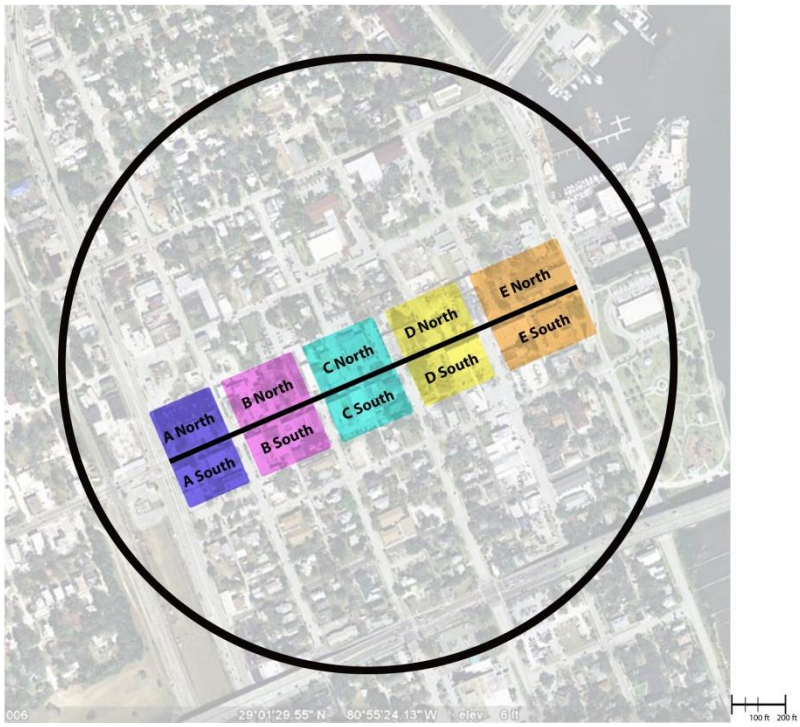

Figure 3-3. New Smyrna Beach Block

Figure 3-4. The Villages, Block A, West

Figure 3-5. The Villages, Block A, East


Figure 3-6. The Villages, Block B, West


Figure 3-7. The Villages, Block B, East


Figure 3-8. The Villages, Block C, West


Figure 3-9. The Villages, Block C, East


Figure 3-10. The Villages, Block D, West

Figure 3-11. The Villages, Block D, East

Figure 3-12. The Villages, Block E, West

Figure 3-13. New Smyrna Beach, Block A, North

Figure 3-14. New Smyrna Beach, Block A, South

Figure 3-15. New Smyrna Beach, Block B, North

Figure 3-16. New Smyrna Beach, Block B, South

Figure 3-17. New Smyrna Beach, Block C, North

Figure 3-18. New Smyrna Beach, Block C, South

Figure 3-19. New Smyrna Beach, Block D, North

Figure 3-20. New Smyrna Beach, Block D, South

Figure 3-21. New Smyrna Beach, Block E, North

Figure 3-23. New Smyrna Beach, Block E, South

Figure 3-24. Figure ground- The Villages at Lake Sumtet Landing, Fl

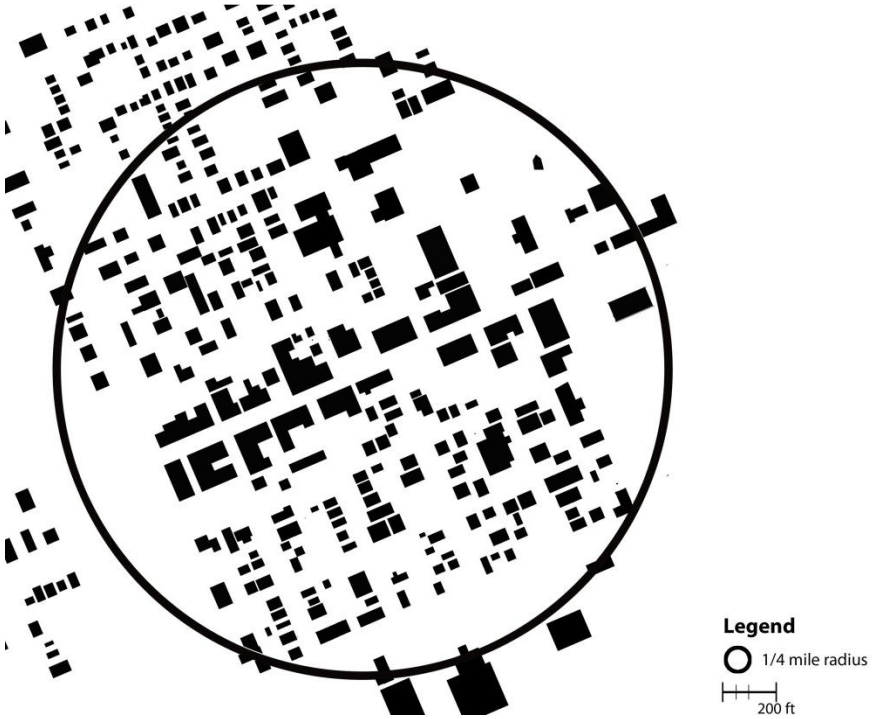

Figure 3-25. Figure ground- New Smynra Beach

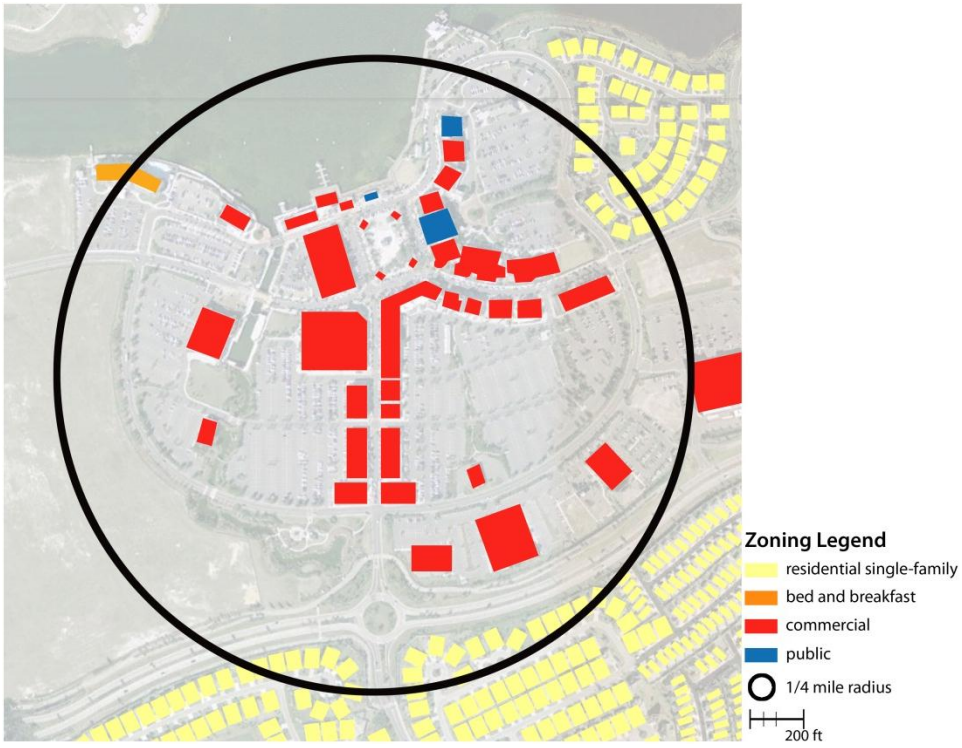

Figure 3-26. Land use diversity- The Villages at Lake Sumter Landing, FL

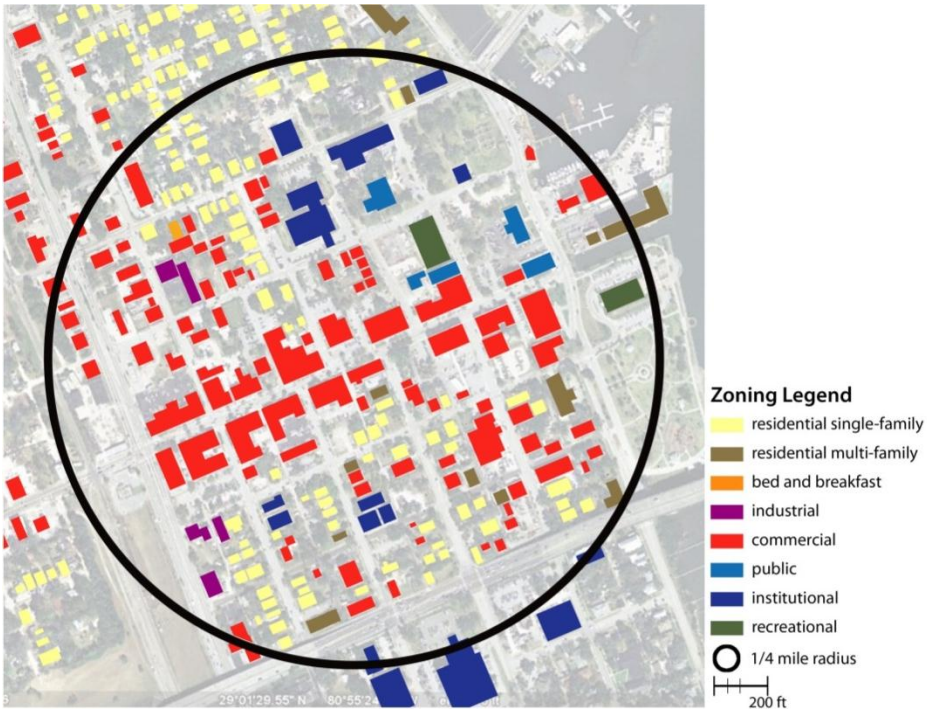

Figure 3-27. Land use diversity- New Smyrna Beach, FL

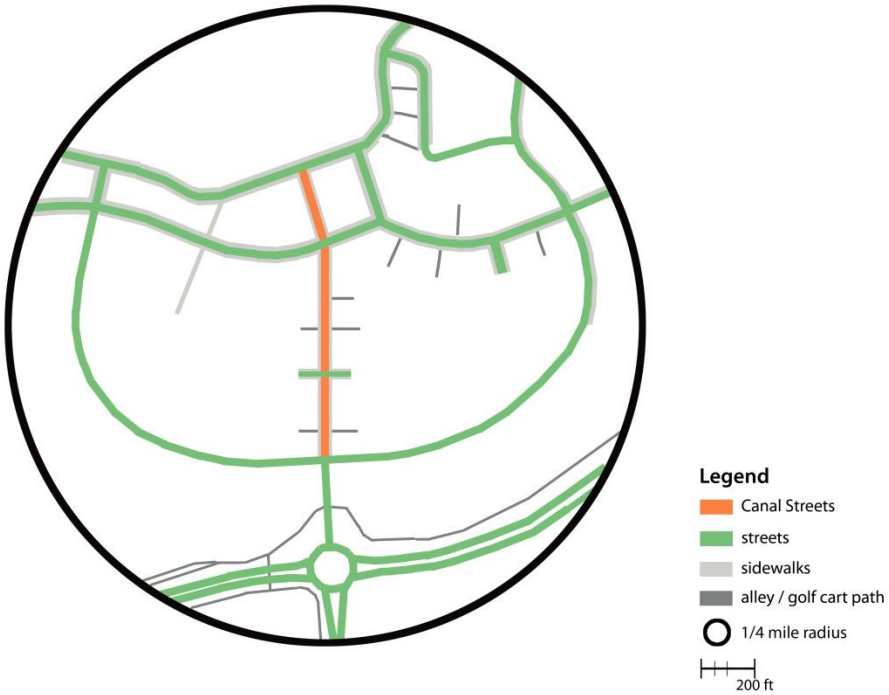

Figure 3-28. Street and sidewalk network- The Villages at Lake Sumter Landing, FL

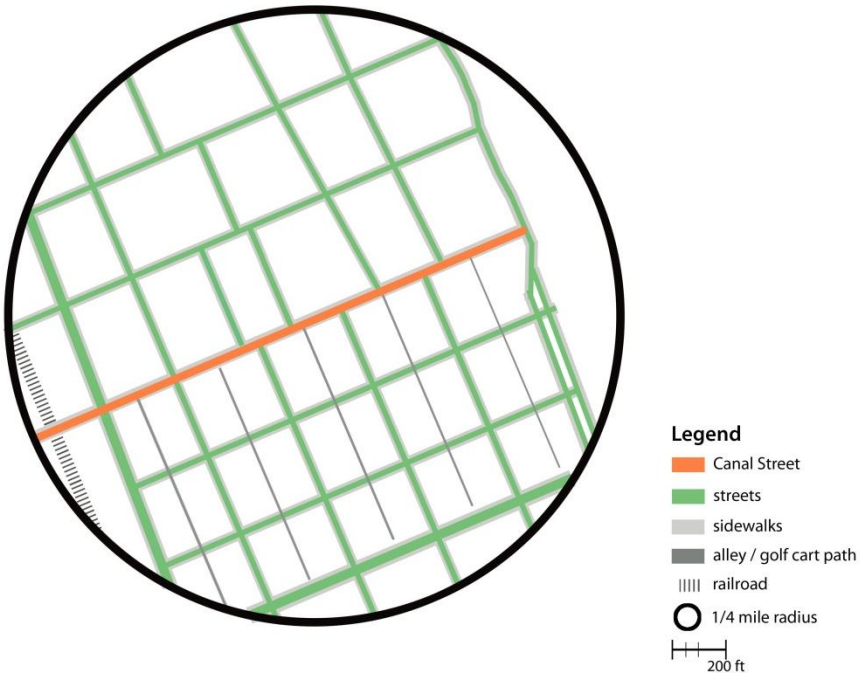

Figure 3-29. Street and sidewalk network- New Smyrna Beach, FL

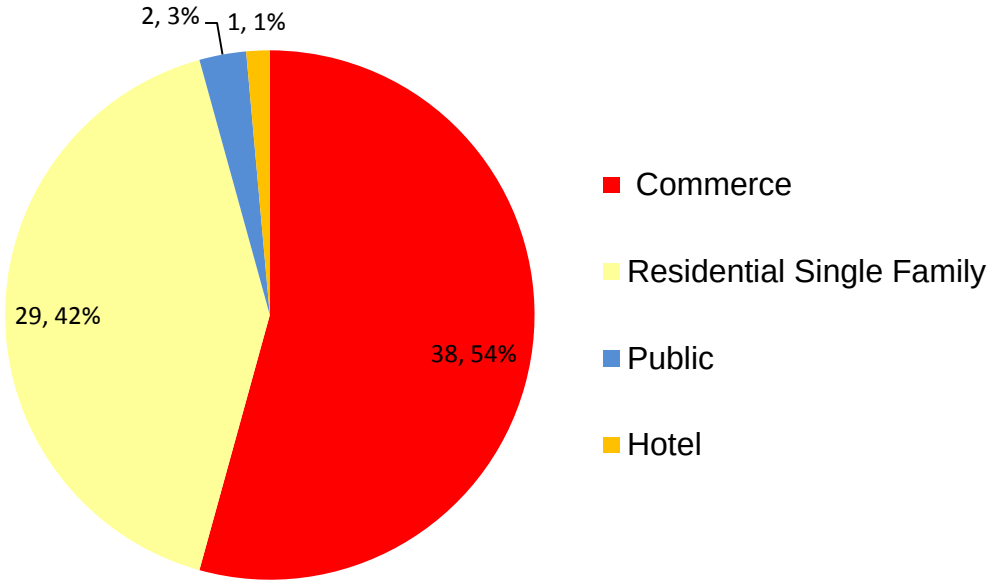

Figure 3-30. Building diversity by quantity and percent- The Villages

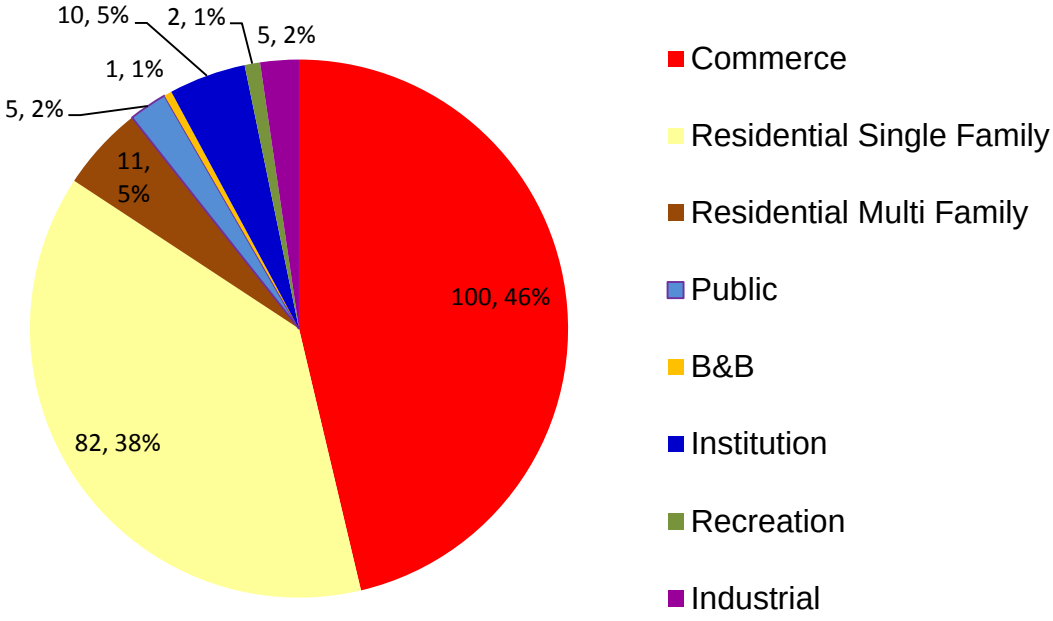

Figure 3-31. Building diversity by quantity and percent- New Smyrna Beach

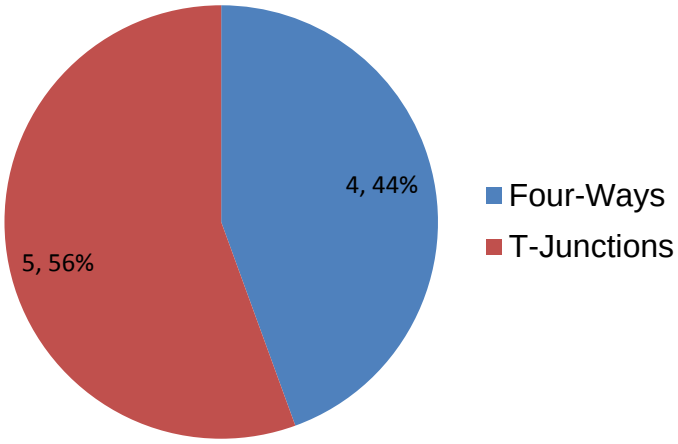

Figure 3-32. Street & sidewalk network by quantity and percentage- The Villages

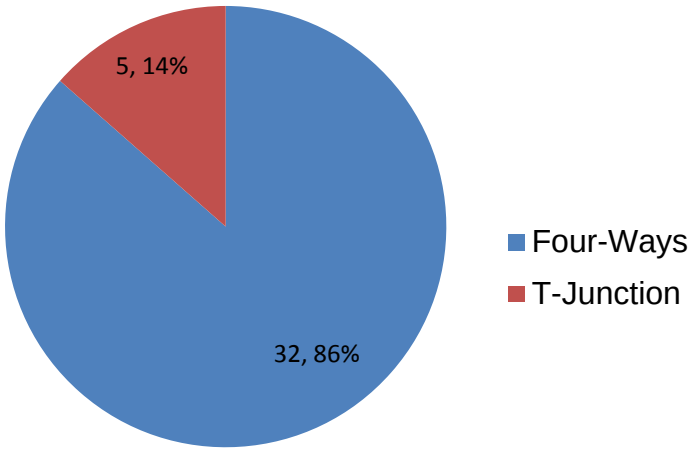

Figure 3-33. Street & sidewalk network by quantity and percentage- New Smyrna Beach

CHAPTER 4
FINDINGS: SPATIAL QUALITIES THAT ATTRACT BABY BOOMERS

In this chapter, findings from each case study are presented based upon the methodology described in Chapter 3. This chapter is divided into two parts based upon the observational data from the Street Manual and Urban Fabric Indicators. Part one was directed by the manual *Measuring Urban Design Qualities: an Illustrated Field Manual* prepared by the Active Living Research Program of the Robert Wood Johnson Foundation to determine the success of street design. Part two uses diagrammatic mapping guided by the study *Linking urban design to sustainability: formal indicators of social urban sustainability field research in Perth, Western Australia* by Porta and Renne (2005). This study is used to determine contextual quality of the urban fabric. The information will indicate the presence of design qualities and the associated human use patterns inherent within the main streets of two downtown street segments.

Part one, The Street Manual, presents findings from case studies of New Smyrna Beach and The Villages in five sections. The sections are categorized by each indicator: imageability, enclosure, human scale, transparency, and complexity. Each indicator will first be discussed with a brief introduction of the indicator, second with an analysis of The Villages, and third with an analysis of New Smyrna Beach including comparisons to The Villages.

Part two, Urban Fabric Indicators, presents findings from the case studies in three sections. These sections are categorized by each indicator: permeability, accessibility, and land use diversity. Each indicator will first be discussed with a brief introduction of the indicator, second with an analysis of The Villages, and third with an analysis of New Smyrna Beach including comparisons to The Villages.

Part 1- The Street Manual Indicators

This section will discuss the data collected using *Measuring Urban Design Qualities: an Illustrated Field Manual.* Data collections are separated by block and labeled as A, B, C, D, and E for both street segments. This section will discuss unique attributes of each block's imageability, enclosure, human scale, transparency, and complexity to compare figures and distinguish notable differences between each of the blocks and street segments. Individual block data from each street is organized in Tables 3-1 through 3-10 with total scores from each block organized in Table 3-11 and Figure 3-1. Table 3-11, read horizontally, compares each block within its street segment; read vertically, each block can be compared to its counterpart from the opposing street segment with one caveat. It is not intended for direct comparisons to be made between blocks from opposing street segments such as block A from the Villages and block A from New Smyrna beach, as each block contains different qualities that skew the indicators. For example, if a block contains a plaza or park, the block may score higher for imageability while scoring lower for enclosure due to less street wall frontage. It is however, intended for each street segment and indicator to be compared overall so that each street is given equal opportunity to collectively display successful urban design qualities. This is most evident in the column of totals in Figure 3-1.

Each indicator is given a value based on a set of pre-determined criteria as shown in each of the score sheets. The criteria and thus the differences revealed in the data from block to block and more generally between the two street segments will be discussed in the following paragraphs to expose the strengths and weaknesses of each street's urban design qualities. Information will be provided to explain unique features

within each criteria set that created significant differences between street segments. The differences discussed can be seen in photographs in Figures 3-4 through 3-23.

Preview of Results

The overall street segment totals shown in Table 3-11 and Figure 3-1 reveal differences in the level of quality as measured per each of the five indicators. Reading Table 3-11 horizontally reveals the totals from The Villages as more successful than New Smyrna Beach in each indicator although some do not display significant disparities.

Enclosure in New Smyrna Beach is only marginally less than The Villages with an interval of 0.92, causing this indicator to be the most closely related. The second most similar indicator value is transparency with an interval of 2.67. Third is human scale with an interval of 5.86 and fourth is imageability with an interval of 6.77. Complexity presents the largest interval of difference with The Villages ranking 11.5 above New Smyrna Beach.

Criteria for each indicator will be discussed in relation to the full length of the street segment, however, significant findings from specific blocks may be included to explain why New Smyrna Beach scored beneath The Villages or vice versa. This discussion will include an analysis of the specific urban design attributes associated to causing higher scores according to measurable human perception.

Indicator #1- Imageability

Imageability is defined by Clemente et al., (2005) as “the quality of a place that makes it distinct, recognizable, and memorable. A place has high imageability when specific physical elements and their arrangement capture attention, evoke feelings, and

create a lasting impression" (p. 6). The manual required eight distinct observations to determine the level of imageability and were as follows:

The first criterion of imageability requires observation of the number of courtyards, plazas, and parks on both sides of the street; within the study area, 12 such spaces existed including one large civic square, a boardwalk at the terminus of the street, two small plazas such as the cinema focal point, and 9 small courtyards including small gathering areas (including a mix of benches and movable chairs) at retail entries not intended for dining purposes. The second criterion requires observation of major landscape features on both sides of the street; within the study area only one major landscape feature existed as this criterion requires only natural features to be counted. A waterfront, including a boardwalk feature, is located at the terminus of the street. The third criterion requires observation of historic building frontage; although The Villages-Lake Sumter Landing was developed to portray historic ambiance, none of the structures are dated prior to the 1990s. Therefore, the street rates poorly for this criterion. The fourth criterion requires observation of the number of buildings with identifiers on both sides of the street; within the study area all buildings contained identifiers including unique signs, banners, and architectural styles. The fifth criterion requires observation of the number of buildings with non-rectangular shapes on both sides of the street; within the study area all buildings were styled with non-rectangular features including various pitched roofs, chimneys, and decorative cornices. The sixth criterion requires observation of the presence of outdoor dining; within the study area ten outdoor dining areas exist including chain restaurants such as Johnny Rockets, Sonny's Real Pit Barbeque, and Haagen Dazs as well mom-n-pop restaurants such as

Red Sauce and Tea Plantation. The seventh criterion requires observation of the number of people walking, sitting, or standing within 50 feet of the observation point. After repeating this step four times, the highest amount recorded was 42 located near the park in Block E and the lowest number recorded was 9 located in Block C in the center of the street segment near gift shops; accordingly, the highest and lowest averages were recorded on these same blocks ranging from 14.25 to 34.25 people. The eighth and final criterion for imageability requires observation of the noise level on both side of the street; noise levels were recorded at outdoor dining spaces, plazas where people gathered to enter the cinema, and street intersections heavily traversed by pedestrians and automobiles.

Imageability in New Smyrna Beach was less successful than the cohesive image developed in The Villages. In general the street segment scored lower as each block lacked the level of detail and intensity of uses present in New Smyrna Beach. The first criterion for courtyards, plazas, and parks totaled 4 compared to 12 in The Villages. These included a waterfront park with boardwalk, a small picnic area, and the front lawn of a Queen Anne home repurposed into an antique shop. Unlike The Villages, there is a lack of designated small public courtyards aside from solitary benches. The second criterion for major landscape features scores equal to The Villages with one waterfront feature. The third criterion is allocated the largest multiplier; historic building frontage scores vastly higher than The Villages as a majority of New Smyrna Beach's main street structures were built in the early to mid- 1900s. According to the Volusia County Property Appraiser (n.d.), the earliest standing structure was built in 1906, although, the building is marked with 1905. The fourth criterion for buildings with identifiers scored

similarly to New Smyrna Beach as a majority of structures contain retail or office and thus portray signage. The fifth criterion for non-rectangular buildings also scores similarly to The Villages on most blocks as it was common practice in the early 1900s to use ornate cornices, although some of these elements have disappeared during maintenance and renovation. Most recent structures are void of details that distinguish them as imageable. The sixth criterion for outdoor dining lacks significantly as there is one restaurant with two tables in front of the establishment as compared to ten in The Villages. The seventh criterion for number of people reflects the lack of design attractors as the highest recorded number of people was eight and the lowest was zero with an average range of 1.25 to 4.25 people. The final imageability criterion for noise levels scores similarly to The Villages, with the loudest noise levels recorded next to a highway in Block A.

Indicator #2- Enclosure

Enclosure is defined by Clemente et al., (2005) as "the degree to which streets and other public spaces are visually defined by buildings, walls, trees, and other elements. Spaces where the height of vertical elements is proportionally related to the width of the space between them have a room-like quality" (p. 14). The manual required five distinct observations to determine the level of enclosure and were as follows:

The first criterion of enclosure requires observation of the number of long sight lines; within the street segment long sight lines were not recorded as each street is enclosed by buildings fronting the street and the regular spacing of mature trees. The second and third criterion require observation of the proportion of street wall on each side of the street; excepting where the civic park is located on Block E, every block is

fronted 100 % with buildings. The fourth and fifth criterion requires observation of the proportion of sky looking down the street as well as looking across the street. The quantity of sky seen between landscape and structures in The Villages is relatively low as it ranges from approximately 30 % visible sky in Block A to 10 % visible sky in Block D.

Enclosure in New Smyrna Beach maintains the lowest disparity as it scored only 0.95 less than The Villages with the main cause for disparity apportioned to the number of shorter structures, thereby, increasing the proportion of sky and decreasing the block score. The regular spacing of street trees enhanced the level of enclosure and was observed to be nearly identical to The Villages in both spacing and tree type. For the first criterion, long sight lines were not recorded within the street segment. The second and third criterion for the proportion of street wall scored lower as the streets are not fronted entirely by buildings; the highest recording accounted for 90 % street frontage and lowest recording was 50 % on Block C due to a repair shop located approximately 40 feet from the sidewalk and Block D with a small pocket park and adjacent parking lot. The fourth and fifth criterion for proportion of sky differs the most significantly from The Villages due to a higher ratio of shorter structures. New Smyrna Beach has several one story buildings allowing for a higher proportion of sky.

Indicator #3- Human Scale

Human scale is defined by Clemente et al., (2005) as “the size, texture, and articulation of physical elements that match the size and proportions of humans and, equally important, correspond to the speed at which humans walk. Building details, pavement texture, street trees, and street furniture are all physical elements contributing

to human scale" (p. 18). The manual required five distinct observations to determine the level of human scale and were as follows:

The first criterion for human scale is long sight lines, which is also the first criterion for enclosure discussed prior to this indicator; within this street segment a score of zero was applied to each block. The second criterion requires observation of the proportion of windows at street level on each side of the street; within the street segment most blocks were scored with 90 % window coverage with the lowest being 30 % window coverage on the Toojays restaurant located in Block A. The third criterion required observation of average building heights; within the street segment most buildings ranged between 15 to 20 feet with the tallest structure being two stories. The fourth criterion required observation of the number of small planters; the street segment scored very high as palm trees were located approximately every 10 steps and the sidewalk was decorated with flower boxes and urns. The highest number of small planters was recorded at 20 with the lowest number at 6 planters. The final criterion for human scale required observation of the number of pieces of street furniture and other street items; several items contributed to the high score such as tables, chairs, benches, trash cans, pedestrian lighting, banners, and small flower pots. Street furniture scores ranged from 15 to 26 items.

New Smyrna Beach scored 5.86 less than The Villages as an indicator of human scale with the most significant disparities in criterion four and five, recording the number of small planters and number of street furniture items. As stated in criterion one of the enclosure indicator, long sight lines were not recorded; therefore, this criterion did not contribute to the overall score difference. Criterion two, proportion of windows at street

level, scored only slightly less than The Villages, as a majority of buildings were originally constructed for retail purposes. Block E scored the lowest at approximately 32.5 % due to a Southern Bell facility almost entirely void of windows. Aside from Block E, all other blocks contain approximately 85 % window coverage, which is close to the average of 90 % window coverage in The Villages. Criterion three, building heights, decreases the score as more building heights were recorded at 15 feet compared to majority of heights recorded at 20 feet in The Villages. Despite frequent street tree placement, criterion four, number of small planters, lacked in comparison to The Villages due to a lower quantity of small planters such as flower boxes and urns. Criterion five, number of street furniture items, created the largest disparity as ten was the highest recorded number of items and six was the lowest compared to a high of 26 and a low of 15.

Indicator # 4- Transparency

Transparency is defined by Clemente et al., (2005) as "the degree to which people can see or perceive what lies beyond the edge of a street or other public space and , more specifically, the degree to which people can see or perceive human activity beyond the edge of a street or other public space. Physical elements that influence transparency include walls, windows, doors, fences, landscaping, and openings into midblock spaces" (p. 24). The manual required three distinct observations to determine the level of transparency and were as follows:

The first criterion of transparency, proportion of windows at street level, which is the same as the second criterion of indicator three of human scale, recorded approximately 90 % window coverage on most blocks. Criterion two, proportion of street wall on each side scored 100 % as every block is fronted with buildings. This is

void of any pedestrian paths that cross between buildings. Criterion three, required observation of the proportion of active uses within the buildings and also scored 100 % as every building was occupied by a retailer.

New Smyrna Beach scored 2.67 less than The Villages due to the high proportion of inactive uses. As stated in criterion two of human scale, the proportion of windows in New Smyrna Beach is only marginally less than The Villages. Criterion two, proportion of street wall, is also similar to The Villages, although New Smyrna Beach has one vacant lot and two parking areas adjacent to the street. Blocks averaged between 65 % to 85 % street frontage although several blocks were at the higher end of the spectrum. Criterion three, proportion of active uses, created the largest disparity as several buildings were either vacant or occupied by inactive uses such as offices. Most blocks averaged around 50 % occupied with active uses with the exception of Block E, which houses the Southern Bell Facility on the south side and several county offices on the north side.

Indicator #5- Complexity

Complexity is defined by Clemente et al., (2005) as “the visual richness of a place. The complexity of a place depends on the variety of the physical environment, specifically the numbers and kinds of buildings, architectural diversity and ornamentation, landscape elements, street furniture, signage, and human activity” (p. 28). The manual required six distinct observations to determine the level of complexity and were as follows:

The first criterion of complexity required observation of the number of buildings on both sides of the street. Most blocks contained one to two large buildings on each side of the street with each building typically containing architectural features to create an

appearance of several buildings. Criterion two and three required observation of the basic and accent colors on both sides of the street. Not including multiple shades of the same color, Block D scored the highest with nine basic colors and eleven accent colors. Block A contained the least amount of color variation with five basic colors and four accent colors. Criterion four required observation of the presence of outdoor dining; within the street segment ten outdoor dining locations exist. The fifth criterion requires recording the number of pieces of public art; within the street segment, no public art exists. The final criterion of complexity requires observation of the number of walking pedestrians which differs from criterion seven of the imageability indicator which allowed for any person walking, standing, or sitting within 50 feet. Within the street segment the highest score for pedestrians was located near in Block D at the busiest intersection for both pedestrians and automobiles recorded an average of 9.5. The lowest score was located farthest from the park and nearest to regional automobile roads in Block A with an average of 5.75 pedestrians.

New Smyrna Beach scored the largest difference of 11.5 lower than The Villages for the complexity indicator. The largest disparity is due to the lack of outdoor dining spaces as the difference in number is ten-fold and is allocated the largest multiplier for this criterion. Criterion one, number of buildings, scores similarly to The Villages as several of the blocks are created with continuous facades along full block strucutres. Criterion two and three for basic and accent colors scores significantly beneath The Villages with the high score being less than The Villages low score. The highest score was recorded on Block B at four basic and four accent colors. The lowest score was recorded on Block C with two basic colors and three accent colors. Criterion four,

outdoor dining only scored one in Block D although this location was limited to two small tables and severely lacking curb appeal. Compared to The Villages where outdoor dining was distinguished by umbrellas, organized tables and chairs, canopies, and lighting. Criterion five, public art, is the only criterion to surpass The Villages with the placement of one piece of public art in the form of a wall mural located on Block B. The final criterion of complexity requires observation of the number of walking pedestrians; within the street segment the highest average record of pedestrians is located on Block D at 2.25 and the lowest on Blocks A and C .75 pedestrians compared to a high of 9.5 pedestrians in The Villages.

Part 2- Urban Fabric Indicators

This section will discuss the data collected using Linking urban design to sustainability: formal indicators of social urban sustainability field research in Perth, Western Australia. Findings from the urban indicators will discuss land use diversity, permeability, and accessibility associated with development patterns and human use. Each indicator is accessed quantitatively according to the diagrammatic maps in Figures 3-24 through 3-29 showing figure ground, land use diversity, and lastly street and sidewalk network. Each image is then expressed quantitatively through a coordinating table of values and a graph representing both values and percentages. Discussion will provide an explanation of the unique design features displayed in each diagram that are responsible for significant numerical differences represented in the corresponding tables and graphs.

Preview of Results

The urban fabric indicators shown in Tables 3-12 and 3-13 as well as Figures 3-24 through 3-33 reveal differences in the contextual formation of blocks surrounding the

main streets as measured per each of the three indicators. The data reveals New Smyrna Beach outperforms The Villages in each indicator.

The most significant differences are noted in Figure 3-24 through 3-27 showing figure ground and land use diversity maps. These show the contrast between traditional and suburban development patterns that were both developed around a town center and main street concept. New Smyrna Beach shows a higher density of buildings and increased mix of uses. The diagrams are reinforced with Figures 3-30 and 3-31 expressing the quantity and percentage of each type of land use with notable differences in the number of commercial and residential structures and the lack of multi-family residential, industrial, and institutional in The Villages.

Results for each indicator will be discussed in relation to the one-quarter mile radius surrounding the street segment. Significant findings from each diagrammatic map specific blocks may be included to explain why New Smyrna Beach scored beneath The Villages or vice versa. This discussion will include an analysis of the specific urban design attributes associated to causing higher scores according to measurable human perception.

Indicator #1- Land Use Diversity

Land use diversity measures the “variety of land uses within the walkable catchment area. A high value of diversity may increase consumer choice to a greater degree for maintaining an urban lifestyle without increasing the need for motorized movements” (Porta and Renne, 2005, p. 52)

The Villages development plan, shown in Figure3-26, separates uses so that residential, both single and multi-family, are distanced from any commercial development. The plan utilizes a town center theme entirely void of any residential uses

and limited in office spaces, public facilities and institutions. As seen in Figure 3-30 commerce accounts for 54 % of structures and residential accounts for 42 % however public and hotel space is extremely limited. If the values of each land use type were shown numerically in square footage, the results would show significantly higher percentages of commercial over residential or any other use. Tables 3-26 and 3-30 show that zero structures exist for multi-family residential, industrial, or recreational purposes. The majority of buildings house retail such as clothing and restaurants with a mix of chains and mom-n-pop stores. A majority of retailers and restaurants within the one-quarter mile radius are chain stores. Included in the minority of non-chain stores are businesses operated by The Villages such as The Villages Insurance, Citizens First Wholesale Mortgage Co., and The Villages Sales and Information Center. Figure 3-26 represents The Villages Sales and Information Center as well as the clinic in blue denoting public buildings; The Villages have several governing entities operated on the premise therefore, this building is deemed public. Other uses include offices, banks, and investment companies such as Charles Schwab and Morgan Stanley Smith Barney.

New Smyrna Beach presents a development pattern similar to most early American downtown main streets with a mix of residential, both single and multifamily, as well as a mix of services and employment including retail, office, medical, and industrial. In this way, it is entirely different in comparison to The Villages. The main street segments serve a similar purpose with a majority of structures housing retail and restaurants, however, New Smyrna Beach has an increased mix of office space and municipal services. According to Figure 3-31, 38 % of structures are commerce related and 43 % are single and multi-family. Converse to The Villages, the main street of New

Smyrna Beach is encompassed by residential within the walkable catchment of a one-quarter mile radius. Also, an increased mix of institutional facilities exists, mostly comprised of churches and some hospital uses. A limited number of light industrial uses and recreational facilities are also present which are non-existent in The Villages.

Indicator #2- Permeability

Permeability, otherwise known as street connectivity, measures the "type and number of intersections in an area" and thus the associated "effects the movement by users in that given space and the user legibility of the street network" (Porta and Renne, 2005, p. 53)

The Villages utilizes an organically developed master plan with limited street network designed to mobilize automobiles. Figure 3-28 shows that within a one-quarter mile radius a total of nine intersections exist. Permeability is decreased inherently due to the limited number of streets and further degraded by excessive T-Junctions. According to Figure 3-32 more than fifty % of the intersections are T-Junctions, thereby, reducing the level of permeability and creating superblocks intended to disguise large lots of surface parking.

New Smyrna Beach utilizes an orthogonal grid of blocks ranging between 200 feet to 300 feet in length and width. As shown in Figure 3-29 the small scale street network enhances mobility for both automobiles and pedestrians. Within a one-quarter mile radius exists a total of fifty intersections, a five-fold increase over The Villages. Inversely to The Villages, four-way intersections account for over fifty % of intersections with a total 32 four-ways as compared to four in The Villages. According to Figure 3-33, 86 % of intersections are four-ways as compared to 44 % in the Villages, thereby

increasing the interconnectedness of the street network and enhancing legibility and user-friendliness.

Indicator #3- Accessibility

Accessibility measures “the interconnectedness and accessibility of the street network for pedestrians…based on sidewalk connectivity and street layout” (Porta and Renne, 2005, p. 52).

Figure 3-28 shows The Villages does not have a pedestrian friendly plan for individuals accessing the town center, however, the main streets of the town center exhibit highly efficient pedestrian friendliness with wide sidewalks on both sides of the street and traffic calmed intersections. Entering the town center from the suburban residential development requires lengthy, undesirable walking conditions past large surface parking lots prior to entering the pedestrian zone. In addition, the street surrounding and leading into the town center has no sidewalks on either side. Despite a lack of sidewalks on the auto-oriented streets surrounding the town center, several of these streets are lined with golf cart paths frequently used by pedestrians. The town center is intended to be accessed by automobile or golf cart. Regardless of the town center streets possessing sidewalks, the level of connectedness beyond the structures is low, thereby, creating undesirable walking conditions.

Comparison of Figures 3-28 and 3-29, shows New Smyrna Beach exhibits significantly increased quality of accessibility compared to The Villages due to a small scale street pattern and high percentage of sidewalks within the one-quarter mile radius. Several blocks are divided by alleys thereby increasing walkability due to low volumes of traffic and highly interconnected block patterns. Within the southern portion of the

one-quarter mile radius, every block is divided by an alley. These alleys do not contain sidewalks although; the traffic volume is generally limited to residents of those blocks.

Summary

The findings discussed data in two parts according to the Street Manual Indicators and Urban Fabric Indicators. The data collected through observation and diagramming clarifies the difference in development patterns between The Villages and New Smyrna Beach to highlight disparities in street design and urban form. Generally, The Villages outperforms New Smyrna Beach regarding street design however the opposite is true of urban form. Traditional patterns of street development oriented towards pedestrian movement are evident in Figures 3-28 and 3-29 showing the permeability and accessibility that allows for legibility and connectivity. Traditional development in The Villages is restricted to the town center where utilization of street design techniques implement user friendly zones for both the pedestrian and automobile.

Results from the Street Manual were categorized by each indicator: imageability, enclosure, human scale, transparency, and complexity. The indicators express that scores for The Villages are more successful in every category. Additionally, The Villages rated higher in almost every criterion per block with the exception of blocks such as the one containing a park in Block E where multipliers for proportion of street wall frontage and window frontage cause the block score to decrease. However, the park is an asset to the community and in that way increases the overall value of the street and urban fabric.

Results from the diagrams produced a graphic understanding of the development pattern as well as empirical evidence expressing the difference in the level of efficiency for walkability and access to services. The findings indicate that The Villages are

outperformed by New Smyrna Beach which contains significantly more streets in a small scale network with a majority of four-way intersections thereby increasing legibility and interconnectedness. Further, the increased street network also enhances the level of walkability with a majority of streets having sidewalks on both sides.

Overall, a combination of empirical evidence and diagramming shows that each city has strengths and weaknesses. The Villages are strong in urban design concerning the main street corridor where the pedestrian is provided a user friendly environment for walking and shopping. However, there is a lack of services aside from retail and a severe lack in pedestrian connections leading to the main street. Conversely, New Smyrna Beach performs well regarding the urban fabric where streets and sidewalks provide a high level of interconnectedness and services are distributed throughout the blocks.

CHAPTER 5
WHAT A CITY CAN LEARN FROM A SUBURB AND VICE-VERSA

The final chapter will provide a discussion of how the literature review and research conducted in this study supports the question of the means by which urban design qualities can be marketed to attract aging baby boomers. This study utilizes two methods for measuring and comparing street design and urban form in the selected communities of The Villages at Lake Sumter Landing, Florida and New Smyrna Beach, FL. Based on the findings from this study and the supportive literature, it is assumed that there is a higher frequency of people engaging in built environments based upon their aesthetic preferences rather than functional needs. The findings show that The Villages do not provide the necessary functional needs such as co-location of services in an accessible manner; it does, however, score highly in aesthetic appeal. Conversely, New Smyrna Beach provides a highly functional urban form although it severely lacks aesthetic appeal.

Currently The Villages is marketed as “the friendliest hometown” to people aged 55 and above with focused advertising of golf courses including golf cart friendly transportation that was the impetus of its urban form. It is not the intention of this thesis to recommend New Smyrna Beach replicate amenities such as golfing. It should, however, reflect upon the highly successful marketing campaign and apply techniques to draw attention to underutilized resources such as the walkable urban form, impromptu sociability, co-location of services, beach lifestyle, and the arts overlay district. Further, it is hypothesized that New Smyrna Beach could benefit from using the popular buzz word, smart growth, to package its innate qualities as a unique destination for relocation. The intent of this study was to:

- Provide insight on the link between concept marketing and smart growth as a targeted marketing strategy.
- Provide insight into the interests of aging baby boomers and their lifestyle preferences in selecting a community to age in place.
- Provide a comparison of two communities; New Smyrna Beach, a community established in the 1800s developed as a traditional town and The Villages at Lake Sumter Landing established in the 1990s as an age restricted community developed in the conventional suburban form.
- Suggest that if the street design qualities seen in The Villages are preferred by aging citizens as is proven according to the Street Manual Indicators as well as literature linking design features to human response *and* urban form qualities of New Smyrna Beach are preferred as is proven according to the Urban Form Indicators and literature linking preferences for smart growth development, *then* applying successful street design qualities to an established urban form should result in increased attraction.
- Provide suggestions for each community based on the successes and failures measured in this study.

The first baby boomers reached retirement age in 2008; the over 65 population will eventually climax to approximately 72 million, nearly double the current statistics. Presently, Florida is one of seven states comprised of at least 15 % of the population aged 65 and above (MetLife, 2010). In 2010 the population of Florida aged 65 and above was estimated at 3,418,697 with a projected increase to 7,769,452 by 2030 (US Census Bureau, 2010). These statistics include residents of Florida who will soon become part of the over 65 category, however, a large percentage will include migrants from northern states. Many small Floridian communities seek to increase their revenues and create sustainable economic growth for the future; using their assets to attract the elderly population with the most discretionary income may be one solution to reviving Florida Main Streets and filling the overflow of construction boom housing.

In addition to projections estimating increased elderly populations is the observation of The Villages' success in attracting said population. For the purposes of

this study as it is concerned primarily with design qualities and conducted with the understanding that several factors determine permanent relocation, it is presumed that due to a high frequency of relocation to The Villages, baby boomers are attracted to the urban design qualities exhibited in addition to the amenities offered.

However, contrary to population growth in The Villages, an examination of real estate preferences expresses an interest by baby boomers in smart growth development, which exhibits not only urban design qualities as measured per the field manual, but also urban form which allows for accessibility via walking and public transport from home to services. The Villages do not exhibit the urban form of a smart growth development as the form, aside from the town center, is considered conventional suburban sprawl. The following sections will discuss the real estate market for smart growth among the elderly population and how it can be implemented with clever marketing and street design as seen in The Villages.

The Market for Smart Growth

This section will focus on the market for smart growth as a means to attract various age ranges, thereby, creating a sustainable population to support the baby boom generation. The intention is to prove that with the proper concept marketing campaign and application of urban design techniques, New Smyrna Beach could compete with The Villages to attract baby boomers seeking to permanently relocate for aging in place.

Smart growth communities are most attractive to people aged below 40 and above 60 (Logan et al., n.d.). New Smyrna Beach has an opportunity to capitalize upon the boomers seeking to relocate for retirement in an environment that will allow aging in place and sustainable growth. Congruently, an increase in the aged population will

require an increase in desired services with emphasis on healthcare. It has been proven that smart growth communities attract the under 40 population and thus will likely attract healthcare professionals and health and life style service providers such as meal delivery, transportation, house cleaning. Recent discussion between the city and hospital has encouraged growth in medical services that has been initiated with architectural drawings of medical structures including multi-story parking with retail facades located adjacent to the Bert Fish Medical Center (AECOM, 2010).

An increase in the under 40 demographic will also increase the population of young families thus requiring an increase in employment sectors such as school teachers and other child friendly services. Increasing the population of all ages is a tool to increase quality of life for the elderly population (Stafford, 2009; The AdvantAge Initiative, 2004). Access to social situations has been shown to increase the happiness of elders and increase the learning environment of children. Older adults are an important social and economic resource as they contain a wealth of information that requires an outlet to volunteer and remain socially active and intellectually stimulated (Oberlink and Simantov, 2004). Being an age restricted community, The Villages does not create opportunity for older adults to mentor or volunteer their services in the same manner as New Smyrna Beach. Further, co-location of demographics, age ranges in particular, increases the learning of social skills from elderly to young (Stafford, 2009).

Despite statistics expressing the elderly's interest in walkability, co-location of services, and access to public transit The Villages were designed with a minimal degree of such patterning and have still been highly successful. One could assume this is due the concentrated marketing campaign attracting a specific demographic seeking a

specific lifestyle. Essentially, by marketing New Smyrna Beach as a smart growth community by following the lead of other cities with focused community marketing campaigns, the city has potential to attract permanent relocaters. New Smyrna Beach has an opportunity to enhance the population of various ages and thus develop a sustainable life cycle of the population. The following section will discuss the marketing strategy applied in The Villages and analyze the pros and cons of that strategy to extract beneficial aspects that can be implemented in New Smyrna Beach.

Effect of Concept Marketing on Urban Form

Concept marketing in The Villages and New Smyrna Beach cannot be discussed without considering the amenities offered that are part of the concept as they indirectly affect the urban form. It should be understood that amenities have the ability to help or hinder the urban fabric. As part of the marketing concept, The Villages offers several amenities including clubs and organized activities, some of which are basic within any town and some which are enabled by the masses of people with free time such as The Scrappers Crop Club, The Goldwing Motorcycle Association, and The Villages Twirlers and Drum Corp. The Villages promotes organized activity in every arena including education. One of many advertising slogans gains audience attention with reference to designing a lifestyle, “The Villages lifestyle is all about making your retirement dreams come to life! For many that includes activities designed to help you grow in mind body and spirit. You can find classes year round to help you do just this at the Lifelong Learning College!” (the Villages website). In addition, to various clubs, The Villages is home to several golf courses; as such it is one of the main attractions for baby boomers. According to Don Hahnfeldt, Head of The Villages Homeowner Association, “There are 486 holes of golf here. Up to 9,000 tee times per day. And last year, there were 2 ¼

million rounds of golf. In The Villages, when you speak about being convenient, that means golf-cart accessible" (NPR, 2010).

The multitude of golf courses offer residents ample opportunity for recreation and views to green space, however, expanses of golf courses separate residential areas from services such as the Town Center. As mentioned by Don Hahnfeldt, the golf cart is a necessity. The development has travel lanes for automobiles with separate lanes for golf cart travel, thereby, creating a street system where cars move quickly through the community. The benefit of golf cart usage is that Lake Sumter Town Center encourages golf cart parking with large swaths along the street that are reserved for golf carts, which would typically be reserved for conventional automobiles. Golf cart parking allows for more parking per the same amount of space as an automobile. Where typical on street parking would allow for one parallel car, golf cart parking allows for three carts parked head on in the same amount of space. Additionally, golf carts use the same path of travel as automobiles through the Town Center, thereby reducing traffic speed and fossil fuel emissions into the most pedestrian friendly area of The Villages.

New Smyrna Beach offers limited organized activities compared to the vast array presented in The Villages. However, there are several recreation and leisure opportunities such as water sports, shuffleboard, and group fitness geared towards the elderly demographic. Shuffleboard courts are located on the north side of a Main Street block, the Brannon Center at the east end of Canal Street offers a place for organized activities including adult yoga, and the park also located at the east end of Canal Street offers a boardwalk, a large playground, and gazebo. The location of these amenities encourages walking from home to recreation. New Smyrna Beach is not entirely lacking

in activity although it is not at the forefront as an attractor to new residents. Most importantly, these recreation locations are within the walkable urban fabric and within the scope of public transit. Additionally, New Smyrna Beach is looking at the potential to incorporate golf carts into the transportation plan to enhance mobility in this district as well as connections to other commercial districts and the beach (AECOM, 2010). Conversely to The Villages, these golf carts would integrate into the current road pattern, thereby, effectively acting as a traffic calming device throughout the downtown rather than only the Town Center.

Findings Applied – Street Indicators

According to the observations conducted in *Measuring Urban Design Qualities: an Illustrated Field Manual,* The Villages at Lake Sumter Landing scored considerably higher than New Smyrna Beach concerning aspects of perception and aesthetics of street design. As such, New Smyrna Beach would benefit in gaining perspective from The Villages concerning future construction and remodeling of Canal Street with the understanding that environmental attributes such as aesthetics and perception affect the preferences and satisfaction levels of the user. The New Smyrna Beach Community Redevelopment Agency Master Plan Update states that the city is looking to purchase and redevelop several sites thru public/private collaboration. This would provide an opportunity to implement aspect of imageability and complexity into the street design. In addition, the city is looking towards a system of form based codes or design standards (AECOM, 2010). These are aspects of smart growth development and exhibited with excellence in The Villages Town Center.

New Smyrna Beach should not seek to emulate the design of The Villages. However, the city should take note of the urban design qualities measured in this study

that express higher scores such as indicator number 5, complexity, where The Villages scored approximately 11.5 above New Smyrna Beach with the largest interval of difference from all five indicators. Implementing a series of coordinated colors, beyond the present redundancy of beiges, would significantly raise the complexity score. The Villages exhibit a coordinated scheme of pastel colors giving it a coastal Florida ambiance. In addition, the buildings are designed with similar roof materials and most buildings are trimmed in white around windows/doors and on support columns to form a cohesive appearance. Additional colors seen in signage and other features distinguish each retail establishment. This gives the street a coherent appearance while still allowing each business to stand apart. The presence of outdoor dining is another feature of complexity that created a significant deficit in New Smyrna Beach's score with a comparison of ten outdoor dining spaces in The Villages as compared to one in New Smyrna Beach. The lack of outdoor dining also leads to the lack of people meandering through the streets, which further increased the score differentials. Implementing similar strategies in New Smyrna Beach would not require exorbitant costs as several structures would require minimal remodeling. In addition, there are currently several dining establishments on Canal Street; however, the establishments are lacking outdoor dining and facades displaying qualities of imageability and complexity.

The indicator for human scale expressed the second largest disparity and similarly to the complexity indicator, can be designed with low cost initiatives such as increasing the quantity of street furniture. The Villages Town Center is scattered with movable tables and chair, trashcans, banners, and multiple pedestrian street lights as ground poles and building accents. New Smyrna Beach is well lit with street poles, however,

lighting accentuating architectural features or doorways is almost non-existent. Another significant feature in The Villages is the use of small planters at entries, decorating steps, and hanging from poles that give the street a human scale. New Smyrna Beach has palm trees with small planters strategically spaced, however, the trees are large and do not represent a physical object with human scale. In addition, there is a lack of flowering urns and window boxes that might bring a sense of delicacy to the expanse of brick and concrete walls.

The indicator for imageability scored approximately 6.8 points higher in The Villages. The main factor in the discrepancy is associated with the presence of outdoor plazas, courtyards, and parks. The Villages incorporates several public gathering spaces along the street space and in niches between buildings. All of the spaces include seating in the form of benches or movable tables and chairs. These areas are separate from outdoor dining counts. Several buildings within the Town Center incorporate colonnades with seating areas along retail facades. Although New Smyrna Beach has stationary benches located along Canal Street, the city could easily implement similar movable seating areas to encourage impromptu gatherings. Overall, The Villages implements successful design patterns in all five indicators of street design and as such New Smyrna Beach would benefit from applying strategies of imageability, enclosure, human scale, transparency, and complexity as part of any future development.

Findings Applied – Urban Form Indicators

According to the observations conducted in *Linking urban design to sustainability: formal indicators of social urban sustainability field research in Perth, Western Australia*, New Smyrna Beach considerably higher than The Villages at Lake Sumter Landing

concerning aspects land use diversity, permeability and accessibility. Unlike the cosmetic repairs that would benefit New Smyrna Beach's street design, the infrastructure alterations necessary in The Villages would be extremely costly. The suburban form of The Villages prevents co-location of services and thus prevents walkability. Reversing the development pattern to enhance a sustainable form would require construction of increased densities and small scale street patterns.

The land use diversity indicator expresses that New Smyrna Beach has a significantly higher number of structures within the one-quarter mile radius with a commercial building ratio of 100:38 and a single family residential ratio of 82:29. Theoretically, the mix of land uses activates main streets in the downtown corridor and encourages exercise in the form of walking and biking to retail within close proximity to housing. To achieve this type of built form, The Villages should look to develop multi-story structures containing parking, retail, and multifamily in area currently maintained as surface parking lots.

Indicators regarding permeability and accessibility are related to the street and sidewalk network that coordinates pedestrians and automobiles to increase legibility and connectivity of the built environment. The findings show that New Smyrna Beach has successfully connected the blocks with in the one-quarter mile radius through a series of small scale block that reduce traffic speeds, alleys intended mainly for private use and pedestrian passage, as well as streets with sidewalks on both sides. The Villages would benefit from implementing an orthogonal street network based on small scale blocks to increase pedestrian friendliness. New Smyrna Beach exhibits 32 four way intersection compared to only four in The Villages. This highlights the lack of street

quantity and quality of intersection types present. Overall, New Smyrna Beach implements successful smart growth development patterns through all three indicators of urban form and as such The Villages would benefit from applying strategies of increased density and street network as part of any future development.

Summary

The thesis reviewed literature and conducted research in pursuit of understanding the means by which urban design qualities can be marketed to attract aging baby boomers. This study utilized two methods for measuring and comparing street design and urban form in the selected communities of The Villages at Lake Sumter Landing, Florida and New Smyrna Beach, FL. Based on the findings from this study and the supportive literature, it was determined that people are attracted to built environments based upon their aesthetic preferences as seen in The Villages rather than functionality as seen in New Smyrna Beach. However, contrary to population growth in The Villages, an examination of pertinent literature reveals real estate preferences expresses an interest by baby boomers in smart growth development, which applies multiple principles regarding highly connected urban forms and co-location of services.

The findings show that The Villages do not provide the necessary functional needs such as co-location of services in an accessible manner; it does, however, score highly in aesthetic appeal. Conversely, New Smyrna Beach provides a highly functional urban form although it severely lacks aesthetic appeal. This study suggests that if the street design qualities seen in The Villages are preferred by aging citizens and urban form qualities of New Smyrna Beach are preferred then implementing street design qualities into a community characterizing good urban form and vice versa will essentially create a built environment offering the best experience.

The literature discussed generations seeking progressively more stimulating environments and the need for an economy of experiences to appease those desires. Further, the literature reviews cities implementing concept marketing strategies striving to attract individuals with the lure of providing an experience. This thesis suggests that smart growth could be marketed as a concept to the baby boom generation as a means for cities to package innate qualities as a unique destination for relocation.

This thesis concludes that people are inclined to prefer architectural attributes of street design and functional aspects of urban form. As such, cities seeking to increase residential population should conduct analyses to determine strengths and weaknesses in the urban design with intention to revitalize according to measurable preferences. Despite the fact that smart growth typically relates to new development outside of downtown boundaries, cities should strive to implement smart growth initiatives as amenities in a marketing campaign to attract new residents. The key is to sell the city's atmosphere as an experience. In the case of New Smyrna Beach, marketing would include amenities such as a beach town ambiance, arts overlay district, healthcare, marinas, and boutiques. The amenities are distinctly different compared to The Villages, however, not everyone is in search of golf style retirement. The city needs to capitalize upon its innate underutilized resources and develop a focused marketing campaign to construct a sustainable growth pattern both physically and demographically.

Future Studies

This thesis focuses primarily on methods to implement urban design qualities concerned with attracting baby boomers to New Smyrna Beach; however, the same methodology could be used to determine the potential for any small Floridian city to

attract any demographic. Each city requires an analysis of the current built environment regarding street design and urban form to determine presently underutilized resources. Completing the analysis will reveal weaknesses that can be remedied according to the success of other communities.

In addition to using the measurement tools used in this study, future studies concerning preferences of baby boomers could interview the demographic aged 60 and above. It would be most beneficial to request each participant to conduct the observations per the *Measuring Urban Design Qualities: an Illustrated Field Manual.* It was not within the means of this research to conduct interviews as the process of conducting the field manual observations is lengthy and complex. Selecting participants would be limited due to the time required for conducting the measurement as well as the physical strength needed to repeatedly walk the corridor. It could be argued that due to literature stating that commonalities exist in design features that would be viewed similarly regardless of demographic differences then specifically requiring baby boomers to conduct the study is unnecessary.

This thesis measured urban design according to two manuals. The manuals cover most aspects concerning spatial qualities that affect human response to actively engage in the built environment. Future studies would benefit from additional indicators to enhance both the street manual and the urban form manual. The urban form manual would improve from a measurement of recreational spaces. This would enhance the current indicators concerned with the level of user-friendliness measured according to the co-location of land uses and level of access according to street and sidewalk networks. The first indicator for land use diversity does include recreation. However,

an additional recreation measurement with a similar point based scale to that of permeability and accessibility would enhance the manual regarding opportunities within the urban form for physical activity and access to open space.

The street design manual would benefit from an indicator to measure way-finding systems such as street signs for directionality, parking structures, and districting. Additionally, the street manual would benefit from a climate gauge and measurement of design features such as awnings and tree canopies intended to protect from sun, rain, and snow. The street manual stresses the importance of restaurants with outdoor dining space; however, the multipliers do not account for hours of operation and do not include small scale street vendors that would increase pedestrian activity. Finally, the street manual does not include the measurement of public restrooms, which are integral to indoor shopping malls and should be of concern in outdoor retail districts.

This thesis reviewed marketing lifestyles to Baby Boomers to show that communities can use their urban design qualities to attract a certain demographic. Future studies and cities starting community visioning projects could use this methodology to critique a built environment and understand its strengths and weaknesses. The realization of underutilized resources could develop into revitalization based upon concept marketing plan.

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BIOGRAPHICAL SKETCH

Lindsay Rizzo, the daughter of Frank and Susan Rizzo, was born in upstate New York. Her family moved to Florida where she has been active in her community. Her education began at the University of Florida where she received a Bachelor of Design in interior design. Her interests in architecture and the built form led her to study abroad at the Vicenza Institute of Architecture. Finally, she applied her understanding of human scale to graduate studies in the built environment with a Master of Arts in Urban and Regional Planning. During this time she acquired a minor of real estate, a certificate of historic preservation, and became a LEED Accredited Professional. She hopes to design livable, sustainable environments with an understanding of public policies, social interactions, and economics.