On the Ground:
Removing Barriers to Smart Growth Development at the Local Level

by
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Abstract

The smart growth movement in the United States is a broad-based response to disinvestment in older communities, steadily increasing traffic congestion, overcrowded or underutilized schools, strained infrastructure, rising taxes, and a significant loss of open space, forests, wetlands, farmland, and other natural assets in communities of all sizes.

Developers attempting to build the pedestrian-oriented, mixed-use, compact form of development typical of smart growth development encounter significant obstacles. These projects are typically rendered infeasible due to regulatory and financial barriers, as well as citizen opposition to increased densities.

Whether or not smart growth development ever becomes a viable alternative to conventional development depends upon removing barriers at the local level. This thesis examines the approaches four local governments operating in the context of a smart growth agenda are taking to remove these barriers. Extended interviews were conducted with planning directors and staff at the center of smart growth agendas in Austin, TX, Salt Lake City, UT; Chaska, MN; and Gaithersburg, MD. Information derived from these interviews is analyzed along with background research on both barriers to smart growth development and solutions to over come these barriers. This analysis offers a set of considerations to local governments formulating or revising policies and practices to foster smart growth development.

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The thesis itself largely rests with information gathered during extended interviews with directors and planners at the heart of their respective smart growth agendas. My discussions with these individuals provided me with exactly the kind of information I had hoped to discover. I would like to thank Mr. Stephen Goldsmith in Salt Lake City, Mr. Kevin Ringwald in Chaska, Ms. Jennifer Russel in Gaithersburg, and Mr. George Allen in Austin for their assistance with this project.

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SECTION I Background to Research

Chapter 1: Overview and Structure of Study

1.1 Introduction

The smart growth movement in the United States is a broad-based response to disinvestment in older communities, steadily increasing traffic congestion, overcrowded or underutilized schools, strained infrastructure, rising taxes, and a significant loss of open space, forests, wetlands, farmland, and other natural assets in communities of all sizes. Serious problems left in the wake of sprawl have attracted the attention of private and non-profit organizations, U.S. policy makers from Maine to California, and the public at large. Federal, state, and local officials, as well as many in the private sector believe that pursuing conventional development patterns carries the risk of stifling future economic growth. Commonly shared concern has led to the formation of diverse coalitions made up of organizations such as the Sierra Club, National Low Income Housing Coalition, and the National Association of Home Builders. The National Neighborhood Coalition describes smart growth as a movement that "seeks the adoption of policies and practices that, as a package, provide better housing, transportation, economic expansion, and environmental outcomes than do traditional approaches to development" (Arigoni, 2001, 9). This has led to discernable interest across the U.S. to modernize outdated or ineffective planning statutes. The American Planning Association notes that in 1999 alone, the number of land-use reform bills introduced to state legislatures approached 1,000—a record high. Some 200 of these bills were enacted into law (Meck, 2001).

Developers attempting to build the pedestrian-oriented, mixed-use, compact form of development typical of smart growth development encounter significant obstacles. These projects are typically rendered infeasible due to regulatory and financial barriers, as well as citizen

opposition to increased densities. The American regulatory environment overwhelmingly favors or even mandates the strict separation of land uses, making it difficult to entitle smart growth projects. Smart growth development is often inherently more complex than conventional development and does not necessarily produce sufficient short-term profit required by investors. Finally, people typically oppose projects that propose to increase density levels in their community. In an ideal sense, smart growth agendas promote and employ solutions to overcome these barriers. Smart growth agendas—which vary from region to region—are the aggregate of programs, policies and initiatives at all levels of government, as well as support from organizations in the private and non-profit sectors.

1.2 Research Question

A good deal of literature has dealt with the underpinnings of smart growth. Corporate initiatives, new planning legislation, and examples of how smart growth agendas operate in practice have been discussed at length. Less attention, however, has been paid to how smart growth agendas play out at the local level. Ultimately, it is at this level where decisions are made regarding what gets built and what does not. Whether or not smart growth development ever becomes a viable alternative to conventional development depends upon removing barriers at the local level. Local governments operating in the context of a smart growth agenda are ostensibly committed to removing such barriers. This raises the question that my research seeks to answer. *What approaches are local governments that operate in the context of a smart growth agenda taking to remove barriers to smart growth development?* It is not enough to record that local government *A* removes a particular set of barriers, while local government *B* removes another. The actions of local government must be examined in a holistic manner, noting how the full range of barriers is

addressed with a combination of local policy and external influences such as state-level initiatives and private/non-profit sector activities. The findings of this study are significant in light of recently completed research in the United States. This research casts doubt on the appropriateness of guiding development with policies that inevitably get mapped into conventional zoning regulations that mandate the strict separation of uses. Over the past 20 years, rates at which land is urbanized have far outstripped rates of population growth. In fact, cities with slow growing populations tend to urbanize land at the fastest rates. Consider the case of Bangor, Maine whose population grew by just 5.4% over a 15-year period. Over the same period urbanized land grew by 46.9% (Fulton et. al 2001). Levels of traffic congestion are also rising dramatically in American cities of all sizes. In the smallest cities (i.e. those with less than 500,000 persons), rates of traffic congestion have actually quintupled. Cities with more than 3 million residents have seen congestion worsen to the point where the average motorist spends 41 hours annually sitting in an automobile whose wheels are not rotating (Schrank and Lomax, 2001).

The long-term trends identified by these research efforts are not expected to change given current conditions. As a result, interest in smart growth from both the public and private sector is likely to continue to grow. We see evidence of this in the financial community. The Bank of America, the largest provider of commercial and residential real estate finance in the United States, has already committed over $350 billion over a 10-year period to community development projects related to smart growth. More recently, the Mortgage Bankers Association of America sponsored research to determine how smart growth might be more effectively financed. While sprawl will dominate the real estate market for the indefinite future, smart growth agendas and the alternative product types they attempt to bring to market might be considered more than a passing fad (Burchell and Listokin, 2001).

1.3 Rationale for Using the Case Study Method

Case study methodology typically draws from multiple sources of information to explain the behavior of people or systems at the center of a research problem. My research, composed of interviews and supporting qualitative information, seeks to explain how selected smart growth agendas overcome barriers to smart growth development. The explanatory nature of my study, coupled with the fact that I rely on multiple information sources suggests that the case study was the most appropriate research method to use. Interview questions developed for this study were designed to structure the interviews and establish a basis for dialogue. Some questions were more relevant to some cities than others. The interviews themselves were exploratory in nature. Different interviews focused on circumstances particular to the city in question and interviewees were encouraged to elaborate and provide valuable contextual information.

1.4 Selection Criteria for Case Studies

This study uses a purposive sample of four cities with established smart growth agendas. The small number of cities reflects the exploratory nature of my research, enabling me to consider in some depth, a range of interconnected dynamics. Because relatively few cities are examined, my ability to generalize is limited. I attempted to compensate for this limitation by selecting cities that vary in size, geography, climate, and socio-political culture. These differences provide a reasonably broad perspective on how local governments are removing barriers to greenfield and infill smart growth development. Each city is part of a larger metropolitan region that has experienced substantial population growth driven largely by advances in the high technology sector over the past

decade.

Because this study is concerned with removing barriers to both greenfield and infill smart growth development, I have included only fast growth regions. American cities in slow growth regions, however, generally focus on revitalizing existing centers and do not engage in greenfield smart growth development. For example, Rochester, NY, and Providence, RI have made progress in revitalizing older urban districts, but do not visibly promote smart growth development on the urban fringe.

Over the course of several months of reviewing academic literature, press reports, trade magazines, and information from the public sector, I identified a small number of state and regional level smart growth agendas that were candidates for this study. Planners working at the regional or state level in these locales then helped me to identify a city known to be actively removing barriers to smart growth development. I selected Austin, Texas based on references to its smart growth agenda in the literature and publicly available information on the city's web site. Austin presents an interesting case study because its well-articulated smart growth agenda receives no regional or state level support for smart growth planning. The other three cities, Chaska, MN, Salt Lake City, UT, and Gaithersburg, MD were chosen because of the public prominence of their regional/state level smart growth agendas and because their underlying policies differ significantly from each other.

1.5 Data Collection Strategy

Literature Review

To provide a framework for interviews with planners, I identified known barriers to smart growth development and potential solutions to overcome these barriers. Known barriers and

solutions appear in Chapter 2, *Barriers and Solutions*.

Case Studies

Examining the interplay between barriers and solutions in each of the four case studies (within the context of smart growth agendas) provides additional insight and new lessons regarding how barriers to smart growth development might be effectively overcome. Case studies are based upon interviews with planners at the center of their respective smart growth agendas and supporting documentation.

Planners working within the context of a smart growth agenda deal directly with developer proposals and public sentiment and are most likely to be aware of approaches that remove barriers to smart growth development.

I conducted a single interview with one planner in each city. The length of these interviews ranged from 60 to 70 minutes. Initially, I considered contacting two more planners from each planning office. After the initial interview I concluded that one interview provided sufficient evidence to satisfy my objectives. Three interviews were with planning directors, and a fourth was with a senior planner centrally involved in the development of smart growth codes and initiatives.

Public documents and supporting material provided me with additional information for each smart growth agenda. In some cases, planners directed my attention to publicly available information pertaining to their agendas that I might have otherwise overlooked. In other cases, planners supplied information not readily available from local government web sites.

I also conducted interviews with regional and state planners, a mayoral aide, and a public relations contact. These interviews helped me to identify the cities to include in this study and provided me with useful contextual information.

1.6 Analysis Strategy

With a working knowledge of each of the four case studies, I considered the interplay between barriers and solutions in more detail. Differences and similarities in each of the agendas have been drawn out and integrated into what was learned during the literature review. My analysis identifies themes that cannot be ignored if smart growth agendas are to succeed in overcoming barriers to smart growth development.

1.7 Thesis Organization

The remainder of chapter one, *Overview and Structure of Study*, briefly examines the origins and principles of smart growth as understood by the Smart Growth Network and American Planning Association.

Chapter two, *Barriers and Solutions*, examines regulatory and financial barriers to smart growth development and considers known solutions to overcome these barriers. Chapter two then considers the multifaceted issue of density. The information in this chapter was used to design the interview questionnaire that appears in Appendix I.

Chapters three through six contain case studies for *Chaska, MN*; *Austin, TX*; *Salt Lake City, UT*; and G*aithersburg MD*. These chapters identify strategies employed by each local government to overcome barriers to smart growth development.

Chapter seven contains an analysis of the four smart growth agendas in light of what was learned from the interviews and literature review. A set of considerations are presented that may be generally applicable to other jurisdictions attempting to implement effective smart growth agendas.

1.8 Smart Growth: Origins and Principles

Parallel Initiatives Behind Smart Growth

In the first half of the 21st century, the U.S. population is expected to grow by half, by over 130 million people. Concerns in the United States over a degradation in mobility, rising taxes for infrastructure, and the ongoing loss of forests, farms and scenic landscapes prompt many to reconsider if today's development patterns make sense indefinitely. The smart growth movement reflects these concerns.

Two parallel initiatives that began in the mid-1990s are considered to be the origins of the smart growth movement as it is defined today. One initiative came from the American Planning Association (APA), the U.S. Department of Housing and Urban Development (HUD), and the Henry M. Jackson Foundation. A second came from the Surface Transportation Policy Project (STPP) and the National Resource Defense Council (NRDC).

The initiative out of APA/HUD sought to update land-use regulations to address persistent problems of traffic congestion, environmental degradation and lack of housing diversity. This same initiative additionally promoted land-use regulations that encouraged compact development to conserve resources, that advocated for "social equity in the face of spatial separation", and that paid close attention to the needs of the private sector. The initiative also called for regulatory changes to introduce more "simplicity and predictability" in all matters affecting land use.

The NRDC/STPP initiative produced a smart growth toolkit for policymakers. The toolkit promoted growth that produced compact, transit accessible, and walkable communities. The toolkit includes three elements: research reports on the relationship between sprawl, infrastructure requirements, and fiscal impacts; a "smart growth guidebook"; and separate policy reports on the environmental, economic, and social impact of sprawl. (Burchell et al, 1998).

Smart Growth Network's Planning Principles

The U.S. Environmental Protection Agency's Urban and Economic Development Division coordinates the Smart Growth Network. The Network's charter encourages a form of development that "better serves the economic, environmental and social needs of communities" (SGN). Partners in the Network include the original organizations involved in smart growth (The American Planning Association, Surface Transportation Policy Project etc.). Today the Network includes other key players in land development such as the Urban Land Institute and the Congress of the New Urbanism. The Network provides a forum for information sharing, education, tool development and application, and collaboration on smart growth issues. The Smart Growth Network works with ten normative planning principles:

1. Create a Range of Housing Opportunities and Choices Providing quality housing for people of all income levels is an integral component in any smart growth strategy.

2. Create Walkable Neighborhoods Walkable communities are desirable places to live, work, learn, worship and play, and therefore a key component of smart growth.

3. Encourage Community and Stakeholder Collaboration Growth can create great places to live, work and play -- if it responds to a community's own sense of how and where it wants to grow.

4. Foster Distinctive, Attractive Places with a Strong Sense of Place Smart growth encourages communities to craft a vision and set standards for development and construction which respond to community values of architectural beauty and distinctiveness, as well as expanded choices in housing and transportation.

5. Make Development Decisions Predictable, Fair and Cost Effective For a community to be successful in implementing smart growth, it [sic] must be embraced by the private sector.

6. Mix Land Uses Smart growth supports the integration of mixed land uses into communities as a critical component of achieving better places to live.

7. Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas Open space preservation supports smart growth goals by bolstering local economies, preserving critical environmental areas, improving our community's quality of life, and guiding new growth into existing communities.

8. Provide a Variety of Transportation Choices Providing people with more choices in housing, shopping, communities, and transportation is a key aim of smart growth.

9. Strengthen and Direct Development Towards Existing Communities Smart growth directs development towards existing communities already served by infrastructure, seeking to utilize the resources that existing neighborhoods offer, and conserve open space and irreplaceable natural resources on the urban fringe.

10. Take Advantage of Compact Building Design Smart growth provides a means for communities to incorporate more compact building design as an alternative to conventional, land consumptive development.

(SGN, 2001)

APA Smart Growth Definition

The American Planning Association and its Chapters adopt the following definition of Smart Growth:

> Smart Growth is the planning, design, development and revitalization of communities to promote a sense of place, the preservation of natural and cultural resources, and the equitable distribution of the costs and benefits of development. Smart Growth enhances ecological integrity over the short and long term and improves quality of life by expanding the range of transportation, employment, and housing choices in the region in a fiscally responsible manner.
>
> Compared to prevalent development practices, Smart Growth seeks to refocus a larger share of regional growth within central cities and inner suburbs. Simultaneously Smart Growth seeks to reduce the share of growth that occurs on newly urbanized land or in environmentally sensitive areas while making efficient infrastructure investments.
>
> (APA, 2002)

APA Planning Principles

The APA's normative principles for smart growth are derived directly from the Smart Growth

Network's principles, in some cases using language geared towards the planning profession.

- *A recognition that every level of government, federal, state, regional and local, plays an*

important role in adopting and implementing policies that support Smart Growth.

- *A regional view of community developed through regional planning process and implementation.* Smart Growth recognizes the interdependence of neighborhoods and municipalities in a metropolitan area and promotes balanced, integrated regional development.

- *Integration of land use and transportation planning to provide increased transportation choice.* Transportation planning should include alternatives to the automobile, such as public transportation, bicycles and walking. Development must be pedestrian friendly. Land use planning must support the success of non-automotive transportation modes.

- *Efficient use of land and infrastructure.* Efficient land use results from compact building, infill development and reducing the amount of land needed to satisfy street and parking standards. Efficient use of public and private infrastructure starts with creating neighborhoods that maximize the use of existing infrastructure. In areas of new growth, roads, sewers, water lines, schools and other infrastructure should be planned as part of overall growth and investment strategies. Regional cooperation for large infrastructure investments is required to avoid inefficiency and redundancy.

- *A greater mix of uses and housing choices in neighborhoods and communities focused around human-scale, mixed use centers accessible by multiple transportation modes.* Mixed-use developments include housing, varied by type and prices, integrated with commercial development and places of employment. Human-scale design, compatibility with the existing urban context, and quality construction contribute to successful compact, mixed-use development and also promote privacy, safety, visual coherency and compatibility among uses and users.

- *Protection of environmental and cultural resources:* Smart Growth protects the natural processes that sustain life, preserves agricultural land, wildlife habitat, and cultural resources; integrates ecological systems into the fabric of development; encourages innovative stormwater management; is less consumptive and more protective of natural resources; and ensures air quality and water quality and quantity for future generations.

- *Planning processes and regulations at multiple levels that promote diversity, equity and Smart Growth principles.* Local governments have long been principal stewards of land and infrastructure resources through their guidance of land-use policy. Smart Growth respects that tradition and recognizes the important leadership and partnership role that Federal and State governments play in the [sic] advancing Smart Growth principles among local governments.

- *State and federal policy structure and programs that supports*[sic] *compact development and land conservation.* Governmental programs and policies have in many cases contributed to the problem of sprawl. These policies and programs need to be re-examined and replaced with programs and policies that support Smart Growth, including cost effective incentive-based investment programs that target growth-related expenditures to locally designated areas.

- *Increased citizen participation in all aspects of the planning process and at every level of government to ensure that planning outcomes are based in collective decision making.* We have been undergoing a profound demographic transformation. Responding to our ethnically diverse society is essential to our well being as a whole and to developing the social capital necessary for shaping thriving, vibrant neighborhoods and communities. We need to design comprehensive strategies to engage meaningful participation in planning processes, to find common ground for shared decision-making by all citizens, and to ensure community equity in the distribution of resources

  Beyond these core principles, Smart Growth may vary from place to place and region to region. Specific Smart Growth practices that work in one region may not work in other regions.

  (APA, 2002)

Chapter 2: Barriers and Solutions

Barriers to smart growth development fall into one of three categories: regulatory barriers, financial barriers, and concerns about density. The following sections deal with these barriers and the potential solutions to overcome them in detail. This information is used as the basis for systematic interviews with planning staff in each of the four cities.

2.1 Regulatory Barriers and Solutions

The Impact of Conventional zoning on Urban Form

Conventional zoning, influenced by the legitimacy of Euclid v. Ambler and the piecemeal adoption of concepts from the 1928 plan for Radburn, New Jersey, largely shapes today's built environment (Birch, 1983). This environment is designed with the expectation that every trip, irrespective of distance, will be made using the automobile. Fundamental characteristics of conventional zoning establish this condition by increasing the distance between any two points in a community. Conventional zoning ordinances operate under the premise that most uses must be strictly separated. In many cases, ordinances actively encourage big box retailers and regional shopping malls to locate near freeways, and prohibit smaller businesses from locating in neighborhood commercial districts.

Most conventional ordinances do not have design compatibility standards. Extensive buffering requirements typically handle building incompatibility. For example, if a multi-family building abuts a single-family zone, a building setback of one hundred feet or more might be required. Even in cases where incompatibility is not an issue, oversized lots increase distances between destinations, as do requirements that force buildings with different densities to reside in separate zones rather than mixing different building types on the same block (DLCD and ODOT,

1998).

Excessive parking requirements are another factor that increases travel distance between any two destinations. In non-residential zones, buildings are surrounded by sufficient parking so to accommodate a theoretical maximum number of customers which is reached one or two days per year if at all. Parking requirements may range from four spaces per 1000 square feet for office buildings, to ten or more spaces per 1000 square feet for fast food restaurants (Shoup, 1999). Provisions for shared parking arrangements or coordinated parking management plans are often nonexistent (DLCD and ODOT, 1998).

Streets in conventionally zoned areas must also typically abide by some minimum width, as guided by engineering standards found in a publication commonly known as the "Green Book" (Steuteville 2001)[1]. Like the other regulations, these standards increase aggregate distances between any two points in a community and are primarily concerned with the movement of automobiles. Collectively, these regulations, and others like them, have the cumulative effect of preventing smart growth projects from being built without significant and costly delays.

Regulatory Reform

In conventionally zoned communities, developers attempting to pursue smart growth projects typically have one of two options available to them: planned unit developments (PUDs) or variances. PUDs require that the developer and local government enter into a negotiated agreement. Such a negotiation can lead to smart growth development if local government is working with a sufficient knowledge base. However, in the absence of clearly articulated guidelines from local government, misunderstandings are more than likely to occur, and smart growth objectives may or may not be realized. The combination of incompletely developed guidelines, misunderstandings,

and a lack of buy-in from the general public has led more than one developer to view the PUD process as unpredictable and therefore financially risky. In the absence of a clear, guiding vision from the public sector, many developers will fall back and build what is already familiar (DLCD and ODOT, 1998).

The state of Oregon notes that if minor code changes can be introduced to allow for some mixture of small-scale commercial and residential projects (including multifamily) to be built by right, then the need for many PUD applications is reduced. In such situations, changes could be made to the PUD process to guide larger scale smart growth development. This combination of by-right development and planned unit development eliminates some of the work for planners and developers. In large scale PUDs, a community could allow density bonuses in exchange for major amenities such as public parks, pedestrian and bicycle paths, school sites or specific design features (DLCD and ODOT, 1998).

If a local government has not zoned land so that parcels can be developed as a PUD, the only recourse a developer has is to seek variances. In jurisdictions where conventional Euclidean (segregated) zoning is in place, thirty or more variances are often required to allow a project with smart growth characteristics to move forward. These variances can be exceedingly cumbersome to arrange, depending upon the regulatory body's familiarity with alternatives to conventional development. In the United States, regulators must be able to defend their rationale for granting a variance in court. This has the effect of stymieing attempts to deviate from conventional norms (Steuteville, 2001).

Delays and other difficulties encountered when seeking entitlement for smart growth projects have the practical effect of promoting conventional development over smart growth

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[1] The American Association of State Highway Officials publishes the Green Book.

development. In an industry where time is money, all but the most committed developers will take the path of least resistance. In order to begin to deal with the entitlement issue, several states have drafted model ordinances for smart growth development that can then be customized and adopted at the local level[2] (Hirchhorn and Souza, 2001). The Maryland Department of Planning recommends that these codes:

1. Are reinforced in the comprehensive plan;
2. Reinforce a regional or countywide framework for growth and transportation;
3. Permit a mix of commercial, office/employment, civic, and residential uses within blocks and buildings by right;
4. Permit a mix of housing types by right;
5. Encourage the provision of moderate priced dwelling units;
6. Encourage connectivity between on- and off-site travel systems, open space networks, and protected environmental lands;
7. Treat open space as an integral component of the design of the design of the development and require a variety of types of open space, distributed throughout the development;
8. Treat landscaping as an integral component of the design of the development to accentuate the natural environment, and reduce visual blight;
9. Require a network of interconnected streets, designed to meet the needs of pedestrians, bicycles, and motor vehicles;
10. Use block size to reinforce pedestrian orientation;
11. Prohibit parking lots in front of buildings;
12. Adapt parking requirements to reflect increased opportunities for people to use alternative modes of transportation that result from design and/or access to transit, and opportunities for shared parking;
13. Use residential and commercial density and lot development standards to achieve a compact pedestrian-friendly design;
14. Achieve quality design that reflects the pattern and massing of adjacent traditional communities; and;
15. Give NCD projects a competitive advantage over single-use developments in the development review process

(MDP, 2001b)

In some states, grants and other forms of financial assistance enable local governments to

[2] Rhode Island, Oregon, Wisconsin, Minnesota, Maryland, Delaware, and Florida have all created model codes for use at the local level.

tailor and adopt such ordinances. New ordinances can either replace, or exist in parallel with conventional codes. Smart growth legislation has not mandated the use of model ordinances. The furthest legislators have gone is to require towns and cities to adopt smart growth ordinances as a parallel set of codes (i.e. an overlay)[3]. Reluctance on the part of lawmakers to mandate smart growth codes stems from the fact that changes in zoning affects property values. Any attempt to mandate smart growth codes may carry undesirable political consequences. American veneration of private property rights requires that smart growth agendas move forward with a certain degree of sensitivity. Regardless, in some cases smart growth codes have replaced conventional zoning outright.

In areas where smart growth and conventional codes exist side-by-side, advocates hope that the availability of smart growth codes, combined with incentives (such as public outreach and education) will lead to smart growth development. Without clear and strong incentives, however, overlays can sit unused for long periods of time. After a TND overlay was adopted in Miami-Dade County in 1991, it was all but ignored for ten years. During that period, only one project attempted to use the ordinance, but was not accepted (Steuteville, 2001). In Austin, a similar code sat unused after it was first adopted in 1997 (Adams Interview).

Addressing Local Resistance to Regulatory Reform

The process of adopting new codes at the local level is potentially rife with difficulties. Municipal officials and fire personnel might object to smart growth codes for any number of reasons. Narrow streets, a key feature of a transportation network designed to meet the needs of

[3] Wisconsin's 2000 Smart Growth law required towns and cities with more than 15,000 residents to make a variation of state-provided smart growth ordinances available by 2002.

pedestrians, bicycles, and motor vehicles, typically raise objections.

Attempts to reduce street widths can generate opposition from fire personnel who assert that streets must be wide enough to perform what is known as a "cul-de-sac maneuver." This maneuver is required in conventional subdivisions that provide only one route to any given house, such as those on a cul-de-sac. When responding to alarms in these subdivisions, the first engine that arrives typically hooks up its hose to the nearest hydrant and drives the remaining distance to the fire. After a second engine arrives, it too hooks up to the same hydrant and drives past the first engine to deploy its equipment. Fire codes often require a minimum width to ensure that this maneuver can, in fact, take place. If streets are too narrow, fire officials believe that accessibility is hampered and public safety is compromised (Koch, 2001; Steuteville, 2001).

Other concerns regarding narrow streets may come from fire and safety personnel or public works departments. Narrow streets and curb radii make it difficult for large vehicles to turn without jumping the curb. Narrow streets slow traffic and thereby lengthen emergency vehicle response time. Snow removal becomes problematic because there is no place for snow to accumulate and plows may damage cars parked on the street. Drivers may not have an opportunity to react to children darting out between parked cars on narrow streets (Steuteville, 2001). If these concerns and others like them are not satisfactorily addressed, then the mixed-use, pedestrian oriented development that smart growth agendas seek to promote will be a long time in coming.

The recent case of the East Riverside Community in Windsor, Ontario, illustrates how these dynamics can play out even in jurisdictions committed to ideas sympathetic to smart growth development. In East Riverside, the comprehensive plan explicitly supported smart growth development principles. After the plan's approval, East Riverside was expected to become one of the largest new urbanist projects in Canada. The zoning ordinances, however, did not contain the

necessary clauses to guarantee the comprehensive plan would be implemented as initially conceived. In addition to continuing to use wide residential streets, the zoning ordinances abided by a city policy that forbade the use of alleys. The policy banning alleys was driven in part by the Public Works Department, which had historically opposed alleys for cost reasons (Caruso and Sands, 2001).

Although East Riverside was in the early stages of development as of 2001, it had become clear to observers that the form of development departs in significant ways from the new urbanist orientation of the comprehensive plan. The absence of alleys, combined with narrow lots had produced a streetscape dominated by garage doors. The quality of the public realm had been diminished. Many other key elements such as a fine grain of residential mixes and uses, were also missing, in part because the lack of support for smart growth development principles in the zoning ordinances (Caruso and Sands, 2001).

Smart growth agendas are designed to address the aforementioned concerns, making it possible for pedestrian oriented development to be built. There are, for example, a number of approaches to deal with the concerns local officials have about narrowing street widths. Cul-de-sac maneuvers are no longer necessary if narrow streets are combined with an interconnected local street system that allows fire engines to access a fire from multiple directions. A citywide, interconnected street network would include prominent emergency response routes to service narrower local streets. Response times would be further reduced because compact development reduces overall distances traveled (Steuteville, 2001).

With its 2002 Smart Growth Policy Guide, the American Planning Association has provided direction on the integration of land use and transportation planning.

> Transportation planning should include alternatives to the automobile, such as public transportation, bicycles and walking. Development must be pedestrian friendly. Land use

> planning must support the success of non-automotive transportation modes.
> (APA, 2002)

When concern for public safety is extended beyond the relatively narrow definition of responding to fires, statistical analysis can be brought forward to demonstrate narrowing roads creates a safer environment for pedestrians and bicyclists. Narrower residential streets and shorter residential blocks reduce vehicle speed, which in turn influences the mortality rates of pedestrians stuck by automobiles. A pedestrian struck by a vehicle traveling 30 mph is nine times more likely to die than a pedestrian struck by a vehicle traveling 20 mph. If a vehicle traveling 20 mph strikes a pedestrian, there is a 95 percent survival rate. If a vehicle traveling 30 mph strikes a pedestrian, the survival rate drops to 50 percent. If the vehicle speed increases to 40 mph—a common speed on 36 foot-wide residential streets—the survival rate drops to 15 percent (McCann and DeLille, 2000).

A 1999 study, titled *Residential Street Typology and Injury Accident Frequency*, evaluated 20,000 police accident reports from the city of Longmont, Colorado against several criteria that would "indicate if the accident occurred as the result of the street typology" (Swift, Painter, and Goldstein, 1997, 3). The study was exclusively concerned with residential streets, and omitted accidents that occurred on streets with average traffic flows greater than 2,500 cars per day. Accidents involving poor road conditions and substance abuse were also omitted from the analysis. Working with data road inventory data supplied by the Colorado Department of Transportation, the researchers determined that there was a 400 percent increase in accident rates when moving from 24-foot wide streets to the typical 36-foot suburban residential street. A final observation associated with the study merits attention. The most intense accident frequency was found on wide streets with the lowest daily volumes. The data indicates that conventional residential street design is directly contributing to higher accident rates. The study goes on to say:

> This brings up a larger question of public safety issues concerning fire apparatus and

> emergency vehicle access with narrow streets. The service reports from the Fire Department of the City of Longmont were evaluated. There were no fire related injuries or accidents during the eight year period of the study. There were fires in the older parts of town during the study period that have alley access and narrow streets, but no injuries were attributed to those fires. It is suggested, therefore, that the municipal or county government look at the larger picture of public safety issues and ask if it is better to reduce dozens of potential vehicular accidents, injuries and deaths or provide wide streets for no apparent benefit to fire or related injuries or deaths.
>
> (Swift, Painter, and Goldstein, 1997, 9)

While the Longmont study is not conclusive, it does suggest narrowing street widths reduces vehicle speed and creates safer communities. The authors do note that more research is needed.[4]

Effective regulatory reform depends, to a large degree, on how this kind of information is used in engaging sectors of local government that support key elements of conventional zoning ordinances such as wide streets and a street system that is characterized by cul-de-sacs, collectors and arterials. Leveling the regulatory playing field so that smart growth projects can receive entitlement with no more difficulty than conventional development requires more than a state agency providing model zoning ordinances. At the local level, complications, prejudices, misunderstandings, and inertia present challenges that can thwart the best laid intentions.

Assuming smart growth codes can be adopted, additional concerns pertaining to the regulatory process must be considered. Smart growth development, especially greenfield development, requires that a supportive process for land assembly be put in place. The goals of property owners should be in alignment not only with each other, but also with a comprehensive plan based on smart growth principles that has gone through an open and inclusive public process. Miscommunication among property owners, or between property owners and local government can result in the unnecessary fragmentation of new development. Decisions regarding phased

[4] A review of the literature did not find another report that evaluated the relationship between street width and public safety.

development and capital cost expenditures must be made ahead of time so that critical elements of smart growth development such as an interconnected network of streets, parks and schools can be planned for in advance. These decisions would typically be guided by a secondary plan that applies to an area where newly assembled land is being made available for development. If this secondary plan has also gone though a public review, developers know ahead of time what standards must be followed and spend less time seeking approval for elements of site design and construction. Local government and the public, in turn, are more certain that the development meets the needs of the community as they have been identified in the comprehensive plan (Koch, 2001; DLCD and ODOT, 1998).

Effectively addressing the range of regulatory barriers facing smart growth development and establishing a solid process to implement a community's vision is no small task. Financial barriers and a range of attitudes about density complicate these efforts. While issues surrounding density and smart growth have been recognized since the movement's inception, only recently have academics and practitioners been examining the difficulties of financing smart growth development in an increasingly standardized world.

2.2 Financial Barriers and Solutions

Real Estate as a Standardized Commodity

Throughout the 1990s smart growth agendas and affiliated research focused on quantifying costs associated with conventional development patterns and developing policies that redress problems associated with sprawl. As the smart growth movement matured, both the academic community and practitioners have paid more attention to the fundamental importance of securing

equity of debt financing for smart growth projects. Currently, smart growth development accounts for very little of the $6 trillion real estate finance market in U.S. (Burchell and Listokin, 2001).

Today, real estate is a standardized commodity. The vast majority of development projects fall into one of nineteen classes of real estate that are understood by investors (Leinberger, 2001). In the U.S., real estate products became increasingly standardized, as real estate investment trusts (REITs) emerged as major owners of real estate in the wake of a downturn in the early 1990s (Volk and Zimmerman, 1998, Leinberger, 2001). Traditional sources of real estate financing, such as commercial banks and development companies, have tended to focus on a single building class. The emergence of REITs, however, placed additional pressure on financiers to establish standardized definitions for real estate projects so they could be packaged and sold on Wall Street (Leinberger, 2001; Gyourko and Rybczynski, 2000).

One such standardized definition, the "neighborhood center", serves to illustrate the way in which real estate categories are used by REITs, real estate investment bankers, and other financiers evaluating potential projects. A neighborhood center, as understood by the investment community, occupies 12-15 acres and is anchored by a 50,000 to 75,000 square foot supermarket and pharmacy. Buildings occupy 20 percent of the site. The rest of the land is given over to surface parking and any landscaping as required. The neighborhood center has no fewer than 20,000 people living within a three-mile radius. A minimum of 20,000 vehicles passes by it each day. The preferable location for a neighborhood center is on the "going home" side of the street (Leinberger, 2001, 5). Financiers deem real estate products that closely align with this definition of a standardized real estate product as "conforming."

Equity and debt financiers look at how closely a project proposal conforms to a standardized product type when evaluating risk. A developer whose proposal fails to closely align

with one of the nineteen real estate product types faces greater difficulty in securing financing. The principal reason behind this difficulty is the discounted cash flow methodology (DCF) used by financiers when performing comparative analyses of projects competing for limited investment dollars. DCF methodologies are based upon the assumption that a "dollar tomorrow is worth less than a dollar today" (Leinberger, 2001, 2). The rate at which the value of a dollar generated by project drops over time is known as the discount rate. The financier determines the discount rate's actual value. Higher risk projects (i.e. those that do not conform to one of the accepted standard real estate product types) are assigned discount rates substantially higher than projects judged to be conforming. A high discount rate increases the cost of capital and places pressure on the project to generate a sizeable cash flow in the near term. Financiers expect higher risk projects to generate higher returns. Without the promise of a greater return on investment, the financier has no reason to stray from safe, standard real estate investments that characterize conventional development.

DCF methodology has the effect of favoring projects that generate profits in the short run over those that generate medium or long-term profits. The use of higher discount rates for non-standard projects minimizes the perceived benefit to investors who receive medium or long-term profits. To the financier using a DCF methodology, it is more profitable to continually reinvest money in projects that generate cash flows quickly. A comparison of two hypothetical project scenarios—one being a neighborhood center and the other a mixed-use town center— illustrates the competitive advantage that standardized real estate products have over smart growth projects with respect to receiving competitive financing.

Our hypothetical neighborhood center will be built on commercially zoned land adjacent to a major arterial that services multiple residential subdivisions (also referred to as pods). The developer performs a quick demographic analysis and traffic count and determines that a sufficient

customer base exists to support the new neighborhood center. The center will be built in a relatively short period of time using a construction technique commonly known as tilt-wall or tilt-construction. This technique, perfected in the late 1960s, enables a general contractor to quickly and cheaply erect a large, structurally sound building. Concrete walls are poured horizontally on the site and then raised vertically with a crane.

The benefits this technique brings to the construction process include the economies of scale realized with structures larger than 20,000 square feet that have walls higher than 20 feet. The load bearing, concrete wall panels negate the need for structural steel around the perimeter of a building. Building complexity is reduced and more usable interior space is provided than in a building that uses structural steel columns (Niehaus, 1998).

Once this hypothetical neighborhood center's buildings are up and the parking lots are in place, the grocery store chain (i.e. the principal tenant) can immediately take advantage of a high visibility location and built-in customer base. There are no complications relating to building design and compatibility, nor are there questions about whether or not the customer base is large enough to support the center. The project will generate a sufficient cash flow to guarantee its financial success. Because the project conforms closely to a standardized product type, low to moderate risk makes for a relatively straightforward process for a developer to receive competitive financing. According to Leinberger (2001), financiers typically assign moderate risk real estate projects a discount rate in the range of 15 percent to 20 percent annually.

A hypothetical smart growth project built on a greenfield site would be evaluated very differently according to research conducted by Gyourko and Rybczynski (2000). Their survey of 23 leading developers, equity investors and lenders[5], while not statistically significant, found almost

[5] Most had experience with New Urbanist projects, which this study categorizes as a "smart growth project".

unanimous agreement that building a higher density, multiple-use project was more expensive than single product type projects. Although smaller lot sizes provides infrastructure cost savings, the construction of many smart growth projects is considered significantly more complex than conventional development[6]. The infrastructure (i.e. roads, utilities, lights, and landscaping) is denser and the entire community typically designed more carefully and built over a longer period of time (Burchell and Listokin, 2001; Dietsch, 2001).

Expressed Concern from the Financial Community

Fulton (1995) highlights circumstances surrounding Laguna West's development to illustrate the potential dangers involved with financing smart growth projects. After the completion of the first phase of the project in 1991, which involved laying community infrastructure and building a town center, the California real estate market experienced a severe downturn. Laguna West's financial performance also suffered because of an ill-conceived phased release of lots that led to the construction of residential blocks in a non-contiguous manner. Scattered blocks of houses were separated from the town center by undeveloped land, making it difficult to gain a sense of the overall design, further slowing sales.

Kentlands, Maryland is another example of a prominent new urbanist project that experienced financial difficulties. The absence of retail stores in Kentlands' town center raised

[6] A 2000 study completed by the planning department in Chaska, MN found that new urbanist development was more expensive to build by 10-20%. This is an identical range identified in the Gyourko-Rybczynski (2001) study. Chaska's smart growth agenda identifies affordable housing as a critical goal. Residential density bonuses are one of several tools used to realize this goal. The Chaska study includes a list of examples contributing to the increased costs: Shorter block lengths increase lineal footage of streets; Provisions of alleys increase lineal footage of streets; Provision of more sidewalks and trails; Provision of more landscaping (e.g. boulevard trees) ; Association requirements; Special amenities such as town centers, open spaces and water features; New housing plans that meet needs of new urbanist standards; Detached garages (increases garage and house cost); Front porches.

questions in the minds of prospective buyers with respect to the feasibility of the overall concept (Fulton, 1995). Stringent design guidelines, combined with strict historical precedent, made the job of homebuilders more difficult. For example, Georgian houses could not be mixed with Victorian houses, and the exterior detailing and materials had to be authentic (Dietsch, 2001). These factors, combined with the higher costs typically attributable to new urbanist development, were partly responsible for houses going on the market at prices 30 percent more per square foot than comparable building construction (Fulton, 1995). After the developer of the retail portion of Kentlands pulled out because of a sharp drop in the demand for new regional malls and a slowing economy, the primary developer had to hand over control of the project to the principal lender, Chevy Chase Bank. After the market recovered, the Chevy Chase Bank finished the project in keeping with the original vision (Miller, 2002).

These first generation new urbanist projects illustrate the problems that can plague development efforts that are inherently more complex than most conventional development. Some second-generation communities, such as Lakelands, in Gaithersburg, Maryland, have retained the essential elements of new urbanist form and performed strongly from a financial standpoint.[7] In other second-generation projects, elements of conventional suburban development have been folded into designs to appeal to a broader market. Two Washington DC area projects under construction in 2001 feature a new urbanist core with townhouses, single-family homes with alleys on small lots, offices, and shopping. On the periphery of each project, one finds homes on relatively large lots with front loaded garages (Dietcsh, 2001).

Despite differences between first and second-generation projects, financiers believe the

[7] Jennifer Russel, Director of Planning for Gaithersburg, notes that new urbanist design is a product type that is now well understood. New home sales in both Gaithersburg and Lakelands are typically the strongest in the area.

complexities associated with all town centered mixed-use design carries higher risk. The fact that many smart growth projects have unique design elements runs counter to the trend of product standardization in the real estate industry. As a result, financiers assign smart growth projects discount rates as high as 35 percent per year. Higher rates increase the pressure for non-standard projects to generate substantial cash flow in the short run to cover the increased cost of capital. Most smart growth projects—especially greenfield development—do not generate substantial short term cash flows and will not receive financing (Leinberger 2001). Many financiers interviewed by Gyourko and Rybczynski (2000) explicitly state that they would not consider investing in greenfield smart growth projects. The medium and long-term profits that characterize smart growth projects are shunted aside in favor of short-term returns that are the key consideration in any analytical financial tool based upon DCF methodology. Smart growth projects that do get built typically have a corporation with a strong balance sheet to back the effort. In such cases there is no need to seek external financing. Disney's Celebration is perhaps the best example of such an arrangement.

Infill smart growth development raises different concerns in the financial community. In some cases, building rehabilitation might not be financially feasible in the absence of renovation building codes.[8] Legal issues such as delinquent taxes, estate disputes, often complicate conveyance of clear title (Burchell and Listokin, 2001). Brownfield redevelopment poses a variety of challenges and usually requires public sector involvement. Interestingly, while all these complicate financing arrangement, the financiers interviewed by Gyourko and Rybczynski all indicated they would be more likely to provide equity or debt financing for an infill smart growth project rather than a greenfield project. A well done mixed-use infill project, often just a single building, may still be considered risky, but is more likely to receive financing if the project is well understood by the

[8] This is as much of a regulatory barrier as it is a financial barrier.

financial community, especially if the site was purchased at or below replacement cost (Burchell and Listokin, 2001).

An important point borne out by the research conducted by Gyourko and Rybczynski is that most of the financiers involved in the study were skeptical about the idea that a mixed-use town center could compete in a greenfield setting. Medium or large-scale retail built along conventional lines serves a population base much larger than the number of residents in greenfield smart growth projects. When considering the advantages a standardized product type (e.g. the aforementioned neighborhood center) has over a new town center (ease of construction and access to a built-in customer base), it becomes clear why many financiers believe the prospect of a town center's component succeeding in a market filled with "low-cost suburban strip retail" is at best marginal (Gyourko and Rybczynski, 2000, 743). When describing the skepticism of the financiers interviewed, the researchers write:

> The unanimity and forcefulness with which these opinions are held by the capital market sources we interviewed lead us to question the viability of future private sector financing for suburban greenfield new urbanist projects. If our conclusion is accurate, then we believe that for such projects to be done in even moderately large numbers, some type of public sector intervention will be required. This might take the form of partial financial guarantees or credit enhancements. A sound economic rationale for any such intervention and for the use of government resources requires that new urbanist projects deliver a social benefit that does not arise from the typical master-planned community, for example. Such a benefit might take the form of lower pollution as a result of higher density, reduced time in traffic, and greater opportunities for walking. We do not know whether such benefits exist, since documenting them is well beyond the financial focus of this article.
>
> (Gyourko and Rybczynski, 2000, 743).

An inherent part of smart growth is to "expand housing opportunities for traditionally underserved communities and families", reversing the trend of increasing spatial separation of income groups throughout a metropolitan area [9] (Burchell and Listokin, 2001, 19). Few truly

[9] Spatial separation of income groups translates into uneven delivery of education and a wide range of public

mixed-income smart growth projects have been completed to date. Those that have, such as Alba Homes in Chicago, IL and Park DuValle in Kentucky, require subsidies that are in short supply and often difficult to obtain. Also, the range of organizations involved in these kinds of projects often has requirements in conflict with each other. Collectively, these issues make underwriting true smart growth projects problematic.

In many parts of the U.S., serious social problems have led the financial community to feel that distressed areas are not worth investing in. Crime-ridden streets or failing schools are not magnets for new residents. Commercial interests will not invest in areas perceived to have a weak market, hence the wariness about certain urban locations. In contrast, greenfield suburban locations typically offer a safer investment environment. Without dealing with a range of "staggering macro physical, economic, and social problems such as rampant decline in population, tax base, and public service quality", smart growth financing is irrelevant. (Burchell and Listokin, 2001, 49).

Financing Smart Growth in Fast Growth Metropolitan Areas

As if to underscore the importance of financing smart growth development, the Mortgage Bankers Association (MBA) and the U.S. Conference of Mayors (USCM) established a first of its kind partnership in 2000 that sought to search for solutions. In order to bring a national perspective to the discussions, they partnered with the Center for Urban Policy Research (CUPR) at Rutgers University. Rutgers professors Listokin and Burchell undertook the first comprehensive look at the financial obstacles facing smart growth, and what local government and the real estate finance community could do to overcome these obstacles.

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services. In Canada, local government is less fractured, mitigating a range of funding issues at the local level.

In 2000, the MBA, USCM and CUPR held four urban forums in Charlotte, Rochester, Minneapolis, and San Francisco that focused on growth pressures and sprawl. These cities were chosen in part because they have different growth characteristics, underscoring a key finding that was later published in the report: cities across North America require different kinds of smart growth agendas.

The strategies for dealing with financial barriers can be categorized according to both geography and the growth rate a metropolitan region is experiencing. Particular strategies are suitable for inner-metropolitan areas, while others are appropriate for the rural/urban fringe. Strategies can also be organized according to how fast a region is growing. Fast growth regions may employ strategies that differ significantly from slow growth or declining regions.

In their report, Burchell and Listokin focus on strategies for inner-metropolitan areas in both fast and slow growth regions. The remainder of this section summarizes the CUPR report's treatment of problems, strategies and responsibility for fast growth metropolitan regions only.

Battle lines are often drawn between developers who want to maximize density and community groups who want only single-family homes in their immediate area. In fast-growth areas, these groups are often well funded and can diminish the chances a smart growth project will receive the financing or entitlement it needs. Listokin and Burchell note that local government should anticipate resistance to projects ahead of time by identifying key leaders in the community and reaching out to them well in advance. Information and design charrettes can lend support to a coherent strategy that adds value to the existing community. The authors also introduce the concept of a "design increase" in density, whereby good design enables density levels to increase 25 to 33 percent without detectable change to the character of the community.

Due to their size, large-scale projects attract attention and inevitably, stiff opposition from various interests. Another challenge for these sorts of projects is the cost of land. In fast-growth areas, urbanized land is comparatively expensive. This land is often occupied by low-density development. Remedial action might be needed before parcels can be reused, thus further increasing costs. In such cases, the development community must reach out very early to key leaders with design charrettes and information conveying the benefits of the project to the community. Unless these actions are implemented effectively, the financial community cannot be expected to embrace the proposal. Listokin and Burchell indicate that the financial community should consider funding such projects on a pilot basis, which is taken to mean that DCF methodology might be waived.

In fast-growth markets, the real estate finance community views mixed-use development and mixed-income housing as a non-standard product type. Burchell and Listokin recommend that the financial community introduce new mortgage products and fine-tune existing ones to support non-standard projects.

Typically infill smart growth projects require a large, up-front cash outlay to deal with infrastructure improvements, assembling parcels and possibly coordinating activity with adjacent development. If these preliminary steps are too difficult, development will migrate to greenfield sites, leaving available infill sites unused or underutilized. Local government has a role to play in smoothing this process over so that development is directed to unused or underutilized land. Local government can assemble parcels, upgrade infrastructure and work with a developer to see that proper concessions are made to community groups. Local government may use powers of condemnation to assemble parcels or tax increment financing to support infrastructure improvements or site upgrades that community groups may require. Collectively these actions

make an infill project more viable.

Burchell and Listokin note: “integrating affordable housing in a mixed-income context is critical to achieving the overall vision of smart growth” (2001, 44). Community groups will often express concern over the loss of affordable housing as parcels are assembled for development. To address these concerns, local government, community groups and financial interests must work together to preserve and expand housing opportunities in mixed-income projects. As local governments come under increasing pressure in the U.S. to provide affordable housing, the interest in forging key partnerships increases. State housing finance agencies have demonstrated their ability to produce mixed-income housing in recent years. Along with other non-profit and faith-based groups, housing finance agencies are ideal partners for local governments engaged in smart growth. Burchell and Listokin stress that if these organizations are involved in smart growth projects, lenders must exercise greater flexibility and factor their presence into their decision whether to offer financing.

Emerging Models for Financing Smart Growth

Prior to the widespread use of DCF methodology, investors anticipated subsidizing real estate investments in the early years and, in turn, received tangible financial rewards in the ensuing years. Fifty or sixty years ago, investors were willing to accept medium or long-term financial returns. The question today is whether or not there are still investors for whom medium and long-term returns are more than adequate. Leinberger (2001) compiles a list of investors potentially interested in sustainable, long-term cash flows. Foundations, university endowments, insurance companies, real estate investment trusts, and pension funds are all possible candidates, as are individual investors with medium and long-term cash flow requirements. One might also consider

the way in which local governments use tax abatements or other creative investment strategies that might generate long-term returns. While these potential smart growth investors have a need for short-term cash flows as well, many of their investment decisions do not have to rely on DCF methodology. Unfortunately, there is currently no other method of evaluating real estate investments today (Leinberger, 2001). In their report to the Mortgage Brokers Association, Burchell and Listokin ask that lenders recognize the extent to which smart growth policies are being implemented and "adapt their business practices and policies to these new realities" (2001, 56).

Leinberger (2001) illustrates one way in which this might be accomplished, using a concept borrowed from the commercial mortgage backed securities industry called "time tranching". "Tranches" are individual loans for a project. Each tranche would have a different level of risk associated with it. For example, a hypothetical project might have three different tranches to cover the costs of the land, site preparation and parking, and the construction of the buildings themselves.

In Leinberger's hypothetical example, the first tranche is a conventional, low risk loan for investors who want to get in and out of the project in five years. Typically, such investors fund project construction. Assume this conventional loan covers 65 percent of the cost of the project. Because the remaining 35 percent of the costs are not amortized in the short term, more emphasis can be placed on the quality and character of what gets built. This conventional low risk loan would be paid off before all other loans. After year five, mid-term investors who provide the second tranche would begin to receive 70 percent of the revenue generated by the project between years 6 through 12. Long-term investors receive the remaining 30 percent. Although the smart growth project may have performed relatively poorly in the first few years, there is now sufficient revenue being generated to satisfy the needs of these mid-term equity investors. The long-term investors

who provide the final tranche receive the bulk of the returns after year 12. These long-term investors have addressed their investment needs in a way that aligns with their organization's mission.

Leinberger illustrates how this actually plays out by looking at how the Arcadia Land Company is using time tranching to fund a major smart growth redevelopment effort in Albuquerque, New Mexico. The redevelopment effort is occurring in a city that had not issued a single private sector building permit in the past 15 years. Although the region as a whole has done well, the downtown core has suffered.

The first tranche is made up of funds from conventional real estate investors and will be paid back in the first five years of the life of the project. Because a minimum of three to five years was needed before the project would generate sufficient cash flow, Arcadia partnered with the McCune Charitable Foundation to serve as a mid-term investor. McCune, New Mexico's largest foundation, has formally committed to supporting smart growth. It supplied a second tranche of $6 million in equity when establishing the Historic District Improvement Company (HDIC) with the Arcadia Land Company. The third tranche was supplied by the City of Albuquerque in an interesting way. Rather than provide enormous subsidies to entice the developer, the city essentially became a development partner along with HDIC. Albuquerque invested $12 million in land, parking garage structures, tax abatement and infrastructure in return for "25 percent of the cash flow in years 6 through 11 and 50 percent of the cash flow in years 12 until 125 percent of the initial investment is returned or year 20, whichever comes first" (Leinberger, 2001, 12). The City calculated that it would receive an additional $30 million in net tax revenues from the redeveloped section of the city over the next 20 years. Additional revenue is expected from tax revenue increases in the surrounding blocks. Albuquerque is the first city to employ this approach to

revitalization in the U.S.

During the first five years of the project, HDIC will use the cash flow to pay off the first tranche investors (i.e. conventional real estate investors). In years 6 through 11, HDIC will receive 75 percent of the cash flow (the remaining balance going to the City), and 50 percent in years 12 through 20. After year 20 100 percent of the cash flow is HDIC's. Although the return rate on the project is marginal by conventional standards – 17.5 percent – the McCune Foundation calculated that an investment that represents just 4 percent of their asset base will cover more than 20 percent of the foundation's inflation-adjusted projected spending. This "doing well while doing good" strategy helps insure the foundation's survival and growth in the future while abiding by its mission.

Like Gyourko and Rybczynski, Leinberger calls for new research that focuses on the lifecycle returns of smart growth projects. Gyourko and Rybczynski suggest that early twentieth-century development that is conceptually similar to smart growth development also be analyzed for long-term financial performance. Leinberger suggests these figures be compared to the long-term returns of conventional development, which in fact have never been studied. Such studies might support the increased involvement of the financial community in smart growth development.

2.3 Density Related Issues

Rethinking Links Between Sprawl and Density

The fear of higher residential densities has been readily acknowledged in a wide variety of ways (Downs, 1992; Bookout, 1992; Downs 1994; Gordon and Richardson, 1997; Campbell, 1998; Moudon and Hess, 2000; Gordon and Richardson, 2000; New Urban News, 2000; McMahon, 2001;

O'Toole, 2001; Downs, 2001). Danielsen, Lang and Fulton (1999) state that perhaps the biggest challenge smart growth agendas face is community resistance to additional development in urbanized areas. Regardless of benefits that might accompany higher density development (e.g. improved housing/jobs relationships, increased opportunities for public transportation, or affordable housing), smart growth agendas face an uphill struggle in most locales. Historically, opposition to density has manifested itself in various ways, as in environmental regulations that significantly increase construction costs. A certain sense of irony accompanies this national aversion to compact development. As Angelo Siracusa, president of the San Francisco Bay Area Council, stated the early 1990s: "There are two land use patterns that the public does not like- sprawl and density" (Bookout, 1992, 17).

Smart growth is not necessarily synonymous with high-density development (Burchell and Listokin, 2001, Danielsen, Lang and Fulton, 1999;). Smart growth, as defined by the American Planning Association, represents a particular type of higher density development that mixes land uses in a way to benefit residents. If density for the sake of density were an objective of the smart growth agenda then Los Angeles would serve as a model, which it does not (Danielsen, Lang and Fulton, 1999).

Myers and Kitsuse (1999) point out that Los Angeles contains the highest suburban densities in the U.S. (greater than 10,000 persons per square mile) and provides residents with reasonable access to shopping, work, and other essential services. Regardless, the city remains an emblem of sprawl for most people. It follows then that the debate over sprawl is more than simply a debate over density and accessibility, although it is often discussed in those terms. In large part, sprawl is about perception.

Los Angeles sprawls because of the lack of open space in relation to its vast size (the city

covers over 33,210 square miles). There are few generously sized parks and greenbelts that interrupt or soften a monotonous landscape. What open space is available is not distributed equally throughout the city. The "unrelieved fabric of developed land" that reflects the city's "history of speculative commercial development" is notable for its "low-quality" building materials and no-frills, big box architecture (Myers and Kitsuse, 1999, 22-23). Like Lynch (1960) before them, the authors conclude that a combination of factors undermines one's sense of spatial orientation, inhibiting the construction of mental maps that might produce a readable urbanized landscape.

In the mid-1990s, the Bank of America and Wells Fargo squared off against each other to offer competing views on the desirability of such a landscape. In *Beyond Sprawl: New Patterns of Growth to Fit the New California*, the Bank of America issued a warning stressing the need to change development patterns to avoid environmental, social, and economic costs. Wells Fargo Bank responded with a publication titled *Preserving the American Dream: The Truth About Suburban Communities and Housing Choice.* This publication drew from factual analysis to vigorously challenge many of the assertions made by Bank of America and stressed the importance of the housing industry to California's economy (Myers and Kitsuse, 1999).

Emergence of Higher Density Development

Moudon and Hess (2000) note that research supporting the laissez-faire and growth management positions in the density debate have overlooked an important facet of postwar residential development. Currently, sizable segments of the residential market are already forming moderately dense residential clusters that include a mixture of uses in close proximity. Moudon and Hess observed this largely unacknowledged phenomenon in 86 locations throughout the Puget Sound area. They note that these residential clusters contain the mixture of uses called for in

Perry's treatise on the Neighborhood Unit. The size of the clusters varies from slightly less than two Neighborhood Units (300 acres) to four Neighborhood Units (600 acres). Within these areas the researchers found a land use mix that placed institutional facilities, educational facilities, residences and shops within close proximity. All the "necessary conditions for producing a neighborhood, a place that gathers all the services related to daily life within a small, contained, walkable, area" were emerging throughout the region (Moudon and Hess, 2000, 249). This was happening in spite of the fact that predominant land use practices were enforcing the spatial separation of uses.

Within the post-war clusters, conventional development practices created conditions where movement between land uses on foot was awkward, unpleasant, or dangerous due to physical barriers such as fences and various facilities such as multifamily housing complexes, retail outlets, and schools all turning away from each other. These clusters can be distinguished from their pre-war counterparts in other ways as well. In the post-war clusters, a single block might occupy 30 acres and approximately 6 miles of roads might service the entire cluster. Pre-war residential clusters include many blocks occupying less than 2 acres. These same clusters typically have over 30 miles of streets. The finer granularity of the street system in the pre-war clusters supports pedestrian movement in a way in which post-war clusters do not.[10]

The authors assume that the clusters are not unique to the Puget Sound area because the residential clusters emerged in jurisdictions that used conventional development practices. Similarly, they believe there are significant policy implications, suggesting that intentionally

[10] The authors state that "the clusters should not be confused with the edge cities, metrocores, or suburban activity centers that have been identified previously in the literature. First, their principle characteristic is concentrated residential, rather than employment, land uses. Second, the employment retail, or entertainment activity the clusters do contain s of lower scale and intensity than that of previously defined documented urban and suburban centers."

planned, mixed-use centers may be more practical to implement on a widespread basis than previously considered

In addition to naturally occurring residential clusters, there is evidence in national press reports to suggest a trend in some locales towards accepting higher density along the lines of smart growth principles. In the San Francisco metropolitan area, a series of polls conducted by the *San Francisco Chronicle* indicated that towns with different demographic characteristics had shifted in recent years from favoring low-density residential development to favoring higher density development and transit. Transit villages that combine office, retail and residential are now emerging around most Bay Area Rapid Transit stations (DelVecchio, 2000). In the Baltimore region, journalists have identified a trend towards mixed-use developments that blend modern conveniences with density and sizable amount of office space. One such example is a greenfield smart growth project that includes 1.2 million square feet of office space (Hopkins, 2001).

In 2001, researchers at USC found that market demand for dense, walkable residential environments would increase substantially over the next 15 years as the baby boom generation ages. Fewer households with children, evolving tastes, and increasing traffic congestion in economically healthy regions are all contributing factors. The USC study analyzed two scenarios. A “constant preference” scenario revealed that age groups now expressing a preference for walkable neighborhoods are expected to sustain their level of preference. An “expanded preference” scenario suggested that the demand for walkable environments could plausibly rise due the impact of product exposure and shifts in cultural preference.

The housing market as a whole is expected to slow from the current growth rate of 1.3 percent per year to 1.1 percent per year by 2015. Under either scenario, dense, walkable neighborhoods are expected to make up a greater part of the housing market. The rationale for this

projection rests on the understanding that the 55-64 age bracket—the people most interested in living in walkable environments—will be the fastest-growing portion of the real estate market through 2010. Another potential pool of buyers are the echo boomers, many of whom are receptive to the idea of dense walkable neighborhoods.

Surveys conducted by the USC team indicate that households with children are attracted to many key attributes of walkable environments. When these households are faced with a choice of 1) expensive historic neighborhoods with poorly performing inner-city schools, 2) relatively affordable houses in conventional subdivisions, or 3) newly built walkable environments, the third option may be the most desirable in the mind of the consumer. USC researchers identified two prominent factors that affect consumer choice in housing: traffic and changing cultural preferences. During the 1990s, the average amount of annual traffic delay per person tripled. The Texas Transportation Institute notes that delays will continue to mount in all regions. Traffic poses the biggest single challenge to quality of life in healthy economic regions.

At the same time, the U.S. has experienced the rise of a 'café culture' over the last decade. The USC researchers allow for the possibility of other amenity-oriented retail shops to locate in districts, thus forming the nuclei of denser walkable environments previously unknown to the market. In their final analysis, the USC team views the 'expanded preference' scenario conservatively. Generally speaking, demographic change is more predictable than cultural and political change (CNU, 2001).

Density and the Private Realm: Consumer Preference

In a recent address to the Maryland Association of Counties, Governor Glendening pressed local officials not to give in to protests against higher-density zoning. He went on to say, "You

need to have courage to demand higher density. You need to have the courage to demand quality design. Good design is the other side of the high-density coin" (New Urban News, 2000, 5).

The essence of Glendening's plea is supported by a recent study at the University of North Carolina. In their study on current and emerging consumer housing preferences, Malizia and Exline (2000) reviewed statistical surveys, visual surveys and published research. They also consulted experts to determine the extent to which households would accept higher density residential development that provides easy access to public open space. Household attitudes about density, quality of design, lot size, configuration, access to services, open space, and a mixture of uses were all considered.

Their study found that non-visual statistical surveys reveal a preference for lower-density housing over a compact, mixed-use model that offers access to open space, recreation, services and a range of housing types. The authors point out that this preference, however, is not overwhelming. Most people are interested in balancing a range of tradeoffs so long as safety and financial security are not compromised. There was little question, however, that respondents prefer detached single-family house by 3-1 margins.

Results of visual surveys tell a different story. While statistical surveys do little or nothing to define density, visual surveys enable respondents to judge based on clear definitions of a number of features simultaneously such as density, lot, and access. Higher density, mixed use housing, with narrow streets, sidewalks, pedestrian access to open space, and commercial development rated higher than conventional suburban development features. Safety and quality of design were two essential components of respondents stated preferences. The researchers conclude that the term "density" carried a negative connotation with most respondents. When housing choices were presented in visual terms, perception consistently changed the outcome of the surveys. Moderately

high residential densities were favored over conventional, low-density development. Malizia and Exline attributed the differences in survey results to the respondents ability to judge several features simultaneously.

The validity of these visual surveys is supported by the market acceptance for newly constructed, dense, walkable environments based on new urbanist principles. Economists Charles Tu and Mark Eppli from George Washington University in Washington, DC conducted research that found consumers willing to pay 12% more to live in Kentlands, Maryland than in comparable conventional subdivisions. The authors noted at the time that while the study was important, it analyzed only one project (Eppli and Tu, 1999a). They then expanded the scope of the study to include additional new urbanist communities in a variety of locations. The empirical study controlled for price variation in relation to variables such as a property's site, building quality, exterior materials, location, and market characteristics. Results in the expanded study were similar to the original. Buyers were willing to pay a premium for a house in a new urbanist community (Eppli and Tu, 1999b).

An industry study from Morrison Homes, one of the larger builders in the U.S., corroborates the findings in the Eppli/Tu study. When new urbanist communities were first offered in the late 1980s, consumer research indicated that potential buyers would be pleased if levels of appreciation kept up with conventional housing. Consumer research completed by Morrison Homes found that houses in three new urbanist communities had an average rate of appreciation of 16.7 percent during the study interval. Neighboring conventional houses appreciated 14.2 percent over the same time frame. John Rymer, VP of national sales and marketing for Morrison Homes, said that the study was decidedly less sophisticated and comprehensive than the Eppli/Tu study, but reached similar conclusions. The study purposefully excluded house sales from the data when

developer problems could have interfered with appreciation. Laguna West and Kentlands are both singled out as communities that experienced financial difficulties early in their life cycle. Both projects have overcome these problems and have wide consumer appeal in their respective markets (Rymer, 2001).[11]

A selection of academic studies, trade articles and reports in national newspapers does not negate the bias against building at higher densities. It does, however, suggest the acceptance of higher densities is not a black or white issue, nor can the issue be separated from design. If smart growth agendas are to succeed, it will be because well designed higher density infill and greenfield products are accepted in the marketplace. The degree to which such products have an opportunity to be brought to market is, in turn, influenced by public policy. The degree of success enjoyed by prominent smart growth agendas hinges upon how well a number of interrelated concepts are conveyed to the public that, in one way or another, have a direct bearing on maintaining or improving a region's quality of life.

Density and the Public Realm: Quality of Life, Fear of the Poor and Regional Economic Competitiveness

Most local jurisdictions in the U.S. employ some form of exclusionary zoning to control density levels and restrict the amount of land available for moderate density, multi-family housing

[11] Rymer (2001), Fulton (1996), and others have noted that developers of greenfield smart growth projects must become as sophisticated at marketing their products as those involved with master planned communities have been for years. Design centers are considered critical tools to convey the sense of community that will exist when the projects are complete. First generation new urbanist developers did little or no consumer research, believing that a good idea would sell itself (Fulton, 1996). Fulton notes that a greenfield smart growth community must be marketed more as a mature neighborhood, where the focus is on the entire package.

and attached dwellings. The findings of HUD's 1990-1991 *Advisory Commission on Regulatory Barriers to Affordable Housing* are in line with the analysis of urban economists who have shown how exclusionary zoning practices nationwide limit affordable housing (Downs, 1992). In short, many Americans do not want to live near households that fall in a lower socioeconomic status. Any attempt to improve the quality of life in a region though achieving higher densities and providing a mixture of housing types, flies in the face of an undeniable reality that must be effectively addressed if any measurable amount of change is to be expected. The public discussion regarding place making must center on quality and design rather than density. This is of central importance to the success or failure of smart growth.

Downs (1992; 1994) provides an influential analysis of policy options and their limitations with respect to raising densities. In his discussion on tax policies and the limitations of various approaches to growth management, at least two ideas pertaining to achieving higher densities are worth highlighting. The first is that advocates for higher densities must provide persuasive evidence that well-designed, moderate-density, new multi-family residential developments do not negatively affect property values of single-family houses in the immediate vicinity. In fact, numerous studies, conducted over the past two decades in various locations, do contradict the widely held belief that multi-family housing and residential care facilities lower surrounding property values. [12] The second point is that overcoming resistance to higher suburban densities will likely only happen if public officials in higher levels of government – specifically the state level – "become convinced that the benefits of higher density are worth the political costs of achieving it" (Downs, 1992, 97).

The seemingly paradoxical stance taken by smart growth advocates—namely to improve

[12] The Non-Profit Housing Association of Northern California (NPH) has compiled a list of major studies that has looked at the relationship between affordable rental housing, owner-occupied housing, housing for the physically and developmentally disabled, mentally ill, the elderly and homeless women and children. All

quality of life through increased densities in the face of widespread and historical resistance to this very same objective— leads to the question: what makes advocates believe the public is receptive to this idea of higher densities as exemplified by pre-1945 urban form? Bruce Katz, Director of the Center for Urban and Metropolitan Policy at the Brookings Institution, provides an answer within the context of emerging changes in regional metropolitan policy.

> In metropolitan areas across the country, explosive new suburban growth and persistent urban problems – and the recognition that federal and state policies contribute to them – create a strong impetus for the formation of new, powerful, majority coalitions at the local and regional levels. Elected officials from cities and older suburbs; downtown corporate, philanthropic, and civic interests; minority and low-income community representatives; environmentalists; no-growth advocates in the new suburbs; farmers and rural activists; and religious leaders are all realizing they lose as sprawl accelerates.
>
> These nascent coalitions reach over city limits and cross traditional constituency lines. They can form for different reasons. In some cases, coalitions form out of a concern for equity and the burden of concentrated poverty that the cities and older suburbs must bear. They advocate tax restructuring to reduce the glaring fiscal disparities between separate jurisdictions. In other cases, the coalitions focus on runaway growth and advocate reform to curb sprawl and target infrastructure investment in older established areas. Both kinds of coalitions seek new forms of metropolitan collaboration, whether governance or less formal arrangements, to solve cross-jurisdictional problems like transportation, environmental quality, water treatment, and workforce and economic development.
>
> These reforms, for the most part are not new. Scholars and regional advocates have been offering variations of these policies for years. What is new is the growing recognition of true common ground between the cities and a good portion of the suburbs on issues as diverse as economic development, transportation spending, environmental quality and fiscal equity.[13] (Katz, 1998, 3)

Core principles of smart growth such the creation of pedestrian friendly environments, the mixing uses and housing types, and the protection of environmental resources, rest on the expectation that density levels will increase over and above where they are today. Public objectives identified by

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studies reviewed, except one, determined that there is no link between housing of this type and neighboring property values (NPH, 1995).

[13] Even in places like Seattle, Washington, where regionalism has encountered numerous setbacks because of sharp differences in how to solve the region's transportation woes, there is widespread agreement that the failure to cooperate will bring negative consequences (Vesely, 2001;Contreras, 2001). Organizations such as the U.S. Conference of Mayors and the American Planning Association are stressing the importance of regional solutions and placing smart growth agendas squarely in the middle of ongoing discussions about regional growth and prosperity.

Katz, such as reducing glaring fiscal disparities, are unlikely to be achieved unless smart growth agendas prove effective.

Talen (2000) establishes a link between smart growth planning principles and notions of community as an expression of the common good. Talen notes that, with respect to smart growth planning principles, "the common good can be seen as exemplifying social diversity, accessibility, and neighborhood identity" (Talen, 2001, 13). Talen's rationale is as follows: Social diversity is desirable because it reduces concentrations of poverty. When poverty is concentrated, problems associated with access to medical services, schools, and other geographically based services are exacerbated. Talen considers diversity, to the degree that it addresses these shortcomings, to be a common good. A second benefit of diversity is that it allows for the possibility of shared experiences, reinforcing the notion that we occupy a shared world. Talen also considers the degree to which this is realized to be a common good.

Accessibility is desirable when framed in terms of providing equal access to obtain goods or resources. When distances to resources vary significantly for groups within society, these groups experience varying degrees of spatial inequality. In many parts of the U.S., such inequality is significant. Talen refers to the "frictional effect" of distance on the elderly, children, and the poor (Talen, 2001, 12).

Neighborhood identity is desirable from the point of view that a locale with an identity has the potential to provide place-based commonality as opposed to socially based commonality. Talen considers the sense of sharing and belonging that is associated with place-based commonality to be a common good.

All three public goods are directly related to notions of density. Properly designed dense, walkable environments make it possible for each of these three social goods to be realized in a way

that is not possible with conventional development. Compactness, mixing housing types, and uses, and providing commonly shared open spaces, all have a direct bearing on accessibility, social diversity and neighborhood identify. Ideals based on social diversity, accessibility, and neighborhood identity, in and of themselves are not likely to overcome local resistance to moderate increases in residential density. As suggested in Glendening's address to local officials in Maryland, good design is likely to be a key factor in the long-term success or failure of smart growth agendas. A mixture of income groups within close proximity to each other is unlikely to materialize if moderate and low-income housing is not designed to fit with upper-income housing. Poorly designed infill is unlikely to retain a mixture of income groups or the vibrancy typically thought of when considering quality of life issues. As smart growth agendas move forward, more time and attention must be given to the three-dimensional world that smart growth development proposes to create.

Addressing Density with New Tools in Smart Growth Agendas

Snyder (2001) and Katz (2000) also acknowledge that proponents of smart growth face opposition to density, but believe that smart growth agendas stand to benefit from an emerging suite of technical and non-technical decision support tools. Ibaugh (1999) notes that there has been a proliferation of visualization and analysis technologies that are becoming increasingly important to the public participation process. Ibaugh cites one example from Central Florida, in which a countywide GIS was built and shared cooperatively among various county departments, outside partners, and the general public. Ibaugh believes that in the near future, planning agencies will tie GIS systems into 3-D visualization technology.

Snyder (2001) notes that the U.S. Department of Energy and U.S. Environmental Protection

Agency are working with a few communities to establish regional resource centers that are locally controlled. These centers house innovative modeling and visualization technologies that serve as decision support tools for communities attempting to mitigate urban sprawl. The long-term objective of these agencies is to extend capabilities to hundreds of communities across the country. Katz (2000) highlights some of the tools that these centers would house. A partial sample includes:

- Technology combining 3-D modeling with GIS, so communities can experiment with urban designs and see quantified environmental and fiscal impacts.
- Technology that allows planning agencies to distribute information in ways so as to engage the broadest audience.
- Providing centrally located places where the community can learn about and engage in urban design.
- Using Community Vision Surveys to determine what citizens want and whether they are willing to invest public money to achieve it.
- Using photomontages to envision urban and suburban revitalization.

(DOE, 2001)

Ard (2001) notes that three-quarters of the population has difficulty visualizing how buildings will look prior to construction and that projects are often poorly understood by most people involved. He notes that in the recent past many architects and civil engineers have expended great energy on using 3-D graphics programs to remedy problems with perception, but financial costs and usability issues have hampered the widespread adoption of 3-D packages. Generally speaking, attempting to use low-end, cost effective 3-D graphics packages for project visualization has also been cumbersome and not very satisfying.

As smart growth agendas attempt to address the fear of higher densities, Katz (2000) states that the need for visual impact analysis in the approval process has become increasingly apparent to planners, architects, homebuilders, municipal officials, and real estate developers. In the past, the development approval process relied on photomontages, physical models, and elementary 3-D

animations. Ard (2001) believes these are not ideal solutions, and that 3-D visualization is a superior approach that can help a project gain approval quickly, or assist it in receiving the funding it needs in a timely manner. He identifies one particular visualization tool called RAPIDsite™ as particularly suitable for the development process. The tool essentially enables the development community to provide an infinite number of perspective drawings. People can see a project from any angle, all to scale within a matter of minutes. Tools such as these have the potential to speed up the approval process and provide the community with more information about how a project will fit with the surrounding area. A shortened approval process reduces developer costs, and therefore has the potential to lower the cost of housing.

The tools mentioned here are in various stages of evolution and their use within the planning and development professions is uneven. Katz (2000) notes that if density is to be effectively addressed, smart growth agendas will have to employ a wider range of tools to accurately depict a project's sense of place or its impact on the immediate environment. In some cases, automated tools will enable recommendations to be turned into designs within hours and help the public achieve consensus on creative or innovative plans. In other cases, there may be no substitute for a weeklong design charrette. When used intelligently, Katz (2000) believes these approaches should provided a heightened sense of direct personal experience with what is to be built, thereby improving the quality of the places smart growth agendas aim to promote.

Having considered a range of barriers, potential solutions, and pertinent issues that accompany smart growth development we now turn our attention to how these dynamics play out in four separate cities to gain a better appreciation for how barriers are actually dealt with by smart growth agendas at the local level.

SECTION II: Case Studies and Analysis

Chapter 3: Chaska, Minnesota

Chaska is a city of just over 17,000 located twenty miles southwest of Minneapolis and St. Paul. The city is part of the Twin Cities Metropolitan Area, which is expected to grow from 2,642,000 in 2000 to 3,572,000 by 2030. In just half that time, Chaska is expecting its population to nearly double to 30,000. These forecasts have caught the attention of policy makers at both the regional and local level.

The Twin Cities Metropolitan Council operates a form of regional government unique in the United States. The Governor-appointed Council is responsible for overseeing a range of activities such as the operation of regional wastewater treatment plants, bus and light rail transit systems, and regional planning initiatives. In the late 1990s, Metro Council embarked on an ambitious smart growth agenda that works with the region's local governments to approach development in new and innovative ways.[14] I chose Chaska for this study after consultation with planners at Metro Council who indicated the city had a progressive smart growth agenda in place. Chaska's approach to greenfield residential development, coupled with the fact that it is supported to some degree by one of the few well-organized, well-funded regional smart growth agendas in the country, makes it a relevant case study.

Kevin Ringwald, planning director with the City of Chaska, has worked with staff and a responsive city council to bring about significant changes in how population growth is accommodated in the years to come. A key benefit Ringwald believes Chaska has over many

[14] The details of the Twin Cities' smart growth agenda are beyond the scope of this study. More information can be found at http://www.metrocouncil.org/mnsmartgrowth .

locales is the fact that it has examples of smart growth development all around. The city has a healthy, 150 year old historic downtown core, with a wide variety of housing styles from before 1945. As the city was considering how to develop land, Ringwald notes they needed only to look out the windows of city hall.

3.1 Addressing Regulatory Barriers

Throughout the 1980s and 1990s, developers in Chaska often built $400,000 homes on 100-foot wide lots in neighborhoods with cul-de-sacs. This was what the zoning and subdivision ordinances required. A comprehensive plan adopted in 2000 established a markedly different direction, with new elements that made clear that the status quo had changed. The plan is based on five planning precepts that align closely with smart growth. 1) Neighborhoods have identifiable centers and edges. 2) The most important and visible property in a neighborhood is utilized by some public use (i.e. public buildings, parks, and plazas). 3) Neighborhood size is limited by the distance from the center to the edge, generally a five to 10 minute walk (1/4 to ½ mile radius). 4) Neighborhoods consist of an integrated network of walkable streets. 5) Neighborhoods contain diversity in land uses, building types, building sizes, building styles, and styles of ownership.

Chaska's comprehensive plan clearly maps out all areas appropriate for smart growth development. Approximately 40 percent of the jurisdiction has been developed along conventional suburban lines. Another 40 percent is slated for smart growth development or already contains historic, pre-1945 fabric. The remaining 20 percent is considered rural. The map is seen as essential in communicating clearly to all parties where smart growth development is to occur. Ringwald notes that the plan itself does a good job of explaining why development is to be treated differently in areas designated for smart growth. Under the current plan, all new development in

Chaska will be smart growth development.

In an interesting departure from many other cities, Chaska uses the planned unit development agreement (PUD) to entitle all smart growth development. Euclidean zoning, zoning overlays, and variances are all eschewed in favor of negotiation. Undeveloped land in Chaska is zoned "holding." The only entitlement a landowner has is to use it as it is currently being used, which typically means for agricultural purposes. Developers must approach the city with a concept plan that satisfactorily demonstrates how they are going to implement the appropriate sections of the comprehensive plan prior to receiving any additional zoning entitlement. Ringwald says that the PUD is used for all development because there are inevitably interests associated with a given tract of land that the city wants to protect. For example, if the comprehensive plan has identified particular woodland to preserve, the comprehensive plan gives planning staff sufficient direction on how it is to be done, taking advantage of a level of flexibility that does not accompany Euclidean zoning. Additionally the process by which projects are entitled using the PUD enables the city to encourage what Ringwald refers to as "outside the box" thinking.

The city has neither illustrated plans or zoning ordinances that illustrate the principles of smart growth development. When developers visit Ringwald in city hall he refers them to his window to get a good look at smart growth development. The view includes parts of a historic downtown and an old residential district.

Without entitlement in place, the land has relatively little value. Ringwald sees a problem in many communities that provide entitlement beforehand with Euclidean zoning then attempt to get a developer to take a risk and go in a new direction. In such cases, developers already have the right to do conventional suburban development. Local government simply does not have the right or the leverage to encourage smart growth development. Ringwald elaborates further:

> In Chaska's process they've identified these areas, so when people are coming in and buying it they're not thinking "oh I'm going to get 2.5 units per acre and $400,000 houses, and I'm going to name each cul-de-sac after each of my grandkids"; kind of the conventional mentality of residential development. In Chaska, they come in thinking "All I have is a farmstead. I don't have anything else." Developers come to us and we say, "Ok, here are the important elements that the comprehensive plan identifies for this property and if you bring us a concept plan that is consistent with that we'll approve it. And we'll give you the entitlement.

Land assembly has not proven to be a problem for smart growth development. The city requires that a neighborhood plan be done for any new section of Chaska. If there are multiple parcels, then the neighborhood plan must show how the other pieces that are not being developed immediately can be integrated and brought to market. If a five-acre parcel is developed first, followed by an 80-acre parcel at some later time, then it is likely the city would do the neighborhood planning. If the larger, 80-acre parcel is developed first, then the developer is asked to take a lead role in preparing the neighborhood plan. Land assembly aside, infrastructure concerns are a major part of the neighborhood planning process. The neighborhood planning process is a public process that involves all affected landowners.

With the exception of the comprehensive plan and its five planning precepts, there are no written guidelines for development in Chaska. The negotiation between the city and the developer is, however, very deliberate; a series of three meetings, each focusing on a different fundamental question posed by Ringwald. In the first meeting planning staff are interested in reaching consensus with the developer on whether it is their collective goal to "build a great neighborhood." The next meeting typically addresses the question "What makes a great neighborhood?" In the third meeting, more time is spent looking at the project proposal itself and answering the question: "What are those specific elements and what are those design pieces?" With these three meetings, planning staff spends time up front making sure the developer is working with the same understanding of the

comprehensive plan that they have. Ringwald goes on to say that a lot of people intuitively know what makes a great place, but that it is not something that can be quickly zoned into existence. Getting down to the details of whether a setback is 6 or 7 feet does not happen for quite some time in these negotiations.

The entire process is design driven. It differs from the traditional approach of going to the code, cross-referencing a zoning ordinance and coming up with an answer as to the right way to do it. Ringwald uses density to elaborate on this point. In Chaska, discussions about density are de-emphasized. The city's de-emphasis of a potentially contentious issue is one of the reasons why he believes their recent projects are successful. Although overall density levels are known for a project, he doubts that the planning commission knows or even cares what the levels are on individual blocks. The planning commission is concerned with whether the project has adequate amounts of open space and parking. They're concerned with whether the buildings work from an aesthetic and functional point of view. Similarly, they want to know if the price points for the houses are appropriate given the community's housing demands. And finally, they want to know if the project relates well to adjacent neighborhoods.

When discussing density levels and the role of the planning commission, Ringwald says: "Euclidean zoning has been taken to its illogical end in that there is some lack of common sense in trying to be so bureaucratic in our approach that we can write an equation for a great neighborhood." With this said, although there is a somewhat organic process in place, it is not so open that anything goes. People have to know what they are buying into and there must be some predictability. Chaska's intent is to provide some level of assurance about what is going to happen, but also providing flexibility for the parties involved.

The fact that Chaska does all development though a negotiated process undoubtedly places

more demands on the planning staff in terms of time and knowledge of design principles. Ringwald refers to Euclidean zoning as "a bureaucrat's dream" which involves little more than placing pegs in the correct hole. When describing Chaska's approach he says:

> It's not so simple the other way, and it takes a lot more thought than the other process. A lot more engagement, not just of the planning staff, but all the different divisions of the community development area and of the city to make it happen. It is a big commitment. One needs to be aware of what you're signing up for. It is a lot more work than what most people are used to.

Ringwald believes that Chaska's approach to smart growth development would work even better for larger communities. He poses a question pertaining to leadership and implementing community vision: "What would have JFK's trip to the moon speech have looked like if written by a bureaucrat?" The bigger the organization, the more it needs a person with a vision, and people underneath who can see the details. A person who understands the vision can articulate it clearly, and hand it down to the different departments. Under these circumstances, Ringwald believes Chaska's approach to development would scale well.

Many communities, especially the larger ones, tend to have a more politically driven development process than is found in Chaska. "End-runs around the planning staff", Ringwald remarks, are virtually non-existent. Staff enjoys the full support of a city council that acts more like a board of directors and less like a proxy planning director. Ringwald believes the planning department is fully empowered to carry out the intent of the comprehensive plan in its negotiations with developers. He goes on to say: "When a project proposal matches up nicely with the comprehensive planning precepts and more detailed guidelines and everyone is shaking their heads up and down, then the proposal moves forward." If not, then the planning commission and council stand behind the planning department and entitlement is not granted.

Current development proposals contain key elements of smart growth development such as

interconnected streets, a mixture of housing types, and reduced parking requirements. All are now considered standard development practices. The review process for such development has been streamlined as well. Based on conversations with developers, Ringwald believes the national norm for approving large projects and laying infrastructure is three to four years. Chaska's most recent large project was done in 7 months from conception to getting infrastructure in the ground.

Since the adoption of the 2000 comprehensive plan, the city has also taken concrete steps to ensure the community has an ample supply of moderately priced dwelling units in its smart growth communities. Chaska has relatively high land costs. The city is situated in a highly desirable geographic natural setting, with rolling hills, woodlands, streams, and lakes. Another factor is the presence of steep slopes, which tends to reduce the amount developable land. The city's goal is to bring the cost of housing down so that it is affordable for moderate-income families. They are also aware that preserving affordability over the long run must be a key consideration.

Chaska uses the density bonus to bring the unit costs down in smart growth projects. The recently approved project of Clover Ridge illustrates how the density bonus is used. Of the project's 258 acres, 180 acres was buildable land. Under a pre-smart growth scenario the developer would have been able to build approximately 2 units per acre, generating approximately 330 to 360 housing units. The designation in the new comprehensive plan for this particular area was low density, which translated into 1 to 5 units per acre. When working with the original 258 acres, it was possible to go up to 1250 units, which is exactly what the city offered for the smaller 180-acre site. The developer opted to keep the number of units under 1000 to avoid triggering an environmental impact threshold. Ringwald describes the informal way in which the smart growth density bonus was calculated:

> What the city then said was 'take your 330 that you would have expected to get under the old rules (i.e. pre-smart growth) and do anything you want with them. We're going to give

> you another 330, do anything you want with those. Finally, we are going to give you another 330 that we want you to turn into affordable housing units.' In the end, the numbers were actually increased though design. But that's how we approached it. More seat of the pants analysis rather than detailed financing on either part.

Preserving the affordability of these last 330 units required extra research on the part of the planning staff. After the planning staff had visited several other smart growth projects, it became clear these places had a dearth of affordable housing.[15] The desirability of these projects was constantly driving prices up. Chaska's planners understood how to preserve the affordability of rental housing using state and federal tax credits, but affordable home ownership proved more problematic.[16]

Preserving affordable home ownership often involves a mortgage writedown, which is to a person.[17] In order for a new owner to purchase that same property at an affordable price, another writedown is required (i.e. another subsidy is needed). Chaska wanted to implement an affordable housing program that addressed the issue in a more comprehensive and cost effective manner. Their approach was to create the Chaska Community Land Trust. The Chaska Community Land Trust is a non-profit corporation whose mission it is to create and permanently preserve affordable housing opportunities. The Trust will be initially endowed by the City of Chaska its partners. Over time, the Trust will increase the size of its endowment through fundraising activities. Although community land trusts have been around for over 30 years, Ringwald says much more attention is being paid to them now in the context of smart growth.

A community land trust purchases the land underneath the houses that are to be made affordable, thereby reducing the overall cost to the purchasing party. For example, the price of a

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[15] Staff visited several greenfield new urbanist projects in Minnesota, Oregon and Alberta.
[16] Federal tax credits are the primary ingredient, which work very well to keep costs down (i.e. HUD affordable tax credits on rental).
[17] Mortgage writedowns are typically provided by housing agencies or non-profit organizations to make a mortgage feasible to a first time buyer. The writedown might be in the form of a one-time grant, or a what is known as a second "soft" mortgage" Terms associated with soft mortgages typically requires the buyer to only make low interest payments on the loan in the early years.

house would hypothetically be reduced from $160,000 to $120,000 when a community land trust purchased the $40,000 parcel of land on which the house sits. The buyer then needs to come up with less money since the sales transaction involves only the house, not the land. In return, the buyer agrees to some restrictions on what the house can be resold for. For a one-time investment, affordability is permanently preserved. Ringwald explains why this approach appeals to the broad ideological spectrum:

> Regardless if you're a liberal or a conservative you have to like it. If you're a liberal you've got to be happy your doing affordable housing. If you're conservative, you like it because you're not continually coming back to the public trough to get more dollars.

Over time, a house in a community land trust tends to become more affordable. When a parcel is first brought into the trust, the house may not yet be affordable to someone making 80 percent of the median income. It may, for example, be affordable to someone earning more than 95 percent of the median income. A restrictive covenant would be designed in such a way to enable the seller to earn modest profit, at the same time keep the price down so that it is becoming closer to being affordable to people making 80 percent of the median income. External factors must be considered such as how fast median incomes are rising or dropping.

Chaska planners heard about the model from other planning agencies, then extensively researched the subject. A recent project called Clover Field was the city's first test on how to really do affordable, detached, single family housing. Chaska's community land trust was set up as a non-profit under the federal tax code. This approach has advantages with respect to fundraising because industry can provide sizeable amounts of affordable workforce housing and receive a tax write-off at the same time. Ringwald explains:

> The tricky thing about fundraising for affordable housing is that you have to ask for a lot of money. For example, 'We'd really like to get some affordable houses – can you give us $1 million and we can come up with 5 houses?' versus 'For a $1 million we could get you fifty houses.' We could permanently preserve affordable housing for 50 families for $1 million?

> The economics are starting to look more promising. Now it's becoming worth a company's effort or a regional agency's involvement. By looking at it a bit differently, we believe the model works in the long run. And it appeals to a broad audience because you can purchase affordable housing for a relatively small cost.

The Twin-Cities Metropolitan Council and the McKnight Foundation are interested in what Chaska is doing with affordable housing.[18] Some of the major banks are also beginning to tailor mortgages to support this approach. They consider it a low risk way of getting people into housing. As the separation between income and housing value grows, Ringwald believes community land trusts are one way for banks to keep more customers, although these organizations may not be the right model for everyone or every situation. When assessing long-term problems regarding affordability, Ringwald notes that he sees the problem compounding itself. Chaska may not be able to reverse the problem, but might be able to slow it down.

When asked about federal support in removing regulatory barriers to smart growth development, Ringwald says that the federal government has not been involved in any direct way, nor has there been any movement to adopt HUD's model rehabilitation code. Ringwald believes there is a reasonable amount of flexibility in the code today, noting that when working on one part of an existing building, one is not forced to bring the entire structure into conformance with the building codes. The codes currently deal with the building in a piecemeal fashion, and no formal analysis has been done to compare existing building codes with the HUD model.

Ironically, the federal government has made decisions recently that have increased housing costs. At issue are the environmental regulations that have been developed in the absence of any consideration of their impact upon community housing needs. Federal rules that protect

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[18] The McKnight Foundation, which is "seeking paths to a more human and secure world" has committed significant financial resources to furthering the Twin Cities Smart Growth agenda. The McKnight Foundation is at http://www.mcknight.org.

groundwater aquifers limit how deep municipalities can drill wells. Ringwald sees merit in the rules, but points out that each new well requires its own $10 million water treatment facility because of the lower water quality found at shallower depths. This has increased the cost of housing units by $5000. Units that may have been barely affordable before are less so now. Although the rules are well intentioned, and arguably quite necessary, the integration of federal concern for groundwater and local concern over housing affordability is lacking. Ringwald suspects this issue affects other communities as well.

3.2 Addressing Financial Barriers

The City of Chaska meets with external groups, including lenders, on a regular basis to discuss topics relating to planning and development. All groups are involved in the process of establishing long-range vision plans. In addition to the lenders, the city also involves adjacent communities and governmental entities in its planning activities. Planners meet with these groups and talk about issues, visions, plans, and consistency across jurisdictional boundaries. Although lenders are included in long-range vision plans, Chaska makes little effort to disseminate information on pending infrastructure improvements that goes beyond the normal public process of developing neighborhood plans. Beyond these actions, the city does not formally engage in other activities that attempt to improve the investment climate for smart growth development. Locally, developers have not experienced difficulty financing their projects.

Chaska has not become a financial partner in any smart growth projects, although its considerable involvement with affordable housing has undoubtedly made smart growth development more feasible.

Tax increment financing (TIF) is not a particularly effective way of reducing the cost of

infrastructure for smart growth development in Minnesota. Recently, the state legislature reduced the amount of money available for TIF when it transferred control for financing school districts from local government to the state. Prior to the transfer, the tax breakdown had been: school district 50%; county 35%, and city 15%. The transfer of control for schools funding to the state, cut the amount of money available for TIF in half. New state rules also limit how TIF can be used. Regardless of these changes, Chaska is now evaluating how they might use TIF in a limited way to generate dollars to buy land for their community land trust. Another tool used for revitalization, the split rate tax, has never been considered. Cities in Minnesota do not control how tax rates are assigned; therefore, Chaska could not use split rate taxes if they wanted to.

3.3 Addressing Density Related Issues

The responsibility for establishing a coherent regional vision belongs to the Twin Cities Metro Council. Although the Council has moved decisively on the issue of smart growth, Ringwald says that a firm regional vision has not yet congealed. There is an inherent difficulty in any attempt to get the mayor of any of the region's 27 cities fully engaged in issues that lie beyond his or her own political boundary. In this respect, Metro is a region in name only, although the pooling of tax resources, regional planning, and broad considerations for certain forms of infrastructure expenditures clearly distinguish it from similar collections of cities and towns found in other metropolitan regions in the United States.

The effort to establish a regional vision based on smart growth principles began with Governor Jesse Ventura's appointment of former Minnesota Senator Ted Mondale as chairman of the Twin Cities Metropolitan Council. Ringwald notes that Mondale's strong leadership on smart growth issues differs from the actions of past chairpersons. Mondale's appointment indicates the

level of support for smart growth at the state level.

Ringwald believes a regional vision is imperative. At the local level, there must be heightened awareness of the interconnectedness of issues that are often considered in purely local concerns. To this end, Metro Council has held a series of charrettes in locations around the region. In these charrettes, citizens have addressed an array of overlapping concerns that are an inherent part of smart growth, including design principles. The impact of these efforts in local communities is difficult to assess in the short term.

In Chaska, smart growth concepts are disseminated through the community in a local government newspaper published once each month. The newspaper "gets the word out" about current development activities and provides information on long-range plans. The city's web site, however, is not viewed as a strategic tool to promote urban design issues. As Ringwald noted earlier, people in Chaska often refer to the existing urban fabric when looking for examples of the kinds of places that should get built. He feels that Chaska's 150-year-old historic core and a wide range of housing types, many of which predate World War II, lend an air of authority to current efforts to promote pedestrian oriented neighborhoods with a modest mixture of commercial and office space.

The University of Minnesota has an active design center involved in outreach throughout the Twin Cities region, although it has not been directly involved in Chaska's smart growth agenda. In some cases, the University's design center works with groups of cities on issues along a common border. At other times they work exclusively with an individual city on a variety of design issues. Ringwald notes that they've done a good job of helping people to think more creatively than they might have otherwise. The loss of the center's director to the University of Virginia, coupled with the loss of his natural successor to the McKnight Foundation has temporarily diminished the design

center's involvement in outreach activities.

Since Chaska's adoption of its current comprehensive plan, two major smart growth projects have gone through the planning phase. The first project, Clover Ridge, did not involve a public charrette with an urban design orientation. Although the planning process for this 1000-unit, mixed-use project involved an intensive design review, a public charrette was not part of the process. As the project went through the public consultation process, planning staff utilized a range of visual displays that clearly demonstrated key design elements that were in keeping with the city's comprehensive plan.

When developing a site plan for its second major smart growth project, Heights of Chaska, the city did use a public charrette. Calthorpe was brought in to run a weeklong event that included multiple activities, such as a board game that residents used to choose housing styles. Ringwald notes that many people actually put more housing units down on the board than organizers originally envisioned. The charrette was considered a success, and served as a starting point for designing the 4000-unit, mixed used project. The city chose to use a charrette because of the project's complexity and the fact that officials wanted to start off with a strong base. The intensity of the design component helped them reach this goal, and produced eight possible plans for the site. Since then, Calthorpe and the city have gone though several iterations of design proposals. In the spring of 2002 they are selecting from a smaller set of preferred alternatives and will then get down to detailed design. The time and attention given to this project under the auspices of the PUD process has been considerable and highly rewarding from the planning staff's point of view.

Chaska planners use a range of additional approaches to support their effort to promote smart growth development. Every other year they hire an outside firm to do statistical surveys on a range of development related issues. In recent years, survey questions have targeted smart growth

issues such as affordable housing and mixing uses and housing types. Ringwald notes that these survey results show strong community support for these issues. Staff has also prepared graphic presentations that support a variety of outreach efforts. These presentations provide a clear sense of direction with respect to the kinds of places Chaska would like to create in the future. For example, images of low-density commercial development are presented beside computer-enhanced images depicting the same area redeveloped according to principles present in the comprehensive plan. Images of various housing types, and conceptual drawings depicting future mixed-use development in Clover Field and Chaska Heights are part of these presentations. In addition to these presentations, photomontage is used when depicting proposed in-fill projects in Chaska's historic downtown.

Although the city does use GIS, there are no plans to develop in-house capabilities to use 3-D modeling with GIS. Their current design-intensive approach to planning is considered highly functional and complete at this point in time.

Chapter 4: Austin, Texas

Throughout the 1990s, Austin, was adding an average of 1800 new people every month. The city, which had around 630,000 people in 1999, is expected to gain another 170,000 by 2010. The regional population as a whole is expected to climb to 1,452,000 over the same period. As is common in many places experiencing rapid growth, widespread concern over the impacts of conventional development patterns prompted local leaders to consider new approaches to managing change.

In 1997, the U.S. Environmental Protection Agency sponsored one of the earliest national conferences on smart growth. The conference, held in Baltimore, drew approximately 750 developers, environmentalists and public officials. Austin sent a delegation that brought back ideas that were to become the seeds of the city's smart growth agenda. The agenda receives no support from the state level, reflecting Texas' generally conservative nature and ambivalence towards land use planning. I chose Austin as a case study because it has one of the most well articulated smart growth agendas of any city in the country, yet it operates in a broader context inherently hostile to government intervention. The city's strong, incentive-based approach to smart growth (i.e. the use of zoning overlays and financial incentives to change development patterns) makes it an important jurisdiction to include in the study.

George Adams, senior planner with Austin, has been the city's principal contact on smart growth since the agenda was formed in 1998. He has been centrally involved in developing the city's smart growth strategy and has worked on new codes and incentives to support Austin's vision. Adams describes the city's efforts in cautious, pragmatic, yet optimistic terms. A great deal of progress has been made, yet smart growth development is not the preferred choice of developers outside the downtown. In 2001, the mayor and city council took additional steps to strengthen the

city's smart growth agenda so that it may evolve more quickly in a city that has often found itself struggling to keep up with growth pressures. Depending upon how recent reforms play out in the future, the strategies identified here to deal with barriers to smart growth development might only be a snapshot in a movement that grows more refined over time.

4.1 Addressing Regulatory Barriers

Austin's decade-old comprehensive plan predates the establishment of the city's smart growth agenda and does not explicitly support smart growth development. The plan has not been revisited in part because of an unpleasant history associated with the last attempt to update it. Cultural issues, Adams points out, have led to a situation where people are reluctant to revisit the comprehensive plan in a "comprehensive manner." Instead, the city began to amend its comprehensive plan with individual neighborhood plans in 1997. These plan areas generally affect from 1700 to 2000 households. Adams suggests that neighborhood planning is a way of "backing into a comprehensive plan." A few neighborhood plans have been completed to date.

Central features of Austin's smart growth agenda are its Smart Growth Map and Smart Growth Matrix, both of which were formally adopted by City Council in 1998. The Smart Growth Map divides metropolitan Austin in to two zones, a Desired Development Zone, and a Drinking Water Protection Zone. The Desired Development Zone is a contiguous area that encompasses the eastern half of the metropolitan region, which includes the downtown and older neighborhoods. Within this zone, projects are eligible to receive a range of potentially sizeable financial incentives. The Drinking Water Protection Zone, which includes most of the western half of the region, is that part of the metropolitan area where development is discouraged, but not forbidden. This zone is hillier, more sparsely developed, and considered more environmentally sensitive. Within the Drinking Water Protection Zone, subsidies for waste facilities have been eliminated and subsidies

for water facilities have been scaled back. In addition to showing the boundaries of each of the two Zones, the Smart Growth Map specifies where the city plans to establish mixed-use corridors and rail corridors.

The city considers the combination of zoning overlays and incentives to be the most effective way of promoting smart growth development. Projects within the Desired Development Zone are analyzed using the city's Smart Growth Matrix to determine how well a project aligns with the city's smart growth goals.

Austin's "Smart Growth Matrix Incentive Application Process" defines the manner in which incentives are determined. This four-stage review process, which involves the developer, city staff and city council, uses the city's Smart Growth Criteria Matrix to assess a project proposal. The city's three-page Criteria Matrix (available online) defines Austin's smart growth "goals", which in turn are further broken down into smart growth "elements". Each element has one or more "criteria" against which a project proposal is rated as illustrated in below for the element "Streetscape Treatment for Maximum Pedestrian Comfort."

Selection from Smart Growth Criteria Matrix		
Goal	**Element**	**Criteria**
Improve Our Quality Of Life	Streetscape Treatment for Maximum Pedestrian Comfort	A. Street trees min. 4" caliper 30" oc on all frontages. B. Use of smaller scale pavement (pavers or scoring) C. Rain protection (awnings, arcades) D. Maintain existing alleys or extend walkable street grid plan E. First floor at street level or within 18" F. On street parking along street frontages G. Min. 12' wide clear sidewalk along street frontage H. Provision of pedestrian scale street lighting I. Continuation of existing sidewalk networks J. Crossing treatment at street corners (bulb outs, crossings)

(source: Smart Growth Criteria Matrix, City of Austin web site)

The Criteria Matrix contains approximately 60 criteria that define, in unambiguous terms, the kinds of projects City Council would like to see proposed, and serves a purpose similar to the National Governors Association's 24-item checklist to assess smart growth project proposals. Austin has taken this concept one step further by defining a clear process by which projects are assessed using the Criteria Matrix. In general terms, the Criteria Matrix considers the project's location, proximity to mass transit, urban design characteristics, compliance with neighborhood plans, and tax implications. Depending upon how a project is rated, the developer may have development fees waved or receive substantial assistance to pay for lighting, sewers and other capital costs.

The incentives currently in place have not led to proposals for smart growth projects outside the downtown. Various neighborhood plans now have zoning overlays that support smart growth development; however, the city is still waiting for its first significant project proposal. Adams says the city is certainly trying to encourage smart growth development, but they "don't have any takers for one reason or another." The city has been working with a couple of developers who say they are almost ready for a smart growth development, but nothing has materialized. Since council has adopted the Smart Growth Matrix, several good mixed-use projects have been built in the downtown. Adams believes the Matrix has visibly improved the quality of downtown mixed-use development. Staff's critical goal is to get one or more smart growth projects built outside the downtown.

Adams believes the kind of development that the city's smart growth agenda attempts to foster requires a sustained commitment from elected leaders. He goes on to say, "You cannot do something like this for three years and expect to turn the supertanker around and change course again. Portland has been working on these issues seriously for 30 years, and is only now beginning to see some big successes."

Although it is difficult to state conclusively, Austin may be moving into a new phase. Both the council and Mayor strongly support smart growth. Recently, a council member successfully pushed for splitting the city's planning commission into two separate commissions. Prior to the split, the commission was responsible for dealing with both day-to-day and long range planning decisions. Day-to-day concerns typically overshadowed longer-term considerations. The two new commissions split responsibilities, so there is now a commission charged exclusively with looking at comprehensive planning issues and revising codes to support smart growth development. Although the city has smart growth codes, Adams believes they are not as cohesive and easy to work with as they will be in the future. The new commission, which is staffed by long range planners and a new urban design group, has the potential to make significant progress with respect to comprehensive planning and amendments to codes that are more supportive of smart growth development.

Currently there are no districts in Austin where smart growth development can happen "as of right", although 'as of right' development is an achievable goal now that the city's second planning commission is in place. In the future, planners hope to work with neighborhoods to adopt overlays to allow smart growth development as of right. After consultation with the community, council must formally adopt the overlay into the neighborhood plans in question. Adams says, "It's still fairly early in the process, but generally I've been pleasantly surprised that despite all the bluster and opposition, many of the neighborhoods have advocated for at least some of the ideas in certain locations, along major corridors, at the site of underutilized strip malls etc."

Unlike some cities with smart growth agendas, Austin receives no support from the state level. External funds to develop codes are non-existent and the process is time consuming. The creation of the new planning commission, and increased staffing to specifically address smart

growth issues, encourages Adams.

Smart growth development can be entitled using a PUD. The flexibility associated with a PUD in Austin is considered both a pro and con, depending upon one's point of view. On one hand, Austin's development community is comfortable with PUDs. Even if developers are trying to incorporate elements of smart growth into their project they feel as if they are in charge because they're familiar with how to negotiate PUDs with the city. On the other hand, PUDs in Austin do not really work that well to promote smart growth development. The absence of clear guidelines means that the city may or may not wind up with a project that meets its smart growth objectives. Adams notes that projects have had the "smart growth" label attached to them that are either hybrids or projects with political clout. The reality is that these projects are nothing very different than everything else being built on the urban fringe. Because the goals associated with PUD ordinance are currently vague, Austin's planners would like to develop criteria, and include a checklist that can be used in the process. Such a move would not be made unilaterally without the input of the development community. All major changes to the codes involve the development community for pragmatic reasons, political and otherwise.

In a of couple instances, developments with smart growth attributes have been entitled using variances. Although not considered an efficient use of time, under certain circumstances this is the only option.

Adams notes that the entire development climate did not suddenly change overnight with the establishment of the city's smart growth agenda in 1998. His use of the phrase, "We still have a long way to go" serves as a reminder that the removal of barriers to smart growth development takes sustained commitment, a refinement of ideas, and time.

When discussing developing regulations supportive of smart growth development, Adams

identified several problematic issues. Ideally, a regional or countywide framework for growth and infrastructure would reinforce smart growth codes. In Texas, however, there is relatively little interest in smart growth or planning in general. In greater metropolitan Austin there is no regional planning going on, and counties have limited planning authority in the state. This translates into the absence of an institutional framework for regional planning in Texas. A discussion is taking place within the region about developing a program based on the Envision Utah model with Fregonese-Calthorpe Associates. Although Austin would support such an effort, it does not plan to take on a central role out of concern that its relatively liberal bias and influence in the region would undermine a more inclusive process.

Another difficulty in creating codes supportive of smart growth development relates to the emphasis on providing moderately priced dwelling units. Austin's "Smart Housing" program is attempting to integrate smart growth principles into affordable housing development, but the department tends to "bump heads" with local housing agencies that tend to focus exclusively on affordability. The planning department is currently attempting to introduce other considerations into the decision making process. Progress between the two groups is being made, but this dynamic does complicate the integration of affordable housing into smart growth policies.

Interconnected street systems and smaller block sizes, which are considered to be an integral part of smart growth codes, are a contentious issue in Austin. There has been an ongoing debate regarding updates to the subdivision code that would require street interconnectivity. Austin's development community believes that such a requirement would drive up the cost of housing and make communities less affordable. Adams realizes some developers want to do their standard 4 to 6 unit per acre single-family subdivision and leave it at that. On the other side of the issue are a small number of dedicated advocates who believe interconnected streets are needed for

regional mobility and livability. Adams considers this to be a messy issue, noting that the argument in favor of interconnected streets and lower overall infrastructure costs is a valid one when considering smart growth development. The problem is that unless the city forces developers to build at higher densities that allow for the possibility of a mixture of uses – which is not considered a feasible option in Austin – then any discussion of interconnected streets is accompanied by complaints about increased developer costs. In this context, there are other concerns to be considered as well, such as infrastructure costs and air quality, but as Adams notes, "sometimes people are not willing to look that far ahead."

Smart growth codes typically reduce minimum parking requirements. Planners in Austin are working on this issue but change has not made its way through the system yet. The recent attention given to staffing and splitting out comprehensive planning and code development from day to day concerns may have an impact on parking reduction as well as many other issues. The city has had more success with prohibiting large parking lots in front of buildings. Austin's very young Corridor Planning Program attempts to address just this sort of issue. Adams notes that the program, which seeks to transform strip development into main street development, is very exciting, but it is also a long-term effort and is expensive.

Attempts to use residential and commercial density and lot development standards to achieve more compact development have yielded mixed results. Depending on where in the city this is tried, it can be problematic. Similarly, attempt to achieve quality design that reflects the massing of traditional communities has its limitations. Texas state law limits what can actually take place in a design review. Outside historic areas heights, setback restrictions and the like are acceptable evaluation criteria. Beyond elementary design issues, however, there is little control over design. The kind of design review boards that work in Boston could not exist in Austin.

When asked about the laudable goal of giving smart growth development a competitive advantage over single use developments in the review process, Adams responds, "The department has tried to do just this, but efforts have been frustrated." Many planners working in high growth regions may share his reflections on the nature of development: "Our development process is this beast that has a life of its own. You'd think you can control it, but it doesn't seem like anyone can. Adding to that, we've had such a high level of development, and there have been so many projects that have been competing for this expedited review process whether it has been a major employer or a downtown project – somebody with enough political stroke to say 'get us through the process'. It's been really tough to have any type of prioritization that makes sense."

Early on in Austin's smart growth efforts, Adams developed an illustrated Traditional Neighborhood Development Guide, to clearly demonstrate the kind of development that the city hoped to see with respect to design.[19] It has not, however, been a straightforward process to adopt codes that abide by the development guide. If the guide were done today Adams would do it differently. He notes that things have progressed a great deal since the manual was written, not just in Austin, but also across the country.

The federal role in smart growth is evident in Austin, but it is been outside the realm of removing regulatory barriers. No federal money has been used for developing new codes, nor has HUD's model rehabilitation code been adopted to jumpstart renovation efforts. Unlike east coast cities, which have an overabundance of underutilized housing stock, Austin is a comparatively new city. As such, there has been little interest in adopting a version of HUD's model rehabilitation code in order to jumpstart renovation activity.

The federal government has provided money for open space preservation in the Drinking

[19] Austin's planning department received an APA award for the manual in 1997.

Water Protection Zone, under the auspices of the Endangered Species Act. TEA-21 money has funded preliminary engineering studies for light rail. The lack of state level interest in light rail is seen a limiting factor in the development of a region-wide system.

Although Austin has created zoning overlays to encourage do smart growth development, Adams points out that collectively they are not as sympathetic to smart growth as they need to be. To illustrate this point he describes the conflict between a mixed-use overlay and something called "compatibility standards." Mixed-use overlays are now available in many areas along major corridors that have gone through the neighborhood planning process since 1997. Compatibility standards, established in the late 1970s to preserve residential character, contain regulations that establish minimum setback requirements and building height restrictions. With these standards still in place, Adams says that developers are hard pressed to redevelop a relatively narrow band of existing development as a mixed-use project. The obvious solution is simply to rework the codes, but finite planning resources in a city experiencing rapid growth have not been able to address every regulatory complication at the local level.

Since Austin established its smart growth agenda in 1998, Adams has been the principal planning resource people turn to. Other staff members have been involved, but writing and amending smart growth codes have principally been his responsibility. The creation of the city's new planning commission, coupled with the hiring of new planning staff specifically focused on smart growth, should move the city in the desired direction. Although these changes are only recent, Adams says they have already made a major contribution and he is hopeful that the pace of change will pick up.

4.2 Addressing Financial Barriers

Austin became an active partner in financing smart growth development when it established its Desired Development Zone and began to provide fee waivers and infrastructure improvements. The dollar amount associated with these incentives depends upon how a project rates according to the Smart Growth Matrix. At the low end of the scale, the city evaluated an $8 million dollar project using the Matrix and provided the developer with roughly $100,000 in fee waivers. At the high end, a $95 million project received $1 million in waivers. Although these figures are a small percentage of the projects' value, they do get the attention of developers. The maximum values theoretically available to developers will not always coincide with reality because of the difficulty of finding the money. Adams says: "If we had a dedicated source of funding for these incentives it would make life much easier, but we don't."

The city has made other changes that relate to how developers are reimbursed for oversizing major infrastructure lines. The city now provides incentives for developers to put in oversized lines in the Desired Development Zone, and has removed much of the financial support for infrastructure in the Drinking Water Protection Zone. At the same time Austin is working very hard to get the capital improvement process in line with the goals of the smart growth agenda. One thing the city has yet to do is include lenders in the process of comprehensive long range planning or neighborhood planning.

Similarly, there is currently little coordination between local government leaders and lenders to integrate federal and state affordable housing programs into smart growth projects. As mentioned earlier, city housing agencies focus on affordable housing. They have not yet had their efforts integrated into a major smart growth project. The city's Smart Housing project does, however, provide public employees with financial aid that enables them to live in Austin proper.

The Smart Housing project, started in early 2000, is an initiative that produces affordable, mixed-income housing near public transportation. The developers involved with the project are asked to volunteer to meet "Green Builder Standards.[20]" This program has exceeded the initial expectations, and has delivered nearly 6000 new affordable single-family or multi-family housing units to the market. Various builders and architects are members of the Green Building Program. Adams points out that the Smart Housing program is not formally connected with the city's smart growth agenda, but he hopes the two come together, as there are obvious overlapping interests and concerns.

Political problems associated with tax increment financing (TIF) have limited the use of this tool in promoting smart growth development. There have been discussions regarding the use of TIF; however the different taxing entities (i.e. the city, county, and school district) have not agreed on how TIF might be used. The school district garners the bulk of the tax revenues and has not explicitly agreed to use it to support smart growth. The smart growth matrix might be considered a limited application of TIF, but the constrained income stream limits its application. Substantially more cash would be available for smart growth incentives if the county and school district agreed to bring in TIF. Finally, Adams notes that split rate property taxes are not used by the city as a revitalization tool, nor are public employee pension funds invested by the city as a way of making long term mixed use projects feasible.

[20] Austin's Green Building Program rates houses in five areas: energy efficiency, water efficiency, materials efficiency, health and safety, and community.

4.3 Addressing Density Related Issues

Austin is increasingly using public charrettes with an urban design orientation to make the case for mixed-use, compact development. Adams says that in the past they've made the mistake of talking about a project in terms of densities. "Even in places that are fairly progressive, you are asking for trouble by speaking in terms of density. We've moved in the direction of trying to use graphics, be it computer images or drawings, to demonstrate what we're talking about." Beyond the downtown he points to a dearth of "excellent, on the ground projects that demonstrate smart growth principles". Currently the city is "trying desperately" to get some of those types of projects built to provide a sorely needed example for others. The city has worked with private developers to produce concept plans based on smart growth principles for the redevelopment of the city's original airport, and a large greenfield project in northeast Austin. When these projects are complete in a few years time, Austin will have the kinds of projects outside the downtown that Adams says are necessary to bring about widespread change.

Outreach efforts to promote smart growth concepts have been made on a modest scale in the past. In 1998, shortly after the smart growth initiative was formally announced, the planning department held several public presentations with visual preference surveys. The presentations were typically held with small groups in community centers and libraries. Another outreach effort involved hiring a consultant to develop a visual survey geared towards providing residents with ideas about how the western half of the region could be developed in a relatively ecologically sensitive manner. A number of roads run through the western half of greater Austin, where people in the region want to preserve scenic beauty. Adams notes that sometimes these efforts have met with success, while other times they have not. General concern over the future of this area was one of the driving forces behind the establishment of the Drinking Water Protection Zone. The

consultant's survey, which provided visual examples of clustering and other conservation oriented development approaches, was put on the city web site for six weeks.

Currently the planning department is working on a major update to its web site. They plan to add visual examples of development that illustrate important smart growth urban design concepts. The planning department will also add a question and answer section to address the myths that have been attached to Austin's smart growth agenda. One that figures prominently, Adams notes, is that the city is attempting to impose higher density housing on every neighborhood.

Although Austin does not have a community design center, it did recently establish an urban design division. This division is made up of two landscape architects, two architects, and three urban planners. Adams considers this move a big step in the right direction. The new division head, an architect formerly in private practice in Austin, is regarded as a great asset to the city. These developments reflect the increased emphasis that the city is now placing on urban design.

In the past, design related efforts were ad hoc. In the case of one well-publicized project, the Triangle, the city and state paid to bring Calthorpe to town for a charrette. His organization was able to generate some consensus with respect to what could be accomplished. The Triangle's development was scheduled to begin, but the residential component was dealt a setback because of decreased rental demand in the current (2002) economic slowdown.

With increasing frequency, the urban design division is doing public charrettes during the neighborhood planning process. When looking at how to develop a large tract of land or redevelop a greyfield, the urban design staff works with the rest of the planning staff and the community to come up with a vision for the site. Adams notes that these visions do not have any "keys" in terms of codes, but a vision is established, whereas in the past, this might not have been the case.

The city uses photomontage on a regular basis in its presentations, and to some extent

during the neighborhood planning process. Urban design staff are also using photomontage as they begin to develop district and master plans that support smart growth development. Adams points out two examples of planning efforts involving urban design staff. The first is at the edge of the downtown, where a 1950s-era power plant resides. This entire area will eventually be redeveloped, either jointly with a private developer, or by the city alone if turned into a public facility. In the second example, the urban design staff are working on a master plan for streetscape improvements in the downtown. This project is more complicated because there are multiple property owners involved. Photomontage and charrettes will be used to work though a range of issues such as changing one-way streets to two-way streets, and providing adequate access to an existing parking garage. The urban design staff is also coming up to speed on recently acquired 3-D modeling tied into GIS, although the new system has not yet been used extensively.

In the past, the planning department has used community vision surveys to find out if respondents are willing to invest public money for projects. Adams notes that in some cases, local examples to choose from have been between "bad" and "worse." In those situations, asking what people prefer is a questionable exercise. More recently, community vision surveys have been used effectively to engage people on the question of whether the city should attempt to move away from typical strip development, towards nodal, compact development. Generally, these surveys have been well received, with approximately 70 percent of respondents favoring smart growth development principles. Adams reiterates the lessons learned with respect to density: "Showing people development that is at 10 units per acre elicits a very different response than when one talks about 10 units per acre."

Adams indicates that the planning department does have performance measurements in their departmental business. These measurements consider things like the number of mixed-use

development projects in the downtown. While they provide some indication of where the city is headed, the system is not comprehensive. Adams is not sure if they really have a system in place that is asking all the right questions or providing them with all the information they need. In the end, he believes it is critically important to have performance measurements in place, or else it is difficult to tell how effective smart growth policies are.

Chapter 5: Salt Lake City, Utah

The population of the Greater Wasatch Region, of which Salt Lake City is a part, is projected to grow from 1.7 to 2.7 million people by the year 2020. Widespread concern over how another million people could be accommodated while maintaining the region's high quality of life led to creation of Envision Utah, one of the most well developed regional-level smart growth agendas in the United States today. It was important for my research to include a jurisdiction operating in the context of Envision Utah's regional smart growth agenda—a bottom up approach to smart growth that takes into account Utah's inherently conservative nature.

Representatives with Envision Utah indicated that Salt Lake City led on many issues related to removing barriers to smart growth development. With 182,000 residents, the city serves as the region's economic hub and plays a leadership role in smart growth planning at the local level. Mayor Ross Anderson has made a sustainable development program, called Green City, a central focus of his administration. The program seeks to construct a comprehensive and practical approach to dealing with economic and environmental concerns, issues that the mayor says can no longer be considered in isolation. Green City's concerns extend beyond land use planning and include issues such as reducing waste and developing a state of the art high performance-building program to drastically reduce greenhouse gas emissions.

Regional and municipal level efforts are attempting to deal with the forces of decentralization and entrenched attitudes regarding the relationship between regional transportation and growth. Anderson's commitment to smart growth is clearly visible to those familiar with his progress to date. Steven Goldsmith, Salt Lake City's planning director, works closely with Mayor Anderson to develop a range of programs to further the city's commitment to walkable, convenient,

healthy communities that are conducive to providing a range of transportation options. In preparation for the 2002 Winter Olympics, Goldsmith organized a symposium called the *Physical Fitness of Cities*, to highlight the best contemporary city building practices in the world. Proceedings from this symposium were refined and turned into an exhibition for the city's Olympic visitors. The purpose of the exhibition was not only to highlight what the world is doing, but also show the world how Salt Lake City plans to play a leading role in smart growth in the years ahead.

5.1 Addressing Regulatory Barriers

In the late 1990s, the Salt Lake City Futures Commission developed a series of initiatives to support the creation of a vision for the city. The 78-page multi-part vision statement reflected the work of a 75-member body that included members of Congress and the city's planning department. A Built Environment Subcommittee generated a detailed set of guidelines and recommendations in line with smart growth development principles. The city's vision statement, coupled with the Green City Program, provides the context in which comprehensive planning takes place today.

Salt Lake City's comprehensive plan is made up of seven master plans (i.e. district plans), most of which are available on the city's web site. The plans guide development in sections of the city that have different physical and social characteristics. The city, which covers 111 square miles, includes historic residential neighborhoods, conventional post-war fabric, and the whole range of attendant problems that smart growth attempts to redress. Several of the master plans guiding development in pre-1945 sections of the city support smart growth development in very obvious ways. Some of these master plans read like well-written manuals on smart growth. The central city plan is perhaps the best example, although not the only one.

The central city master plan emphasizes a kind of development that creates a high quality,

pedestrian friendly environment where residents do not need to use an automobile to live, work and play. This particular plan area extends well beyond the downtown and includes many neighborhoods and commercial areas. The plan further identifies sub-planning areas, typically at the neighborhood level. Historical, economic and demographic information for each sub-planning area is used to construct a useful analysis of what is actually happening on the ground. Livability issues, such as traffic noise and the lack of affordable housing, receive attention, as does information collected from residents during the public planning process. For example, in one case the plan notes that residents in a certain neighborhood planning area are not bothered by particular non-conforming uses. The time and attention spent on these narratives places the planning staff in a better position to understand how smart growth might play out in any given section of the city. Master plans using the central city format are one part vision and one part pragmatic reality.

Goldsmith notes that in conjunction with master-planning efforts, the city is developing new citywide zoning ordinances that support smart growth development. At a later time, these ordinances might be accompanied by a series of illustrations to depict design elements associated with smart growth. Changes to the zoning ordinances affect all master plans without making explicit updates to those plans. Master plans that employ particular zones are updated automatically because the ordinance describing the use and character of those zones have been updated to reflect smart growth principles.

Recently, the city worked with businesses, property owners and developers to create a new walkable communities ordinance to help reduce or eliminate strip development. Goldsmith says the ordinance provides guidance on how development should work to create a street wall that supports pedestrian activity. The ordinance is designed to encourage building practices that make walking a more enjoyable experience throughout the city, while at the same time attend to the needs of

businesses.

The city is also in the process of developing a performance-zoning overlay, which like other ordinance updates, has potential applicability throughout the city. The planning department has found that fundamental elements of smart growth (such as creating mixed-use, walkable neighborhoods) are prohibited because of the segregation of conventional zoning. The performance-zoning overlay will be designed to address such barriers. Goldsmith offers an example of how overlay works.

> Often times, a coffee shop cannot go into a neighborhood because it would violate the base ordinance. Initially, people say, this coffee shop is reasonable; let's see what we can do to make the ordinance work. Then you try to tweak the base ordinance and a whole range of "what if" issues arise, such as "what if it's a coffee shop with music late at night?"
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> So, what we are doing is designing performance zoning overlays that say "Ok, the base zoning says you cannot put in a coffee shop, but if it meets the following criteria"—very much like a conditional use—"such as: the shop will operate on these hours, is not going to have this type of parking etc.", then the petitioner can go with the base zoning or the performance zoning.

The state government's Quality Growth Commission and Envision Utah are jointly funding the development of the performance zoning overlay, which is due to be complete at the end of 2002. In the past, Envision Utah has benefited from experience gained in Salt Lake City on a range of smart growth issues, including codes. Practical experience with this new performance zoning overly might also serve as a model for other parts of Northern Utah.

Goldsmith notes that staff has not yet developed policy instruments to increase the likelihood the zoning overlay will be used. Incentives may or may not be necessary. The overlay's primarily purpose is to allow for infill development. It is being designed to allow for the base-zoning user to continue on with the quiet enjoyment of a live-space or work-space, and allow for the introduction of a new use that does not in any way diminish quality of life.

Other ordinances have been designed with the intent of bringing people back downtown to live. As part of a new transit oriented development ordinance, Salt Lake City requires that housing be a component of all commercial development adjacent to the newest light rail line. Similar mixed-use ordinances, some of which predate smart growth, are used elsewhere to require that residential uses be mixed with office and commercial development.

The city is in the process of mapping out areas that are appropriate for smart growth development. In the future, they may also use PUDs to entitle smart growth development, although the process is not currently attached to the Green City program. Variances are simply not part of the picture.

With the exception of the state grant for the smart growth performance zoning overlay, Salt Lake City has not received assistance from other federal agencies to removing regulatory barriers, nor does it plan to adopt HUD's model renovation code. The city has worked, however, with the Department of Energy to develop a high performance grade building program that Goldsmith considers to be one of the more important elements of the Green City initiative.

In general, Goldsmith sees few problems related to entitling smart growth projects in the future. For example, the city's new walkable communities ordinance addresses the issue of parking lots in front of buildings; general parking requirements were scaled back several years ago. The process of narrowing streets is not considered a problem, in part because Salt Lake City has the widest streets of any city in the United States. Goldsmith jokes that narrowing streets are meaningless in this context, and goes on to say that one of the mayor's top priorities is to increase pedestrian safety by reducing excessive street widths. To this end, the mayor has doubled the staffing of the city's traffic calming program. Building new residential streets at widths narrower than 36 feet is not viewed as problematic, in part because of a good working relationship with the

fire department. Goldsmith indicates fire officials are easy to work with on these kinds of issues.

No policies provide smart growth development with an advantage over conventional development. The emerging goals laid out in the master plans, coupled with changes in ordinances will at the very least provide developers with clear options to propose smart growth projects and receive timely approval. Incentive bonuses and density bonuses are being discussed but are not formally in place.

Goldsmith attributes many of the changes in development strategies to the work of non-profit organizations (NPOs), at both the local and national level. The NPOs, because of their work primarily in affordable housing, have been able to come forward and say:

> Look, urban redevelopment is a smart growth strategy. The public sector needs to be investing its limited tax credit dollars and available funds into urban housing for a number of reasons. Three of which are transportation opportunities, education opportunities, and job opportunities. So there's a shift, because of the NPOs forcing the hand of the public sector. This has been going on for 20 years in Salt Lake City, so we could not say that because of the leadership of the APA or some other smart growth initiative made these changes. The entire smart growth movement in the U.S. has been NPO based anyway, and other groups are attaching themselves to the hard work of the NPOs, saying, 'look we've got smart growth', whether its ULI, APA or anyone else.

At the national level, a couple of NPOs stand out in Goldsmith's mind as having helped to develop much of smart growth's intellectual capital. Two of these are the Enterprise Foundation and the Local Initiatives Support Corporation. The Local Initiatives Support Corporation is one of several community development corporations across the nation that reinforces the economic and social foundation of neighborhoods and towns in an attempt to reverse years of disinvestment and decay. Foundations, for-profit corporations, and individuals fund these efforts.

When asked about the significance of Envision Utah, Goldsmith says that the organization has helped to change the vocabulary used when discussing place making. Their efforts have helped people to understand more clearly the choices they have as populations grow ever larger. When

speaking of Envision Utah's central principles, Goldsmith says: "There is a realization that old urbanism is the most intelligent way to develop land in a finite ecosystem."

5.2 Addressing Financial Barriers

Within the context of establishing long range vision plans, the city has held workshops with lenders to talk about funding strategies such as shared risk pools, and the possibility of creating a cooperative bank for affordable housing. Goldsmith describes a shared risk pool as a group of six or seven lenders who pool their money into a single non-profit bank. These lenders then use some kind of valuation process to determine whether or not they would loan money to a particular project that meets objectives that would include smart growth.

This approach was used to finance a recent $12.5 million innovative project known as the "Bridge Project", a mixed use, affordable housing development located on a former brownfield. A residential component includes sixty-four one, two and three bedroom units for people with AIDs and other special needs. Live-work spaces are also a part of the mix. Rents run from $350 to $700 per month. The Project houses non-profit tenants including the Salt Lake City Community College Writing Center, Trees Utah, a public art gallery, and a forum for multiculturalism. Retail and commercial operations also operate on the site.

Goldsmith says that the city uses its community development block grants and other forms of redevelopment in ways consistent with smart growth strategies. Additionally, the city recruits small business to either stay or establish themselves in neighborhoods. A revolving loan fund is used to support these efforts.

Tax increment financing has been used in the city's designated redevelopment districts. A decision whether to use TIF is made on a case-by-case basis and depends upon the needs of the

applicant. TIF is often used to write down the cost of a property on which the developer is trying to create affordable housing or a mixture of uses. Goldsmith notes that educational tax revenue is part of the TIF mixture in Salt Lake City; hence TIF is a relatively useful tool for revitalization. Split rate tax, however, is not used, nor are employee pension funds invested in smart growth development.

Since the Bridge Project, Goldsmith sees few barriers to financing smart growth development. Initially, Artspace, the developer for the Bridge Project, was able to secure a construction loan, but had difficulty finding a lender for long-term financing. [21] Goldsmith notes:

> They did not believe that you could move people into dilapidated neighborhoods in adaptive reuse and live/work was just not marketable. And even though they had pre-leased every unit, they could not find any lenders. They even had the National Cooperative Bank in Washington DC ready to do the "take out" (permanent financing) and they still could not find a bridge lender in Salt Lake.[22] Those barriers have been broken because the NPOs have been persistent in helping people realize these are good projects. There is not only a market for these projects, but they save money in the long term and contribute to long term investment strategies for cities such as inner city growth. Today, in many respects it is the opposite situation. You have lender after lender saying we want to do one of these.

It is not so much the city, but rather NPOs like Artspace that have broken down the financial barriers. In fact, Goldsmith notes that NPOs and NGOs lead internationally on these kinds of issues. He links this back to his earlier comment regarding changing development strategies in the city. In general, he considers NGOs to be the "brain trust" behind smart growth. The United Nations Environmental Program (UNEP) is one of the critical members of this brain trust. UNEP maintains an ongoing dialogue with the non-profit organizations, attends conferences, and engages in many other activities that established an essential intellectual base for the changes we are now seeing. Over time, the collective efforts of these organizations have broadened the understanding of

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[21] Artspace is a Salt Lake City-based arts and community-building nonprofit organization that is creating affordable housing and workspaces for artists.

[22] A Bridge Loan is short term financing that enables a borrower to close on a project in a timely manner, until

the connectedness of the issues. Goldsmith notes that this is where the city's high performance green building policy originated and goes on to say: "Smart growth is incomplete without assessing the ecological footprint of each individual project and making sure that it's part of a broader system. It's essential."

5.3 Addressing Density Related Issues

When asked how the city attempts to address opposition to higher densities constructively, Goldsmith responds, "Visual literacy, visual literacy, visual literacy." He goes on to note that density issues remain in Salt Lake City. These issues are addressed in different ways with different audiences. One of the most effective tactics he has used in raising the level of comfort with density is simply walking people though model projects done by NPOs in the city. Often incredulous, viewers ask pointed questions such as, "Is this affordable housing?" or "Is this 50 units to the acre?" or "There are families that live here?" Invariably the visitors end such tours favorably impressed.

The early efforts of NPOs to deliver these mixed-use products benefited greatly from the work of the community design center associated with the University of Utah. In some cases partnerships between the community design center and NPOs were instrumental in projects getting off the ground. The community design center deals with a wide range of issues, such as, long-term transportation infrastructure, emergency home repair for poor elderly residents, and competitions for new housing types.

Another approach Goldsmith used to engage audiences on the density issue is to compare specific European cities to Salt Lake City. These are cities Salt Lake City residents pay money to visit; cities where the quality of life is perceived as being quite high. Many in Goldsmith's audience

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permanent funding is in place.

would like to live in a city like Vienna or Paris. In response to the favorable images these cities convey, Goldsmith points out their urban densities. In both his approaches, the message is the same. Higher density environments and quality of life are not necessarily mutually exclusive.

Planning staff use a variety of approaches to engage citizens constructively on issues relating to density. In some cases, either the mayor or members of his staff ask the planning department to organize a charrette for a particular site design when they believe that extra attention is necessary to get a project moving in a direction consistent with the city's goals. Under these circumstances, the city brings in consultants to help run the charrette.

Goldsmith notes that photomontage (i.e. Photoshop modeling) is used extensively to demonstrate the impact a project will have on a surrounding area. In fact, he says that staff use this technique every chance they get, describing it as "extraordinarily effective." The planning department is currently searching for a full-time information technology person to focus exclusively on photomontage and other emerging technologies such as 3-D modeling.

The value of photomontage was recently demonstrated in a project done with the mayor's office that focused on improving pedestrian safety and accessibility. The city was working on making a particular commercial node more identifiable and pedestrian friendly. A series of Photoshop models demonstrated how narrowing the road, adding a tree-lined median, and augmenting parking would dramatically improve the desirability of the thoroughfare and surrounding area.

Both the mayor and Goldsmith take the opportunity to speak directly or indirectly about smart growth in a variety of venues. The mayor regularly talks about the Green City program on the radio. Goldsmith does a radio show once a month in which he discusses the future of urban form. The city also disseminates smart growth development concepts in publications that go to

community organizations, developers and other policy makers. One such recent publication, *Towards a Walkable Downtown*, is a handbook on implementation strategies to get people on their feet.

The city's web site is used as a strategic tool to communicate to the public the direction that the mayor would like to take the city. The site contains examples of housing at moderately higher densities that emphasize the notion that walkable communities can deliver a high quality of life. A new website is being developed to deliver the core content of the recently held symposium, *The Physical Fitness of Cities and Ethics of City Building*. This standalone site will be accessible from the Salt Lake City's web site and will include streaming audio/video segments that illustrate best practices from around the world to Olympic visitors. While the target audience is the general public, Goldsmith is particularly interested in students, who are tomorrow's consumers. He believes in the influence of what is called "visual memory." If good visual memories can be created today using a variety of means, not just videos, then perhaps people can tap into those memories later. These efforts all rest on the premise that changes in urban form, coupled with other factors can improve citizen quality of life.

Chapter 6: Gaithersburg, Maryland

Maryland established the basis of its smart growth agenda with the passage of the 1992 Economic Growth, Resource, Protection and Planning Act. The Act reoriented the way citizens, developers, counties, towns, and the state approached planning and resource protection by requiring counties and cities to prepare comprehensive plans in accordance with state goals. In 1997, Maryland passed the Smart Growth and Neighborhood Conservation Areas Act, which required local government to establish "priority funding areas" in which growth would be accommodated. The state's capital expenditures could no longer be directed to projects outside these priority-funding areas. Under the leadership of Governor Parris Glendening, several other laws have been enacted, that collectively provide planners at the local level with one of the most progressive incentive-based planning environments in the country.

I thought it was essential my research include at least one local smart growth agenda from Maryland. Planners with the Maryland Department of Planning suggested Gaithersburg should be examined because of its considerable progress to date on a range of issues pertaining to smart growth. Jennifer Russel, planning director with the City of Gaithersburg, has been working with fundamental elements of smart growth development since her involvement with Andres Duany and Elizabeth Plater-Zyberk during the development of Kentlands in the late 1980s. Since then, Gaithersburg has led on most growth related issues, and is looked to as a model for smart growth across the country.

6.1 Addressing Regulatory Barriers

In 1999, the City of Gaithersburg formally adopted a smart growth policy into its comprehensive plan. The policy acts as an "umbrella" over other elements of the comprehensive plan, and coordinates city programs that have an impact on development. The policy provides considerable guidance on the quality of development. Russel says by adopting the smart growth policy, the city sent a message to the local development community regarding its belief in the benefits of pedestrian oriented development. The fact that Gaithersburg had the political backing at both the local and state level for smart growth put the city in a better position than many other jurisdictions. Governor Glendening had taken smart growth to a national level. Russel believes this will be the governor's legacy.

The roots of political support for smart growth extend to the mid 1980s, when Gaithersburg was involved with the advent of Kentlands with Joe Alfandre and Andres Duany. At that time, planning staff expended a lot of energy educating elected officials. Afterward, planners began working with non-residential developers trying to sell them on the tenets of smart growth development. Russel found this a challenging experience, with many stumbling blocks encountered in dealing with the development of commercial property.

Planning staff understood that if their city council indeed bought into the concepts of smart growth it would be critical to adopt a policy into the comprehensive plan to effectively deal with the barriers they were facing with non-residential development. Russel notes that the adoption of the smart growth policy in 1999 sent a message that said to the development community, "when developing in Gaithersburg, you either do it our way or we don't want you." Gaithersburg, which is part of the Washington D.C. metro area, had consistently high growth rates. The city did not have to promote economic development. Gaithersburg had the location, and people wanted to come to

live there.

The city's comprehensive plan maps out areas appropriate for smart growth development and the accompanying smart growth policy is well illustrated so as to clearly demonstrate a wide range of smart growth design principles. Russel notes that in Gaithersburg, it is "generally accepted" that that the comprehensive plan and the smart growth policy are important documents that reflect the vision for the city.

Between 15-20 percent of the city is not built out. The east side of the city is older and built according to conventional development patterns. The west side of the city is newer and has been built since the 1980s. Approximately 60 percent of development on the west side is smart growth oriented. Much of this development (i.e. Kentlands and Lakelands) predates the adoption of the city's smart growth umbrella policy. At the present time the planning department is beginning the process of overhauling the comprehensive plan. [23]

Gaithersburg is currently experiencing a backlash against growth and will soon issue a "residential slowdown", to remain in effect until certain issues associated with the comprehensive plan are addressed. The issues primarily relate to the transportation system and schools. Political considerations that accompany these concerns will have to be dealt with in parallel to the comprehensive planning effort. In Gaithersburg, the issue is complicated somewhat by the fact that the city does not have control over the schools. Education is a responsibility of the county. Funding for schools, which are currently experiencing tremendous capacity problems, comes from the county and the state. This lack of control over the schools complicates the process of updating the comprehensive plan and has direct implications for the plan's smart growth orientation. For example, a textbook case of smart growth—a TOD proposal with great design elements near

[23] Maryland law requires that comprehensive plans be updated every six years.

transit—is not generating universal enthusiasm because of these other considerations.

Gaithersburg entitles smart growth development using one of three zoning ordinances: the Mixed Use Development (MXD) zone, the Central Business District (CBD) zone, or the Corridor Development (CD) zone. Each is Euclidean in orientation, in that regulations attach to a particular parcel. The regulations do, however, provide for a great deal of flexibility and focus on good design. Although the MXD, CD, and CBD zoning ordinances themselves are not illustrated, each is tied to illustrative plans or policies to demonstrate the intent of the regulations.

The MXD zone, which now applies to approximately 60 percent of the land in the western half of the city, was initially adopted during the implementation of Kentlands. Illustrations that demonstrate key elements of the MXD zone are now found in Gaithersburg's smart growth policy.

Visual design guidelines for development in the CBD zone originated with a series of design charrettes held in 1995 with Andres Duany. One charrette was held in the city's original mercantile district close to City Hall. These charrettes were seen as an effective way of establishing a basis for urban design and architectural guidelines for sections of the downtown. In early 1996, council adopted a downtown plan largely based on these charrettes. The plan contains illustrations that demonstrate key ideas identified during the charrette. Russel points out that the CBD zoning ordinance contains elements that "speed up" the development process under certain circumstances.

In 1998, another design charrette was held for a four-mile stretch of Route 355, which serves as Gaithersburg's main street. Significant design guidelines emerged to address a wide range of issues such as architectural and sign standards, location and placement of street furniture, lighting concerns, and guidelines for building entrances. Redevelopment pressures were a factor behind the 1998 charrette. After the charrette, the city had considered using an updated MXD zone, but opted instead to create a stand-alone Corridor Development zone. Russel notes that after a "slow start",

the CD zone has been a great addition.

Like the CBD zone, the both the CD zone and MXD zone seeks to encourage redevelopment by speeding up the review process. If the proposal has all the right elements, then steps in the entitlement process can be dropped. For the development community, time is money, so there is a financial incentive for the development community to abide by the overall vision. Under certain circumstances, the timesavings can be significant, ranging from 6 months to a year.

The MXD zone allows smart growth development "as of right", but there is still a great deal of oversight by the city. Before the MXD zone was developed, Gaithersburg had—and still has—a three-stage site plan review process that is run by the city's planning commission. This commission is a five-member body, appointed by the city's mayor and council. Site plans went to the planning commission only. City council was not involved. When Gaithersburg first got involved in Kentlands, the mayor at the time (one of three influential people behind Kentlands) wanted the mayor and council more involved in the review process. A procedural change was made so that property developed in an MXD zone would require both a planning commission hearing and a hearing with the mayor and council.

Under the new rules, the mayor and council would consider the second stage of the development application in which a developer submits a schematic development plan (SDP). Although the planning commission makes recommendations regarding an SDP, council makes any decision to allow the project to move to the final stage. The final site plan review within an MXD zone considers elements of the plan such as elevation, landscaping and lighting. The planning commission carries out this final evaluation within the parameters set by the mayor and council. Russel points out that within the general region (i.e. the Maryland portion of the Washington D.C. metropolitan region) government is considered open and highly accountable. Little is done behind

closed doors and staff makes few decisions on their own.

Maryland makes model land use ordinances available to local governments and provides technical and financial assistance to get the job done. Gaithersburg has not taken advantage of model codes because there has not been the need. Experience with Kentlands gave the city a jumpstart on smart growth code development, and they have been seen as a model of smart growth since the movement gained prominence in the late-1990s. The city's attorney, nationally known land use lawyer Stanley Abrams, has worked with Russel to author many of the city's smart growth development codes.

Although code assistance from the state has not been necessary, Gaithersburg has received state grants for smart growth projects. State bond money has been received to move a building up to the street and to build a concert pavilion. A $50,000 grant was provided for pedestrian oriented improvements in Old Town. Through the state's Neighborhood Conservation Program, a large road construction project is going to reroute a state road through the historic core of the city to provide better access to the core's amenities. Every year, the city goes to the state legislature to receive support for smart growth projects. Over the past few years, the state has invested millions of dollars in the revitalization of Old Town. Recently, the city completed a state supported $4,575,000 project that placed utilities underground. Russel notes this project was "very much smart growth oriented."

Gaithersburg's codes themselves are text-based, but the smart growth policy, the Downtown Plan, and the Route 355 Corridor Plan are illustrated to guide development. Russel notes that with the passage of the 1992 Economic Growth, Resource, Protection and Planning Act, these plans are legally binding. The last several times the city has updated the comprehensive plan, the zoning map has been altered to mirror the plan. The comprehensive plan actually has a chart with the master plan and zoning.

The city's current zoning, combined with the well illustrated plans, serves the same purpose as the National Governors Association's 24-item checklist that local governments may use to help identify inconsistencies between smart growth principles and project proposals. Russel notes that the codes and illustrations reflect the fact that the city knows what it wants.

In 2001, Governor Glendening established the Office of Smart Growth, which works closely with the state's Department of Planning. Gaithersburg planners are regularly involved with both organizations. The state recently started to do interventions at the local level to support smart growth development. State officials have intervened in a Gaithersburg project proposal known as Parklands. Both Governor Glendening and the city consider this TOD project a textbook example of smart growth principles in action. The project, however, has generated opposition because of school overcrowding. The implication is that the city cannot consider approving the project unless the County agrees to build a new middle school. Glendening's representatives attempted to pressure the County to reprioritize its school construction schedule, but the effort did not necessarily generate the outcome they hoped for. The project's future is uncertain.

Other forms of state-local interaction occur as well. Russel provides tours on almost a weekly basis for people that the Governor or the Office of Smart Growth would like to see exposed to smart growth development. Old Town, Lakelands, or Kentlands are among those areas typically on the itinerary. Visitors might see any number of elements of smart growth development. For example, in Old Town they can see how the city is implementing the downtown plan, adding new residential and employment in close proximity. As Russel notes: "Its just smart growth wrapped up in a little ribbon and it shows very well."

Few regulatory barriers to smart growth development remain in Gaithersburg. The city is looking into adopting the state's new building rehabilitation code, but no decisions have been made

yet. Early on, however, there were problems related to narrowing roads. In order to save trees in Kentlands, a street had to be narrowed. The fire department would agree to this only if all the houses on the road were sprinklered. The fire department had general concerns regarding having roads narrower than those found in standard subdivisions. The planning department did mock setups of roads but could not convince the fire department. Fire officials said Kentlands was a high-risk area. When the planning department pointed out that older sections of the city were designed in the same way, fire officials responded by saying those areas also have a higher density of fire stations. Ironically, there is a fire station right across the roads from Kentlands. In the end, roads were made narrower than standard suburban roads. Russel believes part of the problem at the time was the fact that people simply don't like change. In Lakelands, the adjacent community, road widths were narrowed further.

More recently, the city has embarked on creating a street design matrix that is land use oriented. The matrix has a whole toolbox of traffic calming measures being used to retrofit some of the "huge suburban roads". Russel receives constant complaints about speeding on 36-foot wide residential streets. To address these concerns the city is using a combination of approaches to calming traffic, including bump outs and chokers.

6.2 Addressing Financial Barriers

Several years ago there was little interaction between the city and the financial community when developing long-range vision plans. Russel believes that the banks were probably the hardest sell and recounts one of several difficulties encountered in the "early years":

> There is a small retail development in Kentlands that we consider local-commercial. About six years ago the city wanted a design with the buildings up front and the parking in the rear. The developer himself was not sold on it, but the main problem was that he could

> not get the financing without having X-number of parking spaces out front. We had to work with him and basically demonstrate to the financial institution that we weren't going to approve anything that did not meet our design criteria. Things like that were the catalysts for smart growth principles and for master plan elements that show where we want the buildings.
>
> The banks finally came around and allowed him to put his parking on the side. It was sort of a compromise. I think the thing that happened is that the community was so supportive of him that the banks realized that these were the people who were going to be using these places—cleaners, restaurant, travel agent and animal hospital—and that's the design that they wanted particularly in Kentlands. Most of the people who moved in the first half of the development were pioneers and they bought into the whole new urbanist concept. They did not want typical suburban development. We have no problems with market acceptance anymore. The thing is we have tons of examples all around the city and they look a million percent better. It sells itself. Kentlands had a big bump in the 1991-92 recession. Joe Alfandre lost the land to the bank. Today you cannot build a house fast enough for people to move in there. It's as if the contract purchasers are sitting out on the curb waiting for their house to be built.

As the city's commitment to smart growth grew, bankers were increasingly attending design charrettes and becoming more aware of long-range plans that embodied smart growth principles. In addition to involving the financial community in long range vision plans, the city works with the press to get the message out and that make planning department activities highly visible to the financial community and the public at large.

Gaithersburg has been an active partner in financing smart growth development in several ways. In Old Town, a 126-unit apartment built in the 1950s had declined considerably over time. The owner of the building failed to screen tenants properly and was untroubled by overcrowding. By the late 1990s, crack had become a problem. Russel describes the situation as a "nightmare."

The city began to work with a developer who shared with the city's leaders the vision of a rejuvenated Old Town. The first step was to inject new residential life into the area. The city put together a loan package to make the project feasible and drafted a plan to relocate the tenants in the apartment building. Most tenants lived below the poverty line. Working with local property managers, the city paid $75,000 to relocate tenants to new housing in the immediate vicinity. In

preparation for the relocation, the mayor held a meeting with tenants and explained that that he understood that the apartment building was their home and that he wanted to deal with the relocation in a sensitive manner. The city worked with each tenant by finding new units, paying moving expenses, and covering the cost of security deposits. The children remained in the school they had been in prior to the relocation. The key issue for the city at the time was to sensitively relocate the entire building.

The site was redeveloped to accommodate 386 multi-family apartments. The project significantly changed the complexion of the area. In order to get a commercial mix, the city gave a developer a 50-year lease on another parcel to make the project feasible. With free land he was able to go to financial institutions and borrow money to build a class A office building in Old Town– something that no one had ever done before. This set a tone for future development. The city also loaned the developer money for "tenant fit ups", which was paid back when the building was occupied. The building was fully leased prior to opening, which Russel says was unheard of. The developer then came in and did a second phase because he had such confidence. He partnered with the builder of the first apartment complex to build 68 more apartments with retail on the first floor.

Currently, Gaithersburg does not collaborate with lenders to integrate federal and state affordable housing programs with smart growth development. The city has historically had a high percentage of low and moderate-income apartments rentals. Current housing policy attempts to increase the stock of single-family dwellings in an effort to achieve a balance that reflects the city's long-term vision. Russel notes that this standing policy will have to be reevaluated in the short term, in part because of an increasing senior population on fixed incomes. At the same time, there is also a senior population with sizeable disposable incomes growing in size. This too will influence housing policy in the future.

Gaithersburg is a part of Montgomery County, which has a Moderately Priced Dwelling Unit Ordinance (MPDU) that requires developers to make 15 percent of all units built available as moderate-income housing. In the handful of cases where Gaithersburg has annexed land from the county, those MPDU ordinances are required by law to stay in place. As a result, the MPDU ordinance is in effect in parts of Gaithersburg, but it is not city policy. In the past, the city has offered moderately priced homes to city employees to enable them to live in the community.

Tax increment financing (TIF) is used on a case-by-case basis to make smart growth projects more feasible. Russel notes that TIF has been used on Route 355, where the city is implementing its "main street" vision. There are other cases where smart growth development will be encouraged using TIF. For example, the planning department is working to get developers involved in addressing a growing problem with aging multi-family housing and will use TIF on an as needed basis. TIF was also used recently to get a moderate-income senior housing project built. Prior to using TIF, Gaithersburg determines what the public benefit is. Although Gaithersburg is not a full service city (e.g. they do not have a housing agency), they do deliberate over what is and what is not a public good and do participate financially when feasible to realize stated goals. Currently neither split rate tax rates or employee pension funds are used to support smart growth development.

6.3 Addressing Density Related Issues

Gaithersburg uses design charrettes in all its major planning activities. The comprehensive planning process and the sub-plan processes (e.g. Route 355 Plan, Downtown Plan) are all charrette-based activities. The city also does charrettes at the neighborhood level. Any community can approach the city to ask for a neighborhood design charrette with the city's urban design staff. In

these sessions, community residents consider how they want to improve the community, and then draw up an implementation plan. These charrettes generate a "shopping list" of implementation tasks; some of which the community itself might do, some of which the city might do, and others that might require county or state involvement.

In the past, charrettes have focused on issues ranging from better lighting, to retrofitting wide suburban roads with parking on them, to adding medians. The city is currently following up on one charrette done in the historic district. Roads are going to be narrowed and interesting street furniture will be added. These kinds of charrettes are labor intensive and require a great deal of follow up from all departments. As a result, staff typically only do one or two of these each year.

In preparation for Gaithersburg's upcoming comprehensive planning effort, the city organized two visioning sessions with a consultant to talk about conditions within the city and the current comprehensive plan. Participants broke into small groups, to give people the opportunity to talk about what they liked and what they wanted to work on. Certain issues that arose were predictable such as schools, transportation and issues around density. The final product was a visioning document to kick off the new planning process.

At this point in time, the principal way in which the city disseminates smart growth concepts is by having people look at what the market is producing right now. Excellent examples of smart growth have emerged beside conventional development. Russel notes that the city also does a lot of outreach, often in conjunction with Mike Watkins, head of Duany's local office in Gaithersburg. With all of the on-the-ground examples of good development, the web site is not considered *the* strategic tool to disseminate information regarding smart growth. The state, on the other hand, uses the web extensively.

Public charrettes are also done for individual site plans when needed. If the city feels a

given situation is particularly messy, then an internal charrette might be used to generate creative solutions to challenging problems. Russel has observed the effectiveness of charrettes time and again. One of the earliest examples dates from a time when the Kentlands proposal was experiencing difficulties in the late 1980s. Duany led a charrette that helped the city and community move from the idea of an upscale regional mall to a suburban shopping center.[24] Russel says: "This had to be very cleverly done- to go from the concept of Nordstroms and Tiffany's to Kmart, Lowes and a grocery store. The key is if you involve the right people—the stakeholders and the people most affected—and incorporate their ideas, however minor some of them might be, they then feel it's their plan. They feel empowered."

In addition to charrettes, the city regularly uses photomontage to depict proposed infill smart growth development. Photomontage has also been used for showing how a sign ordinance might look or how an embellished landscape might work with the surrounding area. Although the city uses GIS regularly, it does not have the ability to do 3-D modeling, nor is there any interest at this point in time.

Community vision surveys have also been used by Gaithersburg to determine what citizens want and whether they are willing to invest public money to achieve it. In the recent past, the city held a series of three smart growth symposia. One focused on transit, another on street design, and the third, which involved the governor, was of a more general nature and used vision surveys produced by Nelessen. Vision surveys have also been used to show Route 355 built out at a moderately high density. Russel said the reactions were quite interesting:

> For certain audiences it's an effective tool. We have had a smart growth committee who helped fashion smart growth policies and they thought it was wonderful. For some of the

[24] Plans for the regional shopping mall fell apart when the demand for shopping malls dropped sharply in 1988 and 1989. In the mid 1980s an average of 20 malls per year were being built. By 1988 the figure had dropped to 8 per year.

> skeptics it was overkill. And there are whole groups of people who don't want to be pigeonholed. Often times elected officials are like that. They don't want to sit in a room with you and reveal their inner most thoughts. And sometimes a visioning exercise can be like displaying dirty underwear. Not everyone is comfortable with that. They might like the way it looks, but the implications for their friend who they play golf with can be very difficult.

Russel points out that density levels are typically not discussed, and goes on to say that, "Speaking in terms of density boxes you in and interferes with good design." There are issues with the city council with respect to a housing policy that requires that developments over a hundred units have at least 50 percent single-family housing. This requirement responds to the overabundance of apartments. When the policy was put in place, approximately 70 percent of the city's housing stock was multi-family. Today that figure is closer to 50 percent. The overabundance of multi-family housing created a transient community, and did not allow many options for move-up housing.

In the summer of 1999 Gaithersburg adopted a housing policy promoting single-family housing. The planning department was reluctant for council to adopt the policy. Russel asks, "If you come upon a project that has good design and has some other good characteristics but does not comply with this arbitrary 50 percent, then what do you do?" They are faced with exactly this situation today in Kentlands, where the demolition and replacement of a big box structure with apartment units flies in the face of the housing policy. The local community is in favor of it but the housing policy and issues with school overcrowding stand in the way. Russel notes that apartments do not typically draw school age children.

The origins of Gaithersburg's smart growth policy can be traced to a desire to improve aesthetics, rather than a conscious attempt to develop at higher densities. Russel attributes much of this change in attitude to Joe Alfandre, who she considers a true visionary. He brought in Andres Duany, and together they described their vision to the mayor at that time, Edward Bohrer. Together, they started a process that would, in time, fundamentally change the way Gaithersburg

approached development.

The initial acceptance by other elected officials was the key turning point. Today, if a developer has property in the city, it is difficult to develop it in a way that deviates from a policy that has the support of the elected officials. After the elected officials began to see and accept the advantages of smart growth development, even the financial community began to realize something had shifted. Returning again to the implications of strong political support for smart growth development, Russel says:

> Because eventually if you don't conform to the tenet of the design principles our mayor would tell someone like Wal-Mart, 'go away.' Or he would tell McDonalds 'you don't do prototypes here.' 'If you want to be here you have to do it our way.' And eventually they had no choice. Even the financial institutions had to back off because if you wanted to do it in Gaithersburg, if you wanted a McDonalds in Gaithersburg you have to do it our way. And the password or the mantra was – we don't want development at any cost. We want quality development.

Even in a jurisdiction fully supportive of smart growth development, things don't always work out as expected. In the case of the TOD proposal that Governor Glendening intervened in, the developer of the project had hoped to get his foot in the door by starting with a relatively low-density phase of the multi-phase project. The planning commission had actually made a recommendation that the densities be increased further even though later phases of the project would contain significantly higher densities. All this has ground to a halt because of the issue of coordinating new school construction with the County School Board and a "smarter growth backlash" that is in part focused on school overcrowding. The simple solution is for the County to abide by the governor's request and provide Gaithersburg with a new middle school, but things have not worked out that way, at least not yet.

Chapter 7: Analysis

7.1 Limitations and General Considerations

This thesis examines approaches local governments operating in the context of a smart growth agenda are taking to remove barriers to smart growth development. Although the research generates useful information, it raises as many questions as answers. This study's limitations should be clear. Time constraints restricted my ability to include a larger number of cities in the study. I have attempted to compensate by using a purposive sample, selecting cities that varied in size, geography, climate, and socio-political culture. Regardless of this relatively broad perspective, there are dozens of local governments pursing smart growth that have dynamics uniquely their own.

While the study does identify strategies used to remove barriers to smart growth development, it does not provide an exhaustive analysis of how the smart growth agendas under consideration actually function. Given this preliminary nature of my study, I allow for the possibility of bias or self-interest on the part of interviewees. This analysis focuses on what planners at the center of the smart growth agendas spoke of over the course of a 60 to 70-minute interview.[25] Regardless of the study's limitations, I believe it is possible to draw generally applicable conclusions from this research, with the caveat that more research is needed to corroborate these findings.

In general, the barriers encountered in the interviews closely align with those identified in the literature. Chaska's experience with Federal regulations that affect affordable housing was one

[25] Write-ups for each of the four cities have been reviewed by the interviewees and verified for correctness to reduce the likelihood that I have misinterpreted responses to interview questions.

of the few unexpected barriers discovered. On the whole, the policies and practices identified during the interviews have been successful in removing barriers to particular kinds of smart growth development. Other forms of smart growth development may not be feasible. For example, none of the planners made reference to greenfield projects that mixed residential with regional office/retail. Further research is required to categorize smart growth development, and identify a range of factors that affects whether or not a particular kind of project is feasible.

Major themes in this analysis include: the importance of umbrella policies for smart growth development; the value of a clear process by which smart growth development is entitled; the relationship between entitlement and design; the limitations of overlays and incentives; the active engagement of planning staff and partners; and the importance of the emphasis on critical mass, design and quality of life. If the requirements implicitly laid out in this analysis are not satisfied by a local government's smart growth agenda, it may be exceedingly difficult to introduce smart growth development into a community.

7.2 The Effectiveness of "Umbrella" Policies

Comprehensive plans in the four cities have been updated in different ways to support smart growth development. Chaska and Gaithersburg have "umbrella" policies that contain a small number of key principles that guide all development throughout the city. These guiding principles are as influential as they are clear. Gaithersburg's smart growth policy signals to developers that the city strongly believes in pedestrian oriented development. Chaska's five planning precepts make clear to the development community that the city no longer permits conventional development. Salt Lake City and Austin, however, do not have these kinds of umbrella policies. There is no crystallized set of five or six development principles that everyone can look to and say, "This is how

we do development in this city." Instead, Salt Lake City's master plans are being updated on an ongoing basis to support many elements of smart growth development such as the creation of walkable mixed use communities where it is possible to live, work, and play. Because of past difficulties updating its comprehensive plan, Austin introduces elements of smart growth development whenever possible through its newly instituted neighborhood planning process.

Cultural factors may account for some of the differences we see in how smart growth development principles are expressed in a comprehensive plan. In Maryland and Minnesota the public sector has historically played a prominent role on many fronts, including land use planning. Planning legislation in these states is well developed, and significant planning resources are made available to local governments. Although Utah recently enacted landmark legislation that provides modest amounts of support for local planning, it is an inherently more conservative state than either Maryland or Minnesota. Envision Utah, a non-profit public/private partnership, works with the understanding that the state places a high value on private property rights. As such, its ambitious program is designed to address a range of issues in a decidedly "bottom up manner" (Envision Utah, 2001, 1). Texas, too, is oriented toward limited government involvement in many areas including land use planning. Although Salt Lake City and Austin are considered liberal enclaves, they are not islands unto themselves. To varying degrees, the development community and other stakeholders in development decisions in these two cities are influenced by broader cultural forces (i.e. conservative influences). These cultural forces, in turn, affect a city's approach to dealing with barriers.

These four smart growth agendas also have varied histories and are in different stages of development. Gaithersburg took its earliest steps towards adopting a smart growth agenda in the late 1980s, when the city was involved in the development of Kentlands. Austin began to move in the

direction of smart growth almost a decade later. The fact that Austin's elected officials recently increased staffing levels for smart growth planning and created a stand-alone planning commission to deal with long range planning issues drives home the point that we are looking at agendas in different stages of evolution.

7.3 Clarity in the Process of Entitling Smart Growth Development

The planning directors in Gaithersburg and Chaska, the cities with smart growth "umbrella" policies, each went to some length to elaborate on the process by which smart growth development is permitted in their jurisdictions. Although these processes differ in tone and procedure, they share much in common. In both cities, there is general consensus regarding the kinds of projects that city officials want to see built. Such consensus is perhaps best captured by Russel's remark, "when developing in Gaithersburg, you either do it our way or we don't want you" (Russel interview). There is a local political culture that both planning directors (Russel and Ringwald) seem to generally admire. In Chaska, Ringwald notes that the planning commission and council have respect for the comprehensive plan and do not engage in "end runs" around planning staff. Russel describes Gaithersburg's political culture as open and responsive and speaks highly of past political leadership when describing the entitlement process. In both Chaska and Gaithersburg the development process was described in terms of providing a sufficient level of oversight to ensure good design that abides by comprehensive plans.

7.4 Relating Entitlement to Design

A series of public design charrettes held since the late 1980s have largely determined what

constitutes “good design” in Gaithersburg. The city’s three smart growth codes are derived from charrettes that involved a wide range of stakeholders. In each case, Duany Plater-Zyberk and Company ran the design charrettes with assistance from other consulting groups. Collectively these charrettes represent an investment in Gaithersburg’s future by establishing a long-term development strategy that stresses the public realm. The charrettes also represent a commitment on the part of the city to involve the public in a critical, non-bureaucratic phase of the planning process. Citizens are provided with an opportunity to participate in shaping their community’s built environment.

Public expenditures for these kinds of charrettes are an investment in a city’s future, no less valuable or important than money invested in schools, hospitals or roads. The codes derived from charrettes guide the investment of millions of dollars in capital, and shape the character and desirability of a community. Weighed against the benefits of future tax revenue, and savings in infrastructure realized with smart growth development, the outlay for well-run charrettes are negligible in the long run.

When design charrettes are used as the basis for plans and ordinances, they have the potential to bypass many of the problems typically encountered by planners attempting to adopt smart growth codes at the local level. For example, misconceptions regarding narrow residential streets can be addressed constructively during proceedings that extend over several days, where the emphasis is on design, and intelligent use of public expenditures. As pointed out by Russel, when done properly, a charrette is an extremely powerful consensus building process. Fire officials, lenders, planners and residents who participate all feel some sense of ownership after having their ideas and concerns incorporated into the final plan. Given the pervasiveness of the difficulties in financing many smart growth projects, it seems especially important that city leaders bring financial leaders to the table to forge a critical alliance to shape the future. Today, developers have little

difficulty getting smart growth projects financed in Gaithersburg in part because lenders are now part of the planning process. Charrettes can also clarify a range of planning issues, making it easier for staff to produce plans and ordinances that have an unambiguous relationship to one another. Mapping plans and ordinances to each other eliminates the possibility of having plans supportive of smart growth development while zoning ordinances still retain conventional development characteristics.

Since the adoption of Chaska's 2000 comprehensive plan, design considerations have been the central feature of the city's entitlement process. The process is decidedly different from Gaithersburg's yet it seems to produce similar results. Fundamental urban design guidelines are non-negotiable. Street systems must be interconnected (but not necessarily orthogonal). Neighborhoods must contain diversity in land uses, building types, building sizes, building styles and type of ownership. The most important or visible piece of a property in a neighborhood must be utilized by an appropriate public use. These guidelines might seem overly prescriptive, but they are not. Creativity is emphasized during informed negotiation between staff and the development community. The specificity of the urban design guidelines frees staff to think about how good design meets the objectives of the larger community. Far from prescriptive solutions, individual decisions are made based upon the natural features of the landscape and other issues that are brought to the table.

The use of the PUD has come under criticism from participation advocates because it allows planners to make decisions beyond the purview of their role as public servants. In Chaska, however, planners are not acting unilaterally on behalf of a community. Project negotiations are guided by specific principles defined in a comprehensive plan that has public buy-in. Chaska's planners are entrusted to ensure that these objectives in the plan are in fact realized. Planners are

not operating independently from the rest of city staff or the planning commission. When describing the negotiation process, Ringwald noted how much work it involved not just from planning staff, but also from other divisions in city government to "make it happen." The process involves a "big commitment", from everyone involved. Ringwald notes that in addition to articulating the city's five planning precepts, the comprehensive plan also identifies specific natural features that the community wants to preserve or treat in a certain manner. The PUD negotiation provides for some flexibility in how the developer can address these specific objectives. All told, this process is quite different from the situation where a planner is promoting his personal vision when negotiating an agreement in the absence of clearly stated guidelines.

These kinds of negotiations between developers and planners require a planning staff well versed with fundamental design issues. Gaithersburg's planners were able to learn first hand about quality human scale design when it came to them in the form of Kentlands. Prior to interacting with developers in the context of entitling a smart growth project, Chaska's planners sought to educate themselves about human scaled design by visiting other projects and learning from the past experiences of developers and planners. Chaska's PUD negotiations seem to work because planners understand not only their community's goals, but also a range of developer concerns—such as higher upfront costs of greenfield smart growth development and how accessory units can be made to work well. Simultaneously, the planners appear to understand how critical land assembly is to the process of entitling smart growth development. The city's usage of holding zones for undeveloped land, coupled with the clear planning process by which land is assembled and infrastructure is planned creates the kind of predictable environment in which smart growth development can occur. Ringwald sums up the attitude that drives these planners to seek out and learn about these kinds of issues with his statement: "Sweat the big picture *and* the small details"

(Ringwald interview). To some degree, the removal of barriers to smart growth development hinges on professional planners adopting an assertive, creative, entrepreneurial attitude that fosters the "out of the box" thinking that Ringwald values so highly.

7.5 Overlays and Incentives: Intermediate Steps not End Goal

In Salt Lake City, many of the current efforts to remove barriers to smart growth development are born of a mayoral agenda committed to principles of sustainable development, an agenda that extends beyond the immediate concerns of shaping the built environment. Smart growth zoning overlays augment changes the city is making to its base zoning to support human scaled development in which it is possible to live, work and engage the best of city living. This shift toward smart growth development is taking place in a state where, according to one city administrator, people commonly used the words "planning" and "communism" in the same breath less than ten years ago. Viewed in this light, the fact that Salt Lake City is using federal transportation dollars to build a light rail system is highly encouraging. New transit expenditures and the creation of Envision Utah in 1997 represent a shift, however slight, in thinking about the unintended long term consequences of conventional development patterns in fast growth regions.

City staffers are working with local lenders to ensure that location efficient mortgages will be made available to people purchasing residential dwellings near these new transit lines. Soon to be adopted TOD zoning overlays will encourage new residential dwellings to be built in these areas. An innovative partnership with NASA to remove ground level ozone by greening the city, and the development of a mixed-use performance-zoning overlay are but two of several ongoing projects in what can only be described as a very activist agenda. It is simply too early in the development of Salt Lake City's smart growth agenda to assess the efficacy of the way in which regulatory barriers

are being removed through the introduction of zoning overlays.

This brings us to perhaps one of the most important questions raised in this study. How well do zoning overlays, which ostensibly remove regulatory barriers, actually work in promoting smart growth development? Considering Austin's experience may help define some of the issues more clearly.

Austin has had difficulty updating its comprehensive plan to include smart growth principles, in part due to "cultural reasons" (Adams interview). As a result, the city has resorted to amending the comprehensive plan with a number of smaller "neighborhood plans," some of which have overlays that support smart growth development. The incentives made available to developers in Austin through the city's Smart Growth Matrix have been successful in increasing the quality of downtown mixed-use development. The use of the Matrix has not, however, led to developers proposing smart growth projects elsewhere in Austin's Desired Development Zone. Smart growth incentives have strategic value, but it is not clear that in and of themselves, they are persuasive enough to lead to changes in development patterns. Although the city has had a visible smart growth initiative in place since 1998, factors including an overburdened planning commission, and relatively few resources devoted to smart growth planning, may have made it difficult for the city to adopt codes that satisfactorily address regulatory barriers. Creating smart growth codes that actually work is a significant undertaking. The fact that Salt Lake City is receiving financial assistance from both Envision Utah and the state of Utah to create its mix-use performance zoning overlay bears this out.

Keeping in mind each of these smart growth agendas are in various states of evolution, Austin's elected officials very recently augmented staff for smart growth planning and created a planning commission devoted to long range planning and new zoning ordinances. Unlike the other

three cities, which all have support from upper levels of government or influential charitable foundations, Austin has by and large been working on these issues in relative isolation.

The efficacy of overlays, especially for greenfield sites, seems questionable when compared to the relative clarity with which "umbrella" policies guide smart growth development in Chaska and Gaithersburg. A region cannot grow in the manner called for by smart growth if the individual developer decides whether a new street system is to be interconnected, or a series of isolated pods; whether residential streets are to be 24 feet wide with sidewalks, or 36 feet wide without sidewalks. Smart growth overlays may well be a useful way of making a politically acceptable transition from conventional development to smart growth development, but in the end, cities need a consistent way of assembling land and creating an interconnected street system designed for human scaled development. Until interconnected street networks and other elements of human scaled design become mandatory features of development in Austin and Salt Lake City, a shift in the way greenfield sites are developed may not be forthcoming If overlays and incentives are to be viewed as successful instruments of smart growth it will be because they served as an interim policy measure that familiarized people with the concepts.

7.6 Considering Sources of Change With Respect to Removing Barriers

The planner's role in relation to other factors that bring about the removal of barriers merits further consideration. Three generic scenarios can be identified, involving a combination of factors internal and external to a planning department.

In the first scenario, we find shared responsibility, among planning staff and partners outside the department, for bringing about the removal of barriers to smart growth. The vision

established for Gaithersburg in the late 1980s by Alfandre, Duany, and Bohrer (i.e. developer, planner, mayor) are external (but critical) factors. The planning department then embarked on a campaign to educate other elected officials on the merits of smart growth development. Although the significance of this process cannot be quantifiably measured, it is significant in the evolution of Gaithersburg's growth strategy. Similarly, the planning department's active engagement of the non-residential community to push smart growth development is an important factor in the eventual removal of barriers. The leadership of Governor Glendening and the shifting climate towards smart growth development is another external factor. This combination of factors, often the action of staff planners, collectively contributed to a sea change in how Gaithersburg approaches development.

Chaska provides an example of change due to activity largely internal to a planning department. Prior to the adoption of the city's 2000 comprehensive plan, conventionally zoned residential neighborhoods did not provide for affordable home ownership. Affordability in mixed-income, mixed-use communities is a central concern of smart growth (Burchell and Listokin, 2001). When Chaska's planners studied other greenfield new urbanist communities, they noted that the affordable housing issue had generally not been adequately addressed. Based on further research and discussions with planners elsewhere, the planning department engineered a solution to this pressing problem based on the use of density bonuses, a community land trust, and rental subsidies from upper levels of government. These tools provide for affordable housing in both the rental and owner market, and provide a clear model of how affordable housing goals might be reached. [26]

In the final scenario, we recognize that planning agencies have potent allies in removing barriers to smart growth development, as demonstrated by the unilateral actions of NPOs in Salt

[26] When coupled with the fact that Chaska's greenfield projects are preserving the better part of a third of the acreage as public open space, we see that these projects can satisfy many of smart growth's core objectives.

Lake City. NPOs have demonstrated that innovative mixed-use projects can ease the burden of concentrated poverty in older established areas and contribute to long-term investment strategies for inner cities and older suburbs. Here we are reminded that in many ways the pubic sector lags behind NPOs, who have been working on removing barriers to infill smart growth development for many years Experience in Salt Lake City suggests that solutions to overcoming barriers to smart growth development are more evolutionary than revolutionary.

The removal of barriers depends largely on the active engagement of planners and their partners on a range of issues, as demonstrated by these three scenarios.

7.7 Strategic use of Limited Investment Dollars

Each of the cities studied were involved to varying degrees in reducing financial barriers to smart growth development. Austin's Smart Growth Matrix is the clearest example of such efforts. The criterion by which projects are judged is clearly laid out, the process of evaluation well articulated, and the dollar amounts granted to developers abiding by smart growth principles is sizeable. However, the money available to developers in Austin for smart growth development is limited. The theoretical maximum amount granted to a developer in fee waivers (based upon how the city scores a project) is not necessarily the dollar amount granted to a developer. If incentives are available to all smart growth projects, it is possible that Austin is providing fee waivers to downtown projects that might have been proposed without the Matrix. Further research is required to identify tradeoffs involved with attempting to provide incentives for all smart growth development in a jurisdiction. There appear to be advantages to first require smart growth development (as happens in Chaska and Gaithersburg), then providing incentives only when they are critically necessary to make a difficult or creative project financially feasible.

In the two cities where local school taxes are part of the TIF mixture—Salt Lake City and

Gaithersburg—we see TIF used as an incentive for various redevelopment efforts. In none of these cities do we see municipal government becoming a long-term investment partner to work around the bias of discounted cash flow methodology as we've seen done in downtown Albuquerque, NM. This is not surprising, given that only recently has serious attention been paid to problems related to financing smart growth development. This study did uncover strategic approaches to utilizing limited investment dollars to make smart growth development a reality. Gaithersburg's approach to revitalizing its historic downtown is one cogent example. In addition to investing in a charrette to guide future development in the downtown, the city made strategic loans to developers, assisted in sensitive relocation efforts, and provided developers with leases on parcels in order to bring a jobs/housing balance to the area. These efforts, coupled with additional investments using state funds, were fundamental in getting key projects financed. Collectively, they provide a catalyst for future investments in a previously underutilized area.

7.8 The Importance of Critical Mass, Design and Quality of Life

The strategic investments Gaithersburg made in its downtown provided a sufficient level of momentum to bring about a transformation. As Russel notes, today this area is "smart growth wrapped up in a little ribbon" (Russel interview). This brings us to a critical issue regarding the removal of barriers to smart growth development, namely the idea of critical mass. Planners in Austin are anxiously trying to get one of a handful of potential greenfield smart growth projects on the ground. In various ways the importance of projects that clearly demonstrate smart growth development principles was raised over and again in all of the interviews, in large part because concerns over density persists in all four cities. In Gaithersburg and Salt Lake City, the planning directors regularly provide tours through successful projects because they understand the power of a

bricks and mortar experience. This underscores a key finding from Malizia and Exline (2000) on residential preferences. People are generally more comfortable seeing ten units per acre than they are talking about ten units per acre. Chaska's planning director notes that much of the legitimacy of its smart growth agenda is derived from the existence of the downtown and surrounding neighborhoods. Most of this urban fabric was built before 1945 and all of it is highly valued today. In Salt Lake City the issue is not only density, but also demonstrating that affordable housing can be well designed and well built. Each of the planners stressed that density levels and quality of life should be decoupled. Planners in Chaska, Gaithersburg, and Austin explicitly said they no longer speak about projects in terms of density levels. Speaking in terms of density "boxes you in and interferes with good design" (Russel Interview). Salt Lake City's planning director reminds people that many of western civilization's prized urban environments were not built at low densities. In general, the interviews suggest that America's view of density as pathology can be constructively dealt with in each of the four cities through design.

Each of these smart growth agendas is placing increased importance on design. Chaska has recently received financial assistance from the McKnight foundation to bring in Calthorpe and Associates to run a weeklong charrette to help design a 4800 unit, mixed use project. Salt Lake City finds photomontage "incredibly effective", uses it at every opportunity, and is in the process of hiring staff to work with computer enhanced images and other tools such as 3-D imaging (Goldsmith interview). Gaithersburg uses design charrettes for all major planning activities and has recently added the ability to do design charrettes for communities as they request them. Austin's new urban design division is widening the scope of its design-oriented activities with respect to both master planning and neighborhood planning. These design efforts, as identified by Danielsen, Lang and Fulton (1999), are critical to addressing resistance to higher density. As these authors point out,

smart growth development must mix land uses and housing types in a way that enhances quality of life by creating well-designed pedestrian oriented residential and commercial districts.

Pedestrian oriented environments provide people with a choice of interacting with others in the public realm, be it on a sidewalk, in a neighborhood park, or in a town center. In Chaska, quality of life is enhanced for residents in new greenfield projects by preserving significant amounts of open space, providing affordable housing opportunities, and building a street system oriented towards the pedestrian. Salt Lake City is working on enhancing quality of life through traffic calming measures and efforts to replace underutilized buildings in the urban core with well-designed housing for the middle class and people on public assistance. Although there is no one way in which smart growth agendas deliver a higher quality of life, the pedestrian experience is always a key concern in decision-making.

The pedestrian friendly development called for in the APA's Smart Growth Policy Guide requires moderate increases in density. Downs (1992) notes overcoming resistance to higher densities will take leaders at the state level who are convinced it is worth the political price to pursue such aims. The reality is that residential clusters are forming with other land uses in close proximity (Moudon and Hess, 2000). Conventional development, however, is ill equipped to take advantage of any mixture of land uses in close proximity. Streets remain oriented towards the automobile. Excessive buffering requirements mask incompatibility in building typologies. Highly valued pubic spaces are nonexistent.

Public policy can be aligned to take advantage of residential clustering and ongoing demographic shifts, while keeping consumers happy at the same time. In the absence of policies that demonstrate how quality of life can be improved by achieving smart growth's objectives, no political leader is likely to make much headway. It is notable that Maryland's Governor Glendening

stresses the importance of quality design when lecturing on smart growth.

Talen (2000), Katz (1998), and others are correct to equate smart growth development with laudable public goals, but it is in the struggle for consumer preference that the battle for smart growth will be won or lost. This struggle makes the design oriented activities of each of the four cities so important. Interestingly enough, one of the primary reasons Gaithersburg adopted a smart growth "umbrella" policy was because the smart growth development they already had on the ground looked "a million percent better" than what had come before (Russel interview). In some respects a design oriented approach to planning raises new challenges, but those planners interviewed for this study seemed firmly ensconced in this new approach to place making.

7.9 Development Patterns in the Context of Smart Growth's Broader Objectives

This study has considered strategies local governments are employing to overcome barriers to smart growth development. The introduction of compact, pedestrian oriented development patterns is an essential part of the broader smart growth agenda. This broader agenda takes into account a range of interconnected issues which are beyond the immediate focus on smart growth development patterns such as ecological integrity, transportation choice, spatial distribution of employment centers, and fiscal responsibility to name a few. As smart growth has gained prominence, a variety of single-issue initiatives such as open space and transportation have been incorrectly labeled as "smart growth." A single-issue initiative that is not connected to a community's diverse goals in and of itself does not constitute the integrated approach to managing change that smart growth represents. At the same time, smart growth development patterns, in the absence of broader considerations, do not in and of themselves represent smart growth in a meaningful way.

In different ways, the four agendas examined in this study demonstrate a commitment to smart growth's broad, interconnected objectives. Chaska's commitment to urban design—which can raise development costs ten to twenty percent—is accompanied by a laudable affordable housing policy. Similarly, the city's commitment to smart growth development is complemented by the preservation of large tracts of undeveloped natural landscapes. Gaithersburg's urban design principles are implemented in concert with a prominent environmental agenda. Over the past few years, the city has spent more than six million dollars—a sizable portion of its budget—acquiring active open space. Thirty-five percent of Gaithersburg's most recent large-scale smart growth project—over 120 acres—was preserved as passive open space. As part of its broader agenda, Gaithersburg became the first city of its size in the nation to be accepted into the U.S. Green Building Council. Salt Lake City's Green City Initiative includes a Waste Reduction and Green Building program, both of which complement efforts to transform the city into a pedestrian friendly environment. Additionally, the administration leads on a number of social equity issues and is currently engaged in a struggle with the Utah legislature, opposing highway-focused transportation planning. Austin too, has embraced a range of actions that extend beyond introducing smart growth development patterns. The city's Green Building and "SMART" Housing program (i.e. affordable housing), and its partnership with private firms to recycle computers (thus preventing hazardous materials from harming the environment and public health) are but a few examples of Austin's larger smart growth agenda.

These broader goals remind us that removing barriers to smart growth development is but one part of an urban policy that must contend with a myriad of challenges facing cities in an era of rapid globalization. The cities examined in this study suggest that although there is no one approach to pursuing smart growth, the end goals are remarkably similar. Single-issue initiatives

have been eschewed in favor of integrated approaches to maintaining or improving quality of life.

Smart growth is perhaps the closest approximation to a well articulated national urban policy that America is likely to see in the foreseeable future. This movement is a broad based response to a low-density vision that has defined how America has grown for the past fifty years. Failure to achieve smart growth in the United States is, among other things, a failure to achieve social, economic, and racial equity. Inhibiting factors will undoubtedly thwart the best-laid intentions of smart growth advocates in the years ahead. Smart growth agendas, such as the four considered in this study, provide valuable lessons for policymakers and practitioners intent on redressing problems associated with conventional development patterns. These case studies demonstrate that it is possible to develop policies and practices that refocus a larger share of regional growth to areas currently served by infrastructure and pursue new development in a manner that expands the range of transportation, employment, and housing choices in a fiscally responsible manner.

7.10 Conclusion

Smart growth literature has, in the past, identified barriers to smart growth development and offered potential solutions to overcome those barriers. My thesis builds upon this material by examining the interplay between barriers and solutions at the local level. In doing so, I have attempted to accurately record how barriers are, or are not being removed "on the ground." The four case studies demonstrate that the removal of barriers involves more than simply adopting policies and practices used in other jurisdictions. It is necessary to understand how these policies and practices work in their native context before one can consider how they might apply elsewhere. In some cases, tools to promote smart growth development may be more attractive on paper than in

practice.

My research suggests that few if any barriers to smart growth development are insurmountable. The Gaithersburg case study illustrates how regulatory and financial barriers as well as opposition to moderately higher densities can be successfully addressed. In the other three cities, however, barriers still exist to varying degrees. In Chaska, financial barriers may prevent office buildings from being integrated with other land uses. A full range of barriers appear to prevent greenfield smart growth projects from getting proposed and built in Austin. Although Salt Lake City has experienced smart growth development in its urban core, it is unclear if greenfield projects will materialize in the near term. To some extent, all four jurisdictions must still contend with concerns related to density. The variation in the kinds of barriers remaining in these cities reflects the inherently local nature of land use planning. While the barriers are not insurmountable, neither are they easily overcome.

A decisive shift towards smart growth development begins when influential people in the public and private sector believe that a community's quality of life is inexorably tied to smart growth development patterns. Do most communities, however, possess leaders with the necessary combination of power and vision to bring about change? Similarly, do most local governments have a planning staff that can both familiarize themselves with a myriad of new concerns and support visionaries by taking on the role of educator? In jurisdictions with where these preconditions hold true, smart growth development patterns may be successfully adopted. Many other jurisdictions, however, are just as likely to continue to pursue conventional development, which arguably demands less from local politicians, planners, and developers.[27]

[27] These conventionally zoned communities are also likely to continue to pursue the practices of exclusionary zoning that further exacerbate problems associated with sprawl.

The decisions made by locally elected officials are, for various reasons, often times heavily influenced by developers who, in turn, are driven by the bottom line. In the absence of local examples of smart growth projects, developers may be hesitant to even consider offering a product type which deviates from the conventional norm. This concern promotes the opposition to regulatory reform. For example, in Austin the development community opposed attempts to mandate a pedestrian oriented street system because they believed it would force them to produce a style of housing the market would not accept. Locally elected officials in Austin presumably were reluctant to mandate smart growth development because they perceive the political cost to be too high. It is likely that a similar dynamic exists in many American communities.

Molotch (1976) and others have long argued that local political establishments in the United States are concerned with economic growth at the expense of all other concerns—if indeed there happen to be any other concerns. If smart growth development patterns are adopted, it will be because influential members of the local political elite are convinced that the "growth machine" stands to benefit by enhancing quality of life and attracting "knowledge workers" who can choose to live anywhere. While this idea has gained currency in many circles in recent years, its impact on thinking at the local level is unclear. In Gaithersburg, this kind of thinking was central to the adoption of the city's smart growth policy. In Austin, however, elected officials only bought into the quality of life argument up to the point of offering incentives for smart growth. More research is required to determine exactly where the tipping point for locally elected officials lies.

When elected officials at the local level are convinced of the benefits of smart growth, barriers can fall quickly. Developers and other business interests have little choice but to work in a regulatory environment that requires smart growth development, as illustrated by big box retailers in

Gaithersburg who conformed to the city's smart growth design guidelines.[28] Retail business interests understood that there was a market in Gaithersburg. The city, in turn, accommodated these businesses by establishing a fast track process to ensure the permitting process did not delay construction. This mutually agreeable solution produced a main street retail district that abided by the city's comprehensive plan and proved profitable to retailers.

There is no prescriptive solution to deal with the inevitable complications, prejudices, misunderstandings, and inertia that prevent smart growth development from being adopted. Smart growth advocates can increase the likelihood that barriers will be removed in their community by understanding in detail how barriers are overcome elsewhere. The removal of barriers opens up the possibility for communities to grow in a manner distinctly different from the low-density vision that has been dominant for the past fifty years.[29]

[28] The city used architectural controls and innovative zoning to integrate big box retailers into an economically viable "main street" retail shopping district called Washingtonian Center.

[29] Additional research is required to begin to address questions left unanswered by my research. Some of these questions appear in Appendix I.

SECTION III: Appendices and Bibliography

Appendix I: Ideas for Future Research

- Gyourko and Rybczynski (2000) and Leinberger (2001) note that debt and equity lenders are reluctant to finance greenfield smart growth development. Currently greenfield smart growth development is taking place in Gaithersburg, MD and other suburban Washington, DC communities. How are these projects being financed, and what is their impact on the financial community locally and nationally? Similarly, have other jurisdictions or charitable foundations shown an interest in using the kind of financing arrangements being used by the City of Albuquerque and the McCune Charitable Foundation?

- Elected leaders in Austin, TX and Gaithersburg, MD are committed to smart growth. How can we account for the differences in these two communities with respect to smart growth development? This research would draw from interviews with key members of the development community, banking community, planning community, and elected officials. On site visits to each city would be required.

- Slow growth cities have not developed smart growth agendas. Burchell and Listokin (2000) are the first academics to make a distinction between the concerns of fast growth and slow growth communities in the context of smart growth. Are there constraints that prevent smart growth development from emerging on greenfield sites? (Ideally, new development would occur on infill sites in slow growth regions.) This research would require familiarity with a range of issues dealt with by developers of smart growth communities such as infrastructure costs and phasing requirements.

- The firms founded by Andres Duany and Peter Calthorpe provided expertise for the charrettes done in each of the four cities examined by this thesis. What are the essential components of these weeklong activities? What are their perceived strengths and weaknesses according to elected officials, planners, and residents? Are these kinds of charrettes the birth of a new industry, and if so are there competing firms? What prevents a community from doing a charrette without these kinds of firms?

Appendix II: Selected Strategies to Overcome Barriers to Smart Growth

1. Develop clear "umbrella policy" to guide development that all stakeholders can understand.
2. Derive comprehensive plans and smart growth codes from charrettes that have broad-based buy in.
3. Include financial community in comprehensive planning efforts.
4. Consider using combination of smart growth codes and planned unit development agreements (guided by small number of critical design principles). Either can be used effectively when entitling smart growth development. Planned unit development agreement can work well to preserve critical natural features and other community assets assuming key urban design principles are not compromised.
5. Establish clear and consistent review process to approve growth development.
6. Use smart growth overlays in previously urbanized areas.
7. Establish partnerships between planning department and non-profits to achieve affordable housing goals in context of smart growth development.
8. Use density bonuses to provide affordable housing.
9. Use community land trust to preserve affordability.
10. Seek out partnerships with non-profit organizations to produce mixed-income, mixed-use projects in sections of city experiencing disinvestment.
11. Offer smart growth incentives strategically and selectively.
12. Ensure planning staff is well versed in smart growth development principles. Ideally staff has visited other jurisdictions and met with both planners and developers.
13. Ensure planning staff plays key role as educator and understands concerns of development community in relationship to smart growth development (i.e. mixing housing types/prices within a block is not acceptable to most buyers).
14. Use photomontage and other visual aides to convey smart growth development principles.
15. Consider inter-agency cooperation as a critical element of smart growth development, especially for affordable housing.
16. Develop attitude among locally elected officials that says, "We want only quality, pedestrian-oriented development." Builders and business will not leave.
17. Ensure planning staff and elected officials work hard to establish critical mass (i.e. completed smart growth projects) to demonstrate principles to elected officials, developers, bankers, and consumers. Seek out partnerships with innovative partners in the community who share smart growth vision and are willing to take risks.
18. Establish well ordered process of land assembly which is guided by a district plan that takes into account interconnected street network and other forms of infrastructure
19. Zone undeveloped land "holding" to withhold entitlement until project proposal clearly conforms to comprehensive plan.
20. Recognize that if planning commission or council will not stand behind plan and recognize long-term benefits to community in smart growth development, then smart growth development will not happen.
21. Design charrettes are essential in establishing design criteria; charrettes lead to creation of placed-based development which reinforces community identity.
22. Seek out strategic partnerships with foundations to fund planning related activities in a way

that bring greater legitimacy to efforts by using professional level graphics etc.

23. Identify federal rules that impede smart growth development. Often times these will be environmentally oriented.
24. Ensure that TIF and other financial vehicles available to planning agencies are used in ways that foster smart growth development.
25. Map out areas suitable for smart growth development.
26. Recognize that moving towards smart growth takes a sustained commitment.
27. Consider establishing separate planning commission dedicated to smart growth issues if growth rates are such that current development is constantly taking front stage
28. Establish an urban design department that emphasizes creation of place-based communities.
29. Use zoning overlays or outright changes to zoning to transition from strip-development to main-street development.
30. Illustrate smart growth development principles in plan or codes.
31. Identify any and all regulations that may work at cross-purposes with smart growth development codes.

Appendix III: Questionnaire

This questionnaire uses the term *smart growth development* to refer to a range of development patterns that smart growth agendas might possibly promote. The smart growth development concept is intentionally broad and takes care to avoid being prescriptive in the sense that it does not dictate a specific form of development such as transit oriented or neotraditional development. This term also allows for further innovation in the market. Principal elements of smart growth development include extensive mixed land use, reduced land consumption, community centers, ample green space, transportation options, and building designs that reflect the local culture and harmonize with the natural environment. Smart growth development represents a "distinct alternative" to development patterns that have dominated the real estate market over the past five decades.

Whether or not smart growth development ever becomes a viable alternative to conventional development depends upon removing barriers to this form of development at the local level. Local governments operating in the context of a smart growth agenda are ostensibly committed to removing such barriers. My questions ask about strategies your local government employs to remove regulatory and financial barriers and citizen opposition to higher densities.

1) What strategies does your local government employ to overcome regulatory barriers to smart growth development?

The following questions may be asked, depending upon the response to the general question. All questions implicitly refer to an environment that supports smart growth development. Note: A question below may not be asked because it has been answered in the literature review or a response to a previous question. These questions serve primarily as a guide during the interview.

a) How does your local government's comprehensive plan explicitly support the creation of new community design?

b) Does the comprehensive plan clearly map out all areas that are appropriate for smart growth development?

c) What regulatory mechanisms do you consider to be most effective in promoting new community design?

d) Smart growth literature typically recommends that a zoning overlay should be offered in addition to the pre-existing Euclidean zoning rather than replacing it outright. Does your local government follow such strategies?

e) To what extent does your local government permit construction of smart growth development "as of right?"

f) If a zoning overlay is available, what other policy instruments does your local government utilize

to increase the likelihood the overlay will be used?

g) To what extent does your local government derive zoning ordinances from model codes made available by your state government?

h) Does your local government take advantage of funds provided by the state for the explicit purpose of creating zoning ordinances supportive of smart growth development?

i) If your local government uses a mixture of performance zoning and conventional zoning, can you describe the relationship between the two and comment on how effective you believe this combination of zoning to be with respect to promoting smart growth development?

j) Are there any areas within your jurisdiction in which single-use developments are allowed only by special exception?

k) Are there areas within your jurisdiction where smart growth development are entitled using PUDs?

l) If your local government uses PUDs to entitle new community projects, can you comment on the pros and cons of its use in comparison with an overlay?

m) Are there areas within your jurisdiction where smart growth development is entitled only after receiving variances?

n) If your local government uses variances to entitle new community projects, can you comment on the pros and cons of its use in comparison with an overlay?

o) Do you entitle smart growth development using methods I have not previously mentioned?

p) Attachment I contains a list of guidelines for regulations that support smart growth development. Do any of these guidelines present problems in your community?

q) Are your regulations illustrated to clearly demonstrate the intent of the codes with respect to new community design?

r) Is your local government considering typological codes (i.e. codes that prescribe neighborhood components such as buildings, streets and open space types) as a replacement for zoning?

s) To what extent are state and federal agencies involved in your local government's efforts to remove regulatory barriers?

t) Does your local government have plans to introduce a building rehabilitation code based on HUD's Nationally Applicable Recommended Rehabilitation Provisions?

u) Does your local government use any sort of evaluation criteria to assess project proposals? For example, the National Governors Association offers a 24-item checklist that local governments may

use to help identify inconsistencies between smart growth principles and project proposals.

v) What remaining regulatory barriers do developers submitting smart growth development proposals still face in your jurisdiction?

2) What strategies does your local government employ to overcome financial barriers to smart growth development?

The following questions may be asked, depending upon the response to the general question. All questions implicitly refer to an environment that supports the creation of smart growth development. Note: A question below may not be asked because it has been answered in the literature review or a response to a previous question. These questions serve primarily as a guide during the interview.

a) In what ways does your local government involve lenders in the process of establishing long-range vision plans?

b) How does your local government disseminate information on pending infrastructure improvements, parallel private investments, or other data in a manner that would favorably improve the investment climate for new community design?

c) What role does your local government play as an active partner in financing smart growth development?

d) In what ways do local government leaders and lenders collaborate to integrate federal and state affordable housing programs with smart growth development?

e) In what ways does your local government offer financial aid programs that can help public employees live in the communities in which they work?

f) When does your local government use tax increment financing to reduce the cost of infrastructure in areas targeted for new community design?

g) When does your local government use split rate tax as a tool for revitalization?

h) Are public employee pension funds invested in smart growth development?

3) What strategies are employed to overcome citizen opposition to increased levels of density?

The following questions may be asked, depending upon the response to the general question. All questions implicitly refer to an environment that supports the creation of smart growth development. Note: A question below may not be asked because it has been answered in the literature review or a response to a previous question. These questions serve primarily as a guide during the interview.

a) How are public charrettes (with an urban design orientation) used to help develop regional visions?

b) In what ways are smart growth development concepts disseminated so as to engage the broadest audience possible?

c) How will your web site be improved to promote urban design issues relevant to new community design?

d) Does your local government have a community design center that helps citizens understand the built environment using a variety of visualization tools and information sources?

e) Under what circumstances does your local government offer a public charrette (with an urban design orientation) when developing a site plan?

f) When does your local government use photomontage to depict infill smart growth development?

g) When does your local government use software packages that combine 3-D modeling with GIS to enable communities to experiment with urban designs and to see quantified environmental and fiscal impacts?

h) When does your local government use community vision surveys to determine what citizens want and whether they are willing to invest public money to achieve it?

4) Does your local government use indicators to help measure the shift away from conventional development and toward new community design?

Attachment I

When developing regulations supportive of new community design projects the National Governors Association recommends that they:

1. Are reinforced in the comprehensive plan;
2. Reinforce a regional or countywide framework for growth and transportation;
3. Permit a mix of commercial, office/employment, civic, and residential uses within blocks and buildings by right;
4. Permit a mix of housing types by right;
5. Encourage the provision of moderate priced dwelling units;
6. Encourage connectivity between on- and off-site travel systems, open space networks, and protected environmental lands;
7. Treat open space as an integral component of the design of the design of the development and require a variety of types of open space, distributed throughout the development;

8. Treat landscaping as an integral component of the design of the development to accentuate the natural environment, and reduce visual blight;
9. Require a network of interconnected streets, designed to meet the needs of pedestrians, bicycles, and motor vehicles;
10. Use block size to reinforce pedestrian orientation;
11. Prohibit parking lots in front of buildings;
12. Adapt parking requirements to reflect increased opportunities for people to use alternative modes of transportation that result from design and/or access to transit, and opportunities for shared parking;
13. Use residential and commercial density and lot development standards to achieve a compact pedestrian-friendly design;
14. Achieve quality design that reflects the pattern and massing of adjacent traditional communities; and;
15. Give smart growth projects a competitive advantage over single-use developments in the development review process

(Source: Maryland Department of Planning)

Appendix IV Consent Letter

To participants in this study:

You are invited to take part in a research study at Dalhousie University's School of Planning in Halifax, Nova Scotia. Taking part in this study is voluntary and you may withdraw from the study at any time.

The purpose of this study is to discover how select municipalities with established smart growth agendas are currently confronting barriers to smart growth development. This field research is part of my masters thesis at the School of Planning which is to be completed during the 2001-2002 academic year. It is possible that some portion of the thesis will be submitted to planning journals or presented in a conference.

Planners from four separate municipalities in different regions of the United States are being asked to participate in this study. Each municipality has demonstrated some level of commitment to introduce alternative development patterns into the local market. Each smart growth agenda has enjoyed the support of political leadership at either the municipal and/or state level.

A single in-depth phone interview will be held with each planner. Each interview will last approximately one hour at a time to be determined by each planner. Information collected during the interview process pertains to how three categories of obstacles —regulatory barriers, financial barriers and citizen opposition to increased density—are dealt with at the municipal level. Of particular interest is discovering what barriers municipalities generally consider most difficult to remove.

As this thesis is concerned with public policy and does not seek to extract sensitive information, it should not be necessary to maintain the confidentiality of the planners involved in this study. Planners will be speaking to me about subjects that are commonly dealt with in public venues. In this consent form I am asking for your explicit permission to use your full name in the thesis. Sometime after the interview, but prior to publishing the thesis, I will provide you with a draft copy of the write-up for your city. At that time, you will have an opportunity to verify that you are completely satisfied with the content of what I have written. I will edit or remove passages from the final write-up with which you are not satisfied with in order to remove any possibility that your position as a professional planner will be compromised. It is, however, unlikely that this will be necessary, because you will be addressing issues of public policy. The interview questions I have included with this consent form make this quite clear.

Questions regarding this study may be directed to any of the following contacts:

Patrick Moan Principal Investigator 902-453-4098 pmoan@is2.dal.ca	Dr. Jill Grant Thesis Supervisor 902-494-6586 jill.grant@dal.ca	Patricia Lindley Human Research Ethics / Integrity Coordinator 902- 494-1462.

You may at any time withdraw from the interview process. You may withdraw your consent to have specific excerpts used if you notify me at the end of the interview. If I were to use any materials in any way not consistent with what is stated above, I would ask for your additional written consent.

In the event that you have any difficulties with, or wish to voice concern about, any aspect of your participation in this study, you may contact Human Research Ethics/Integrity Coordinator at Dalhousie University's Office of Human Research Ethics and Integrity for assistance: ph. 902-494-1462.

I, _____ have read the explanation about this study. I been given the opportunity to discuss it and my questions have been answered to my satisfaction. I hereby consent to take part in this study. However I realize that my participation is voluntary and that I am free to withdraw from the study at any time. I understand there will be no financial compensation for participating in this study.

_____
Signature of participant

_____ _____
Signature of interviewer Date

Appendix V Selected Federal and State Smart Growth Initiatives

Selected Federal Initiatives

Smart growth differs from past approaches to growth management in at least four ways. First, there is the high degree to which reinvestment in older, existing communities is emphasized. Second is the emphasis on the use of incentives rather than regulation. Third is that smart growth's 10 guiding principles are more specific than the broad principles or goals typically found in growth management policy statements. Fourth is the emphasis on building coalitions and partnerships that cross a broad spectrum of interests. Developers, environmentalists, and neighborhood activists are realizing that they can share common goals. In recent years organizations as different as the Sierra Club and National Association of Realtors have found themselves using the same language. Government agencies at the local, state, and federal levels are valuable participants in this cooperative planning and implementation process at a regional level.

The wide range of activities and people involved shed light on why some have had difficulty characterizing smart growth. While any smart growth agenda is multi-faceted and opened ended, the goals remain the same: (1) preserve community character, (2) protect open space and the environment, and (3) strengthen local economies though investment and the efficient use of tax dollars. With this in mind it is worth considering how various levels of government in the U.S. play a role in the smart growth agenda.

Department of Transportation: Flexible Transportation Spending

When the U.S. Congress passed the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991, it laid the groundwork for an essential aspect of smart growth – the ability for state and local governments to link land-use and transportation planning. Prior to 1991 federal

transportation spending was done in the absence of any consideration of land use planning.

In 1998 Congress reauthorized the transportation bill when it passed Transportation Equity Act for the 21st Century (TEA-21). Not only does TEA-21 support the development of new transit systems, but it also encourages economic development around transit stations by funding coordinated land-use and transportation projects, job access programs, and projects to enhance facilities and public safety. At the macro level TEA21 allows the states to:

- Use half of all federal funding in a flexible manner: for highways, transit or other uses.
- Establish a framework to make decisions regarding how to use funds in an inclusive and open manner at the state and metropolitan levels;
- Reserve significant funding for maintenance of highway, bridge and transit systems.
- Use a modest but significant sum of money to reduce the negative effects of highways on society. Some of this money is used by the states for purchasing easements along highways in order to preserve view sheds and critical habitat (DOT, 1998).

The states can use federal transportation dollars to pursue alternate transit options. In some cases, states still spend all funds on highway construction. Other states, however, believe a greater transit mix might better suit long term needs. California, for example, just completed its last section of new highway outside Los Angeles and plans in the future to focus on expanding transit capability. After 15,000 miles of highway building in California, even the Automobile Club of Southern California has accepted the shift towards transit. The club's spokesperson said that the state has to look at alternate ways of moving people around (Sterngold, 2001). Other states (including Texas, Oregon, Minnesota, Maryland, and Pennsylvania) have begun turning to transit in a way not possible before changes to federal transportation policy. The mobility issues discussed in Chapter 3 was one of several factors that resulted in this substantial change in the way the federal government approaches transportation issues.

EPA Partnerships with State and Local Governments

In the late 1990s, the U.S. Environmental Protection Agency (EPA) launched a smart growth program in New England aimed at fostering sustainable economic growth that does not contribute to sprawl. The program includes smart growth training programs, grants, federal partnerships and other activities aimed at assisting local governments to pursue a smart growth agenda. One such example is in Rhode Island, where the EPA provided a $100,000 grant to the government of Washington (South) County to explore smart growth techniques for avoiding sprawl. The project produced an illustrated guide for used local officials and developers to create "growth centers," revitalize traditional New England villages, and pursue quality infill opportunities. The project specifically focused on preventing strip development. Throughout the project EPA staff members worked with county staff (Flinker, 1998).

The EPA's Brownfields Program is designed to empower states, communities and other stakeholders in redevelopment to work together to foster locally driven and environmentally safe approaches to the cleanup and reuse of brownfield properties. The Brownfields Program is a key part of a local community's strategy to direct *new* development opportunities into previously developed areas. The EPA is involved with hundreds of projects around the country (EPA, 2001).

HUD's Model Rehabilitation Code

In 1997, the U.S. Department of Housing and Urban Development took up the problem of deteriorating building stock in older sections of cities by developing a new national building rehabilitation code. The code, known as the Nationally Applicable Recommended Rehabilitation Provisions (NARRP), was based on New Jersey's comprehensive effort to increase building renovations and maintain safety standards. The NARRP was written in such a way that the entire spectrum of potential work, from repairs to reconstruction, would be covered in every building type

regardless of age (HUD, 1997). The authors of NARRP hope the code will be adopted by the states and other model code organizations with a minimum of modification. Several states have plans to use the NARRP to regulate building renovation efforts. Renovation starts are expected to increase significantly as they did in New Jersey after adoption of a model code. In July 2001, Maryland became the first state to create a stand-alone rehabilitation code based on NARRP, and joins New Jersey in a commitment to remove the financial uncertainty developers faced when renovating buildings.

Department of Energy Initiatives

The U.S. Department of Energy's Center of Excellence for Sustainable Development make available both technical information and financial support for communities pursing a smart growth agenda. In addition to activities such as providing model land use ordinances, DOE runs research and development programs developing energy efficient methods of heating and cooling buildings.

The Center also provides grants that support the design of a set of tools to guide cities and regions in their efforts to establish smart growth and sustainable economic development strategies. Many of these are computer tools that will foster community participation in complex decision-making processes, and provide highly visual images of future growth scenarios. These scenarios can be linked to powerful software programs which help measure fiscal impacts to local government, desired land/use transportation linkages, positive impacts of compact urban form and planned/phased development, energy and resource conservation, and econometric models for sustained balanced economic growth.

The Center and its partners recognize that many people look at compact, mixed-use communities warily. Proponents of smart growth face opposition when offering up plans that increase density or mix uses. Much of the financial community remains unfamiliar with projects of

this nature and land-use regulations in most parts of the country still demand a strict separation of use. The leading edge tools that the Center showcases – most of them visual in nature - are designed to overcome these obstacles. People often respond to the density issue differently when presented with a visual rendering of what is being proposed. The intent is to move the tools out of the design lab and into the hands of those working with communities to create higher quality built environments (DOE, 2001).

The Department of Energy has also recently partnered with the Environmental Protection Agency to establish Regional Resource Centers where local communities can visualize and assess how a their community will change in the future. Technical and non-technical information will be available at these centers. The two federal agencies are working with a handful of communities around the country to establish centers. Long-range plans call for the significant expansion of these centers into over one hundred communities (Snyder, 2001). This in part depends upon the federal government's long-term commitment to smart growth.

Selected State Initiatives

The sections below highlight some states' activities with respect to smart growth. They should not be considered comprehensive, but do provide some idea of the range of ways in which states are approaching the task of building more livable communities in partnership with other levels of government, the private sector and the public at large.

Wisconsin

Prior to 2000, Wisconsin had not significantly updated its land use legislation for decades. Widespread concern over development patterns prompted the state to enact new "smart growth" legislation. The new law requires that local governments have a comprehensive plan consistent with state goals. Wisconsin has also required that comprehensive local plans contain common information sets, essentially providing local governments with a planning template. For example, a wide range of specific issues are dealt with in a local plan— such as forecasts for housing demands and a transportation analysis. These local plans must contain a section that compares objectives of the local plan with state objectives.

To support these new requirements the state has developed a financial incentive program that provides generous grants for creating comprehensive plans. The grants are not automatic, however. Local government must submit a grant application that satisfies state officials that the local plan will abide by state goals. Wisconsin's state goals align closely with the 10 principles of smart growth as understood by the Smart Growth Network.

Wisconsin's Smart Growth legislation also requires communities larger than 12,000 people to adopt both a TND ordinance and Conservation Subdivision Ordinance. The State worked with the planning department at the University of Wisconsin to develop models which local government could modify to suit their local needs. These new ordinances are not expected to replace existing zoning outright, but rather are offered as alternatives in the form of zoning overlays or floating zones. The law explicitly asks that local government promote these approaches to development as alternatives to conventional approaches (Ohm, 1999; WOLIS, 2001).

Utah

Conservative Utah presents an instructive case in advancing a smart growth agenda. Two interrelated threads of activity are central to the story. The first is passage of Utah's "Quality Growth Act of 1999" by a legislature well represented by strong advocates for private property rights. The second is the public/private partnership called Envision Utah, which has been instrumental in crafting a publicly supported growth strategy for the state. The Quality Growth Act is significant because it established a sympathetic statutory environment in which a smart growth agenda could be pursued. The work of Envision Utah has been essential in that it continually advances that agenda with the support of a broad coalition of interests, including widespread public support.

The Quality Growth Act contains eight principles of "quality growth" and a seven-point implementation program that requires mandatory state agency compliance, but voluntary compliance by cities and counties. The Act defines "quality growth areas" and makes available financial incentives for encouraging development in these areas. Additional funding is earmarked for planning, with measures included to satisfy concerned parties that private property rights are not being violated.

The Act also establishes a "critical lands fund" used to buy conservation easements. Currently, $6 million has been made available for the purchase of easements. Finally, a 13-member Quality Growth Commission was formed to help the legislature develop policies that slow urban sprawl. The Commission administers the funds for the "critical lands fund" and assisted local governments in developing plans according to quality growth principles (UGOBP, 2001).

The passage of a growth management act by a conservative legislature happened in large

part because of public polls done The Trust for Public Land (TPL), a land conservation group. Governor Levitt —an advocate of smart growth principles—asked the Trust to conduct a poll to help establish credibility with conservative legislators that there was statewide support for protecting open space and pursuing a meaningful growth management strategy. The poll itself was credible, leading the state's two major newspapers—one clearly conservative—to endorse the plan. The legislation itself was based upon the work of a broad coalition of growth management advocates including TPL (The Trust for Public Land, 2001).

Envision Utah was formed in 1997 as a public/private community partnership dedicated to studying the effects of long-term growth in northern Utah, which is where the bulk of the state's population resides. The organization embarked on a two-stage process. The first was to develop a growth strategy, and the second was to implement the strategy.

Envision Utah's work is notable because of the broad array of people and organizations it was able to bring together to complete the first stage and begin the second. Various phases in their work included: forming a public/private partnership made up of a diverse group of 130 of the states' leaders to help shape the movement's direction; creation of a technical committee to provide data and analyses that made possible the creation of different growth scenarios, public workshops, surveys and public awareness campaigns (Envision Utah, 2001).

Although it is too early to evaluate the results of Utah's smart growth efforts, progress made to date is noteworthy. Public awareness and education appear central to the success of a program that operates in a culture with limited acceptance of government intervention. The success advocates of smart growth have had to date is in part based on findings in an earlier 1996 *Annual Report of Utah Tomorrow*, which made the following points:

1) All players need to be involved in the process from its inception. Top leadership needs to constantly reinforce support for the process. Support of the Governor and the Legislative Leadership

is critical;
2) Continuing public involvement throughout the process is important ... this should not be viewed as an "insider's plan," and
3) Public relations are important ... there is a need to focus on press and media awareness.

Public relations have been heavily emphasized in Utah. In addition to half hour television shows produced to run on local stations, Envision Utah has published surveys in newspapers, advertised creatively in the local press, and honored those developers whose projects abide by the principles set out in their smart growth agenda.

Maryland

In certain ways the pro-government state of Maryland is Utah's philosophical opposite. Together, these two states provide an idea of how smart growth is being accommodated in contrasting socio-political environments. Maryland leads all other states in terms of creating a comprehensive, incentive based smart growth platform.

In 1992, the state passed legislation that, among other things, required local governments to prepare comprehensive plans in accordance with statewide goals (MDP, 1998). Five years later, the legislature required local governments to establish "priority funding areas." State funds would no longer be directed to projects outside of these geographic regions. Well-defined criteria were developed to define what does and does not constitute a priority funding area (Maryland Legislature, 1997a).

Significant sources of financing were also made available to conserve rural land (Maryland Legislature, 1997b). For the first time in the state's history land is being conserved at a faster rate than it is being developed. State officials have also made available model codes to local governments with the intention that they adopt them for both greenfield and infill development.

These model codes assist local governments to develop land according to development principles used to build Maryland's traditional settlements.

Changes in Maryland have already had an impact on development patterns. In 1998, five separate highway bypass projects and a 550-acre development project were canceled as a direct consequence of following new smart growth guidelines. It is no longer acceptable for highway capacity to be expanded outside priority funding areas (Salkin, 1999). The new laws have also had the effect of relocating two new courthouses and a county office building from the urban-rural fringe back into downtown areas.

In addition to legislative changes, funding and strong leadership, Maryland has augmented its smart growth agenda by effectively using the Internet as both a technical resource and advocacy tool. For example, digital maps are available showing all priority funding areas in the state, and a compelling web-based presentation has been constructed making a strong case for shedding conventional patterns of development (MGO, 2001; MDP, 2001).

New Jersey

In 1997 New Jersey introduced a smart growth rehabilitation code (officially referred to as the New Jersey Rehabilitation Code) that has had a significant and lasting impact on renovations across the state. New Jersey's rehabilitation code was then adopted and modified by the U.S. Department of Housing and Urban Development (NJDCA, 2001).

The first year the new code was in effect, renovations in Jersey City shot up by 84 percent. Renovations in Newark and Trenton climbed 59 and 40 percent respectively (NJDCA, 1999). Data released in June 2001 shows sustained and increasing levels of private sector investment in renovation projects. One New Jersey official stated that such projects had been transformed from a "regulatory crapshoot" into an "informed business decision" (Montgomery, 2000).

Before the rehabilitation code was introduced, New Jersey experienced less than a 2 percent increase in private sector investment in renovation projects over the years. Since the code came into effect, rehabilitation projects have accounted for almost half of New Jersey's expenditures on construction. All the money that was directed towards rehabilitation projects was money not spent fueling sprawl.

The state has taken other steps to pursue a smart growth agenda. The state makes available grant money for local government to update plans to conform to state wide planning objectives as specified in the amended 1992 state plan. The plan's policies focus on encouraging new growth in existing areas.

There have been questions raised about how successful New Jersey has been in altering development patterns. Inter–agency coordination is not as tight as in Maryland or Oregon, and the state-level financial incentives have not been as effectively used as they might have been (Baehr, 2000).

New Jersey's overall record with respect to smart growth provides a valuable lesson. While the rehabilitation code has been successful, a statewide plan has been less fruitful in either changing development patterns or substantially directing development into existing urban areas. These lessons are not lost on the state's policy makers who hope to evolve past this phase.

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