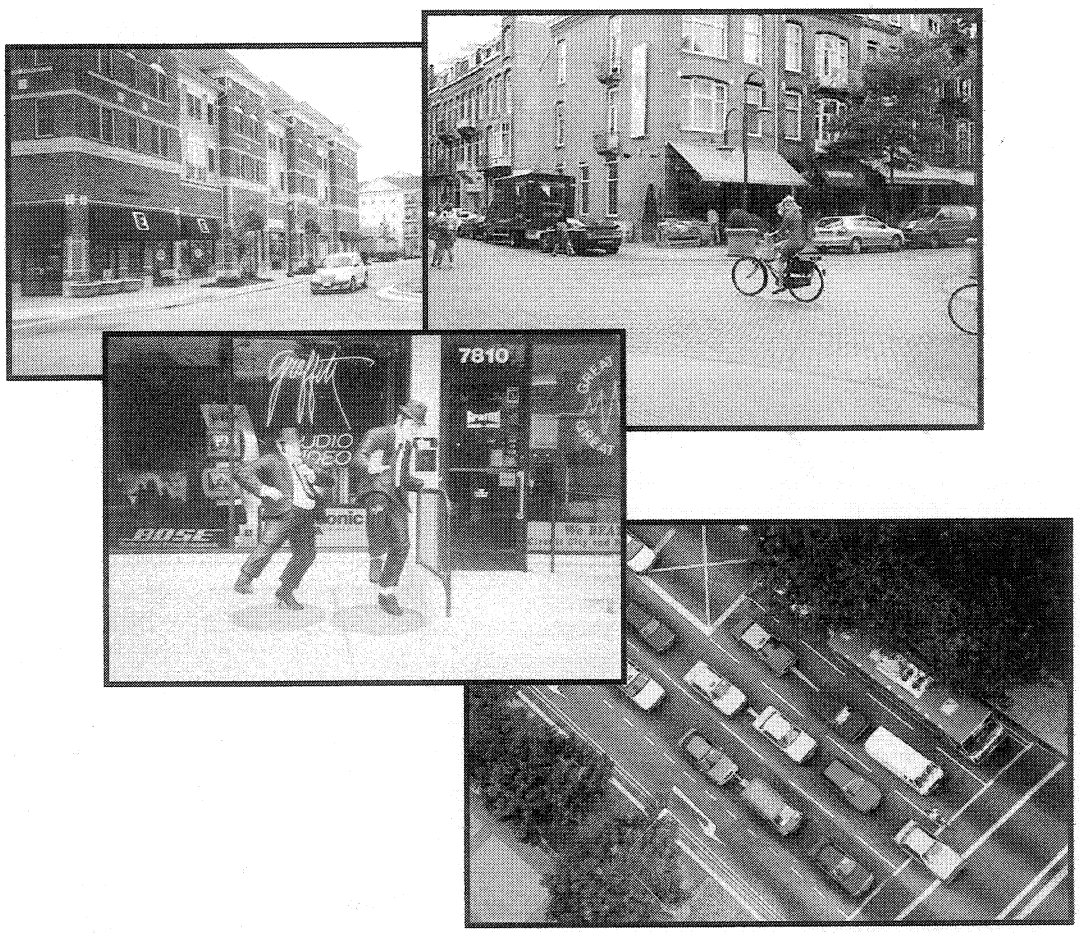
Smart Growth Development Standards: Benefits And Consequences For Montgomery County, Maryland



Prepared for:

The Maryland-National Capital Park and Planning Commission

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Clarion Associates
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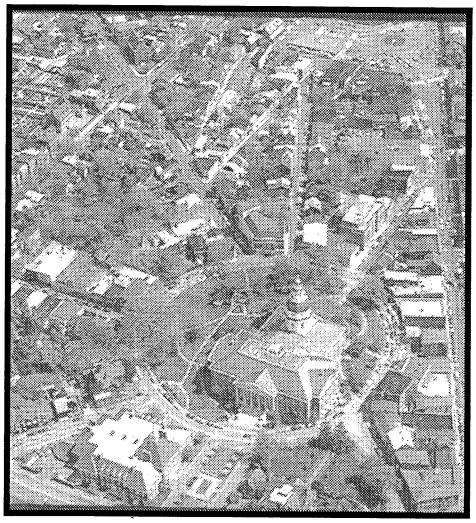
I. INTRODUCTION

"Smart Growth" has become the rallying cry nationally for many communities and state governments as an approach to managing growth in a thoughtful and methodical fashion. The State of Maryland has been a leader in this area, having adopted ambitious Smart Growth legislation in 1992 and 1997. Collectively, these initiatives aim to direct state resources to revitalize older developed areas, preserve some of Maryland's valuable resources and open space lands, and to discourage the continuation of sprawling development into rural areas. Smart growth has become the new paradigm for land development and growth management in Maryland, and the principles of smart growth have been embraced by a diverse number of organizations, citizen groups, and communities interested in finding innovative solutions to the unintended consequences of growth.

But exactly what does Smart Growth mean at the local level? What are some of the key principles behind Smart Growth? How can Smart Growth be implemented at the local level? What are the benefits and potential consequences of applying Smart Growth – based standards in the development review process? Will the market accept Smart Growth regulations?

This report, part of a zoning code rewrite project initiated by the by the Montgomery County Council and the Montgomery County Department of Park & Planning of the Maryland-National Capital Park & Planning Commission, addresses these issues. It first presents an overview of the guiding principles of Smart Growth, drawn from a variety of sources including the state's Smart Growth legislation and programs. Next it examines the potential benefits of adopting Smart Growth programs at the local level, such as reducing traffic,



providing housing choices, and preserving open space. We also look at potential consequences—for example, rising land costs and regulatory gridlock. In other words, what are the potential strengths and weaknesses of local smart growth programs? Finally, the report examines the issues of political and market acceptance of Smart Growth, forces that need to be understood in revising zoning regulations to reflect Smart Growth goals.

II. THE PRINCIPLES OF SMART GROWTH DEVELOPMENT

Smart growth has come to mean many things to different people. To take Smart Growth goals into account in revising Montgomery County's development codes, it is important to understand the key principles behind the concept. We have distilled the following Smart Growth principles from a variety of sources including the Maryland Department of Planning and the American Planning Association.[1] They begin to provide a roadmap to the changes that will be needed in the county's zoning code to achieve the objectives of Smart Growth.

SMART GROWTH PRINCIPLES

- Compact Growth and Preservation of Open Space/Environmental Resources
- Mix of Uses
- Cost Efficient Provision of Public Services and Infrastructure
- Quality Design, Community Character, and Sense of Place
- Transportation Options
- Housing Choices
- Efficient, Predictable Development Process

[1] Maryland Department of Planning, "What Is Smart Growth," (2002); The Principles of Smart Development, American Planning Association PAS Report No. 479 (1998); "Guides for Sustainable Community Development," The Florida Center For Community Design and Research at the University of South Florida (2002-Online); "Smart Growth: More Efficient Land Use Management," Victoria Transport Policy Institute (2002-Online)

COMPARING SMART GROWTH AND SPRAWL	
Smart Growth	**Sprawl**
Higher Density, clustered development	Low-density development
Infill (brownfield) development	Urban periphery (Greenfield) development
Mixed land use	Large areas of homogeneous land use
Multi-modal transportation and land use patterns that support walking, cycling and public transit	Automobile-oriented transportation and land use patterns, poorly suited for walking, cycling and transit
Streets designed to accommodate a variety of activities. Traffic calming.	Streets designed to maximize traffic volume and speed.
Planned and coordinated between jurisdictions and stakeholders	Unplanned, with little coordination between stakeholders
Emphasis on the public realm (streetscapes, pedestrian environment, public parks, public facilities).	Emphasis on the private realm (yards, shopping malls, gated communities, private clubs).
Source: "Smart Growth: More Efficient Land Use Management," Victoria Transport Policy Institute (2002—Online)	

Compact Growth:

Concentrate growth in and adjacent to existing developed areas. Avoid leapfrog development into rural areas.

Perhaps the primary tenet of Smart Growth is to focus development in existing communities and neighborhoods to take advantage of existing infrastructure and avoid sprawling out into rural areas in a fashion that chews up open space, farmland, and environmentally sensitive areas. Compact growth also usually assumes higher overall density developments that tend to be more walkable, provide the critical mass needed to support retail and commercial uses, reduce air pollution, and support alternative modes of transportation. An emerging benefit of compact growth is that it promotes public health in a variety of ways including better air and water quality and opportunities for walking and other physical exercise.

Importantly, Smart Growth does not eliminate urban expansion or suburban development. Rather, it changes the nature of such development to help achieve resource efficiency and community character goals.

Mix of Uses:

Encourage developments with a mix of residential, commercial, institutional and other uses that increase choices for people in living, working, and playing. Avoid large islands of single-use development in business parks and residential subdivisions.

This principle is based on the premise that locating houses, stores, offices, schools and other uses in close proximity to one another will promote independence of movement, reduction of auto use, housing choices, and lively places.

Cost Efficient Use of Public Services and Infrastructure:

Smart growth means favoring developments in neighborhoods and areas where people and businesses will use existing services/facilities like schools, water and sewer lines, emergency services, and roads. Avoid costly extension of services to greenfield sites.

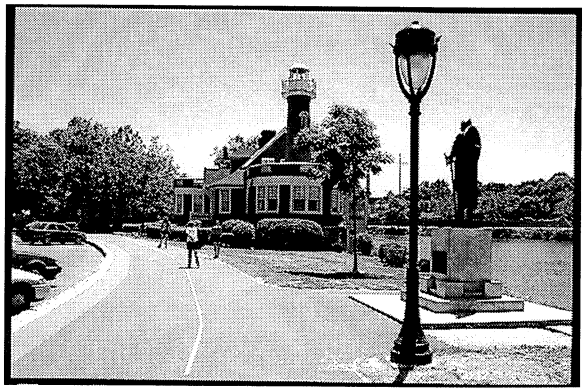
This principle calls for directing growth into areas that will make full use of existing urban services that is not only more cost efficient than extending new services outside urban growth areas, but draws on the assets of existing neighborhoods and communities, and supports neighborhood revitalization efforts.

Quality Design and Community Character:

Build new developments to fit people, not the automobile. Create lively, interesting living and work environments. Avoid cookie-cutter developments with features that cater to the auto rather than people.

Detailed, human-scaled design is an important principle of smart growth development in that it tends to increase community acceptance of compact, mixed-use development. Attention to a building's massing, scale and orientation, along with effective landscaping and architectural details, contribute to the successful compatibility between diverse uses and building types.

Designing safe, attractive streets that are balanced for pedestrians, cyclists and vehicles, promotes pedestrian movement and also leads to a greater sense of community through informal interactions with neighbors. Community safety is also improved with attractive, pedestrian-friendly street design.



Finally, good design can help create attractive, lively spaces that provide places for people to gather and interact.

Transportation Options:

To reduce over-dependence on the auto, take steps to encourage alternative forms of transportation and land uses that support bicycling, walking, and mass transit. Implement policies to make drivers pay the full cost of using automobiles. Avoid

developments that are heavily auto-dependent.

This development principle calls for alternative modes of transportation, reducing traffic congestion, and making neighborhoods safer. Compact, mixed use development patterns, connected by a safe, convenient network of streets and sidewalks, encourage:

- Walking, cycling, and transit as viable alternatives to driving;

- A variety of alternative travel routes, thereby dispersing traffic and lessening congestion; and
- Lower traffic speeds, making neighborhoods safer.

Housing Choices:

Encourage developments and land use patterns that offer a variety of housing choices to an increasingly diverse population. Avoid islands of residential developments with few housing types (e.g., only single-family detached).

Our society is becoming increasingly diverse in terms of age, ethnicity, income, and lifestyles. Smart Growth developments reflect this diversity by providing a range of housing choices in a variety of locations. Smart growth developments avoid large pods of a single housing type, but rather

offer a variety of single-family and multi-family development forms (e.g., detached, townhomes, zero-lot line homes, apartments, etc.).

An Efficient, Predictable Development Process:

Because Smart Growth involves a greater level of involvement in the development process than unfettered growth, particular attention must be paid to ensuring that development review processes are efficient and predictable, but at the same time flexible to address specific site issues. Avoid vague development standards and lengthy, highly negotiated review processes

This principle recognizes the important role that local land use regulations will play in facilitating Smart Growth development. Frustrating, costly, and time-consuming delays are often cited by both developers and planners as barriers to more innovative development and design. In a recent roundtable discussion with developers in Montgomery County, participants agreed that one reason that developers shied away from mixed-use projects was that zoning regulations lacked specific standards and guidelines, which made the process too subjective and difficult to get through. A similar discussion with county staff confirmed that the lack of standards and guidelines tended to increase the uncertainty of the review process, and contributed to a

more burdensome workload for staff. Changes in the zoning code can help address some of these regulatory barriers.

III. THE BENEFITS AND CONSEQUENCES OF SMART GROWTH

There continues to be considerable debate over the benefits and consequences of Smart Growth development. Proponents argue forcefully that the total economic, social, and environmental benefits of Smart Growth are real and substantial. They cite studies showing increased transit use, protected natural resources, and consumer preferences for coordinated planning and smart growth amenities such as public spaces, walkable neighborhoods and improved access to transit.

Critics are quick to proffer evidence that smart growth has not lived up to the "hype" of decreasing congestion or improving air quality. They maintain that in some cases it has actually increased traffic congestion, raised housing and land costs, and created unmarketable housing products and commercial spaces.

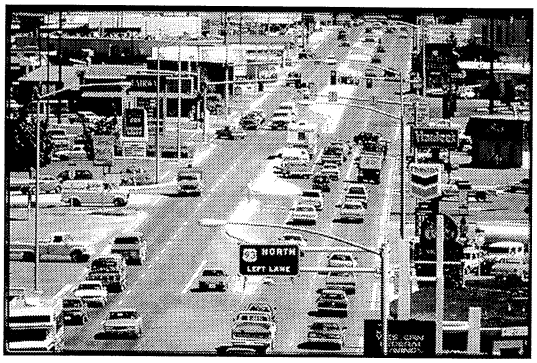
This section provides an overview of the supposed benefits of smart growth and some of the potential negatives. It concludes that the weight of evidence and opinion is that Smart Growth offers some modest, but nevertheless important potential benefits to communities in terms of reduced dependence on automobiles, reduced infrastructure costs, and protection of open space, among others.

Decreased Dependency on Automobile Travel/Decreased Congestion:

One of the most hotly debated issues is whether Smart Growth really reduces dependence on the automobile or reduces traffic congestion. While there is evidence going both ways, overall it appears that communities can expect a modest decrease in the amount of traffic associated with development in a compact scenario—perhaps in the 3-5% range.

Reduction in Vehicle Miles Traveled

Vehicle miles traveled (VMT) are increasing nationwide. Three factors have contributed to this growth—changing demographics, growing automobile dependence, and longer travel distances. Since sprawl development patterns create longer travel distances and



dependence on the auto, Smart Growth advocates assert they add to VMT. This position is supported by numerous studies linking lower vehicle miles traveled to more compact, mixed-use development patterns. A 1990 study in the San Francisco Bay area and a 1994 report on 28 other communities found that a doubling of residential densities produced 16 percent fewer vehicle miles traveled.[2] A 1997 study by the Urban Land Institute confirmed that as densities increase, per capita vehicle miles of travel decline, although other research indicates that the amount of reduction in a region is closely tied to the magnitude of existing development to new.[3] The more an area is

[2] Holtzclaw, J. 1994. *Using Residential Patterns and Transit to Decrease Auto Dependence and Costs.* San Francisco, CA: Natural Resources Defense Council.

[3] Dunphy, R.T.; D.L. Brett; S. Rosenbloom; and A. Bald. 1997. *Moving Beyond Gridlock: Traffic and Development.* Washington, DC: ULI-Urban Land Institute.

already developed, the less new development patterns will add to VMT. Finally, an influential study by Professor Robert Cervero, a leading transportation expert, found that segregation of uses and a leapfrog development pattern were both linked to increased VMT.[4]

Increased Share of Trips by Alternative Modes, Fewer by Auto

Smart Growth supporters maintain that compact, mixed-use development patterns will reduce the need for most trips to be made by auto compared to lower density development with spatially segregated land uses. Again, this position finds significant support in the research literature. For example, an extensive study by Parsons Brinckerhoff in 1996 found that residents of denser, more mixed-use neighborhoods were more likely to go by transit or to walk for all types of trips.[5] Another part of this project showed that higher residential densities in rail corridors and higher employment densities increase rail use. These conclusions were supported by a study of the importance of commercial establishments to encouraging walking trips in several Austin neighborhoods. It found the total savings in auto travel by households to be small, but statistically significant and increased with the number and variety of stores.[6]

Another project undertaken for the Federal Highway Administration in Los Angeles concluded that urban design and land use characteristics that can be controlled by local governments can influence a person's choice of commuting mode. The findings demonstrate that transportation demand management programs and transportation alternatives, combined with opportunities to accomplish mid-day errands without having to drive, reduce the use of single-occupant vehicles for commuting by at least 3 percent. The greatest reduction was realized in areas with an aesthetically pleasing urban character.[7] An ITE study of mixed-use developments in Colorado found that peak hour ITE rates should be reduced by 2.5 percent when applied to mixed use developments.[8] A National Cooperative Highway Research Program report reached similar conclusions. It identified a direct relationship between the proximity of services to offices and the propensity of the workers to walk to their midday destinations. Generally if the walk distance was less than 2,000 feet, a higher number of midday walk trips took place.[9]

Another interesting report prepared for Montgomery County in 1993 by a consulting team led by Sasaki Associates, "Transit and Pedestrian Oriented Neighborhoods Design Study," found that fewer workers in transit and pedestrian oriented neighborhoods in several Maryland communities drove to work alone than in other nearby neighborhoods—by margins of from 9-15%. And numbers taking transit were 1-8% above those in adjacent neighborhoods.

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[4] Cervero, Robert, and Kang-Li Wu. 1996. "Subcentering and Commuting: Evidence from the San Francisco Bay Area, 1980-1990." Paper presented at the 1996 TRED Conference on Transportation and Land Use. Cambridge, MA: Lincoln Institute. October.

[5] Parsons Brinckerhoff Quade and Douglas. 1996c. "Influence of Land Use Mix and Neighborhood Design on Transit Demand." Unpublished report for TCRP H-1 project. Washington DC: Transit Cooperative Research Program, Transportation Research Board. March.

[6] Susan Handy, "Urban Form & Pedestrian Choices: Study of Austin Neighborhoods, Transportation Research Review (1996).

[7] Cambridge Systematics, Inc., "Effects of Land Use and Demand Management on Traffic Congestion & Transportation Efficiency," Federal Highway Administration (1994).

[8] Institute of Traffic Engineers, "Trip Generation For Mixed-Use Developments," ITE Journal, February 1987.

[9] K.G. Hooper, "Travel Characteristics at Large-Scale Suburban Activity Centers," Report #323, National Cooperative Highway Research Program, Transportation Research Board (1989).

The findings of numerous other studies are well-summarized by Kenworthy and Newman who compared automobile travel growth in central, inner, and outer neighborhoods:

> "It is clear that the level of automobile use is not simply a matter of how wealthy people are, but is also heavily dependent on the structure of the city and whether transport options are available other than the automobile. Thus as cities become more dispersed and lower in density towards the edges, the level of compulsory automobile use rises markedly, regardless of income."[10]

Contrary View

While there is a significant amount of empirical evidence that Smart Growth development patterns have a modest, but important impact on VMT and reduction in the use of autos, there are a number of studies that contradict this conclusion.

As discussed above, supporters of Smart Growth often maintain that street design—specifically an interconnected grid pattern--can reduce auto travel and encourage walking. However, a 1998 study by Crane and Crepeau concludes "there is little empirical or theoretical support for these claims…our data do not generally support the argument that the neighborhood street pattern, the single most implemented traffic feature of the new urbanism, has any significant effect on car or pedestrian travel when controlling for land uses and densities around the trip origin, trip costs, and traveler characteristics."[11]

In *The Weakening Transportation-Land Use Connection,*[12] Genevieve Giuliano, Professor of Urban and Regional Planning at the University of Southern California, concluded that transit's influence on land use and urban development patterns was weakening. In her analysis of Portland's LUTRAQ study, the author found that the city's land use policies appeared to have little impact on travel outcomes. "Most of the observed change is due to the TDM (Transportation Demand Management) policies, rather than to the land use and transit policies. Without TDM, travel impacts of the LUTRAQ alternative are minor."[13]

Giuliano concludes, "if the aim is to reduce environmental damage generated by automobiles, the effective remedy is to directly price and regulate autos and their use, not land use. If the aim is to reduce metropolitan spatial segmentation, the effective remedy is to expand the range of housing and employment choices, not travel choices."[14]

Other studies point out that commuting times in sprawl developments are actually reduced compared to more dense settings. While the suburban commute time is not shorter in distance, it is often shorter in time due to higher speeds. And over time, the contrarians assert that new businesses will locate near residences, further reducing travel times.

Finally, critics of Smart Growth argue that state and local governments actually have lower transportation costs under a sprawl scenario because much of the cost of building and operating highways and streets is paid for by gas taxes and licensing fees. In contrast, transit users are typically heavily

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[10] Kenworthy, J. and P. Newman. 1993. *Automobile Dependence: The Irresistible Force?* Murdoch University, Institute for Science and Technology Policy.

[11] Randall Crane & Richard Crepeau, "Does Neighborhood Design Influence Travel?" University of California Transportation Center, No. 374 (1999).

[12] Genevieve Giuliano, The Weakening Transportation-Land Use Connection (1995), Access 2-10.

[13] Id. p. 8.

[14] Id at 11.

subsidized. Additionally, an analysis of the total cost of travel for ten diverse, prototypical trips in Boulder, Colorado, showed that the automobile is clearly the least costly means of travel for trips between dispersed, low-density destinations, particularly during off-peak hours. This is true because they can take direct routes, are faster, and allow drivers to avoid waiting times. Only the auto can offer the convenience of door-to-door transportation.

Protection of Open Space, Agricultural Lands, and Sensitive Natural Areas

Numerous studies have documented the significant loss of agricultural lands and sensitive natural areas to current development patterns. The leading series of studies by Professor Robert Burchell of Rutgers University looked at the comparative amounts of farmland and fragile environmental lands consumed under alternative development scenarios in South Carolina, Michigan, Kentucky, Delaware, and New Jersey. The savings ran from 20 percent to 40 percent, favoring the planned, compact development scenario.[15] A similar study of compact versus low-density growth in the San Francisco Bay area came up with similar results, with an even greater savings of wetlands and steep-slope areas. On the local level, there is no better example of the potential benefit of compact growth than in the State of Oregon where the adoption of urban growth boundaries and the creation of protective zones outside of them have led to the protection of 25 million acres farm and forest lands, since 1973.[16] Interestingly, there has been a significant loss of such lands within the growth boundaries.

A number of studies also show that the viability of farming near scattered sprawl settlements is reduced by the difficulty of farming near residential subdivisions. Real estate sales also often reduce the size of

farms, thus limiting the realization of economies of scale.[17]

Several case studies suggest that local open space acquisition programs have not been sufficient to offset the loss of agricultural lands associated with sprawl. About 3 acres of farmland and open space were lost for each acre acquired. This causes the amount of undeveloped open space per capita to fall at least 25 percent and sometimes more.[18]

Contrary Views. Perhaps the strongest argument against compact development from an open space perspective is that low-density development tends to provide more open space directly accessible to individual households in the form of larger private yards. Personal open space continues to be high on the list of desires of most Americans according to surveys conducted by Fannie Mae.[19] According to these surveys, prospective homeowners want not only yards, but also yards on all sides. Moreover,

[15] See, for example, Robert W. Burchell, "South Carolina Infrastructure Study: Projections of Statewide Infrastructure Costs 1995-2015" (1997).

[16] "Once There Were Greenfields," Natural Resources Defense Council and Surface Transportation Policy Project, 1999.

[17] Burchell, et al, The Costs of Sprawl – Revisited, Transportation Research Board (1998), p. 75.

[18] Discussed in Clarion Associates, "The Costs of Sprawl in Pennsylvania," January 2000, p. 42.

[19] "Survey of Residential Satisfaction of Housing Occupants," Washington, D.C.: Federal National Mortgage Association (1985-96).

current surveys also indicate that single-family detached housing is more popular than it was a decade ago.

Reduces Public Infrastructure Investment Costs

There is strong evidence from around the nation that Smart Growth development patterns result in lower costs to build public infrastructure. Three major research studies have concluded that construction costs for roads, utilities, and schools can be up to 25 percent lower under planned growth, compact development scenarios that avoid sprawl. These findings are summarized in the following table:

Relative Construction Costs for Public Infrastructure Under Sprawl versus Planned/Compact Development

Infrastructure Cost Category	Sprawl Development Cost Index	Planned Development Cost Index (% Relative to Sprawl)			Planned Development Blended Cost Index (% Relative to Sprawl)
		Duncan	Burchell	Frank	
Roads (Local)	100%	40%	74-88%	73%	75%
Utilities (Sewer/Water)	100%	60%	86-93%	66%	80%
Schools	100%	93%	97%	99%	95%
Other (Police, Fire, and Rescue Stations)	100%	102%	N/A	100%	100%

Sources: *Economic and Fiscal Costs (and Benefits) of Sprawl*, Robert W. Burchell; 29 Urban Lawyer 2, p. 159 (Spring 1997); Robert W. Burchell studies (1992-1997); James Duncan, "The Search for Efficient Urban Growth Patterns," Florida Department of Community Affairs (July 1989); and James Frank, "The Costs of Alternative Development Patterns," Urban Land Institute (1989).

In her study, *The Economics of Urban Form*, Pamela Blais estimates that in the Toronto region, if the present low-density form of development continues (26 persons/acre), future growth will require $90 billion in capital investment in new infrastructure over the next 25 years. Alternatively, the study found that if more compact urban forms (60 person/acre) were adopted, the Toronto region could save between $700 million and $1 billion in external costs associated with emissions, health care, accident policing, and capital, operating, and maintenance costs.

On a more local basis, many studies from different jurisdictions demonstrate that residential development typically does not "pay" its own way in terms of services demanded compared to local tax revenues. For example, a study of eleven rural Pennsylvania townships showed that, on average, township expenditures for community services and schools for residential land outweighed the revenues the townships received from such use. The order of magnitude of this negative fiscal impact ranged up to 1:2 (for every $1 in revenues, $2 in expenditures). Another study from Pennsylvania conducted by Tischler & Associates of Maryland assessed the fiscal impact of providing township services under three different residential development scenarios.[20] The urban infill scenario (with lot sizes of 5,000 to 15,000 square feet) resulted in tremendous cost savings compared to a "sprawling subdivision" alternative (scattered subdivisions of 1 acre average) or a

[20] Paul Tischler, "Fiscal Impact Analysis of Residential Development Alternatives, Lancaster County, PA" (1993 & 1998).

"sporadic development" scenario (random development pattern with lots from ¼ to 20 acres). The annual deficit per household was $40 for urban infill, $147 for the sprawling subdivision, and $1,133 for sporadic development.

Contrary View

A number of studies point out correctly that operating costs for road maintenance and schools in older cites are much higher than in suburban communities. As concluded in the Cost of Sprawl—Revisited (1998), the research "indicates that without taking into account what services are delivered and by whom—operating costs, whatever they are comprised of, appear to be less in jurisdictions of low density than in jurisdictions of high density."[21]

Additionally, Smart Growth skeptics assert that infrastructure costs for sprawl development may be higher initially, but could diminish over time with infill.

Promotes Quality of Life and Community Character

A variety of studies and reports assert that Smart Growth development promotes a higher quality of life and community character in a number of ways:

- Compact higher density developments are more attractive
- Sprawl development patterns lead to a weakened sense of community
- Compact development patterns lead to less air and water pollution
- Sprawl development increases stress and leads to a less healthy lifestyle
- Smart Growth helps protect historic resources.

Critics of low-density, dispersed development decry its ugliness. Visual preference surveys that have been used to gauge the reaction to sprawl typically show that individuals favor traditional communities over sprawl developments. On the other hand, the literature fails to indicate any significant causal relationship between sprawl and aesthetically less-pleasing low-density development. Indeed, in one survey in the early 1990s, Americans favored homogeneous neighborhoods over mixed ones by a margin of two to one.[22]

On the other hand, there is more evidence that low-density developments do weaken a sense of community or make building a sense of community more difficult. One study showed that residents in low-density areas rely more on their cars for shopping and recreation trips and thus are less likely to develop contacts and friendships with neighbors.[23] Another study assessed the psychological sense of community across different neighborhoods and housing conditions in Columbus, Ohio, and found that residents of mixed-use areas had significantly more sense of community than residents of single-family neighborhoods.[24]

[21] Burchell, et al, The Costs of Sprawl – Revisited, Transportation Research Board (1998), p. 75.

[22] L. Bookout 1992. "Neotraditional Town Planning: The Test of the Marketplace." *Urban Land* 51, 6: 12-17.

[23] Nasar, Jack L., and David A. Julian. 1995. "The Psychological Sense of Community in the Neighborhood." *Journal of the American Planning Association* 61, 2: 178-184.

[24] Thomas Glynn. 1981. "Psychological Sense of Community Measurement and Application." *Human Relations* 34, 7: 789-818.

Having said that, evidence from as far back as the 1950s (Herbert Gans) indicates that some dense areas lack community while some suburban areas have it.

Experience does show that Smart Growth development patterns are likely to result in less air and water pollution. The current rates of VMT growth in Maryland and nationally, and the increase in the number of auto trips that are associated with outlying low-density development, are significant contributors to ozone and other air pollutants. Much of the air pollution from automobile trips comes in the few minutes after the engine starts—up to 64% by U.S. EPA estimates. By eliminating short trips, compact development can significantly reduce such emissions.

With regard to water pollution, a technical study of the Chesapeake Bay and Watershed showed that a concentrated development pattern would result in reductions of up to 50 percent in sedimentation, nitrous oxides, and water consumption compared to a dispersed/sprawl pattern.[25]

Several studies have also made the case that suburban sprawl development patterns are less healthy. Environmental health experts at the Centers for Disease Control and Prevention recently published a report that asserts suburbs are designed in such an auto-oriented fashion that residents don't participate regularly in physical activity like biking and walking.[26] This was particularly true of school children who are far less likely to walk or bike to school than 20 years ago. Less exercise leads to obesity and associated physical ailments. The same study chronicled the problems of air pollution associated with increased auto travel and increases in VMT. Increased air pollution has had serious adverse health effects, for example, increasing the incidence of asthma. The report concludes, "it seems imperative that new transportation options be developed and implemented in order to help alleviate the public health problems related to worsening air quality..." Other studies cite stress related to longer commuting times as another adverse health effect of low-density sprawl development.

Contrary View

On the other hand, the National Association of Homebuilders has severely criticized some of these reports, pointing out that the Centers for Disease Control and Prevention published another study in September 2001 that showed suburbanites are the healthiest people in the country, exercising more and living longer that residents of rural and urban areas.

Moreover, critics of Smart Growth point out that sprawl suburban development typically has lower crime rates than more dense urban developments. Statistics do appear to indicate that urban residents experience higher rates of crime than their suburban or rural counterparts. However, other research has found that there is no significant relationship between crime and density.

[25] Burchell, et al, "Water Pollution Impact Technical Report," Governor's Commission on Growth in the Chesapeake Bay Region, Maryland Office of Planning (1991).

[26] Richard Jackson & Chris Kochtizky, "Creating A Healthy Environment: The Impact of the Built Environment on Public Health," Sprawl Watch Clearinghouse (2002).

Responds to Diverse Housing Needs

As documented in the companion report to this study, *Characteristics of the 21st Century Workplace: Land Use Implications for Montgomery County,* no single type of housing can serve the varied needs of the diverse households that are expected to emerge in the 21st Century. Advocates maintain that Smart Growth development will address this situation in several ways. First, mixed-use developments will be designed to provide a range of housing types—single family, townhomes, and multifamily on a variety of lot sizes. Second, because Smart Growth developments tend to be denser, housing within them will be more affordable.

These arguments are supported by major studies by Professor Burchell that focused on New Jersey and Michigan.[27] They are the only studies to look at overall housing costs in a larger area governed by managed growth (at the state or regional level), where development would be restricted in certain locations (e.g., environmentally sensitive lands) will encouraged in others (areas with existing or excess infrastructure capacity). These large-scale studies developed housing cost models to estimate the likely housing price increases in the more restricted outlying areas and the likely housing price decreases in targeted growth areas (due to their inherent higher densities and the proposed housing type mix—e.g., more attached housing). Under the planned development scenarios in Burchell's studies, more housing would be built in core areas than in more rural, outlying areas. The studies concluded that overall private housing costs under the planned growth scenarios would be between 2 percent and 8 percent lower than under the sprawl development scenarios. Thus communities and regions concerned with the affordability of their housing stock could realize savings through the use of less land per home.

Contrary View

In contrast, several studies conducted in the 1980s found that the imposition of residential growth controls, such as annual building permit caps, does have an adverse impact on housing prices compared to homes located in similar communities without such controls.[28] However, these studies only focused on land use controls that constricted supplies, not Smart Growth programs that promoted housing development in existing areas while restricting it on the periphery.

IV. POLITICAL AND MARKET ACCEPTANCE OF SMART GROWTH

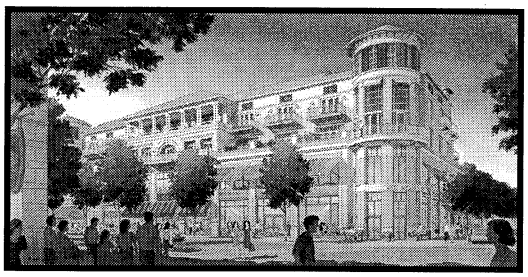
The weight of evidence to date demonstrates that Smart Growth can indeed have positive impacts on traffic reduction, open space preservation, and other benefits. But what about the politics of Smart Growth—do state and local officials have the stomach to impose regulations that mean changing the way the development business operates? And what of consumers—do they prefer Smart Growth developments over the low-density, sprawling development patterns that have predominated the last 30 years?

A number of new design concepts have emerged in recent years that promote many of the Smart Growth development principles. Transit-oriented development

[27] Burchell, Robert W. 1992b. *Impact Assessment of the New Jersey Interim State Development and Redevelopment Plan, Report III: Supplemental AIPLAN Assessment.* Trenton: New Jersey Office of State Planning; and Burchell, Robert W. 1997a. *Fiscal Impacts of Alternative Land Development Patterns in Michigan: The Costs of Current Development Versus Compact Growth.* Southeast Michigan Regional Council of Governments.

[28] Cited in Clarion Associates "The Costs of Sprawl in Pennsylvania," Denver, CO (2000), p. 26.

(TOD), new urbanism, and neo-traditional neighborhoods are the most popular design concepts that support the underlying principles of mixed use, compact development, and high density infill housing.



This section discusses the political obstacles to Smart Growth, market acceptance of certain Smart Growth features and new design concepts like neo-traditional development, and the development community's skepticism about Smart Growth development.

Political Obstacles

Although an increasing number of local elected officials and planners support the concept of Smart Growth, there are a number of concerns that they must deal with. These include federal regulations, pressures for economic development, property rights advocates, and NIMBYism, that often dominate local policy making, and ultimately become barriers to Smart Growth.

At a national conference on Smart Growth sponsored by the Urban Land Institute,[29] Terry Kauffman, Chairman of the Board of Commissioners for Lancaster County, PA, cited the following political barriers to Smart Growth in his community:

- Liability issues and remediation costs associated with the redevelopment of brownfields
- Lack of sufficient funds for both the preservation of agricultural land in the rural areas and investment in infrastructure in the urban areas
- A costly and time-consuming development approval process
- Over 200 years of development patterns and the perception that there is unlimited land that can be built upon

In the same discussion on political obstacles to smart growth, the Mayor of Fort Wayne Indiana, Paul Helmke, identified these hurdles to implementing Smart Growth in his city:

- An anti-urban attitude contained in many federal and state statutes that can hamper Smart Growth efforts. For example, the City of Fort Wayne established a special tax district in its city limits to raise the funds necessary to implement the changes necessary to comply with the stormwater runoff standards of the Clean Water Act. An unintended consequence of this policy is to make it significantly less expensive for a new business to establish itself in the suburbs of Fort Wayne rather than in the city itself.

- Another example is the non-attainment sanctions under the Clean Air Act, which have the unintended effect of promoting growth outside of the non-attainment area, e.g., greenfields development. And finally, the liability laws under the Superfund law that can hold new property owners liable for the clean up of contamination caused by

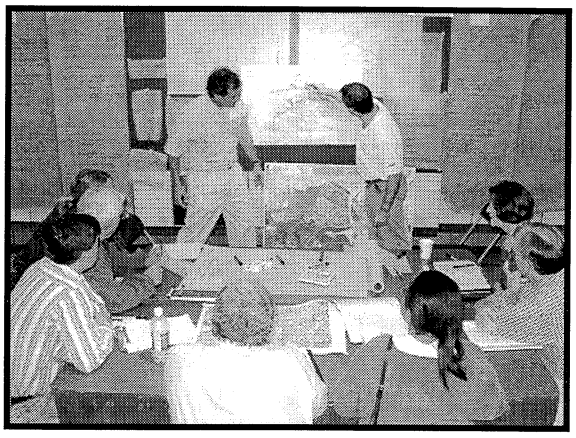
[29] Urban Land Institute, National Policy Forum, Smart Growth Policy and Practice. Nov. 19, 1998. Meeting Summary Notes. (http://www.uli.org/Pub/Pages/a_issues/A_SmL5Nat2.htm)

previous owners -- significant deterrent to brownfield development.

- Economic development. Some communities have not shared in the economic boom of the 1990s and are loath to take any steps that may hurt their economic viability. Many people would say, "I want Smart Growth, but I prefer some growth to no growth."

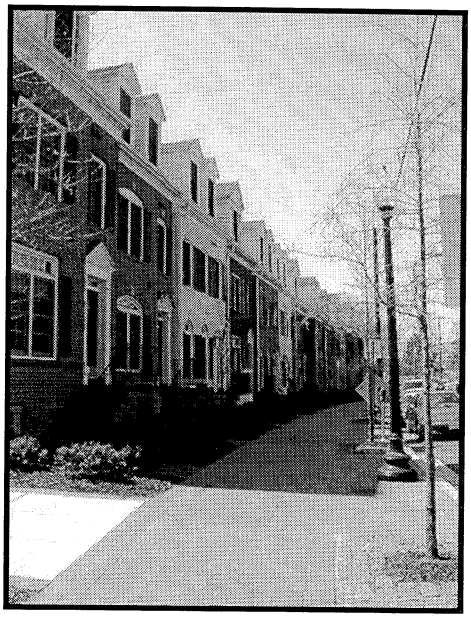
Community Resistance & NIMBYism

Because smart growth developments represent a significant departure from conventional zoning and development practices in some communities, mixed-use developments with higher density housing have at times encountered significant opposition from neighbors and residents. People generally associate higher density and affordable housing with urban problems, and therefore, are suspicious of proposals that incorporate these elements. Without strong leadership promoting the benefits of



Smart Growth projects are often rejected or significantly modified.

Another issue for residents is the housing diversity of Smart Growth development. As discussed earlier, housing diversity combined with higher densities and mixed uses, serves the larger objective of creating walkable, pedestrian-friendly neighborhoods, and reducing traffic.



However, because diversity requires mixing housing types and prices, this may be one of the hardest barriers to overcome, according to New Urbanist Peter Calthorpe. The principle of diversity "advocates mixing income groups in a way that is very frightening to many communities...it is a principle that is rarely realized in practice and...almost always compromised."[30]

The generalized nature of a mixed-use project, and the flexibility that it must include may also generate concerns about the final product.[31] Many developers have had to make substantial concessions, usually by reducing density, cutting the number of multifamily units, and eliminating some street connectivity with the new development, to satisfy the concerns of NIMBY residents who often prefer the

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[30] Peter Calthorpe, *New Urbanism, A Blueprint For Building A Better Neighborhood.* Denver Post, April 26, 1998, cited in Mark, Reilly, Neo-traditional Development, Land Use Law Center, Pace University, www.law.pace.edu/lawschool/landuse

[31] Eric M. Braun, *Growth Management and New Urbanism: Legal Implications*, The Urban Lawyer, 817, 818 (Fall 1999).

privacy and exclusivity of a typical suburban development.[32]

In other cases, public resistance may be due to previous bad experiences with mixed use projects. For example, when Colorado Springs, Colorado, began revising its zoning code to include new mixed use districts, the proposals were met with skepticism from some residents whose only experience with mixed-use had been seeing the city approve conversions of older houses in their neighborhoods to commercial uses with adverse consequences in terms of noise, lighting, signage, and parking. Because the city failed to adopt any residential protection standards or guidelines or establish appropriate transition areas the residents were less than enthusiastic with the concept of "mixed use".

Experience in other communities around the nation shows that there are several inherent problems with integrating diverse uses, because the characteristics of these uses are often incompatible with each other. These incompatible characteristics can create frustration from residents as well as retail and commercial tenants. For example, when housing units are located on floors above retail and commercial spaces, residents often complain about noise and odors. Those complaints are often directed at elected officials who approved the developments.

Consumer and Market Acceptance

Smart Growth's compact development policies affect housing density, as well as the type of housing products that are built. While many planners have embraced Smart Growth, the question remains whether the average homebuyer or renter will. Put another way, will the benefits of a smart development--proximity to transit, walkable neighborhoods, reduced congestion, and high quality design--be enough to offset the lure of traditional suburban living – large

yards, quiet streets, and privacy? Based on a review of current literature and consumer preference surveys, the conclusion is....the verdict is still out. While a number of mainstream surveys continue to show that Americans prefer the wide open spaces of suburbia over denser, mixed-use development, there is growing evidence that Smart Growth is appealing to an increasing number of people, particularly aging baby boomers.

On the mainstream side, several recent studies indicated extremely strong preferences for suburban versus other development patterns. Eighty-three percent of respondents to a 1999 National Association of Home Builders (NAHB) Smart Growth Survey preferred a single-family detached home in the suburbs, even if it required a longer commute than a

[32] Id. In fact, "several proposed developments in North Carolina have been substantially revised or defeated due to citizen opposition" relating to small lot size and commercial development. It is worth noting that TND ordinances are flexible enough to allow creative resolutions to issues like privacy. For example, the project of Orenco required residences to be built three feet above sidewalk level so that passersby could not see into the first floor windows. *See* Christina Farnsworth, *Building Community*, Professional Builder, Oct. 1998 at 58 (noting that the developers of Harbor Town, a neo-traditional neighborhood near Memphis, TN, became private in order to escape the constraints of the municipal land use ordinance).

similarly priced town house in the city.[33] And 73 percent of respondents to a 1995 American LIVES survey which was part of a New Urbanism study preferred suburban developments with large lots and wide streets to residential urban areas, including narrower streets, sidewalks, and shared recreational areas. Similarly, an Orange County, California, survey found that residents preferred open space and living far from the urban core, and were willing to give up proximity to jobs in return for the amenities of the suburban environment (e.g., safety, privacy, tranquility).[34]

Another conventional finding is that housing consumers prefer single-family detached units over all others. This was confirmed in a 1997 Fannie Mae National Housing Survey. Moreover, in the 1999 NAHB survey, 78 percent of respondents were opposed to apartments in their predominantly single-family neighborhoods.

Finally, other surveys show that housing consumers typically prefer lower densities. Preferences ranged from 63 % to 75 % in a host of surveys over the past decade. Also, the average square footage of new homes has increased from 1,800 in 1985 to 2,100 in 1997 -- and larger homes usually require larger lots.

According to William Fulton, contributing editor of Planning magazine, there are several reasons why it has been so difficult to gain market support for the neo-traditional, compact, higher-density neighborhood First, the housing products are so "radically different from those that have dominated the residential real estate market for the last half-century", they simply don't conform to the "well established set of expectations about what houses and neighborhoods will deliver".[35] Second, neo-traditional projects are sold on the provision of high quality amenities and a diversified, mixed-use community. When these amenities have not been installed in the early phases, projects have suffered. Fulton cites Laguna West, California, as an example of how poorly timed phasing resulted in scattered streets and isolated land uses that made it difficult to create a sense of community. [36]

But other studies and surveys show that the preference for a single-family home in the suburb on a big lot is far from universal. Housing expert Dowell Myers asserts that changing demographics are already creating a strong fan club for Smart Growth developments:

> "The growing demand will be the result of changing demographics, changing tastes, and the closing of the suburban frontier. Americans are getting older, and fewer households have children. Both of these demographic trends contribute to growing demand for more varied housing choices."[37]

The US population, age 55 and older, is expected to represent over 29% of the population by the year 2020. As "empty-nesters", this segment of the population will likely downsize its housing needs and opt for more locational convenience. A 1998 survey of the Baby Boomers, from Fannie Mae, indicated that while the majority, 53% would remain in their current home, 35%

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[33] Discussed in Michael Carliner, "Comments on Current Preferences and Future Demand for Denser Residential Environments," Housing Policy Debate, Vol. 12, #4 (2001).

[34] C. Kenneth Orski, *Suburban Sprawl – Can We Do Anything About It?* Urban Mobility Corporation, Vol. 10, No1: Planning, Research & Evaluation. Jan/Feb. 1999, p. 3.

[35] William Fulton, *New Urbanism, Hope or Hype for American Communities*? Policy Focus Report. Lincoln Land Institute. 1996.

[36] Id.

[37] Dowell Myers, et al, *The Coming Demand*, Congress for the New Urbanism (2000) p. 3.

would sell and either buy or rent a new home.[38]

It is also important to note that a small but significant percentage of housing consumers prefer an urban or town residential style to a conventional suburban residential style -- 17% in the 1999 NAHB to 33% in the American LIVES survey. Similarly, some housing consumers actually prefer higher density as indicated by a preference for smaller lots or clustered development -- from 37% in a 1998 Professional Builder survey to 57% in the NAHB survey. Based on such statistics and demographic trends, Myers predicts "these preferences will add greatly to the growing market impact of home seekers who prefer compact-city alternatives."

Other surveys reveal that young families with children have a pronounced preference for sidewalks, smaller lots with smaller front yards, pedestrian oriented streets, and higher-density housing with houses on smaller lots close to the street—but often in a suburban context, not necessarily an urban environment. A study in Kentlands, Maryland, concluded that residents paid 30% more for their homes compared to nearby subdivisions as a premium to live in a neo-traditional community with its pedestrian-friendly amenities.[39]

With respect to infill development, a 1998 study by the Brookings Institute and Fannie Mae, found that one of the fastest growing housing markets in the United States was downtown housing. Houston expected its downtown housing to quadruple by 2010, and Cleveland expects it to triple. Denver, Seattle and Memphis are all expecting to double their downtown residents in the next 10 years.[40]

What to make of these conflicting studies and preference surveys? John Bailey and Elizabeth Humphrey perhaps summed up best in Housing Policy Debate, a Fannie Mae periodical:

> "For most of us, the American Dream does include a single-family home with its own yard, a cheap and safe place to put our car(s), and neighbors we can visit only if we want to. But as this study points out, our preferences change over a lifetime, and a significant and growing number of Americans have a different dream. For some, the convenience and amenities of urban apartments or town house neighborhoods are very appealing. Others may want affordable rental housing. In the most consumer-oriented economy in the world, we should be able to figure out how to bring those dreams within reach too."[41]

Development Community Reluctance

Compact residential growth and mixed-use development are hallmarks of Smart Growth--and probably some of the more difficult design concepts for developers to produce. From the developer's perspective there are a number of barriers to developing compact residential projects or a mixed-use product, including financing, costs, inflexible regulations, and community resistance. As one prominent housing expert recently observed:

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[38] John Niles and Dick Nelson, *Measuring the Success of Transit-Oriented Development.* American Planning Association. National Planning Conference (1999) at 6.

[39] Joe Gyourke, *Financing New Urbanism Projects, Obstacles and Solutions.* Housing Policy Debate. Vol. 11, Issue 3. Fannie Mae Foundation 2000. 740., citing Mark Eppli and Charles Tu, Valuing New Urbanism: The Impact of the New Urbanism on Prices of Single-family Homes. Urban Land Institute. 1999.

[40] Edward McMahon, *Looking Around.* Planning Commissioners Journal. No. 39 (1999) pp. 4-5.

[41] Vol. 12, Issue 4 (2001) p. 666.

> "Conventional development is well-understood, relatively easy to finance, simple to build, and modular in nature so it does not need to be related to the surrounding built environment. Relative to more compact residential development, these are daunting challenges."[42]

Financing

Probably the greatest difficulty in financing a mixed-use project is perception by lenders and investors that the complexity of integrating uses, particularly in the suburbs, raises the risk level. Complexity also equates to the uniqueness of a project, which is defined as a "nonstandard investment" and attached with significant return premiums. In a survey of financers, developers and investors, conducted by the Wharton School of Business, to determine whether financing practices affected New Urbanism developments, respondents emphasized "it is difficult to accurately predict the demand for projects with multiple property types – whether there are New Urbanist features involved or not.[43] The bottom line is that lenders are reluctant to finance and underwrite a project that has relatively little "real life" experience. [44] The complexity of a mixed-use development also raises concerns that highly skilled, experienced project management is needed in order to properly phase the development and oversee cash flow. Since most developers specialize in single use products, they are perceived to lack the proper skills required for this type of project. [45]

Some respondents to the Wharton study expressed concerns with the apparent lack of market demand for the New Urbanism products. For many lenders and investors, the negative perception of density and multi-family housing in the suburbs, combined with NIMBYism problems, creates additional risk premiums for neo-traditional developments.[46]

Retail Market Demands

Commercial market realities also present challenges to Smart Growth precepts of compactness, small scale, and diversity of building types. Strong retail market trends are producing facilities on a much larger scale than seen even a decade ago – the so-called "big box phenomena."[47] According to a number of studies, lenders are skeptical about financing smaller scale elements of mixed-use development.[48]

The same kinds of market qualms has also affected financing for retail uses near transit stations--usually due to the fact that the location proposed for the retail fails to satisfy basic market criteria such as clustering, good visibility, easy access and parking.[49]

Overall Development Costs

Another difficulty developers have with mixed-use projects is the cost associated with building at higher densities. Although there are savings associated with smaller lots, multiple uses or multiple types of a use (apartments, townhouses, detached houses), means that the economies of scale associated with mass producing one commodity cannot be realized.[50] In addition, the nonstandard

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[42] Christopher Leinberger, *Financing Progressive Development,* The Brookings Institution (Washington, D.C., 2001).

[43] Id.

[44] See Fulton, at note 11 "The amenities of neo-traditional development – walkable streets, public spaces and a sense of community, are not as easy to quantify as large lots and views. Consequently, lenders are reluctant to becoming involved with a product, albeit innovative, that doesn't have a proven track record."

[45] See, *Financing New Urbanism*, infra. note 15 at 40.

[46] Id.

[47] C. Duerksen & R. Blanchard, "Site Planning For Large Retail Establishments," Zoning News, American Planning Association (Feb. 1999).

[48] *Financing New Urbanism*. Infra note 15 at 739.

[49] *Measuring the Success of Transit-Oriented Development. American Planning Association.* Infra note 14 at 13.

[50] *Financing New Urbanism*, infra note 15 at 738.

nature of many mixed-use developments means that the traditional engineering practices cannot be applied. Infrastructure investment required by smart developments is also more elaborate (e.g., alleys, and sidewalks), and thus more expensive than that found in more traditional suburban projects. It should be noted, however, that neither equity investors nor lenders experienced in neo-traditional development perceive extra utility and infrastructure costs as a major obstacle to the financing of a well-planned project.[51]

Regulatory Obstacles

Another obstacle to mixed-use projects has been the regulatory and procedural difficulties associated with obtaining local government approval. In some instances, zoning and building standards present roadblocks to compact, mixed-use projects or allow too much discretionary decision-making. In Longmont Colorado, for example, Kiki Wallace's request to modify the city's street width requirements turned into a three-year battle with City agencies and cost the project its affordable housing component.

Wallace designed Prospect, a 500-unit residential development, using neo-traditional design principles, including smaller lots, off-street parking, sidewalks and alleys, including a variety of housing types and prices. Wallace intended to keep a portion of the homes at a very "affordability" level, even though there was no mandate to do so. However, after requesting a reduction in the city's road width standards from 36 feet to 20 feet, he ended up spending 3 years battling with the city's fire department and transportation engineers before getting approval. The delay and costs associated with that modification not only cost Prospect its affordable units, according to Wallace, it raised the home prices in the entire development.[52]

V. CONCLUSIONS

There is an increasing body of evidence and studies that demonstrate some of the clear benefits of Smart Growth. The evidence is particularly strong and convincing in the areas of reducing public infrastructure costs and preservation of open space. Studies also show it can have an important role in reducing traffic congestion. However, those benefits are still being debated in this development community and have not been translated into strong developer acceptance at this point.

Fortunately, there are increasing indications that housing consumers, particularly baby boomers, are coming to appreciate the benefits and convenience of living in Smart Growth development and there is substantial, project-by-project evidence from across the United States, particularly in urban and suburban jurisdictions, that mixed-use developments can succeed in the market. Perhaps of even more importance, is the evidence that developers and financial institutions are learning the ropes of mixed-use projects and other key elements of Smart Growth development patterns -- and that Smart Growth can be a good investment for smart money.

[51] *Financing New Urbanism*, infra note 15 at 738.

[52] Matthew Goebel, *Reducing Housing Costs Through Regulatory Reform: A Handbook For Colorado Communities*. Colorado Division of Housing. Department of Local Affairs. (1998) p. 41.