

An Assessment of Smart Growth Policies in Austin, Texas

by
Sarah Danse Lewis

An Applied Research Project
(Political Science 5397)
Submitted to the Department of Political Science
Texas State University
In Partial Fulfillment for the Requirements for the Degree of
Masters of Public Administration
Fall 2007

Faculty Approval:

Dr. Kay Hofer

Dr. Walter Wright

ABSTRACT

Smart Growth is a form of development that incorporates mixed-use development, high-density planning, and transportation in one area in order to create a pedestrian oriented and environmentally friendly cityscape. Smart Growth is largely an answer to the problems created by sprawl, such as environmental degradation and unpopulated town centers. Affordability and housing choice are key components of a smart growth program; the needs of low-income and middle-class residents also are addressed. The reviewed literature suggests that smart growth is the best way to address such problems of urban sprawl, population growth, and affordable housing.

This research will focus on Austin, Texas, its particular development issues and solutions, and offer suggested policies for implementation to increase smart growth compliance. City documents and archives as well as direct observation of emerging developments are examined to describe Austin's current development procedures. A model Smart Growth program developed from the literature will be the basis for examination.

The observed developments and documents suggest that the City of Austin is generally supportive of smart growth development. However, there are a few benchmarks to be reached in order to serve its existing residents as well as plan for the expected population growth. The recommended policies will help Austin become a model smart growth city.

ABOUT THE AUTHOR

Sarah Danse Lewis is a candidate for the master of public administration degree at Texas State University. She earned a bachelor degree from Southwestern University in Georgetown, Texas, with a major in sociology and minors in French and studio art. Her interest in Smart Growth and development policy stems from being raised in Austin, Texas, and an ensuing concern for managing growth in an environmentally and economically responsible manner. She hopes to turn this research and knowledge into a career in public administration with a focus on development policy. She can be reached by email at danselewis@gmail.com.

TABLE OF CONTENTS

CHAPTER I: Introduction	5
Research Purpose.....	8
Chapter Summaries.....	9
CHAPTER II: Literature Review	
History of Development.....	10
Development Issues	
Sprawl.....	11
Affordable Housing Crisis.....	13
Environmental Degradation.....	13
History of Smart Growth.....	14
Ideal Type Categories of Smart Growth	
Mixed-Land Use.....	17
Compact Building.....	20
Range of Housing.....	22
Walkability.....	25
Distinctive Communities.....	28
Preserve Open Space.....	29
Strengthen Development in Existing Communities.....	31
Transportation Choices.....	33
Fair and Predictable Development.....	37
Encourage Community and Stakeholder Collaboration.....	39
Conceptual Framework.....	41
Table 2.1: Conceptual Framework.....	42
Challenges	
Federal (lack of) Support.....	44
Public Perceptions.....	45
Displacement of Residents.....	45
Chapter Summary.....	47
CHAPTER III: City of Austin, Texas, Setting	
Demographics in the City of Austin.....	48
Affordable Housing.....	49
Map 3.1: Single Family Taxable Value, Percent Change: 2000 to 2005.....	51
McMansion Ordinance.....	52
Map 3.2: McMansion Submissions.....	53
Density-Bonus Program.....	53
Transit.....	55
Open-Space Preservation.....	57
Citizen Satisfaction Survey.....	57
Chapter Summary.....	58

CHAPTER IV: Methodology

Operationalization of the Conceptual Framework.....	59
Table 4.1: Operationalization of the Conceptual Framework.....	59
Direct Observation.....	62
Document Analysis.....	64
Archival Records.....	64
Areas for Development Selection.....	66
Statistics.....	66

CHAPTER V: Results

Mixed-Use Development.....	67
Table 5.1: Mixed-Use, Results.....	70
Compact Development.....	70
Table 5.2: Compact Development, Results.....	72
Range of Housing.....	72
Table 5.3: Range of Housing, Results.....	74
Walkability.....	74
Table 5.4: Walkability, Results.....	76
Distinctive Community.....	76
Table 5.5: Distinctive Community, Results.....	77
Open-Space Preservation.....	78
Table 5.6: Open Space Preservation, Results.....	79
Strengthen Existing Community.....	79
Table 5.7: Strengthen Existing Community, Results.....	80
Transportation Choices.....	80
Table 5.8: Transportation Choices, Results.....	81
Predictable Development Decisions.....	82
Table 5.9: Predictable Development Decisions, Results.....	82
Community Collaboration.....	83
Table 5.10: Community Collaboration, Results.....	83
Observed Developments.....	84

CHAPTER VI: Conclusion..... 86

Table 6.1: Percent Support of Smart Growth Principles.....	87
--	----

Table 6.2: Smart Growth Suggested Policies for Austin, Texas.....	89
---	----

APPENDIX

Map 4.2: Downtown Austin Emerging Projects.....	90
Map 4.3: East Austin Revitalization Zones.....	91
Map 6.1: Multifamily Housing Starts.....	92
Table 4.2: Documents and Archival Records.....	93
Table 5.11: Development Selection Table.....	94
Table 5.12: Observed Developments Results.....	96
Photos of Observed Developments.....	98

BIBLIOGRAPHY..... 99

CHAPTER I: INTRODUCTION

Smart Growth¹ is a response to problems associated with urban sprawl: “it invests time, attention and resources in restoring community and vitality to center cities and older suburbs... is more town-centered, is transit and pedestrian oriented, and has a greater mix of housing, commercial and retail uses. It also preserves open space and other environmental amenities... it recognizes connections between development and quality of life” (SmartGrowth.org 2001). Urban sprawl is defined as the expansion of low-density development over rural land at the outside of a city. Smart Growth promotes economic development and jobs, strong neighborhoods with a range of housing choices, and healthy communities (SmartGrowth.org 2001). As a planning tool, Smart Growth reduces external costs, provides benefits to disadvantaged people, saves money on public services and passes these savings on to the consumer, preserves open space and creates livable communities (Litman 2005, 4).

Present zoning policies in the United States often lead to sprawling development, resulting in the loss of open space, increasing congestion and the deterioration of city neighborhoods. However, the principles need to be combined for maximum benefits to be realized. One answer to this problem is Smart Growth, a popular tool for land use planning. As government plays a major role in the determination of how and where a city will grow, land use policies need to reflect the community’s long-term economic and environmental goals. Smart Growth is a form of development that incorporates all elements (recreation, business, and housing) of a successful metropolitan area. With an emphasis on housing affordability and amenities within walking distance, Smart Growth

¹ For this paper, Smart Growth when capitalized will be in reference to a planning tool or concept; when lower-case, will act as an adjective or general description.

is also a champion of the poor. States, however, often are unwilling to impose restrictions on growth due to public sentiment and pressure from developers.

Current policies that encourage sprawl are prohibitive zoning codes, transportation planning, and mortgage lending practices that ignore high costs of transportation from outlying areas around cities (Litman 2005). Restrictive zoning laws make it difficult to reuse or infill space in existing neighborhoods, making it more profitable for developers to build new neighborhoods (Cooper 2004, 484). Federal subsidization has expedited large-scale highway construction over other forms of transportation, also increasing suburban development; however, local governments end up paying for the infrastructure costs to provide services to new developments (Haughey 2005, 10). These practices have resulted in sprawling metropolises and a need for more sustainable development.

Sprawl has contributed to environmental degradation in the form of subdivisions. Smart Growth attempts to alleviate this pressure on the environment. Between the years of 1954-1997, developed urban land quadrupled; we are “losing over 365 acres of open space every hour to developers’ bulldozers” (Cooper 2004, 471). Other environmental effects due to sprawl include increased air pollution, traffic congestion and flooding because of the removal of run-off absorbing natural elements (Cooper 2004, 472). The development of open space also reduces high quality farmland and biological diversity (McElfish 2007); this loss of natural habitats threatens 80% of species listed in the Endangered Species Act (Arigoni 2001, 13). The eco-services cities rely on most, such as drinking water reservoirs, are increasingly polluted as a result of sprawl.

Another problem that smart growth policies address is affordable housing. The booming economy of the late 1990s caused home prices to rise at more than twice the rate of inflation (Arigoni 2001). The National Low Income Housing Coalition (NLIHC) reported that due to a shortage of rental units and their occupancy by people in a higher income bracket, five million rental units are needed for low-income households (NLIHC 2000).

PURPOSE

While Austin, Texas, is on the forefront of many innovative smart growth practices, one common concern among residents is escalating housing prices and affordability. Austin, Texas, is experiencing rapid growth in population, from 465,000 in 1990 to 650,000 in 2000 and an expected total of 800,000 in 2010,² spurring a need for responsible growth in order to achieve its self-proclaimed goal of being “the most livable city in the country.”³

The City of Austin Neighborhood Housing and Community Development Department reported that between 1998-2005, the average sales prices in parts of East Austin doubled, and lot prices increased an astounding 350%.⁴ Once a low-income area, East Austin will face many challenges in order to preserve affordability. One symptom of the failure in the development process, according to Arigoni (2001), is “the unintended consequences of revitalization approaches, including rapidly escalating housing costs, rental conversions to properties for sale, and displacement of renters” (8).

² www.ci.austin.tx.us/smartgrowth/

³ See <http://www.ci.austin.tx.us/vision/priorities.htm> for a list of priorities

⁴ See <http://www.ci.austin.tx.us/housing/publications.htm> *Community Preservation and Revitalization Program Report* (July 28, 2005). In Zone 1, median home prices doubled; in Zone 3, lot prices increased 350%.

Because of these reasons, smart growth policies need to become an integral part of a city's development process.⁵ At this time, many of these policies are seeing widespread usage; however, there is not a smart growth model building program tailored to meet each of the benchmarks concurrently. Therefore, the purpose of this research is threefold. First, it will use federal smart growth guidelines as a benchmark for the development of a practical ideal type of smart growth policies. The second purpose is to gauge the City of Austin's usage of these guidelines in its development process. As smart growth policies are often applied to downtown redevelopment and revitalization techniques, East Austin and downtown Austin will be compared and examined using the categories of the practical ideal model to see if the actual development reflects the goals of the smart growth policy. Finally, the practical ideal type model will be used to recommend policies for future Smart Growth implementation.

With notable population increases in cities nationwide, public administrators struggle with learning how to balance development and quality of life. A smart growth model is a useful tool for responsible growth that public administrators can apply to development decisions while protecting community interests. This research will provide an ideal type of a smart growth program and an evaluation tool that cities can use in order to examine their own development process.

⁵ See Arigoni, Danielle. 2001. *Affordable Housing and Smart Growth: Making the Connection* for in-depth discussion of affordable housing needs in the United States.

Chapter Summaries

Chapter II reviews literature to support the smart growth practical ideal type and tools for implementation. The history of the smart growth movement and its subsequent challenges also will be discussed. Chapter III describes the City of Austin and its demographics and history of development. Chapter IV provides the research methodology used for this project. Chapter V presents the results of the document analysis and the direct observation of emerging developments. Chapter VI offers concluding remarks and suggested policies for implementation of Smart Growth.

CHAPTER II: LITERATURE REVIEW

PURPOSE

The purpose of this section is to review scholarly literature on the issue of Smart Growth. The literature will provide justification for developing a practical ideal type of smart growth principles based on federal guidelines. A discussion of current growth issues and challenges to smart growth implementation will provide a complete picture of development policy. Finally, suggested policies for implementation will be briefly described.

HISTORY OF DEVELOPMENT

In the early 20th century, blue-collar workers lived downtown in order to walk to industrial jobs, while wealthier families moved to the “railroad suburbs” to escape increasing noise and pollution (Cooper 2004, 480). After World War II, “federally subsidized home-mortgage loans enabled returning GIs and other homebuyers of limited means to buy homes”... but these loans were restricted to areas where homes were “considered safe from devaluation”—essentially fostering the segregation of American communities (Cooper 2004, 481). Levittown on Long Island set the precedent of postwar suburbs with cul-de-sacs and curved streets, requiring automobiles in order to reach amenities (Cooper 2004, 479). In 1956, the federal government funded the Interstate Highway System, creating 45,000 miles of superhighway and encouraging suburban development.

The importance of housing was established in 1949, when “Congress first declared that the United States should ensure a ‘decent home and suitable living

environment for every American family”” (Smart Growth Network 2007, 17). Zoning ordinances from the 1960s isolated retail and businesses from residences and were helpful during a period when living near manufacturing jobs was detrimental to health (Song & Knaap 2004). However, recent technologies to reduce noise and pollution have rendered this separation unnecessary.

Current policies that encourage sprawl are prohibitive zoning codes, transportation planning, and mortgage lending practices that ignore high costs of transportation from fringe (edge of a city) areas (Litman 2005). Restrictive zoning laws make it difficult to reuse or infill space in existing neighborhoods, making it more profitable for developers to build new neighborhoods (Cooper 2004, 484). Federal subsidization has expedited large-scale highway construction over other forms of transportation, also increasing suburban development; however, local governments end up paying for the infrastructure costs to provide services to new developments (Haughey 2005, 10). These practices have resulted in sprawling metropolises and a need for more sustainable development.

DEVELOPMENT ISSUES

Sprawl

The issue of sprawl is becoming more recognized around the country and “is characterized by low density development that rigorously separates residential uses from other land uses, and that relies on automobile transportation to connect the separate uses” (McElfish 2007, 1). Marginalized neighborhoods as well as rich school districts are created, which contributes to the deterioration of inner cities (Greenberg et al. 2001, 139).

As Michigan's Governor Granholm stated, "[sprawl] is hampering the ability of this state and its local governments to finance public facilities and service improvements"

(Haughey 2005, 9).

Undesirable outcomes of sprawl include: 1) outward and "leapfrog" expansion of low density development; 2) conversion of open space to urban uses; 3) lack of housing choice; 4) traffic congestion and pollution; 5) costly expansion of roads, sewers, and water systems; 6) failure to redevelop existing neighborhoods; and 7) segregation of land uses (Downs 2005, 168). More specifically, McElfish (2007) expands on these adverse effects of sprawl:

1. Sprawl contributes to loss of support for public facilities and public amenities: residents of sprawl communities have access to city amenities but do not contribute to the city tax base. Property taxes in exurbs (property outside of a city) are lower than city taxes.
2. Sprawl undermines effective maintenance of existing infrastructure: through new development, older infrastructures of roads, water, and sewage are used until the new can be completed. Wear and tear cause new costs for the city, but resources are often directed to the new development needs at the edge of a city for roads, and other services. The urban core is negatively affected by this displacement of monies.
3. Sprawl increases societal costs for transportation: roads must be constantly retrofitted in order to keep up with traffic.
4. Sprawl consumes more resources than other development patterns: because homes, offices and utilities are farther apart and each requires a parking lot and other resources (asphalt, pipes, concrete).
5. Sprawl separates urban poor people from jobs and also separates different price levels of housing as well as job areas from residential areas.
6. Sprawl imposes a tax on time because it is hard to get to amenities without significant travel time.
7. Sprawl degrades water and air quality because it increases the area of impervious surface, increases the frequency of flooding which requires more disaster assistance, and incurs a loss of alternate means of transit (which could improve air quality).
8. Sprawl results in the permanent alteration or destruction of habitats due to a high rate of land conversion per unit of development and the loss of productive farmland. Urban living stresses the environment but can be offset by retaining open space in same watershed.

9. Sprawl creates difficulty in maintaining community identity as it requires more driving, more planning to maintain social connections (such as children have “play dates” rather than simple neighborhood interaction), and exercise is isolated.
10. Sprawl offers the promise of choice while delivering more of the same—it constrains our choices of where to live and work (McElfish 2007, 1-5).

Affordable Housing Crisis

The booming economy of the late 1990s caused home prices to rise at more than twice the rate of inflation (Arigoni 2001). As a result, there is a growing affordable housing crisis for low and moderate-income people: “in 2000, the National-Low Income Housing Coalition (NLIHC) reported that there was not a locale in the United States where a full-time minimum-wage earner could afford fair-market rent for a two-bedroom apartment” (Arigoni 2001, 8). There are 5 million families paying more than half their income for housing or living in sub par conditions, an increase of 67% since 1997 (Clinton 2007). As Senator Clinton stated, “working full-time no longer guarantees the security and comfort of a home...we need to make sure hard working Americans are given the opportunity to live in the communities they serve” (Clinton 2007, 1).

Environmental Degradation

Between the years of 1954-1997, developed urban land has quadrupled; we are “losing over 365 acres of open space every hour to developers’ bulldozers” (Cooper 2004, 471). Other environmental effects due to sprawl include increased air pollution, traffic congestion and flooding because of the removal of run-off absorbing natural elements (Cooper 2004, 472). The development of open space also reduces high quality farmland and biological diversity (McElfish 2007); the loss of natural habitats threatens

80% of species listed in the Endangered Species Act (Arigoni 2001, 13). The eco-services cities rely on most, such as drinking water reservoirs, are increasingly polluted as a result of sprawl. Congestion has become a major problem: between 1980 and 2000, the number of miles traveled by vehicle grew 44%, compared to 2% growth of roadways (Cooper 2004, 482). Smart growth policies are an attempt to resolve these development issues and grew out of a concern about the unintended costs of sprawl.

HISTORY OF SMART GROWTH

In 1964, Robert E. Simon designed the first mixed-use development in Reston, Virginia, outside of Washington, D.C. Nearly ten years later, Portland, Oregon developed land-use policies and the controversial “urban growth boundary” (UGB), outside of which development was highly discouraged. In 1981, Andres Duany and Elizabeth Plater-Zyberk designed Seaside, Florida, a mixed-use development that signaled the beginning of the New Urbanism movement that incorporates many elements of Smart Growth. Other states began creating growth management plans to better serve fast-growing communities.

In 1996, the Environmental Protection Agency created the Smart Growth Network in order to share information about development practices. The Smart Growth Network was formed due to increasing community concerns about the economy, environment, and the effect of rapid growth on cities. After years of states running out of money for transportation projects, guaranteed funding for transportation was realized with the 1998 Transportation Equity Act for the 21st Century (TEA-21), providing a boost in spending for mass transit development (all information from Cooper 2004, 479).

TEA-21 requires seven planning factors, such as energy conservation and increasing accessibility and mobility for all users, to be included in regional transportation plans.⁶

Concern about the negative effects due to sprawl resulted in the EPA's adoption of the following principles of smart growth development:

1. Mix land uses
2. Compact building
3. Range of housing opportunities
4. Walkable neighborhoods
5. Foster distinctive, attractive communities with a sense of place
6. Preserve open space, farmland, natural beauty and environmental areas
7. Strengthen existing communities
8. Transportation choices
9. Predictable development choices
10. Encourage community and stakeholder collaboration in development decisions (Smart Growth Network 2007).

These principles are supported by literature and frame the practical ideal type conceptual framework of this study. Conceptual frameworks are “tools” that can be used “to help connect the problem to observed data” (Shields 1998, 210). The categories within the conceptual framework are a beneficial way to classify tools (Shields 1998, 213). According to Shields (1998, 215), “practical ideal types can be viewed as standards or points of reference.” The principles will categorize the tools, or policies, for the successful implementation of Smart Growth. The following authors have declared an interest in Smart Growth because, though it is a generally supported idea, it encounters many obstacles when applied in practice. The following discussion of literature develops and explains the afore-mentioned principles. Policies that cities can use for the implementation of Smart Growth are derived from federal guidelines for best

⁶ See <http://www.fhwa.dot.gov/tea21/index.htm> for facts, funding, and legislation details.

development practices and encompass a wide range of development options for growing cities.

IDEAL TYPE CATEGORIES OF SMART GROWTH

MIXED-LAND USE

Mixed-land use refers to the combination of residential, commercial, open space and institutional uses (Smart Growth Network 2007, 2). Mixed-land use is characterized by the inclusion of neighborhood stores, multi-family units, light industry, public institutions and public parks (Song & Knaap 2004, 667).

Song and Knaap (2004) analyzed the impact of mixed-use developments on prices of single-family homes. They considered the following characteristics that may affect the value of single-family homes: physical attributes, public service levels, location, amenities, socio-economic variables, neighborhood design, and mixed-land uses (Song & Knaap 2004, 665). They used data from Portland, Oregon and the effects of the city's Functional Plan, which promotes mixed-use neighborhoods and job-housing balance (Song & Knaap 2004, 667). Song and Knaap found that housing price increases with distance from multi-family units and increases with proximity to (and percentage of) public parks and neighborhood commercial areas (Song & Knaap 2004, 672). They also found that price increases if the neighborhood is primarily single-family homes, if mixed land use is evenly distributed, or if there is an increase in the amount of service jobs (Song & Knaap 2004, 674).

Song and Knaap (2004) conclude that "consumers still value homogeneous residential" areas, but a community will support an even incorporation of mixed-uses

throughout a neighborhood (676). These findings support Smart Growth claims that mixed-use development can boost rather than diminish sales prices. The factors that need to be implemented for successful mixed land use neighborhoods are: compatibility with existing residences, public parks, service-oriented businesses, and appropriately scaled commercial developments with convenient pedestrian access (Song & Knaap 2004, 677).

Policies for Mixed-Land Use

Mixed-land use is the combination of residential, commercial, open space and institutional uses (Smart Growth Network 2007, 2). Mixed-land use is characterized by the inclusion of neighborhood stores, multi-family units, light industry, public institutions, and public parks (Song & Knaap 2004, 667).

Adopting comprehensive plans and sub-area plans that include explicit goals of the city and neighborhoods is one way a community can encourage mixed-use development instead of sprawl. Area-specific plans help a community combine function with design. For example, an historic neighborhood can specify types of structures that will be allowed in order to maintain the area's overall design. These types of ready-to-use plans also promote compatibility between old and new developments, and focus on techniques to achieve mixed use (Smart Growth Network 2007, 3).

Enhanced zoning techniques promote certain types of development by means of city zoning laws. One technique is form-based coding, which focuses on requirements of building design instead of land uses. Form-based coding is the recognition that a "community's physical form, rather than its land uses, is its most intrinsic and enduring characteristic" (Smart Growth Network 2007, 3). Town center zoning is flexible in

development of mixed-use parcels of land. Floating zones are defined in zoning ordinances and are used to provide flexibility of development when the site for a potential development is not yet known. A planned unit development (PUD) is a type of floating zone used to designate an area for mixed-use development with significant city design oversight (Smart Growth Network 2007, 3). A PUD will typically incorporate a town center with surrounding residential neighborhoods, a community open space, schools, and interspersed businesses.

Regional planning grants for projects that produce mixed land use can specify integration of design and development. A grant program enables local and regional authorities to allow for innovation in planning strategies (Smart Growth Network 2007, 4). The EPA issues awards every year for smart growth proposals. The pending awards this year include a grant for street planning combined with emergency response systems; reducing the environmental impacts of school siting; and analyzing policy barriers to redevelopment of vacant properties⁷.

Redevelopment of office parks and strip malls into mixed-use facilities makes for better use of infrastructure, as does the reuse of closed institutions such as airports for new projects. Redevelopment also increases investment value and supports the surrounding community (Smart Growth Network 2007, 5). The Mueller Development at the site of the closed Mueller Airport⁸ in Austin, Texas is one example of this type of retrofitting. The airport closed in 1999, and the Mueller plans take advantage of the large space with the inclusion of residential areas, businesses, and open space.

⁷ For a more in-depth look at grants and past awards, see the EPA website at: http://www.epa.gov/smartgrowth/grants/grant_announcements.htm#preaward

⁸ The Mueller website describes development plans, businesses, and descriptions of homes. Go to: <http://www.muelleraustin.com/>

Incentives for ground-floor retail and upper-level residential can be encouraged through “tax increment financing⁹, low-income¹⁰ tax credits, and deferred impact fees¹¹” (Smart Growth Network 2007, 6). Retail adjacent to housing creates local sales opportunities and convenience for residents; localized businesses provide necessities to residents who don’t wish to drive elsewhere for few items.

COMPACT BUILDING

Compact building is high-density development that encourages walkability, transportation options and housing choices. A survey in 2003 found that 63% of Americans would prefer to walk to stores, and 54% felt there were too few shops or restaurants within walking distance (Smart Growth Network 2007, 11). Compact development protects the environment by decreasing automobile use, requiring less energy for heating, decreasing water usage, and lessening contamination of reservoirs. Brownfield redevelopment is also environmentally friendly if multiple-family units are included (Greenberg et al. 2001, 132).

Richard Haughey (2005, 6) from the Urban Land Institute defines high-density as “new residential and commercial development at a density higher than what is typically found in the existing community.” His article refutes myths surrounding high-density development that result from the failed public housing projects of the 1960s and 1970s;

⁹ TIF is a tool that uses future expected taxes from improvements to pay for the projects that will create those gains.

¹⁰ States receive a federal tax credit per person to be allocated to housing needs for low-income renters and owners. Tax credits must be used for new developments or rehabilitation. There must be either 20% units dedicated to persons under 50% area median adjusted gross income or 40% units dedicated to persons under 60% area median adjusted gross income. For more information, see <http://www.danter.com/taxcredit/about.htm>

¹¹ Impact fees are one-time fees on new construction that help pay for public services, such as roads and parks. These are deferred in order to encourage affordable housing.

these crime-ridden, eyesore structures are a thing of the past. Current planning strategies to lessen infrastructure costs of sprawl, such as high-density housing, put less strain on public infrastructure and could save more than \$100 billion over the next twenty-five years (Haughey 2005, 9). Locating amenities near high-density housing alleviates the need for new infrastructure, attracts new employers, and also increases productivity due to lesser commuting time (Haughey 2005, 12).

Policies for Compact Building

Compact building is high-density development that encourages walkability, transportation options and housing choices. High-density development also reduces construction costs that can be passed on to the consumer in the form of affordable housing prices.

Creating a community alliance to help guide developers through the process and to establish criteria for the review of potential projects is one way to promote future Smart Growth development. A community alliance may be initiated by any third-party interest group, such as environmentalists, or be mandated by a local government. An effective alliance will have criteria to rate developments and provide endorsements for developers who use smart growth guidelines (Smart Growth Network 2007, 12).

Cottage housing development (CHD) zoning allows for clustered single-family units and provides a variety of new and less-expensive housing. With a cottage housing zoning specification, several smaller homes can be developed in a smaller tract of land (clustered units). Because the homes require less space (up to twelve homes per acre),

pricing is less expensive. Cottage housing provides affordable housing and requires less land and resources (Smart Growth Network 2007, 13)

Traditional neighborhood design (TND) can be employed to create neighborhoods with amenities within walking distance and also foster a sense of safety by means of its own activity. When neighbors use sidewalks and are more cognizant of each other, they are more likely to notice unusual behavior or suspicious people (Smart Growth Network 2007, 15). TND neighborhoods have definite centers (usually a community green space near small businesses) and edges (larger homes or businesses), a mix of destinations, and a range of housing types (apartments in the center and above shops; family homes further out) (Smart Growth Network 2007, 14).

Appropriately scaled big-box stores with strict design standards can reduce the negative impact of development in traditional neighborhoods. A key way to promote this is through facades that match the surrounding design, no large front parking lots, and no blank walls (incorporate windows) (Smart Growth Network 2007, 17).

Reducing or removing minimum lot size requirements strategically lessens the demand on undeveloped land and helps to preserve space. Instead of sprawling suburban homes on large lots, more homes may be built in one area if the minimum lot size is reduced. Longer distances between houses means more infrastructure needs, new schools to be built, and the loss of “working land” (farmland that requires less services) (Smart Growth Network 2007, 18).

In addition to neighborhood zoning changes, the types of housing available need to be varied in order to achieve space for all members of a community. The following

section explains how to provide a range of housing in accordance with smart growth principles.

RANGE OF HOUSING

Range of housing creates housing opportunities and choices for people at every stage of life (Smart Growth Network 2007, 22). This principle also includes revitalization techniques and affordable housing. Smart growth policies aim to retain current residents and to use their input to improve the community.

Katz, Turner, Cunningham, and Sawyer (2003) examined rental assistance, homeownership assistance and regulatory policies and addressed their effect on affordable housing. The authors found that rental assistance requires deep subsidies to reach the neediest of households, and affordable housing should not be clustered in low-income neighborhoods. Living in a high-poverty neighborhood is detrimental to families, and rental assistance vouchers help make it easier to live in healthier neighborhoods (Katz et al. 2003). Higher-density dwelling is another way to address the affordable housing shortage and can provide more options (apartments, cottages and family homes) for working families. Different types of housing can provide for the new student, a family, and an aging relative and yet retain the family network within one area.

A range of housing could also include new regional attractions and new housing in deteriorating neighborhoods. Affordable housing also contributes to a range of housing (a general rule is that housing costs do not exceed 30% of income; in Austin,

Texas, low income for one person is defined as less than \$39,850¹²). One symptom of the failure of housing choice is:

“The presence of low-cost housing in areas with poor neighborhood quality of life, including bad schools, high crime rates, and unreliable neighborhood services...[as well as] the unintended consequences of revitalization approaches, including rapidly escalating housing costs, rental conversions to properties for sale, and displacement of renters” (Arigoni 2001, 8).

Policies for Range of Housing

Smart growth policies aim to retain rather than displace residents and to use their input on issues, such as a children’s play area or the style of new buildings, to improve their neighborhoods. Developers can hold an interactive design workshop or a forum in a community center to engage a neighborhood.

An **Employer-assisted housing program** coordinates housing programs and employers to help with costs and redevelopment of communities. The employer can help create affordable housing through investment or providing technical assistance to a community, or help their employees to buy existing homes with down-payment assistance. The employer benefits from more loyal employees, increased civic pride, and reduction in costs associated with training new employees (Smart Growth Network 2007, 22).

Streamlining the development review process when units include affordable housing can be achieved through the use of modified applications, an expedited review process of construction permits, and the creation of a Geographic Information System

¹² See <http://www.ci.austin.tx.us/housing/mfichart.htm> for chart of 2007 income guidelines in Austin, Texas

(GIS) based system (Smart Growth Network 2007, 23). Maryland’s “Green Tape” program has an expedited process for developments that contain at least 20 percent of housing units for low-income families¹³. The “Green Tape” team offers developers pre-design consultations and assists with filing requirements so that projects in the redevelopment zone are quickly processed. GIS is used to make a map of proposed and existing projects for easy identification.

A **Regional program** to encourage all communities to “include a fair share of affordable and moderate-range housing” will help balance housing and jobs and mitigate the concentration of poverty. If affordable housing is dispersed throughout a region, lower-income residents can live near their employment and reduce time spent traveling. A regional program that specifies such distribution addresses overall demand for affordable housing instead of relying on local communities to do so. This general plan may include a housing program and land zoned for multifamily housing (Smart Growth Network 2007, 24).

Revitalization projects that include housing as well as a new market of shopping and dining are a way to reenergize a neighborhood. Shopping and entertainment are created to support an influx of residents who require services at all times of the day and to increase the money flow into a neighborhood. These amenities as well as existing infrastructure will attract new developers and investors as a sound real estate investment (Smart Growth Network 2007, 25).

Property tax exemption programs for mixed-income developments and low-income homeowners promote development with affordable housing. For example, if a

¹³ Description of the Green Tape program in Silver Spring, Maryland. Includes photos of projects and describes how the program was implemented. See <http://www.epa.gov/smartgrowth/case/greentap.htm>

builder provides 20 percent reasonably priced housing units, the City of Austin provides 50 percent fee waivers (roughly \$1160 per unit for a multi-family residence)¹⁴. Such incentives encourage developers to build multi-family housing and provide space for low-income residents (Smart Growth Network 2007, 27)

Housing trust funds established by legislation, ordinance or resolution that may only be spent on housing could include provisions requiring affordable housing or incentives (such as down-payment assistance or closing cost loans) for first-time homebuyers. An ordinance that commits a certain tax to the fund is a secure way to fund housing and may include provisions requiring affordable housing as well as low-cost loans for first time homebuyers (Smart Growth Network 2007, 29).

In addition to a range of housing choices for residents, a community should encourage pedestrian transit through safe sidewalks and nearby amenities to better realize smart growth principles. The following section explains how walkable communities can be achieved through smart growth development.

WALKABILITY

Walkability encourages pedestrian travel for everyday activity. Development strategies such as New Urbanism and Smart Growth “are based on assumptions about how people will interact with and respond to their neighborhood environment...[and maintain] that placing amenities within walking distance will increase pedestrian travel and social interaction among neighborhood residents” (Lund 2003, 414).

Hollie Lund (2003) focused on the significance of local access, (one-quarter mile from housing) and its relation to pedestrian travel, strolling or destination trips, and

¹⁴ For more information on fee waivers, see: http://www.ci.austin.tx.us/ahfc/smart_waivers.htm

neighbor interaction in eight neighborhoods within Portland. She found pedestrian travel is higher with continuous sidewalks, safe crossings, and shorter distances to local amenities (Lund 2003, 415). There is a direct relationship between environmental variables and acts of neighboring, such as borrowing a cup of sugar or taking in the mail. Lund found that access to retail positively affects acts of neighboring in inner-city neighborhoods but not in suburban communities (Lund 2003). Her findings support Smart Growth claims that placing retail and shops in a neighborhood along with pedestrian amenities can increase walking and interaction (Lund 2003, 428).

Similarly, Song and Knaap (2004) compared street design, density, land use mix, accessibility, and pedestrian activity in a New Urbanist community and a “typical” neighborhood within Portland and found that the former had more connectivity, greater pedestrian access and higher density. Increased pedestrian activity also serves as a crime deterrent because of more “eyes on the street” (Haughey 2005, 21). Overall, increasing walkability is an important component for a Smart Growth community.

Policies for Walkability

Walkability encourages pedestrian travel for everyday activity; the redevelopment of suburban commercial areas or unused facilities can achieve this through connective sidewalk designs and accessible parking areas. Incorporating high-density dwelling (such as attached homes or apartments) within a development also generates less traffic and makes walking and public transit more feasible: “doubling density decreases the vehicle miles traveled by 38%” because people walk more (Haughey 2005, 16).

A **Pedestrian master plan** incorporates model codes and technical guidelines (consistent practices but flexible for varying developments), such as red-light cameras,

in pavement-flashing lights at crosswalks, and city reviews of pedestrian policies. How to address potential upgrade costs and city growth issues will help focus attention on best development practices. Collaboration with citizens with special needs is encouraged to address problems felt by typically underserved populations such as the disabled, children and senior citizens (Smart Growth Network 2007, 32).

Neighborhood schools within one mile of residences with direct and safe routes encourage kids to walk or bike to school. Safe-routes-to-school information, when included in a master pedestrian plan, also encourages walkability. Students and their parents without cars find extracurricular activity more accessible when schools are within walking distance. Community interaction is also more likely to occur naturally when residents feel comfortable and safe walking through their neighborhoods (Smart Growth Network 2007, 33).

Green infrastructure (such as trees and vegetation) provides shelter, beauty, urban heat reduction, and separation from automobile traffic. It also reduces pollution through the absorption of carbon dioxide and pollutants and can act as a natural speed-reducer for through-traffic (Smart Growth Network 2007, 34).¹⁵

Safe routes to transit hubs encourage walking, and surrounding “park-and ride” stops with amenities other than with parking lots increases public transit use. The development of connected bike paths and pedestrian walkways also may increase the distance a pedestrian will travel to a transit hub (Smart Growth Network 2007, 34).

Pedestrian-oriented localities are by design more attractive because of green infrastructure and traffic-calming devices, and help build distinctive communities.

¹⁵ See the International Society of Arboriculture’s website: www.isa-arbor.com/tree-ord/ for guidelines for developing tree ordinances.

DISTINCTIVE COMMUNITIES

Distinctive communities can foster a sense of place. Preserving historical areas, distinctive transit, and developing in a manner that fits the city are all important practices in order to maintain community identity (Smart Growth Network 2007, 42). Community identity can be defined as what citizens rally around such as a natural habitat or cultural event. Incorporating newer developments in an historic neighborhood may require modifications of plans in order not to create the “McMansion” effect (when older homes are overshadowed by new, grandiose homes). People also find non-homogenous areas more pleasing to the eye; a community can specify in pattern books¹⁶ various types of architecture that work together aesthetically but still provide a range of choices. Researchers at Virginia Tech University found that “well-placed market-rate apartments with attractive design and landscaping actually increase the value of detached houses nearby” (Haughey 2005, 14).

Policies for Distinctive and Attractive Communities

Distinctive communities and historical areas serve as identifiers to the community, and, so, preserving historical areas, distinctive transit, and developing in a manner that fits the city are important practices (Smart Growth Network 2007, 42). Attractive, well-designed and well-maintained higher-density development can attract and retain residents and also fit into existing communities (Haughey 2005, 27).

Revolving loans fund for historic preservation can provide nonprofits or local governments with the means to preserve cultural attractions instead of competing with

¹⁶ See further explanation in “Make Development Predictable, Fair and Cost-Effective” section.

other public amenity budget items such as parks. Usually an initial grant or bond is passed and loans with favorable interest rates are made to historic preservation organizations. The accrued interest goes back into the fund (Smart Growth Network 2007, 42).

Distinctive public transit can increase the attractiveness and uniqueness of a neighborhood, and a citizen design panel encourages local participation and unique transit. A transit system with neighborhood-scale vehicles that connect directly to the city finds more support from the community than imposing transit options. Boulder, Colorado is a good example of distinctive transit; there are six bus lines that run through the city, all with individualized identities that match the area served (such as rural décor for the line that runs outside the city) (Smart Growth Network 2007, 45). With more transportation options available to the public that negate the need of automobiles, sprawl can be avoided and open space can be more easily preserved.

PRESERVE OPEN SPACE

Preserving open space, farmland, natural beauty and environmentally sensitive areas is a major component of Smart Growth. The United States loses two million acres a year to sprawl, which is causing health issues and damaging water sources that are often in outlying areas (Haughey 2005, 22). Since 1994, fifty-five percent of land developed has been for housing tracts of more than ten acres (Haughey 2005, 22). Cities can create nature preserves on the fringes of the city where water sources are in danger of contamination and, instead, encourage infill development. High-density development is more environmentally friendly because it restricts growth in greenfields

or the outer edges of cities and, instead, uses services already developed within the city. Building within areas already equipped with infrastructure (water pipes, roads, public services) preserves open space and redirects investment to communities. A survey of New Jersey found that compact development could result in 30% reduction in runoff and 83% reduction in water consumption (Haughey 2005, 22).

Policies to Preserve Open Space

Preserving open space, farmland, natural beauty and environmentally sensitive areas is a major component of Smart Growth that also is attained through the use of other principles in the framework. For example, environmental protection is achieved as a result of compact development and transportation planning. However, there are specific tools a community can use to make sure this priority is realized.

Financing techniques such as grants and loans can be geared toward community recreation areas and parks. Land conservation programs funded through the state send a clear message of the importance of open space preservation. One example is New Jersey's Green Acres¹⁷ program, which provides loans to local governments for land acquisition. Local governments can combine state and local funding for open-space acquisition and preservation (Smart Growth Network 2007, 54).

Priority-setting for open-space acquisition helps a community specify what environmental areas need the most protection and establishes a ranking system for what land should be acquired first. Areas adjacent to one another are the most valuable for future use as a natural habitat or large park, as are areas with endangered species or a

¹⁷ See their website for success stories and examples: <http://www.nj.gov/dep/greenacres/>

watershed. Ecological importance can be established and make better use of limited state funding (Smart Growth Network 2007, 55).

Incorporating land conservation into transportation planning assesses the true impact of new roads and highways; sustainability indicators and growth models can provide accuracy during the planning process. Sustainability indicators, such as the health of wildlife in the area or water quality, are valuable tools for assessing the environmental impact of development. Models of the effect of future growth can provide the community with a clear picture of how a new development will affect the surroundings and help plan growth (Smart Growth Network 2007, 55).

When a community is able to preserve open space through compact and high-density development, it is necessary to acknowledge the effect this will have on existing communities. The following section will explain growth policies to strengthen and protect a community.

STRENGTHEN DEVELOPMENT IN EXISTING COMMUNITIES

Strengthen and redirect development toward existing communities includes practices such as infill, brownfield redevelopment and revitalization. Brownfields are defined as land and structures that are known or perceived to be contaminated that are underutilized or not unused; these spaces currently make up about five to ten percent of urban land in the U.S. (Greenberg et al. 2001, 130). Infill in the broadest terms means development in otherwise unused spaces and can encompass new buildings, parks or public facilities.

Policies to Strengthen and Direct Development Toward Existing Communities

Some cities have suffered when residents move toward the suburbs and town centers become unoccupied. Smart Growth addresses this problem by redirecting growth toward existing communities. Developing space in between cities and suburbs rather than greenfields combats the effects of sprawl (Greenberg et al. 2001, 130). Greenberg et al. (2001) estimated total US savings due to infill could be \$250 billion between 2000 and 2025 while simultaneously reducing energy needs and dependence on crude oil (134).

Business improvement districts (BIDs) direct funds to public services and businesses within the district, thereby fostering improvement for businesses. The local government levies fees from businesses within the district that are then used to supplement already provided public services (Smart Growth Network 2007, 62).

A **land bank authority (LBA)** acquires abandoned lots and buildings, assumes the process of foreclosure and can easily transfer land to a private developer or the public market. Long neglected homes and businesses can be transferred to an LBA and provides more assurance to purchasers that the properties have a clean title (Smart Growth Network 2007, 65).

Similarly, a **vacant properties coordinator** can assess abandoned homes and buildings and create an inventory of homes to track information. Providing owners with information about rehabilitation grants and available resources facilitates rehabilitation among owners and community groups to improve these structures (Smart Growth Network 2007, 69).

An **asset-driven market analysis** examines location and local demand for services rather than just per-capita income for a more complete market analysis.

Although a community may have a lower average household income, a need for services such as grocery stores and businesses creates an untapped market for growth within older neighborhoods (Smart Growth Network 2007, 66).

Existing communities already have infrastructure in place but not always a variety of transportation options to assist pedestrians or commuters. Providing mobility to citizens makes employment easier and decreases traffic within a city; the following discusses how transportation options may be improved as a part of a smart growth program.

TRANSPORTATION CHOICES

Transportation choices within a metropolitan area include walking, bicycling, light-rail, and car-sharing programs. One way to promote alternate forms of transportation is through mixed-land use development. Cervero and Duncan (2006) compared jobs and housing balance with retail and residential mixed-use areas. They used the principle of accessibility, defined as opportunities for reaching desired destinations, to determine comparison (Cervero & Duncan 2006, 478). They found that access to jobs reduces 88% of personal time spent driving, even more than access to mixed retail and residential areas (Cervero & Duncan 2006, 484). Therefore, when possible, residents will use other forms of transportation to get to work such as walking, biking, or mass-transit, instead of vehicles. The findings suggest that, “high accessibility, and, by extension, balanced, mixed-use growth, reduces total travel, both in distance and time spent traveling...jobs-housing balance matters” (Cervero & Duncan 2006, 488).

An alternative to conventional planning (which focuses on improving automobile travel) is accessibility-oriented planning such as travel surveys, long-term impacts, context sensitive design, public participation, and performance indicators to improve travel options (Litman 2005, 50). “Accessibility-oriented planning reduces travel distances and improves travel options, reduces vehicle ownership and operating costs, reduces traffic and parking congestion, reduces accident risks and pollution emissions, and improves accessibility and mobility options for non-drivers” (Litman 2005, 49). With more a comprehensive measurement process, planners are able to develop travel options for more than just automobile drivers, and thus help to cut down on the number of vehicles and their subsequent emissions. High-density development also provides the concentration necessary to support public transportation (Haughey 2005, 16).

Gordon Wright (2002) surveyed Dallas, Texas’ transit system and found that “the value of properties adjoining the light-rail stations grew at a 25 percent greater rate than similar properties not served by the rail system” (Wright 2002, 28). The assumption that upper middle-class citizens will not ride public transit has been disproved by the popularity of Dallas’ Mockingbird Station, a mixed-use development with easy access to the light-rail system (Wright 2002). Improved public transit enables all citizens to preserve open space while increasing mobility.

Policies to Provide a Variety of Transportation Choices

Transportation choices include: walking, bicycling, light-rail (transport system that uses electric rail cars on an electric line through a city), and car-sharing programs (members may reserve a car for a short period of time). Comprehensive surveys that

account for the economic and environmental costs associated with transportation more accurately reflect the outcome of smart growth projects. Linking the workplace and housing to increase mobility while lessening automobile usage and providing alternate forms of transportation are key principles of Smart Growth.

Transportation models should accurately reflect all modes of transportation (transit, walking, and bicycling), their rates of usage, and subsequent effects on the environment¹⁸. Planners of smart growth projects should use trend analysis that includes more than predicted automobile usage and parking requirements and, instead, use models that include alternate forms of transit in design. Providing a community more options for rating and giving credit for the transportation performance of smart growth development also encourages a city to adopt smart growth policies (Smart Growth Network 2007, 73).

A **green building rating system** that includes transportation is more accurate in its ecological conservancy assessment. Developed by the U.S. Green Building Council, the Leadership in Energy and Environmental Design (LEED)¹⁹ rating system only used to include a building's energy usage and building materials. Currently, this rating system includes the effect a building will have on the surrounding air quality and water, and the energy usage required to transport goods and services to and from the development. Therefore, a more accurate green building rating system awards points for infill and brownfield redevelopment (Smart Growth Network 2007, 75).

¹⁸ See The Clean Air Counts project in Chicago website for information on how to count air-quality benefits of small actions: www.cleanaircounts.org

¹⁹ See the LEED website with specific rating system and builder resources: <http://www.usgbc.org/DisplayPage.aspx?CategoryID=19>

For an in-depth survey of green building and affordable housing, see Chance Sparks 2007 ARP: *Greening Affordable Housing: An Assessment of Housing under the Community Development Block Grant and HOME Investment Partnership Programs*. At <http://ecommons.txstate.edu/arp/251/>

Customized transit information provided to potential riders may increase their amount of alternative travel. Pamphlets may be customized and distributed by transit agencies, from employers recruiting new employees, or personalized through interactive kiosks placed at transit hubs or other public places (Smart Growth Network 2007, 77).

Comprehensive bicycling programs may help citizens reduce their amount of automobile trips if there are safe and mapped routes through a city, convenient bike racks on buses and at businesses, and shower and locker facilities within large commercial businesses for employees who bike to work (Smart Growth Network 2007, 78).

The next section focuses on how a city can develop in a manner that is fair to its citizens while stimulating Smart Growth. “Predictable” development does not mean uniform architecture but, rather, a mode of smart growth planning.

FAIR AND PREDICTABLE DEVELOPMENT

Fair, predictable and cost effective development helps and promotes the expansion of smart growth projects by educating public officials, streamlining development processes and establishing planning standards. In order to establish a long-term planning process that incorporates walkability and transit options, there is a need for cooperation between transportation officials, environmentalists, developers and the public (Roth & Johnson 2001). The authors state that there is a need for cooperation among all parties involved in order to create a sound community. Austin, Texas’ Smart Growth Initiative is one example of this type of planning process with clearly stated goals²⁰: to

²⁰ See the City of Austin’s Smart Growth website for more details: <http://www.ci.austin.tx.us/smartgrowth/>

determine where and how to grow; to improve the quality of life; and to enhance the tax base (Tu and Piltner 2004).

The first principle was put into action in 1998, when Austin was divided into two clearly defined zones: the desired development zone (DDZ) and the drinking water protection zone (DWPZ), which has decreased the number of permits in the DWPZ zone significantly (Tu and Piltner 2004). The second principle, albeit subjective in nature, is achieved by the preservation of existing neighborhoods, the protection of environmental areas, and the increase in mobility of citizens. The final principle, to enhance the tax base, is realized through regional partnerships and strategic investments.

Policies to Make Development Decisions Predictable, Fair, and Cost-Effective

In order to implement Smart Growth in a manner that benefits government and citizens, a city can streamline the development process to ensure these decisions are made in a predictable, fair and cost-effective environment. One way to encourage cooperation among leaders and public officials is state-sponsored training about smart growth techniques, design options, and development incentives.

Pattern books illustrate the types of architecture and design the city wishes to employ, provide instruction to developers, and enhance communication between builders, developers, the city, and homeowners. Varieties of styles, such as housing details and patterns, within a pattern book provide choice to the consumer yet make a development more predictable (Smart Growth Network 2007, 84).

Simple and easy-to-use zoning codes increase communication between developers, citizens and the city. Simplifying zoning codes by taking out unnecessary

and rarely used codes within a district helps developers and zoning appeals boards to determine whether a development meets city codes (Smart Growth Network 2007, 85).

A **Smart Growth cabinet** made up of top executives of agencies that are involved in the planning process can provide clear direction and interagency coordination, thereby simplifying the development approval process and encouraging innovative growth strategies rather than conventional development. By establishing what type of future growth is desired, a Smart Growth cabinet can create investment at the state level, monitor development and conservation, and create statewide approval for Smart Growth (Smart Growth Network 2007, 87).

Geographic information systems (GIS) are used objectively to measure the potential impacts, such as traffic and pollution, of a new development on a city and provide a way to review a development's performance. GIS quickly measures a proposal's walkability, transportation options, mix of uses, and environmental impact by linking information to location data and then layering the information on a map²¹. GIS accelerates the approval process by removing uncertainty about the effects a new development will have on its surroundings (Smart Growth Network 2007, 88).

Whenever new developments are proposed within a city, there will be residents who are apprehensive about how the surrounding area will be affected. The final section addresses how to ease community concerns and increase support for Smart Growth.

²¹ See www.GIS.com for further explanation of how GIS works. For an interesting example, enter in a zip code for demographics and community lifestyle.

ENCOURAGE COMMUNITY AND STAKEHOLDER COLLABORATION

Encouraging community and stakeholder collaboration in development

decisions can promote smart growth projects and address concerns from the community about allowing the implementation of smart growth reforms, such as affordable housing, into neighborhoods. The community often believes affordable housing and high-density development will bring crime and traffic into their neighborhoods and create social, educational and security issues (Downs, 2005, 171). In order to reach smart growth goals, therefore, cooperation is needed among various stakeholders such as environmentalists, urban planners, public officials and private real estate developers to persuade citizens that changes will be beneficial (Downs 2005). Once a community has accepted Smart Growth as a viable development tool, there are many techniques available to ease the transition from conventional planning to a comprehensive system of planning for the long-term development goals of a city.

Policies to Encourage Community and Stakeholder Collaboration

Encouraging community and stakeholder collaboration in development decisions promotes smart growth projects and addresses concerns from the community by providing detailed information about new projects. When a community is more involved in its redevelopment, the essential character of the city can be preserved. Members of the community who express concerns regarding development should be welcomed at the beginning of the process to address concerns and design issues.

A **third-party group** of diverse citizens with differing areas of expertise can increase communication between developers and stakeholders and ensure community

needs are being addressed. This third-party group can establish a standardized list of criteria for developments based on community needs, such as minimum-density housing and transportation options (Smart Growth Network 2007, 93).

Conducting **place audits** is a way to assess community functions and concerns; when citizens help to determine problem areas and solutions, they are more engaged in the redevelopment of a community. A place audit analyzes details about a community in order to better understand how it will be affected by growth; this type of audit may involve someone from the community meeting with residents to talk about needs and address concerns about good and bad conditions of the neighborhood (Smart Growth Network 2007, 95).

Color-coded maps illustrate current zoning and establish desired development areas, providing a blueprint for where a city would like to grow (Smart Growth Network 2007, 97). Austin, Texas, already has a similar map, called the future land use map (FLUM), developed during the neighborhood planning process. The FLUM shows current zoning, and then participants decide what uses they would like to see in the future. The city is able to use the FLUM in order to make changes to the development process (Smart Growth Network 2007, 97).

Federal guidelines stipulate the preceding ten main principles of smart growth development. The components of Smart Growth include mixed-use development, compact building, range of housing, walkability, distinctive communities, open space preservation, variety of transportation, predictable development, and community

collaboration.²² These ideal type categories are supported by the literature and frame the conceptual framework.

CONCEPTUAL FRAMEWORK

Conceptual frameworks are “tools” that can be used “to help connect the problem to observed data” (Shields 1998, 210). According to Shields (1998, 215), “practical ideal types can be viewed as standards or points of reference.” This smart growth ideal type model will describe the best practices in each of the categories found in the literature.

Table 2.1 summarizes smart growth policies as suggested by the federal Smart Growth Network and connects each practical ideal type category to the scholarly literature. As the principles are best used when in conjunction with one another, there is some duplication of suggested policies between categories.

Table 2.1 Conceptual Framework

SMART Growth Principles (Federal) <ul style="list-style-type: none"> ▪ Smart Growth Network suggested policies 	Scholarly Support
Mixed-uses (residential, commercial, open space, and institutional) are critical component for a community. <ul style="list-style-type: none"> ▪ Adopt comprehensive plans and sub-area ▪ Enhance zoning techniques ▪ Use regional planning grants ▪ Redevelop single uses and reuse closed institutions ▪ Create incentives for ground floor retail and upper-level residential uses 	Litman 2005 Lund 2003 McElfish 2007 Song and Knaap 2004 Smart Growth Network (SGN) 2007

²² For an online source of materials and recent news, go to: <http://www.smartgrowth.org/Default.asp?res=1024>

<i>Table 2.1 continued</i>	
<p>Compact building promotes diverse communities with a variety of uses and transportation choices.</p> <ul style="list-style-type: none"> ▪ Create a Community Alliance ▪ Apply a cottage housing development zoning ordinance ▪ Use traditional neighborhood design ▪ Appropriately scale big-box stores and office parks ▪ Reduce minimum lot size requirement 	<p>Greenberg et al. 2001 Haughey 2005 Litman 2003 Lund 2003 Song and Knaap (2004) SGN 2007</p>
<p>Range of housing accommodates needs of many citizens.</p> <ul style="list-style-type: none"> ▪ Encourage employer-assisted housing programs ▪ Streamline development review process ▪ Create regional programs ▪ Use transportation funds to encourage housing near transit ▪ Encourage housing within revitalization efforts ▪ Use property tax exemption programs for mixed-income and low-income developments ▪ Create a housing trust fund 	<p>Arigoni 2001 Clinton 2007 Hevesi 2002 Litman 2003 Katz 2003 SGN 2007</p>
<p>Walkability creates convenient and livable communities.</p> <ul style="list-style-type: none"> ▪ Develop pedestrian master plan ▪ Incorporate neighborhood schools ▪ Plant green infrastructure ▪ Create safe routes to transit hubs ▪ Establish walking awareness and promotion programs ▪ Use technology to increase pedestrian safety 	<p>Hevesi 2002 Litman 2003 Lund 2003 Song and Knaap 2004 SGN 2007</p>
<p>Distinctive, attractive communities foster a strong sense of place.</p> <ul style="list-style-type: none"> ▪ Apply revolving loan funds for historic preservation ▪ Create “wayfinding” system in town centers ▪ Design distinctive and attractive public transit 	<p>Arigoni 2001 Litman 2003 Haughey 2005</p>
<p>Preserve open space, farmland, and environmental areas.</p> <ul style="list-style-type: none"> ▪ Use financing techniques to preserve open space ▪ Implement priority-setting criteria for open space acquisition ▪ Incorporate conservation into transportation planning 	<p>Arigoni 2001 Cooper 2004 Litman 2003 Haughey 2005 McElfish 2007</p>
<p>Strengthen and Direct Development toward Existing Communities.</p> <ul style="list-style-type: none"> ▪ Create business improvement districts ▪ Establish a land bank authority ▪ Use asset-driven market analysis ▪ Designate a vacant-properties coordinator 	<p>Jeffers 2003 Litman 2003 Greenberg 2001 McElfish 2007 Shofner 2000 SGN 2007</p>

<i>Table 2.1 continued</i>	
<p>Provide a Variety of Transportation Choices.</p> <ul style="list-style-type: none"> ▪ Design car-sharing programs ▪ Survey to reflect all modes of transportation ▪ Expand green buildings rating programs ▪ Provide riders with customized transit information ▪ Create comprehensive bicycling programs ▪ Introduce value pricing 	<p>Arigoni 2001 Cervero and Duncan 2006 Cooper 2004 Engelking 1999 Hevesi 2002 Litman 2003 Song and Knaap 2004 Wright 2002 SGN 2007</p>
<p>Make Development Predictable, Fair and Cost-Effective.</p> <ul style="list-style-type: none"> ▪ Educate elected leaders and public officials ▪ Create pattern books to streamline construction ▪ Make zoning codes and regulations user-friendly ▪ Establish a Smart Growth cabinet ▪ Create an “incentives expert” ▪ Implement GIS-based planning ▪ Streamline brownfield redevelopment approval processes 	<p>Arigoni 2001 Litman 2003 SGN 2007 Tu and Piltner 2004</p>
<p>Encourage Community and Stakeholder Collaboration in Development Decisions.</p> <ul style="list-style-type: none"> ▪ Use third-party groups ▪ Establish context-sensitive design for traffic engineers ▪ Conduct place audits ▪ Develop community indicators ▪ Use color-coded maps 	<p>Downs 2005 Litman 2003 Roth and Johnson 2001 Song and Knaap 2004 SGN 2007</p>

Although the benefits of smart growth policies are widely known by cities and developers, implementation can be difficult due to lack of support, public perceptions, and worries about displacement of current residences. The next section will expand on challenges such as providing affordable housing without causing gentrification.

CHALLENGES

Federal (lack of) Support

The federal government is largely responsible for providing rental assistance to needy households, but the money available falls short of meeting needs (Katz et al. 2003, ix). While homeownership has increased due to improved access to mortgage credit, there should be policies in place to help families adjust to the new responsibilities of homeownership (Katz et al. 2003, x). Policies to encourage people who are at or above middle-income level to purchase homes have succeeded, but support for low-income housing has dropped. For example, in 2001, annual tax expenditures (total revenue losses due to tax credits for individuals)²³ to support homeownership were nearly four times larger than the Department of Housing and Urban Development (HUD) budget (Arigoni 2001, 17). Arigoni suggests that this drop in support for low-income housing is the result of the private sector's unwillingness to construct less-profitable homes as well as the public sector's shift of support from building units to homeownership. Another limitation in the actualization of affordable housing is the formula: it does not include saved transportation costs due to living near employment, which could increase the amount a borrower could mortgage (Nelson 2002, 3). A general rule of thumb for affordability is that no more than 30% of income should be spent on housing.

President Bush's FY 2008 three trillion dollar budget proposal has cuts for most spending other than defense. These cuts include: public transit 18%; Community Development Block Grants (CDBG) 20%; HUD 8% (eliminating brownfield redevelopment programs and rural programs); and EPA programs (cuts funding and staff

²³ For how tax expenditures work, see the U.S. Treasury website:
<http://treasury.gov/education/faq/taxes/taxes-economy.shtml#5>

from environmental and management sections, where the smart growth program is housed).

The budget requests \$0 funding for HOPE VI, a program that provides grants to aid in the redevelopment of deteriorating projects into new mixed-use communities. However, there was a \$200 million increase restoring the budget to FY 2004 levels for the HOME Investment Partnerships Program (HOME), the largest Federal block grant program specific to creating affordable housing for low-income families²⁴.

Public Perceptions

The public will often support Smart Growth programs in theory but oppose the prospect of nearby developments. This phenomenon is referred to as “Not In My Backyard” (NIMBYism) (Downs 2005). Citizens often are opposed to allowing lower-income residents to move near them because of social, educational and security reasons. NIMBYism conflicts with public support of preserving open space rather than contributing to sprawl (Downs 2005, 171). Arigoni (2001) confirms that the public often supports affordable housing but succumbs to “the perception that crime, disinvestment, and declining property values go hand-in-hand with low-income and high-density housing, despite evidence to the contrary” (16).

Displacement of Residents

Transit investments may cause displacement of long-term residents due to gentrification, defined as formerly low-income areas taken over by higher-income

²⁴ For a complete budget breakdown, see the federal budget website: <http://www.gpoaccess.gov/usbudget/>

residents, often resulting in appreciating home values and higher property taxes. Once good transportation is available, a formerly derelict neighborhood with ample affordable housing is suddenly attractive.

Planners should recognize that with transit-oriented development (TOD) comes the need to “mitigate the effects of rising home prices and the demolition of affordable housing stock” (Bell 2007, 2). One way to make sure residents benefit from TOD, Bell suggests, is an equity-based policy approach to ensure even very low-income residents have access to affordable units. The criteria to achieve equitable TOD include a mandated percentage of affordable housing, preserving existing affordable housing, incorporating new plans into long-term neighborhood plans, and seeking community engagement in all decisions (Bell 2007, 2).

Infilling of older neighborhoods may also cause residents to complain of higher prices, crowds and increased traffic (Cooper 2004, 473). Some neighborhoods have seen the demolition of older homes replaced by “McMansions,” overbearing homes that dwarf their neighbors and make up for the high price of land through square footage (Cooper 2004, 480).

Growth management policies may unintentionally increase the cost of housing in previously low-income areas due to an influx of resources. Available affordable housing, improved transportation options, and revitalization all boost a neighborhood’s desirability. Conversely, traditional development limits the supply of affordable housing while also restricting lower-income households from moving into higher priced neighborhoods. Therefore, through policies that incorporate mixed-uses, high-density requirements, and planned development, transportation savings can offset higher housing

prices (Nelson et al, intro). Transportation costs or savings due to mixed-use development can be incorporated into and increase what a family can afford for new housing. Since housing prices may rise despite types of land use, the choice is between policies that aid underserved populations and those that remain exclusionary. Therefore, a city may face whether to approve traditional suburban development or encourage revitalization and infill techniques that will improve existing neighborhoods.

Chapter II Summary

Overall, the literature provides support for the implementation of smart growth policies as “a means for achieving a more equitable approach to development by improving the quality of life for formerly underserved citizens” (Arigoni 2001, 21). The literature reviewed provides support for Smart Growth implementation, and federal guidelines provide a toolkit in order to implement smart growth policies. The practical ideal type developed here can serve as a model of Smart Growth and suggests policies for actualization.

The next chapter describes the City of Austin’s population, growth patterns, and current development issues. The setting will demonstrate why a city needs a smart growth model in order to promote desirable development.

CHAPTER III: CITY OF AUSTIN SETTING

The purpose of this chapter is to describe the demography of Austin and citizen views toward development. Also examined are current development issues in the City of Austin including property tax increases, traffic congestion, and the consequences that rapid growth has had on the City.

Demographics in the City of Austin

The City of Austin grew at an annualized rate of 1.3% from 2000 to 2004, down from the peak of 3.5% in the 1990s. As of 2005, there is no ethnic majority within the city, as the Anglo population has dropped below 50%, and their growth rate is much slower than that of Latino and Asian populations. In the urban core, there is a decreasing rate of both married-with-children and middle-class families; according to Ryan Robinson, City Demographer, without the middle class rung, it is harder for the working class to achieve upward mobility. African Americans are dispersing from East Austin to the suburbs, and Hispanics now have a strong political base in lower East Austin. The center of wealth has migrated west, creating tax burden for inner-city residents who fund services and facilities. Despite the enormous amount of urban core growth, urban sprawl is intensifying due to a lack of development constraints in areas outside of Austin²⁵.

According to Robinson, the most important demographic trend in the multifamily market is:

“The large scale replacement of affordable and moderately priced units with higher price units...the number of new units will be three to four times as great as the number of destroyed units. In a twist of new urbanism gone wrong,

²⁵ <http://www.ci.austin.tx.us/census/>

transit support will drop significantly within zones that have been designated as transit corridors. Rates of automobile ownership will be far higher than what existed within the mix of lower income households that were replaced.”

From the City of Austin Multifamily Report, 10/2007²⁶

The Downtown Austin 2000 Census Residential Demographic Profile shows that whites make up 64.3% of the downtown population, and Hispanics barely follow at 18.4%. Persons with a graduate degree make up one-quarter of the downtown population, more than anywhere else in the city. For downtown Census Tract 11²⁷ median family income is \$119,170, compared to the citywide median, which is \$54,091, and the eastside average of \$27,000. Overall, FY 2007 Area Median Family Income (MFI) for Travis County is \$69,300; for a two-person household, low-income is 80% MFI, or \$45,500.²⁸ The MFI is the standard for addressing who is qualified for affordable housing.

Affordable Housing

In March 2006, the median home sales price in Austin was \$165,900, topping larger Texas cities of Dallas, Houston and San Antonio. For rental properties, average rent per square foot was \$.87, also higher than the aforementioned metropolises, and an average occupancy of 93.4%.²⁹ Homeownership in Austin, however, is 48% compared

²⁶ Third quarter 2007 report available at: <http://www.ci.austin.tx.us/census/mfpage.htm>

²⁷ defined as: east of Lamar Boulevard, south of 12th, west of I-35, and north of Cesar Chavez

²⁸ *HUD Income Limits by Household Size*. March 29, 2007. Neighborhood Housing and Community Development Office.

²⁹ City of Austin Bond Election Program (Draft), Austin Housing and Finance Commission. May 4, 2006, p.8

to 64% in the rest of Texas. There were close to 10,000 families on waiting lists for the overwhelmed programs that support public housing and housing vouchers. The Neighborhood Housing and Community Development Department recommends an additional \$50 million in bonds to help satiate these needs. One reason for the high amount of needy families may be the property tax increases in low-income areas shown in **Map 3.1** on page 51.

Map 3.1 displays single-family taxable value, percent change from 2000 to 2005. There was an increase of over 100% in zip code 78702 (East Austin) while 78701 (Downtown) increased only 20-40%. For a previously low-income area, this astounding property tax increase exemplifies the need to ensure affordable housing to protect existing residents.

Austin residents are able to know what types of projects may influence their neighborhoods through a new city-sponsored website. As of March 5, 2007³⁰, citizens are able to track development on-line³¹, a \$3.2 million system upgrade. The new website increases transparency in the development process and enables more citizen participation in neighborhood growth. The system allows residents to see planned developments and monitor progress; however, the website does not provide traffic analyses or environmental impacts of the projects.

One reason for the new website is to provide citizens with development proposals in order to address potential problems before construction begins. The McMansion ordinance, which will be discussed in the following section, is an example of the power a community has to create responsible growth.

³⁰ March 1, 2007. "Site lets public peek at Austin developments." *Austin American-Statesman*.

³¹ www.ci.austin.tx.us/devreview/index.jsp

Map 3.1 *Single Family Taxable Value, Percent Change: 2000 to 2005*

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

City of Austin Maps are the property of the City of Austin, Texas. Copyright City of Austin, Texas.

McMansion Ordinance

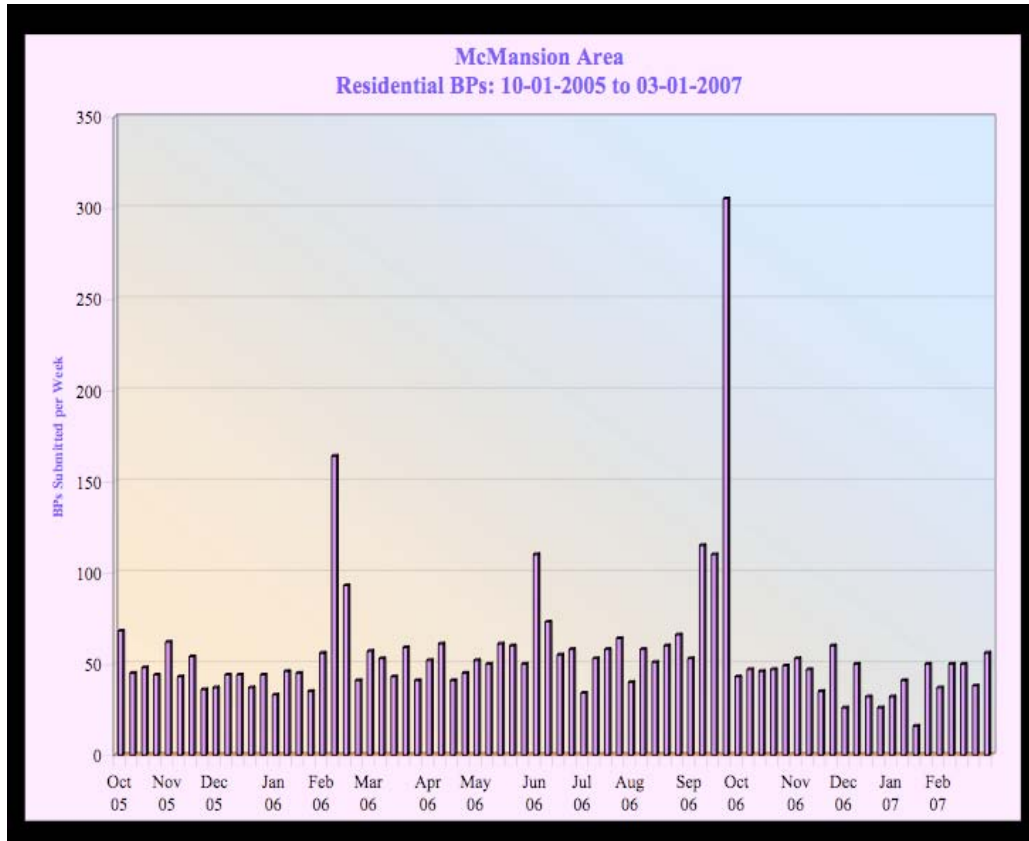
In 2006, Austin passed its “McMansion” ordinance³², which limits the size of new or remodeled houses in the greater Austin area. It requires homes to fit within an “envelope” so they don’t loom over neighboring homes. Homes may not be taller than 32 feet or bigger than either 2,300 square feet or 40% of the lot size. Minimum front setbacks are determined by an average of those of surrounding homes. The Residential Design and Compatibility Commission (RDCC) may approve modifications of the ordinance if they are in accordance with neighborhood design guidelines. Right before the ordinance was passed there was a boom in building applications for houses that would be considered a “McMansion,” illustrated by **Map 3.2** on page 53. The McMansion ordinance has encountered strong opposition from builders and officials.

During the 80th Legislative Session, Rep. Edmund Kuempel filed House Bill 1736, which would essentially gut the McMansion ordinance. HB 1736 was developed because builders said some homeowners saw their property values fall due to the ordinance³³. The bill did not pass during session but illustrates potential conflict between existing neighborhoods and new builders. One way that Austin encourages affordable housing in older neighborhoods is through a density-bonus program available to developers.

Map 3.2 McMansion Submissions

³² SUBCHAPTER F: RESIDENTIAL DESIGN AND COMPATIBILITY STANDARDS, September 28, 2006. See also, http://www.ci.austin.tx.us/zoning/sf_regs.htm

³³ March 1, 2007. “A remodel for home size limits?” *Austin American-Statesman*.



City of Austin Maps are the property of the City of Austin, Texas. Copyright City of Austin, Texas.

Density-Bonus Program

The primary reason cities incorporate a density-bonus program is to provide funding for affordable, or inclusionary, housing. However, after House Bill 2266³⁴ was passed in 2005, an inclusionary zoning ordinance is illegal in Texas. HB 2266 states that requiring developers to include lower priced units in exchange for building permits increases the price of market-value homes. This means other buyers would be subsidizing below-market-rate units through the purchase of their own home. In order to encourage affordable housing, then, Austin gives density-bonuses to developers who

³⁴ The House of Representatives website provides the text of bills:
<http://www.legis.state.tx.us/BillLookup/History.aspx?LegSess=79R&Bill=HB2266>

include onsite affordable housing or renovate existing low-income housing.³⁵ Density-bonus programs also fund environmental protection; funds may be used to protect outlying areas or to renovate nearby parks. Residential developers currently pay \$650 per housing unit as a parkland dedication fee.

Austin's Design Commission was instructed to recommend density bonus options in order to make sure that the community is receiving benefits from developers. Zoning limits building height and size; with a citywide density bonus program, developers can exchange community benefits for more space, and entitlements will be more equitable and less time-consuming for the City Council.

After a trip to Portland, Oregon, to survey a successful density program, the Austin Design Commission issued a final report of its recommendations³⁶. A few recommendations are: establish a priority tier of baseline benefits required for participation, including affordable housing; establish city-planning goals to be achieved by density bonuses; implement rewards for spaces that "embody community values"; use the density bonuses to fund transit; and finally, retention of the city's existing limits on building height and development rights.³⁷ The Austin Design Commission presented the final report on November 8, 2007, and the City Council will begin to craft a density-bonus policy.

The Design Commission also has recommended that new transit be funded through a density-bonus program, such as the new rail line that is due in Austin during 2008. The next section describes the current state of Austin's transportation system.

³⁵ Gregor, Katherine. October 26, 2007. "Finding the sweet spot: for Austin's 'density bonus' development program—what's on our wish list?" *The Austin Chronicle*, Vol.27, 8: 32-37).

³⁶ For a complete report, see: www.ci.austin.tx.us/downtown/default.htm#density

³⁷ Gregor, Katherine. October 26, 2007. "Finding the sweet spot: for Austin's 'density bonus' development program—what's on our wish list?" *The Austin Chronicle*, (Vol.27, 8): 32-37).

Transit

Austin’s public transportation system (Capital Metro) is currently a citywide fleet of buses and the downtown free ‘Dillo, a small green bus reminiscent of a trolley that tours most downtown tourist attractions. Park and Ride stops have been upgraded and now have amenities such as WiFi. However, the “All Systems Go!” long-range transit plan specifies several improvements within the next couple of years. One plan is the Capital MetroRapid, which is a fleet of train-like 60-foot buses that have the ability to “talk” to stoplights in order to decrease commuter time. There is also the Capital MetroRail system slated to begin sometime during 2008; the first line will begin 32 miles north in Leander, Texas, and end in downtown Austin.

Bikeways are highly supported in Austin. The Lance Armstrong Bikeway was begun in July 2007; when completed, it will span six miles between east and west Austin, passing through downtown. There are also various streetscapes planned, most notably the Second Street District Streetscape Improvement Project (SSDSIP)³⁸. This streetscape will combine greenery and public art such as the sidewalk that is modeled so that it will harness rainwater into the form of the Trinity River³⁹. With these environmental renderings supported in everyday Austin, it is not surprising that the city has fought to protect its most precious resource—water.

Open-Space Preservation

³⁸ For a complete list of improvements, see: “The Downtown Report.” July 2007. City of Austin Economic Growth and Redevelopment Services Office. Vol. 17, No. 3.

³⁹ Ibid. Illustrations also available at <http://www.ci.austin.tx.us/downtown/ssdsip.htm>

Austin, Texas, has a long history of protecting its environmental resources. The most famous fight so far has been “Save Our Springs,” an ordinance protecting the watershed that feeds the quarter-mile-long natural spring-fed pool, Barton Springs. Since 1992, the City of Austin has spent over \$130 million on over 34,000 acres for water quality protection and land preservation. The City of Austin Bond Election Program drafted May 4, 2006, recommended an additional \$50 million for further land acquisition and park improvements.⁴⁰

The Austin Parks and Recreation department oversees nearly 17,000 acres of parkland within and near the city, adopting the phrase “Austin, Texas! A City within a Park!” While Austinites are highly satisfied with the ample green space, the following Citizen Satisfaction Survey points out a few areas of weakness.

Citizen Satisfaction Survey

The 2007 Austin Voice of the Citizen Survey⁴¹ was distributed to twelve thousand households in order to assess city provided services and the community’s priorities. Development related topics were varied in ratings; one item shows that over 75% of residents found the livability in their neighborhoods to be somewhat high or very high. However, residents were divided on overall affordability: 33.2% say it was “somewhat low,” about even with the 31.5 % “somewhat high.” Citizens were also in the middle on pedestrian accessibility and bicycle accessibility. Opinion on availability of affordable housing for low-income families was a combined 42.1% very low and somewhat low. Finally, three of the top ten problems facing Austin were development

⁴⁰ City of Austin Bond Election Program (Draft), Austin Housing and Finance Commission. May 4, 2006.

⁴¹ For complete survey results, go to: www.ci.austin.tx.us/budget/06-07/downloads/citizensurvey2007_draft.pdf

related: first, mobility issues (parking, construction and traffic congestion); second, growth management; and third, more affordable housing.

The survey results point to the need to implement smart growth policies in order to achieve citizen satisfaction. While Austin is doing its share of transit oriented development, environmental protection and pedestrian accessibility, rapid development is creating many high-end residences while pushing the average family further out of city limits.

Chapter III Summary

Demographics in Austin describe a varied population with varying lifestyles and housing needs. Residents' priorities include affordable housing, parkland, and livability. The City of Austin has passed ordinances in order to protect neighborhood character and is expanding its transportation program to keep up with rapid population growth. One of the main concerns Austin is facing is how to preserve existing neighborhoods while allowing for new development. This chapter illustrates the need to implement smart growth policies in order to protect the quality of life that Austin prides itself on. The next chapter describes the methodology used in order to survey existing development procedures in Austin.

CHAPTER IV: METHODOLOGY

This research will use multi-modal research techniques to assess or gauge the extent to which Austin's smart growth practices reflect federal smart growth benchmarks categorized in the practical ideal model. According to Yin (2003), "the case study method allows investigators to retain the holistic and meaningful characteristics of real-

life events” (2). The research will include document analysis, archival record analysis and direct observation. Yin (2003) states, “multiple sources of evidence in case studies allows an investigator to address a broader range of historical, attitudinal, and behavioral issues” (98). This project is well suited for case study research as a way to describe current development practices in Austin. For this research, document analysis will provide a clear picture of how this growth is affecting development decisions; in addition, direct observation of development plans and city records will show whether smart growth policies are being used during the planning process.

First, document analysis of city zoning laws, development plans, and ordinances will reflect the city’s growth priorities. Second, an analysis of recent developments in East Austin and downtown will illustrate if smart growth policies are being followed in these locations. These specific areas will be focused on because an essential aspect of Smart Growth is the revitalization of lower-income areas and downtown redevelopment rather than outlying areas of the city.

Operationalization of the Conceptual Framework

The operationalization of the conceptual framework table links criteria that show an indication of support for Smart Growth to practical ideal type components. The operationalization table describes each component of the conceptual framework to be observed. Support will be indicated by simple yes or no answers in the direct observation section of the case study. For example, through direct observation of development plans, “green infrastructure” will be recorded as a “yes” or “no,” and satisfy one requirement of

the “walkability” component of the conceptual framework. The presence of green infrastructure provides a safer and more comfortable thoroughfare for pedestrians.

The questions to be answered through document or archival analysis relate to policies that support Smart Growth implementation. For example, the presence of “different zoning types” within the areas to be observed supports the “mixed-use” component of the conceptual framework. These separate assessments of documents or archival records will provide a snapshot of development patterns in the revitalization of East Austin and downtown Austin.

Table 4.1 Operationalizing the Conceptual Framework

OPERATIONALIZATION TABLE			
Ideal Type category	Research Method	Evidence	Sources
MIXED-LAND USE			
Mixed-land uses (residential, commercial, open space, and institutional) are a critical component for a community.	Direct observation	Retail within 1/2 mi. Parks within 1/4 mi. Schools within 1/2 mi.	Neighborhood development plans
	Document analysis	Different types of use within neighborhood (work, recreation, housing)	
	Document analysis	Comprehensive area plans Different zoning types Redevelopment of obsolete institutions Existence of incentives (tax breaks, speedy approval process) for mixed-use development	City of Austin reports Archival data
<i>Table 4.1 Continued</i>			
COMPACT DEVELOPMENT			
Compact building promotes diverse communities with a variety of uses and transportation choices.	Direct observation	Structured parking Vertical development	Neighborhood development plans
	Document analysis	TND-Definite center and edges of development	

	Document analysis	Community alliance or neighborhood association Clustered dwelling or cottage housing allowed Smaller sized commercial venues—if present, must have windows, no large front parking lots, streamlined design Reduction in minimum lot size requirement	Development plans Archival data
RANGE OF HOUSING			
Range of housing (from single apartments to family homes) accommodates needs of many citizens.	Direct observation Document analysis	Variety of homes in neighborhood (from single apartments to family homes) Low-cost housing in higher-income neighborhoods	Development plans
	Document analysis Archival data	Median price range Employer-assisted programs Streamlined development review procedure Regional programs that encourage affordable housing Housing included in revitalization Tax exemption programs Housing trust fund	City documents
WALKABILITY			
Walkability creates convenient and livable communities.	Direct observation	Connected sidewalks Connected streets Green infrastructure Neighborhood school within 1 mile of center	Development plans
	Document analysis	Pedestrian master plan	Development plans
<i>Table 4.1 continued</i>			
DISTINCTIVE COMMUNITY			
Distinctive, attractive communities foster a strong sense of place.	Direct observation	Distinctive architecture (not homogenous) Natural elements incorporated Reflects community style Distinctive transit	Neighborhood

	Document analysis	Historic preservation funds	Archival data
OPEN-SPACE PRESERVATION			
Preserve open space, farmland, and environmental areas.	Direct observation	Public parks in good shape Within 1/4 mile	Neighborhood
	Document analysis	Support for open space preservation Land conservation mentioned within transportation plan	City documents
STRENGTHEN EXISTING COMMUNITY			
Strengthen and Direct Development toward Existing Communities.	Direct observation	Revitalization efforts: Infill and affordable housing	Development Neighborhood association
	Document analysis	Business improvement district Land bank authority Vacant properties manager Needs of neighborhood addressed through market analysis	City charts/ documents
TRANSPORTATION CHOICES			
Provide a Variety of Transportation Choices	Direct observation	Multiple types of public transportation available Street connectivity	Development plans
	Document analysis		Neighborhood
	Document analysis	Green buildings rating program includes transportation assessment Public transit information easily accessible Bicycling programs such as maps, bike racks	City documents
<i>Table 4.1 continued</i>			
PREDICTABLE DEVELOPMENT DECISIONS			
Make development decisions predictable, fair and cost-effective	Direct observation	Zoning codes user-friendly	City zoning codes
	Document analysis	Pattern books used Smart Growth cabinet Liaison for developers GIS used	City zoning regulations

COMMUNITY COLLABORATION			
Encourage community and stakeholder collaboration in development decisions	Direct observation of community meeting	Neighborhood alliance exists and proactive Community needs addressed	Development Neighborhood alliance
	Document analysis	Third-party group to negotiate between developer and community Color-coded zoning maps	City documents Zoning maps

DIRECT OBSERVATION

Direct observation of past and present developments in East Austin and downtown will determine if smart growth policies are being followed. Photographs of developments will provide a visual aid for the reader. This mode of research is important in order to set the project in real time; it will “add new dimensions for understanding either the context or the phenomenon being studied” (Yin 2003, 93). Field research is also appropriate for this study as a way to understand “social processes over time” (Babbie 2004, 283). A major weakness of direct observation is that it is time-consuming and, for this study, that there is only one researcher to make observations. The presence of observable smart growth policies will be noted by the researcher and codified as a simple yes or no.

In this case study, each practical ideal type category contains a few key components that can be observed on location, such as “retail within half of a mile from development” in the **Mixed Use** category. One weakness of this study is that the observed developments will not reflect current housing priorities but those of two to three years ago; conversely, proposals that have not broken ground cannot be directly observed

in conjunction with their surroundings. Another weakness is the limited area to be observed; growth occurring in East Austin and downtown will not necessarily reflect development processes in other parts of town. Therefore, any findings will not be applicable to the rest of the City of Austin.

Sample: Direct Observation

The sample will include three projects from East Austin and three from Downtown Austin. The downtown projects were selected from the City of Austin Downtown Emerging Projects Map (See **Map 4.2** in Appendix). There are 36 emerging projects in the observed Downtown area and only seven in East Austin; for simplification, three in East Austin were first chosen due to availability of information either through a website or information office, and then comparable projects downtown were chosen. Therefore, in each area, there was a survey of one large apartment dwelling and two condominiums. The sample, while not representative of all emerging projects, will be representative of types of Austin growth. Document analysis will fill in the necessary information to provide a more accurate assessment of development patterns in Austin.

DOCUMENT ANALYSIS

Documentation will include newspaper clippings, previous studies, and administrative documents. Document analysis is a stable, unobtrusive, and exact way to collect data for any given subject (Yin 2003, 86). Its weaknesses include irretrievability of some documents, biased selectivity and reporting bias on the part of the researcher

(Yin 2003, 86). In this case study, documentation is a useful way to set the scene about development in Austin.

For this case study, document analysis will be especially useful for the **Community Collaboration** category: newspaper articles will flesh out needs of the community and its response to development proposals. Administrative documents in the form of proposals, written records, and current announcements will answer many of the questions in each category.

Sample: Document Analysis

The sampling frame using document analysis is purposive. The researcher will select documents from the City of Austin website in order to describe Austin's development policies. There are a plethora of documents to analyze, so they were selected by relevance to Smart Growth; while there may be documents missing from the study, those analyzed are representative of City of Austin development.

ARCHIVAL RECORDS

Archival records to be examined include organizational records, maps and charts of Austin, and survey data to describe Austin's development procedure. Computer records will compose the bulk of these records, and there is quite a bit of information for the public on the City of Austin website.⁴² According to Yin (2003), archival research is a precise and quantitative way to gather evidence; however, the main weakness the researcher expects to encounter is the inaccessibility of some files. Due to lack of

⁴² See <http://www.ci.austin.tx.us/> for a comprehensive website of city plans and records.

accessibility, there is no way to determine that the files examined are a certain percentage of files that exist.

Archival data will be used to answer many city-specific questions and will be especially useful to describe growth patterns, housing prices and development procedures. Each ideal type category contains one or more questions that will be answered through archival records. The answers will be noted as a simple yes or no and the frequency of such responses tallied after all data is gathered.

Sample: Archival data

The sampling frame for archival analysis is purposive. Charts, graphs and census data make up most of this selection in order to provide a quantitative analysis of Austin's development procedures. This information is especially useful for the settings chapter and to describe **Median price range** in the **Range of Housing** category.

Table 4.4 in the Appendix is a list of documents and archival data and their respective release date. These were the primary documents from which the data were obtained and are primarily available through the City of Austin website.

AREAS FOR DEVELOPMENT SELECTION

Due to time constraints, only developments in Zone 1 of East Austin will be examined (see **Map 4.3** in Appendix). The parameters for East Austin have already been delineated by the City of Austin: east of I-35, north of Cesar Chavez St., west of 183 and south of Manor Rd. Downtown, or Census Tract 11, is defined as north of Town Lake,

west of Congress, south of 15th Street and east of Lamar; developments will be surveyed and compared with East Austin.

STATISTICS

Simple descriptive statistics such as mean (in the form of average housing prices) and percentages (increase in price; affordable housing options) will be used in this case study. The means for each question on the operationalization table will be calculated to describe the central tendency of the likelihood of developments having used Smart Growth tools. Means percentages will also be used to describe the population characteristics in both East Austin and downtown. Descriptive statistics are useful in case study research in order to provide a quantitative description in a manageable form (Babbie 2004, 442). Simple percentages and means provide a suitable analysis for an exploratory project at a nominal mode of observation.

The following chapter will assess the development procedures used in the City of Austin as well as the growth patterns of two Austin neighborhoods. The usage of smart growth policies will determine if the observed developments could be considered Smart Growth. This research could be used by other cities or future studies in the assessment and implementation of smart growth policies in the development process.

CHAPTER V: RESULTS

The purpose of this research is, first, to use federal smart growth guidelines as a benchmark for the development of a practical ideal type of smart growth policies. The second purpose is to gauge the City of Austin's usage of these guidelines through document and archival analysis. The final purpose is to compare development within

east Austin and downtown Austin using the categories of the practical ideal model to see if they reflect Smart Growth policy goals.

The purpose of this chapter is to describe the results of the research and to provide data that describes the City of Austin's development process. The observed developments also will be described in terms of the smart growth practical ideal type.

Ten components are included in the Smart Growth model: mixed-use; compact development; range of housing; walkability; distinctive community; open space; strengthen existing community; transportation options; predictable development; and community collaboration.

Mixed-Use Development, Document and Archival Analysis

The first component for the practical ideal type is mixed-use development, which is generally supported by the City of Austin. The Austin Tomorrow⁴³ **Comprehensive Area Plan** was developed in 1979 as a tool to protect livability within Austin while promoting economic growth. The first goal is to assure that urban growth is compatible with the unique resources of Austin; the second goal is to protect the desirable character of existing neighborhoods and districts. The subsequent plans reflect amendments of a forty-year old, yet still relevant, comprehensive plan.

The major planning tool that the city employs in order to encourage mixed-use within one area (**Retail 1/2 mile**) is the Smart Growth Initiative⁴⁴. The City Council developed the ordinance in 1997 as a long-range plan to better manage growth with less

⁴³ Local libraries have a copy of the original plan; otherwise, sections of the Austin Tomorrow Comprehensive Plan may be downloaded at: http://www.ci.austin.tx.us/zoning/com_plan.htm

⁴⁴ www.ci.austin.tx.us/smartgrowth/

of an impact on the environment. Through the Initiative, the Desired Development Zone (DDZ) and the Drinking Water Protection Zone (DWPZ) were created to show where Austin wants to support growth. Growth is encouraged in the DDZ rather than the DWPZ through development fee reductions and differentiated utility reimbursements.

The Smart Growth Initiative determines incentives through the Matrix Application Packet (2001), which provides a quantitative measurement of how well a new project meets smart growth goals. For example, a development may receive up to 15 points for incorporating retail within a project. If a project includes residential, retail and office space (**Different-Types Use**), a project may receive up to 25 points. The highest incentive level is met at 421 to 705 points, after which a project receives a ten-year incremental abatement Not To Exceed (NTE) tax value based on estimated property tax increase, City of Austin fees, and utility charges.

The Downtown Neighborhood Plan specifies as one goal (**Park 1/4 mile**), to “promote development of a downtown which enhances the distinctive character of Austin and which achieves a high standard of pedestrian and urban amenities.”⁴⁵ The plan includes protecting and enhancing downtown creeks and parks. A more specific requirement is a common recreational space for any multi-family S.M.A.R.T. Housing project.

An **Expedited Review Process** and development fee waivers (**Tax Breaks**) are offered to S.M.A.R.T. (Safe, Mixed-Income, Accessible, Reasonably Priced, Transit-Oriented) Housing⁴⁶ builders who turn vacant property into reasonably priced housing. The review process takes approximately half the time as a conventional development.

⁴⁵ www.ci.austin.tx.us/downtown/dntnneighplan.htm Page 3, under Urban Design goal.

⁴⁶ <http://www.ci.austin.tx.us/ahfc/smart.htm>

The fee waivers vary, but one example is if a developer provides 20% reasonably-priced units, the City of Austin provides 50% fee waivers. The S.M.A.R.T. Housing Initiative recommends that reasonably priced single-family homes are no more than \$125,000 in order to qualify buyers at the 80% Median Family Income level.

Finally, the **Redevelopment of Institutions** is supported by the Envision Central Texas (ECT) plan developed in 2004. Primarily a visioning process, the ECT developed four possible land use scenarios in order to determine possible fiscal impacts of future developments. The ECT has also been a major player in the redevelopment of the Robert Mueller Airport⁴⁷ and the Seaholm Power Plant⁴⁸ into mixed-use, transit-oriented developments.

Table 5.1 summarizes the findings of 89% support of the Mixed-Use category. The missing variable was that a school (**School one mile**) be less than one mile away from the center of any development. A nearby school is the only benchmark that was not met within this category; however, when schools were mapped from each surveyed development, the longest distance was just under two miles for downtown developments and under one mile for east side developments. Therefore, due to a numerous amount of schools in Austin, the school benchmark is attainable, yet not specifically written.

Table 5.1 Mixed-Use, Results

Mixed-Use	Yes=1 No=0	Document/ Planning Tool
Retail 1/2 mile	1	Planning Processes across the city
	1	SMART Growth Initiative

⁴⁷ www.muelleraustin.com

⁴⁸ www.swsg.com/seaholm/ These projects were not surveyed in this study because they are perfect examples of smart growth—the purpose of this study is to determine whether most projects fit smart growth standards.

	1	Downtown Neighborhood Plan
	1	Land Use Framework
	1	Downtown Austin Retail Market Strategy
Park 1/4 mile	1	SMART Housing
	1	Downtown Neighborhood Plan
	1	SMART Growth Initiative
School 1 mile	0	
Different Types use	1	SMART Growth Initiative
	1	Land Use Framework
	1	Downtown Neighborhood Plan
Comprehensive area plan	1	Austin Tomorrow Comprehensive Plan
Different Zoning types	1	Austin Tomorrow Comprehensive Plan
Redevelopment of institutions	1	Envision Central Texas (ECT)
	1	Redevelopment Plans
Tax breaks	1	Planning Processes across the city
Expedited approval process	1	SMART Housing
Nine variables	89%	Nine documents

Compact Development, Document and Archival Analyses

The second component, compact development, is highly supported by the City of Austin. The Smart Growth Initiative Matrix rewards the most points for **Structured parking**, in the form of structured or underground parking, and also points for sharing parking with adjacent businesses. The Matrix also awards points for meeting a threshold density (**Vertical development**) that will support transit and for creating more than 200 new housing units.

The University Neighborhood Overlay (UNO)⁴⁹ plan is committed to retaining the small neighborhood character of west campus, near the University of Texas, while increasing density (**More units per acre**) to better serve the large student population and professors. Also, the Downtown Neighborhood Plan specifies a high-intensity, mixed-use triangular area in the center of downtown with the Capitol at the apex. Intensity is

⁴⁹ Downloaded from www.ci.austin.tx.us/zoning/downloads/ca_p116_146.pdf

measured by Floor to Area Ratio (FAR), which is currently allowed at an eight to one ratio. That is, the ratio of total floor area of the building to the size of the lot. The FAR is useful for coordinating other regulations such as parking and municipal services.

The SMART Growth Initiative Matrix rewards points for Traditional Neighborhood Projects that incorporate a definite town center including retail and surrounded by housing (**Definite center/ edges**). A new Traditional Neighborhood development must have at least one-quarter acre of green space in the Town Center in order to achieve points. **Neighborhood Associations** are available on the city website by zip code and vary in activity when it comes to zoning changes.

The S.M.A.R.T. Housing ordinance requires developers to submit proposals to the corresponding neighborhood association in order to address concerns and gain approval if the project will require amendments to the Neighborhood plan. In addition, the Infill and Redevelopment Amendment⁵⁰ allows for **cottage housing** as infill stock. Infill allows for use of existing infrastructure, and cottage housing allows for more units and thus more dense development. The Infill Special Needs⁵¹ report from 2000 specifies cottage housing, corner stores and secondary apartments as good infill choices. **Smaller commercial venues** are allowed, if the façade is 50% clear windows, and landscaping is required if the parking lot is larger than twelve spaces. If the new development is a neighborhood mixed-use center, the maximum space allowed is one acre (**Reduced minimum lot size**).

⁵⁰ <http://www.ci.austin.tx.us/smartgrowth/sginfill.htm>

⁵¹ Infill Special Needs Report 2000. City of Austin

Table 5.2 summarizes the 100% support of the Compact Development category. Especially strong variables were those encouraging structured parking and higher density through more units per acre.

Table 5.2 Compact Development, Results

Compact Development	Yes=1 No=0	Document/ Planning Tool
Structured parking	1	SMART Growth Initiative
	1	Downtown Neighborhood Plan
	1	Circulation Framework
Vertical development	1	SMART Growth Initiative
More units per acre	1	University Neighborhood Overlay (UNO)
	1	SMART Growth Initiative
	1	Land Use Framework
	1	Downtown Neighborhood Plan
Definite center/edges	1	SMART Growth Initiative
Neighborhood Association	1	Community Registry by Zip code
Clustered/cottage allowed	1	Infill Special Uses 2000
Small commercial venues	1	Infill Special Uses 2000
if yes, windows/back parking	1	SMART Housing
	1	SMART Growth Initiative
Reduced minimum lot size	1	Infill Special Uses 2000
Nine variables	100%	Seven documents

Range of Housing, Document and Archival Analyses

The City of Austin generally supports the third component, range of housing, in its development procedures. The Downtown Neighborhood Plan specifies the promotion of a **Variety of Housing** options within its land use goal. The SMART Growth Matrix awards points to a development that includes apartments, row homes and single-family homes. The Matrix also rewards points for including 20% of units for households at or below 80% MFI. By the year 2004, the S.M.A.R.T. Housing program had completed 3,102 reasonably priced units (**Low-cost housing available**). One policy tool that was

not found within the sample was evidence of an employer-assisted program; however, there may be employers within the City of Austin that help employees with housing fees.

As discussed under the Mixed-Use results section, a **Streamlined development review** process as well as **Tax Exemption programs** are in effect for S.M.A.R.T. Housing projects, as staff members work to move the review process faster for such projects. The Austin Housing and Finance Corporation is the non-profit housing production agency of the City of Austin, and operates a **Housing Trust Fund** that helps S.M.A.R.T. Housing applicants with financial assistance if additional funding is necessary.

The Neighborhood Housing and Community Development (NHCD) department recommended an additional \$30 million needed for rental housing assistance, which would provide grants for developers who **include affordable housing in revitalization efforts** for households earning less than 50% MFI. Housing under the NHCD program would serve the neediest households such as the homeless, disabled, and elderly.

The Envision Central Texas (ECT)⁵² long-range plan discussed in the Mixed Use results section is a **regional program that includes affordable housing** in the visioning process. The ECT operates a social equity committee that identify “opportunity rich” areas as well as areas that need more attention.

Table 5.3 summarizes range of housing results. The documents generally support policies that encourage a variety of homes and promote low-cost housing. Although the policy “employer-assisted programs” is missing, this attribute may be supported by certain companies and just not mentioned within city documents.

⁵² For a list of workshops and events, go to: <http://envisioncentraltexas.org/index.php>

Table 5.3 Range of Housing, Results

Range of Housing	Yes=1 No=0	Document/ Planning Tool
Variety of homes	1	Austin Tomorrow
	1	Downtown Neighborhood Plan
	1	SMART Growth Initiative
Low-cost housing available	1	Neighborhood Housing and Community Development Department
	1	SMART Housing
	1	Downtown Neighborhood Plan
Employer-assisted programs	0	
Streamlined development review	1	SMART Housing
Regional programs that encourage affordable housing	1	Envision Central Texas
Revitalization includes affordable housing	1	Neighborhood Housing and Community Development Department
Tax exemption programs	1	Smart Growth Initiative
Housing trust fund	1	Austin Housing Finance Corporation (AHFC)
Eight variables	87.5%	Seven documents

Walkability, Document and Archival Analyses

The City of Austin is currently working on improving its streetscape in order to encourage pedestrian activity. An esplanade is under construction along Cesar Chavez Boulevard that will provide more access routes to Town Lake Hike and Bike Trail. The Downtown Report 2007 specifies the use of **green infrastructure** in the Great Streets plan and will include double rows of trees and trellises of vines for shade.

Specifically, S.M.A.R.T. Housing requires that multifamily projects incorporate **interconnected streets and walkways** for easily accessible travel throughout the development. The SMART Growth Matrix awards points for an internal pedestrian network linking buildings onsite and to street sidewalks. However, as discussed in the mixed-land use results section, a provision for a school to be within one mile of a

development in order to encourage walking to school was missing from the surveyed documents.

The **Pedestrian Master Plan**⁵³ goal is to examine existing sidewalk infrastructure in order to determine where improvement is needed. The sidewalks will be examined for missing gaps and to determine compliance with the Americans with Disabilities Act. There have been several completed projects to date, with the several improvements to accessibility of facilities and safer routes along busy streets.

Table 5.4 shows 80% completion of walkability factors. Especially supported are connected sidewalks and connected streets. Austin is planning on future growth, so the city wants to ensure a well-designed street grid is available to support higher volumes of traffic. The recent streetscape projects show the city is strongly supportive of increasing pedestrian activity.

Table 5.4 Walkability, Results

Walkability	Yes=1 No=0	Document/ Planning Tool
Connected sidewalks	1	UNO
	1	SMART Housing
	1	SMART Growth Initiative
	1	Downtown Neighborhood Plan
Connected streets (no cul-de-sacs)	1	SMART Housing
	1	SMART Growth Initiative

⁵³ For updates on the proposed Pedestrian Master Plan of 2007, go to: http://www.ci.austin.tx.us/bicycle/ped_sum.htm

	1	Circulation Framework
Green infrastructure	1	SMART Housing
	1	Downtown Report 2007
School 1 mi	0	
Pedestrian master plan	1	Pedestrian Master Plan 2000
Five variables	80%	Seven documents

Distinctive and Attractive Community, Document and Archival Analyses

The City of Austin is strongest in its attempt to create and retain a distinctive and attractive community. The Design Commission Guidelines specify that buildings should be at human scale, and lower floors should vary in architectural design (**Non-homogenous architecture**). The Austin Tomorrow Comprehensive Plan⁵⁴ states the first goal is to “assure that the development of the urban environment is compatible with the unique natural and constructed features of the Austin area.” The incorporation of **Natural elements** in the recently constructed City Hall is illustrative of the Austin Tomorrow goal. **Community style** also is mentioned in the second goal of the Austin Tomorrow plan as a way to protect the character of neighborhoods.

Historical Preservation is strongly supported in Austin; the Downtown Neighborhood Plan specifies that historical buildings should be protected and rehabilitated for use. The SMART Growth Matrix rewards points for reuse of a historical landmark or structure within an historical district.

Distinctive transit exists in Austin in the form of the free downtown ‘Dillo bus service; however, there are not bus routes that could be characterized as distinct. Perhaps with the advent of the new Capital MetroRail service, this trait will be achieved.

⁵⁴ See the Austin Tomorrow plan at: http://www.ci.austin.tx.us/zoning/com_plan.htm

The new light rail system will be discussed further in the Transportation Options category.

Table 5.5 shows 100% support for maintaining and creating a distinctive and attractive community. Austin prides itself on community style: the slogan “Keep Austin Weird” exemplifies community desire to retain the city’s character.

Table 5.5 Distinctive and Attractive Community, Results

Distinctive Community	Yes=1 No=0	Document/ Planning Tool
Non-homogenous architecture	1	SMART Housing
	1	Design Guidelines
Natural elements incorporated	1	Austin Tomorrow Comprehensive Plan
Community style	1	Austin Tomorrow Comprehensive Plan
	1	Neighborhood Plans
	1	Austin Community Cultural Plan
	1	Urban Design (Neighborhood Planning and Zoning)
	1	Downtown Neighborhood Plan
Distinctive transit	1	Free ‘Dillo
Historical preservation funds	1	SMART Housing
	1	Current Planning (Neighborhood Planning and Zoning)
	1	Downtown Neighborhood Plan
Five variables	100%	Eight documents

Open-Space Preservation, Document and Archival Analyses

Open-space preservation polices are supported in Austin. The Downtown Neighborhood Plan specifies the revitalization of public parks as well as reinforcing linkage between existing parks (**Public parks in good shape**). In 2004, the Parks and Recreation Department received a gold medal in recognition of having some of the best

parks and recreation in the nation. There are 16,682 acres of parkland and 74 miles of hike and bike trails within the city; the Parks and Recreation Department states that “Austin is a City within a Park.”⁵⁵

The Watershed Master Protection Plan uses **Sustainability indicators** such as toxicity, sedimentation and nutrients in their calculation of an Environmental Integrity Index score. There are several districts around Austin that are designated watershed protection zones, and specific zoning rules are applied in these areas.

The Austin Housing and Finance Corporation is the entity that recommends the amount of funding necessary for **Open Space acquisition**. Over the past fifteen years, Austin voters have approved over \$130 million in land acquisition bonds. The Capital Area Metropolitan Planning Organization (CAMPO)⁵⁶ 2030 Transportation plan includes congestion management, transit, pedestrian and bicycle facilities as well as **land conservation** policies. The Campo 2030 plan differentiates from typical transportation planning because it is seeking alternatives to single-occupant vehicle transportation.

Table 5.6 summarizes the 100% support of open-space preservation with an emphasis on protecting the watershed on the outskirts of the city.

Table 5.6 *Open-Space Preservation, Results*

Open-Space Preservation	Yes=1 No=0	Document/ Planning Tool
Public parks in good shape	1	Downtown Neighborhood Plan
	1	Long-Range Plan for Land and Facilities
Sustainability indicator	1	Watershed Master Protection Plan
Support for open space acquisition	1	AHFC

⁵⁵ For a copy of the “Long-Range Plan for Land and Facilities,” and history of Austin parks, go to: <http://www.ci.austin.tx.us/parks/history.htm>

⁵⁶ To purchase a copy of the CAMPO 2030 Transportation plan and maps, go to: <http://www.ci.austin.tx.us/campo/about.htm>

Land conservation mentioned in transportation plan	1	Campo 2030 Transportation Plan
Four variables	100%	Five documents

Strengthen Existing Community, Document and Archival Analyses

The City of Austin is supportive of strengthening the existing community through **Revitalization efforts** such as infill and brownfield redevelopment. As previously mentioned, cottage housing as a revitalization technique is encouraged to increase density in existing neighborhoods. The S.M.A.R.T. Housing program is also a way of revitalizing an area by building new homes or improving existing housing stock.

Downtown has a Public Improvement District, similar to a Business Improvement District. The Austin Housing and Finance Corporation (AHFC) runs a Land Bank Authority, created by House Bill 470. The estimated budget from FY05 to FY07 was over \$3 million. The AHFC Manager also holds the responsibility of the **Vacant Properties manager**. Neighborhood plans have the power to specify what types of usage would meet needs in their neighborhood; however, there was no evidence in surveyed documents that there was a market analysis performed to determine those needs.

Table 5.7 summarizes the 80% support of strengthening existing community. The strongest variable is “revitalization efforts,” which was mentioned in seven of the observed documents. Revitalization is a hot topic in Austin and the multitude of documents illustrate the city’s attempts to address concerns from residents through varying ordinances and plans.

Table 5.7 Strengthen Existing Community, Results

Strengthen Existing Community	Yes=1 No=0	Document/ Planning Tool
Revitalization efforts	1	Neighborhood Housing and Community Development Dept
	1	Downtown Neighborhood Plan
	1	SMART Housing
	1	Urban Design (Neighborhood Planning and Zoning)
	1	Community Development (Neighborhood Housing and Community Development Dep't)
	1	Brownfields (Watershed Protection and Development Review)
	1	Smart Growth Initiative
Business improvement district	1	Downtown Austin Public Improvement District
Land bank authority	1	HB470
Vacant properties manager	1	AHFC Manager
Market analysis addresses neighborhood needs	0	Neighborhood Plans
Five variables	80%	Eleven documents

Transportation Choices, Document and Archival Analyses

The City of Austin is working to increase the amount of **public transportation choices** within the city, including a light rail system, rapid transit and improved bicycle accessibility. The Circulation Framework of the Downtown Neighborhood Plan specifies that there should be a high level of access for all modes of transit. The Circulation Framework also specifies that stimulation of the economy occurs with the creation of compatible traffic patterns that integrate the framework of streets. This mode development relies upon **street connectivity**.

Green building ratings are more accurate when including a transportation assessment. The Water Quality Protection ordinance addresses the amount of transportation needed in order to build an outlying building, and is key to promoting infill development instead.

Public transit information is easily accessible on the Capital Metro website: a potential rider can customize a plan that will be mailed directly or that will be displayed immediately online. **Bicycling programs** are also available online and are supported by the SMART Growth Initiative. The Matrix rewards points to developers who include bike racks, locker room facilities, showers and dressing rooms in the plans.

Table 5.8 shows 100% support of the transportation choices category. Currently, Austin is lacking high-density transportation options but recent plans for light-rail will address this particular component. Non-motor powered transportation also is highly encouraged by new bicycling programs and routes.

Table 5.8 Transportation Choices, Results

Transportation Choices	Yes=1 No=0	Document/ Planning Tool
Multiple types of public transportation available	1	Transit-Oriented Development (TOD)
	1	SMART Housing
	1	Circulation Framework
Street connectivity	1	SMART Housing
	1	Downtown Neighborhood Plan
Green building rating includes transportation assessment	1	Water Quality Protection (Watershed Protection and Review)
Public transit info easily accessible	1	Capitalmetro.org
Bicycling programs: maps and bike racks	1	SMART Growth Initiative
	1	Downtown Neighborhood Plan
Five variables	100%	Seven documents

Predictable Development Decisions, Document and Archival Analyses

The City of Austin has worked to make development predictable and fair to citizens and developers alike. The **Zoning codes were user-friendly**; all maps were thoroughly explained; and the advent of the online development system also aids the user

in understanding the intricacies of the zoning process. **Pattern books** that detail options and suggestions are available from the Downtown Austin Design Guidelines. The **Smart Growth Cabinet** acts as a **Liaison for developers** to use for zoning questions and the community also has source for readily available information. **GIS** is also used for the comprehensive planning process in order to determine where growth is needed and supported.

Table 5.9 summarizes 100% support of predictable development decisions. Through extensive zoning regulations and comprehensive development websites, Austin provides information to citizens and builders alike.

Table 5.9 Predictable Development Decisions, Results

Predictable Development Decisions	Yes=1 No=0	Document/ Planning Tool
Zoning codes user-friendly	1	(Researcher Assessment)
Pattern books	1	Downtown Austin Design Guidelines
Smart Growth Cabinet	1	Smart Growth Initiative
Liaison for developers	1	SMART Housing
GIS used	1	Comprehensive Planning (Neighborhood Planning and Zoning)
Five variables	100%	Four documents

Community Collaboration, Document and Archival Analyses

In the City of Austin, there are **neighborhood alliances** searchable by zip code, and neighborhoods with potential development tend to be highly involved in the planning process. **Community needs are addressed** through S.M.A.R.T. Housing, the Five-year Consolidated Plan, and the Austin Tomorrow Comprehensive Plan. As previously mentioned, the Smart Growth Initiative acts as a sort of **third-party negotiator** between

the developer and community when development issues need to be addressed. Finally, **color-coded zoning maps** are available through the Smart Growth Initiative website.

These include the DDZ and DWPZ maps.

Table 5.10 shows 100% support for community collaboration. Documents show that community needs are noticed: how these needs are addressed is the largest concern for a rapidly-growing city.

Table 5.10 Community Collaboration, Results

Community Collaboration	Yes=1 No=0	Document/ Planning Tool
Neighborhood alliance exists and proactive	1	Neighborhood Plans
Community needs addressed	1	Austin Tomorrow
	1	Five-year Consolidated Plan
	1	S.M.A.R.T. Housing
Third-party group negotiates between developer and community	1	SMART Growth Initiative
	1	Austin Tomorrow Comprehensive Plan
Color-coded zoning maps	1	Smart Growth Initiative
Four variables	100%	Six documents

The previous ten sections describe the general support of smart growth policies in the City of Austin. In addition to document analysis, direct observation is used to set the research in “real time.” The following analysis will depict actual implementation of smart growth policies by current and planned developments.

OBSERVED DEVELOPMENTS RESULTS

The following developments were chosen to represent emerging projects in Austin. They were selected from the Downtown Emerging Projects map, which included 37 Downtown projects and seven Eastside projects. Due to the smaller number of East Austin developments, three from that area were chosen first by available information on websites or by an open information office. Downtown projects that were comparable in

type and completion rate to east Austin projects were chosen next. Since this project is exploratory, development selection was limited to the availability of information from the document analysis. The listing of all projects is on **Table 5.11** in the Appendix.

First, is a current and completed East Austin development, the Robertson Hill Apartments. The second is the Chestnut Commons, which is still in the midst of construction. The third is Skyline Condos, which has not yet broken ground. In order to compare like types of developments, one large apartment building and two condominium projects were chosen. First, the AMLI, which includes apartment homes, on 2nd Street development was chosen. The second, Brazos Condos, is in the middle of construction but pre-selling units. Third, the Austonian, is one of the largest emerging projects and still in its development phase.

These developments were varied in support of smart growth policies. All developments supported retail within one-half mile and parks within one-quarter mile, perhaps due to the general nature of these policies. When all developments in the sample were surveyed, however, over three-quarters of downtown developments were mixed-use; East Austin developments failed to meet that percentage. Schools within one mile were met by all East Austin developments; Downtown projects were at least two miles from a school.

Affordable housing through the City of Austin fee exemption program is available onsite at the two developments with rental options; Chestnut Commons (E), however, offers lower-priced units. Compact development in the form of structured parking and vertical development is highly supported by five out of six projects. A Variety of Homes was not supported by most projects; all were one or two bedroom spaces. Median price

range for the condos was roughly \$345,000; the rent for a two-bedroom apartment was about the same for downtown or eastside, around \$2000 per month.

Distinctive community was not wholly supported; most projects looked similar according to renderings and did not reflect community style. The downtown projects scored higher on walkability due to surrounding streetscape and transportation options. The AMLI development scored the highest total points due to the presence of affordable housing, central location, and mixed-use incorporation. Chestnut Commons, however, met more requirements for addressing community needs through the presence of a variety of homes and low-cost housing. The photos in the Appendix provide a visual of these developments.

According to a newsletter from the Swede Hill neighborhood association, which is an alliance in east Austin, 92% of residents were opposed to any changes from single-family zoning to higher-density zoning. Reasons for opposition include congestion and the need to preserve neighborhood character. The neighborhood association's influence regarding development is important for the protection of an existing community.

CHAPTER VI: CONCLUSION

Smart Growth can be a very useful tool to combat the negative social, fiscal, and environmental effects of sprawl; however, the policies need to be properly implemented in order to increase density, encourage diversity, and create livable communities. Smart growth advocates need to have significant political and public support in order to fully realize the benefits of these strategies. Regional governance is often cited as the best way

to manage growth, but local governments are often wary of giving up local control (Downs 2005, Greenberg 2001, Jeffers 2003).

In comparison with other politically charged policies, such as regional governance or withholding infrastructure to new developments, brownfield redevelopment can “improve environmental quality and public health in older city neighborhoods and industrial suburbs as well as the metropolitan fringes without implementing potentially politically difficult policies to control sprawl” (Greenberg et al. 2001, 133).

The City of Austin employs infill and brownfield redevelopment policies in order to mitigate the need for sprawl. Through the S.M.A.R.T. Housing program, new reasonably priced units are being constructed in areas of town with existing infrastructure. However, there is still large demand for affordable housing in Austin. With a median price of \$345,000 for the developments surveyed and \$245,000 for the Eastside, it seems the newer developments are not within reach for middle-income residents. Perhaps for downtown residents with a median family income of \$120,000, these new condos are a viable option. However, median family income for the rest of Austin is \$55,000 and \$26,000 for Eastside residents, hardly enough to even consider buying in the most “livable city in the world.”

Austin, Texas, supports all smart growth principles and is especially committed to compact development, distinctive and attractive community, open space preservation, transportation choices and community collaboration. **Table 6.1** summarizes the results and guides the following policy suggestions for further smart growth implementation.

Table 6.1: Support of Smart Growth Principles

SMART GROWTH PRINCIPLE	PERCENT SUPPORT
Mixed-Land Use	89%

Compact Development	100%
Range of Housing	87.5%
Walkability	80%
Distinctive and Attractive Community	100%
Open-Space Preservation	100%
Strengthen Existing Community	80%
Transportation Choices	100%
Fair and Predictable Development	100%
Community Collaboration	100%

An updated comprehensive plan would help to clarify the goals of the city and to address issues of affordability and growth. Ryan Robinson, Demographer, states in the City of Austin Multifamily Report of 2007 that the most important trend is the “large scale replacement of affordable and moderately priced units with higher priced units.” Transit support may decrease within designated transit corridors because of the influx of affluent buyers who own vehicles and may not see the need for an extensive transportation system.

The results suggest that while Austin, Texas is on the forefront of Smart Growth, there is a lack of affordable housing for middle-income or low-income persons and families. As shown by **Map 6.1** in the Appendix, there have been over 20,000 multifamily housing starts in Austin since 2000, suggesting an increase of housing that should serve the growing population. However, adequate affordable housing is one initiative that needs attention before Austin’s long-time residents contribute to sprawl by moving to the outskirts of the city.

The Appendix contains maps of emerging projects, a development selection table, surveyed items and photos of the observed developments. Also included is contact information, such as websites and phone numbers, for ease of future research into completion of the observed developments. Future research could include occupancy

rates, median sale prices, and the effect new residences have had on surrounding areas. More important would be an assessment of property tax increases due to new developments and the subsequent impact on existing residents.

For the City of Austin to meet all smart growth principles, there needs to be a concentration on increasing the supply of affordable housing, achieving a variety of homes, and providing more public transportation options. Affordable housing may be achieved through incentives the city employs already but should be mandated as a part of a long-term goal for Austin. A range of housing may be achieved by requiring low-cost homes within any new development. Employers who provide down payment assistance are supporting housing programs; the city should provide an easily accessible resource that consolidates such employers in order to encourage employer assistance. Asset-driven market analyses to determine what a neighborhood needs also would be useful to address welcomed growth.

In order to support all types of households within downtown, schools will need to be included in the Downtown Master Plan. In order to expand transportation options, the city should increase types of transit available. One way to decrease sprawl is to include transportation savings in loan estimates if a homebuyer purchases within a city or near employment. These suggestions are summarized in **Table 6.2** as follows.

Table 6.2 Smart Growth Suggested Policies for Austin, Texas

SMART GROWTH PRINCIPLE	SUGGESTED POLICY
Mixed-Use	Updated comprehensive development plan
Walkability	School within one mile
Range of Housing	Employer-assisted programs
	Variety of Housing within development
	Increase affordable housing
Strengthen Existing Community	Market analysis addresses neighborhood needs
Transportation Options	Expand mass-transit options

	Include transportation savings in homebuyer approval loans
--	--

The biggest hindrance to smart growth in Austin, however, is the passage of House Bill 2266; as discussed in the settings chapter, this bill is unsupportive of any type of regional governance to plan for growth. Ryan Robinson, City Demographer, stated:

“Although there is an enormous amount of residential development currently underway within the urban core and in downtown Austin, the thousands of new units being created there will only be a drop in the regional bucket of total residential units created. There simply are very few land availability constraints in the territory surrounding Austin.”

“Top Ten Demographic Trends in Austin, Texas” (2007)

In order to decrease the amount of urban sprawl, Austin must become more proactive in its efforts to encourage reasonably priced housing within city limits. While smart growth policies are generally supported by city initiatives, the observed developments do not support a range of housing for Austin residents. The City of Austin is well on its way to achieving its goal of being the most livable city in the world—if one has enough money to afford a condo.

APPENDIX

Map 4.2 *Emerging Projects Map*

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

City of Austin Maps are the property of the City of Austin, Texas. Copyright City of Austin, Texas.

Map 4.3 *East Austin Revitalization Zones*

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

City of Austin Maps are the property of the City of Austin, Texas. Copyright City of Austin, Texas.

Map 6.1 *Multifamily Housing Starts*

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

City of Austin Maps are the property of the City of Austin, Texas. Copyright City of Austin, Texas.

Table 4.2: Observed Documents

Observed Documents	Date of Document
"Site lets public peek at Austin developments" AAS	3/1/07
"Where Wealth Flowed" Austin American-Statesman	9/22/02
City of Austin Bond Election Program	5/5/06
City of Austin Multifamily Report	10/1/07
Downtown Neighborhood Plan	2/10/88
"Going Vertical" Austin Chronicle	2/9/07
Performance Measures: Neighborhood Planning	9/25/07
Plaza Saltillo TOD	Oct-07
Project Summary Report 4238-S Transportation	2003
Saltillo District Redevelopment Master Plan	4/16/06
Smart Growth Initiative	3/28/07
The Downtown Report	Jun-07
The Planning Commission	3/28/07
Archival Data	
Downtown Emerging Projects Map	Jun-07
Brazos Place Floor plans/Prices	Oct-07
City of Austin Citizen Survey	2007
City of Austin Housing Finance Corporation Budget	2006-2007
City of Austin Neighborhood Planning Area	Jan-07
City of Austin Population and Household Forecast	Oct-04
Community Preservation and Revitalization Program	7/28/2005
Downtown Austin 2000 Census	2000
East Austin Economic Summit	2003
HUD Income Guidelines for Travis County	2007
Linking Planning Processes Across the City of Austin	3/28/07
Multifamily Starts Map	Jan-00
Pedestrian Master Plan	2000
Residential Design and Compatibility Standards	9/28/07
Robertson Hill Floor plans/Prices	Oct-07
S.M.A.R.T. Housing Tool	3/28/07
Single Family Taxable Value Map	2005
Smart Growth Initiative Matrix Application	Feb-01
The Top Ten Big Demographic Trends in Austin, TX	9/22/07

Table 5.11 Development Selection Table

Emerging Projects Code	Name	Mixed-Use Yes=1 No=0	Notes	Current=C Planned=P	Website/ Contact
DOWN TOWN					
A10	Republic Square	1	Park	P	
A2	Seaholm Power plant	1		P	512-458-8153
C21	5th & Congress	1		P	www.tstacy.com
C2c	Austin Market District E	1		p	512-472-7774
C2d	Austin Market District N			p	www.sdcaustin.com
C36	5th & Congress Parking and Retail	1		P	www.tstacy.com
C41	TADA	0		C	512-306-0100
C43	Block 21	1	456	P	www.block21residences.com
C46	Marriott Hotel Complex	1		P	219-757-3546
C48	Stubbs Expansion	0		P	
C51	21c Hotel & Condos	1	300	P	www.urbanspacerealtors.com
CM2	Capital Metro Commuter Rail	1		C	http://allsystemsgo.capmetro.org
O11	Austin Music Hall	0			www.austinmusichall.com
O3	Museum			P	
O8	Susanna Dickinson		restoration		
R2.1	Gables Park Plaza	1	414	P	www.gables.com
R22.1	The Monarch	1	305	C	www.monarchcondominiums.com
R28	Altavida	1	258	C	713-267-2100
R29	721 Congress	1	16	P	www.721congress.com
R32	Metropolitan	1	300	P	www.themotegroup.com
R39	Shoal Creek Condos	1		p	512-494-8510
R4	Red River Flats	0	124	C	469-955-0058
R41	360	1	432	C	www.lifesurroundsyou.com
R43	Spring	1	263	C	www.springaustin.com
R45	Post Office Mixed-Use	1	400	P	512-499-8832
R50	The Austonian	1	195	P	www.theaustonian.com

R54	Brazos Place Condos	1	74	C	www.brazosplacecondos.com
R56	The Orsay	0		P	512-249-2800
R60	CLB	1	155	P	512-472-1118
R63	Post Office Mixed-Use	1	600	P	512-499-8832
R64	Sabine on Fifth	0		C	512-837-3028
R65	Gables	1		P	770-436-4600
R9	AMLI on 2nd	1	231	C	www.amli.com
T4b	Pfluger Extension	1	Bridge	P	512-974-7836
T6	Lance Armstrong Crosstown Bikeway	1			512-974-6505
T7	2nd St. streetscape	1		C	512-974-7002
		0.81818	4523		
EAST					
R31	Robertson Hill Apts.	0	238	C	www.robertsonhillapartments.com
R46	Skyline	1	118	P	www.skylineaustin.com
R66	Block One	1	140	P	512-485-3000
CM1	Saltillo District	1		P	http://salttillo.capmetro.org/
4	2124	1	68	P	www.twentyone24.com
11	Hargrove	1	150	P	
20	Chestnut Commons	0	64	P	www.austinchestnut.com
TOTAL		0.71429	778		
			5301		

Table 5.12 Observed Developments Results

Observed Yes=1 No=0	East	Downtown	East	East	Downtown	Downtown	0=lowest 6=highest
Mixed-Use	Chestnut Commons	Brazos	Robertson Hill	Skyline	AMLI	The Austonian	Total
Retail 1/2 mile	1	1	1	1	1	1	6
Park 1/4 mile	1	1	1	1	1	1	6
School 1 mile	1	0	1	1	0	0	3
Compact							
Structured Parking	0	1	1	1	1	1	5
Vertical Development	0	1	1	1	1	1	5
Observed Yes=1 No=0	East	Downtown	East	East	Downtown	Downtown	0=lowest 6=highest
Range of Housing							
Variety of homes	1	0	0	0	0	0	1
Affordable housing available	1	0	1	0	1	0	3
Median price range	207500	385000	1985/mo	288000	2070/mo	500000	345125
Walkability							
Connected sidewalks	1	n/a	1	0	1	1	4
Connected streets	0	1	0	0	1	1	3
Green infrastructure	1	n/a	1	1	1	1	5
Distinctive Community							
Non-homogenous architecture	1	0	0	0	1	1	3
Natural Elements	1	0	1	1	1	1	5
Community Style	1	0	0	0	1	1	3
Distinctive Transit	0	0	0	0	1	1	2
Open Space Preservation							
Public Parks in good shape	0	0	0	0	1	1	2
Strengthen Existing Community							
Revitalization efforts	1	1	1	0	0	0	3
Transportation Options							

Multiple Types of Transit	1	1	0	0	1	1	4
Predictable Development							
Zoning codes user-friendly	n/a	n/a	n/a	n/a	n/a	n/a	0
Community Collaboration							
Neighborhood Alliance	1	1	1	1	1	1	6
Community Needs Addressed	0	0	1	0	1	0	2
TOTAL out of 20	13	8	12	9	16	14	

PHOTOS

Robertson Hill Apartments and site of Skyline Condos. One family home has remained in between sites.



Brazos Place Condos



AMLI on 2nd Street



Interior walkway at Chestnut Commons



BIBLIOGRAPHY

- Arigoni, Danielle. 2001. *Affordable Housing and Smart Growth: Making the Connection*. Washington, DC: Smart Growth Network Subgroup on Affordable Housing, National Neighborhood Association.
- Bell, Judith. 2007. The Potential- and Pitfalls- of Transit-Oriented Development. *Policy Link*. April 18. www.policylink.org/PolicyWatch/Issue2.html
- Cervero, Robert and Michael Duncan. 2006. Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? *Journal of the American Planning Association*. 72 (4): 475-490.
- Clinton, Hillary. April 10, 2007. Sen. Clinton, Rep. Velazquez Announce Reintroduction of Affordable Housing Legislation. *US Fed News Service*. Washington, D.C.
- Cooper, Mary. 2004. Smart Growth: Can Managed Growth Reduce Urban Sprawl? *CQ Researcher*: 470-491.
- Downs, Anthony. 2005. Smart Growth: Why We Discuss It More Than We Do It. In the *Annual Editions: Public Policy and Administration, 9th edition*, ed. Howard Balanoff: 168-177.
- Engleking, Susan. 1999. Austin's Economic Growth: A Case Study in Futuristic Planning. *Economic Development Review*. 16 (2): 21-24.
- Greenberg, Michael, Karen Lowrie, Henry Mayer, K. Tyler Miller, and Laura Solitare. 2001. Brownfield Redevelopment as a Smart Growth Option in the United States. *Environmentalist*. 21 (2): 129-143.
- Haughey, Richard M. 2005. Higher-Density Development: Myth and Fact. *Urban Land Institute*. Washington, D.C.: 1-36.
- Hevesi, Dennis. 2002. Antidotes to sprawl taking many forms. *New York Times*, October 6, sec. 11.
- Jeffers, Rachel. 2003. *Development Sprawl in Texas*. Texas State University. Retrieved from: <http://ecommons.txstate.edu/arp/46>
- Katz, Bruce, Margery Turner, Karen Brown, Mary Cunningham, and Noah Sawyer. 2003. Rethinking Local Affordable Housing Strategies: Lessons from 70 Years of Policy and Practice. *The Brookings Institution Center on Urban and Metropolitan Policy and The Urban Institute*. I-XIV.
- Landis, John D. 2006. Growth Management Revisited. *Journal of the American Planning Association*. 72 (4): 411-430.

- Lund, Hollie. 2003. Testing the Claims of New Urbanism. *Journal of the American Planning Association*. 69 (4): 414-429).
- McElfish, James M. 2007. Ten Things Wrong With Sprawl. *Environmental Law Institute*. 1-7.
- Nelson, Arthur, Rolf Pendall, Casey Dawkins, and Gerrit Knaap. 2002. The Link Between Growth Management and Housing Affordability: The Academic Evidence. *The Brookings Institution Center on Urban and Metropolitan Policy*. intro-7.
- Neuman, Michael. 2005. The Compact City Fallacy. *Journal of Planning Education and Research*. (25) 11, 11-26.
- O'Toole, Randal. 2006. The Perils of Planning. *Regulation*. 29 (1): 64-66.
- O'Toole, Randal. 2001. The Folly of "Smart Growth". *Regulation*. 24 (3): 20-25.
- Roth, Stephanie, and Ashby Johnson. 2001. Strengthening the Connection Between Transportation and Land Use. *Public Roads*. 65 (2): 20-22.
- Shields, Patricia. 1998. Pragmatism as a philosophy of science: a tool for Public Administration. *Research in Public Administration*. 4: 195-225.
- Shofner, Suzan. 2000. *The Impacts of Smart Growth on Municipal Finance: Perspectives of City Planning Directors Across Texas*. Texas State University. Retrieved from: <http://ecommons.txstate.edu/arp/155>
- www.smartgrowthamerica.org downloaded 3/27/2007
- Smart Growth Network. 2007. *Getting to Smart Growth II: 100 more policies for implementation*. Washington, DC: Development, Community, and Environment Division, the Environmental Protection Agency.
- Smart Growth Network. 2001. *What is Smart Growth?* Washington, DC: Environmental Protection Agency. www.smartgrowth.org
- Song, Yan and Gerrit-Jan Knaap. 2004. Measuring Urban Sprawl. *Journal of the American Planning Association*. 70 (2): 210-225.
- Song, Yan, and Gerritt-Jan Knaap. 2004. Measuring the effects of mixed land uses on housing values. *Regional Science and Urban Economics*. 34: 663-680.
- Staley, Sam. 2001. Market-oriented Approaches to Growth: Outsmarting Sprawl's Impacts. *Reason Public Policy Institute*. March 10. www.rppl.org

- Staley, Samuel R. 2001. Smart growth and Housing Affordability: Evidence from Statewide Planning. *Reason Public Policy Institute*. March 10.
www.rppi.org/ps287.html
- Tu, Li, and Richard Piltner. 2004. *A Study of Smart Growth Initiatives using GIS: The Case of Austin, Texas*. Georgia Southern University.
- Wright, Gordon. 2002. Transit Spurs Development. *Building Design & Construction*. 43 (1): 26-30.