Topics in Smart Growth



The vision driving smart growth is that communities get better as they grow while remaining both economically viable and environmentally responsible.

IIIA. Open Space

s recently as a century ago, the term "open space" would have sounded strange to most Americans. Though industrialization had brought a lot of people to the rapidly growing cities, the U.S. was largely a rural country. But as our nation has become increasingly urban, with most people now living within the orbit of a city, the concept of open space – the land we choose not to build upon – has growing salience.

Although vast areas of the country remain undeveloped, this is little comfort to residents of rapidly spreading metro areas, who see viable farms, forests, coastal marshes and other treasured landscapes and ecologically sensitive lands overtaken or marred by poorly planned development. Development in urban areas is increasing at a faster rate than in the past and farmland loss rose dramatically during the 1990s. While the percent of U.S. land that is developed is estimated to be between five and seven percent, the American Farmland Trust estimates that 15 percent of all land developed in U.S. history was developed in the most recent five-year period. Between 1992 and 1997, the nation lost 1.2 million acres of farm and ranch land each

year – 51 percent higher than the previous 10 years.

Ironically, even as we have become a more urban nation, we have actually become less conscientious about planning for public green space, particularly in rapidly developing suburbs. In the late 1800s and early 1900s, city governments and venerable landscape architects like Frederick Law Olmsted – creator of New York's Central Park and Washington D.C.'s National Zoo – made green space an integral part of the developing landscape, and cities large and small created public parks. After World War II, when America's growth shifted to the suburbs, plans often called for developers



simply to leave a certain percentage of land within their projects undeveloped, resulting in "open space" of little real value or perceived benefit. In recent years, more people are realizing that this haphazard approach is not in the public's best interest and are looking for new ways to protect and plan for open space that meets local needs and preserves the character of a place.

A fundamental concept of smart planning is that communities must make a conscious choice about what land will be developed and what will remain open, whether as a park, preserve, working farm, wetland, stream buffer, wildlife habitat or other function. In recent years a growing number of states and localities have approved bond and other financing to buy and protect land. Though popular, these measures rarely provide enough money for all the land that communities may find necessary or desirable to protect. For that reason, communities across the country are developing a range of techniques for designating and protecting natural and open areas. These can include making careful decisions about the expansion of infrastructure to support development, or drawing actual boundaries for urban services. In some cases, the public or non-profits may purchase the "development rights" on property, rather than the land itself, or may allow developers to purchase those rights in exchange for

higher density in a zone that is designated for development. Subdivisions may "cluster" homes on smaller lots, leaving large tracts undeveloped. These and other techniques are described in detail in Section IV, "Smart Growth in Practice.

ONLINE RESOURCES

Trust for Public Land: www.tpl.org

American Farmland Trust: www.aft.org

Land Trust Alliance: www.lta.org

Project for Public Spaces: www.pps.org

IIIB. Transportation

raffic congestion is one of the biggest irritants of modern life in most American communities. In NAR surveys, people consistently rank traffic congestion as one of their top concerns. A substantial majority also say that merely laying more pavement is unlikely to solve the problem by itself. They intuitively realize what many transportation and planning experts have come to understand in recent years: The underlying problem is not a shortage of pavement, but rather the way we build cities and metro regions.

When it comes to transportation, most Americans have little choice but to drive everywhere for everything they do. We love the mobility cars can provide, but the need to spend growing numbers of hours behind the wheel is not happening by choice. Rush hour travel times have tripled over the past two decades, while the average annual delay per person increased from seven hours in the early 1980s to 26 hours in 2003, according to the *Urban Mobility Study* by the Texas Transportation Institute (TTI).

A number of factors are involved, but they fall into three main categories:

Road system design

In the last few decades, road networks have been built, not as an interconnected grid system that offers many routes, but according to a hierarchy that forces large volumes of traffic onto a few key corridors. Subdivision streets end in cul-de-sacs rather than connecting, and all traffic must leave through one or two exits, usually onto a collector street that leads to a busy arterial road. These same arterials, which carry all the area's commercial traffic, lead to freeways that are overloaded with local traffic, even when they ostensibly are designed as "interstates" or "bypasses".

2 Haphazardly planned development

Many local governments, particularly in rapidly growing areas, allow development to happen in a way that overwhelms road systems. Arterials become clogged with cars entering and leaving shopping centers and drive-throughs, each with their own driveway and large parking lot. And because the developments don't connect to each other and walking and bicycling are hazardous, people must drive from one store to another. Under conventional zoning, the strict separation of stores from offices, offices from homes, and schools from neighborhoods prevents building mixed-use districts where people could accomplish many things with fewer, shorter car trips or by walking.

3 Lack of alternatives

Meanwhile, many communities lack convenient public transportation services, when they have transit at all. In some ways this is a chicken-and-egg conundrum: Places designed for automobile dependence make transit service difficult or impossible to provide, because destinations are too spread out, and walking to and from stops or stations is dangerous or uninviting. These areas are too spread out for economical rail service or buses that come often enough to be convenient. In many of the same areas, pedestrians along the high-speed roads must make do with a dusty dirt track through the grass, and people riding bicycles feel unwelcome and unsafe.

With so many people having to make long commutes to find housing they can afford, the rising costs of gasoline, insurance and



vehicles themselves is creating its own burden. Americans now spend three times more on transportation than they do on health care. According to the Surface Transportation transportation, and a higher percentage of their income to transportation, than people who live in close-in places with more options. The Center for Transit Oriented

"The elements of smart growth are all about livability and transportation is the thing that can make an area least livable."

- Pat Kaplan, REALTOR®, of Kaplan Real Estate Group

Policy Project (STPP), U.S. transportation costs consumed nearly 20 cents of every dollar spent in 2001, second only to housing, which cost about 33 cents of every dollar. An average family pays \$7,633 annually for cars, insurance, gas, maintenance, and other expenses, compared to about \$13,000 for housing and \$2,000 for health care. People who live in isolated suburbs pay more for Development has created a Housing and Transportation Affordability Index that assesses this relationship in 42 cities.

Regardless of location, low-income families feel the transportation pinch the most. The poorest 20 percent of American households spend more than 40 percent of their income on transportation, which often puts home ownership out of reach and limits their ability to improve their financial situation.

Many communities have begun to recognize these interlocking issues and are starting to plan how they grow so that development, the road network and transit service are coordinated and reinforce each other. They may continue to invest in fixes for existing road bottlenecks. But for long-term congestion relief they are working to give people more options, so that they may chose a location within a region that offers a shorter commute or fewer car trips, or a neighborhood where daily needs are close at hand. Or, they may choose to drive for some trips while taking a train, bus or bicycle for others.

"The elements of smart growth are all about livability," says REALTOR® Pat Kaplan of Kaplan Real Estate Group, "and transportation is the thing that can make an area least livable." Communities across the country are discovering that improving transportation corridors leads to increased home values and increased economic activity. For example, in Washington DC, the 'Great Streets' program improves urban transportation corridors specifically as an economic development measure. REALTOR® Linda Clark in Fort Worth, Texas tells her story of how creating a 'complete streets' help revitalize a commercial district in her community in Section V.

One of the most popular ways to deliver transportation choice is to begin to build what is known as "Transit-Oriented Development" (TOD), which orients new development around a convenient transit node. Other communities are working hard to improve bus and train service and create communities with 'complete streets' that are safe and comfortable for walking and bicycling. See Section III for more information about transportation issues and policies.

While TTI's 2003 study showed that congestion continues to worsen, it also highlighted that the burden would be far greater without some existing remedies. The study looked at the effect of public transportation, bus and carpool lanes, and certain intelligent transportation solutions and concluded that these remedies reduced the amount of annual congestion delay by several hours per commuter. According to the American Public Transportation Association, public transportation ridership has increased 22 percent in the last six years.

ONLINE RESOURCES

Community Transportation Association: www.ctaa.org

Federal Highway Administration: www.fhwa.dot.gov/csd

Federal Transit Administration: www.fta.dot.gov

Surface Transportation Policy Project: www.transact.org

Texas Transportation Institute: www.tti.tamu.edu

Center for Transit Oriented Development: www.reconnectingamerica.org/html/ TOD/

National Complete Streets Coalition: www.completestreets.org

District of Columbia's Great Streets program: www.greatstreetsdc.com/

hroughout much of the 20th century, the United States experienced unprecedented migration and growth away from cities and into suburbs. Millions of families traded real and perceived increases in crime, pollution, and congestion of the cities for the allure of larger lots, cheaper houses and less-troubled schools of the suburbs. With each passing year, the development went farther and farther from the urban core, eating up farms and forests while more and more buildings in and around downtown centers were boarded up or barely used.

In many ways, the disinvestment in neighborhoods is the flip side of the proliferation of suburban subdivisions. The departure of middle-class residents and tax dollars left schools and services to deteriorate, in some areas creating a 'concentration of poverty' that exacerbated crime and disengagement. Complex property laws prevented cities from doing anything when properties became vacant, attracting drug users and more crime. Strict building codes, other regulations and the complexity of revitalizing old structures kept most developers away.

And then, something unexpected happened in the late 1990s: More people started moving back into American cities. Because increased growth in older areas can help reduce demand on outlying areas, this trend could help slow the pace of suburban sprawl.

Revitalizing older neighborhoods helps curb growth in outlying areas by making efficient use of existing assets. The Urban Land Institute's book "Making Smart Growth Work" notes that renewed interest in these areas adds also to the quality of life in metropolitan regions in several ways:

- Urban locations are highly accessible;
- Revitalized residential and commercial neighborhoods make distinctive places;

- The use of existing infrastructure capacity means less construction of new facilities;
- The revitalization of existing outdoor assets (waterfronts, parks, historic districts, scenic streets) provides recreational opportunities;
- Important cultural facilities and civic institutions, such as concert halls, museums and theaters, gain support from a denser population.

REALTORS[®] across the country note a trend of people seeking the convenience of closein living and businesses rediscovering longforgotten retail opportunities.

"You can take areas that produce a halfmillion dollars a year in property tax and turn them into places that produce \$20 million a year in property taxes," says commercial REALTOR® and developer Robert Clement III, who invests in and revitalizes distressed properties in Charleston, S.C. He says his company, Clement, Crawford & Thornhill, has been nicknamed "sprawl busters" by others in the community. "For every one acre of redevelopment, you might save seven acress of greenfield." Clement has helped convert a shuttered hospital into a bio-tech incubator and is in the process of converting about "You can take areas that produce a half-million dollars a year in property tax and turn them into places that produce \$20 million a year in property taxes."

Robert Clement III, Commercial REALTOR® and developer

600 acres of former industrial riverfront property into a New-Urbanist mixed-use development straddling Charleston and North Charleston.

Revitalization and infill are not limited just to housing. After bypassing urban areas and first-ring suburbs for years, retailers are rediscovering these areas. Dozens of shops and restaurants have cropped up throughout Arlington, Virginia, especially in areas conveniently located along Washington, D.C.'s subway line. The Super Stop & Shop in Boston's South Bay Center ranks as the company's top-grossing store, while the Whole Foods chain of grocery stores has opened several successful locations in underutilized sites within redeveloping neighborhoods. New "town centers" are emerging in former strip plazas from Silver Spring, Maryland to West Dallas, Texas. Cities are learning techniques to make it easier to redevelop and renovate, by creating special building codes, revamping vacant property laws, and making permitting easy for developers.

ONLINE RESOURCES

Best Practices for Infill Development: www.realtor.org/brownfieldredevel

Urban Land Institute: www.uli.org

"Malls to Main Streets": http://cnuinfo. stores.yahoo.net/mainma.html

Vacant Properties Campaign: www.vacantproperties.org very REALTOR[®] knows the importance of schools to quality of life and property values. Most citizens know this, too. Yet very few jurisdictions in the country coordinate planning for growth and development with the local school system, and very few districts fully consider the impact of the design, location and operation of schools on neighborhoods and towns.

Over the last few decades we have gradually lost the traditional neighborhood school, the beautiful two-story building that fit into its surroundings, with a playground bigger than the parking lot, that most kids could safely walk to. Traditional neighborhood schools have been abandoned or threatened by one-sizefits-all standardization that favors building new over maintaining older schools. Many states follow a "two-thirds" rule: when the cost to refurbish an old school is at least two thirds of the cost to build a new facility, districts receive state funding only if they build new. Potential renovation is further restricted by inflexible building codes, often impossible for older schools to meet and updated so frequently that even new buildings can quickly become non-compliant. High acreage requirements, advocated until recently by the Council of **Educational Facility Planners International** (CEFPI), have forced communities to move schools out of neighborhoods to the edge of town, swallowing farms and open land to accommodate excessive site size requirements. (Acknowledging that many of its recommended size requirements were arbitrarily large, CEFPI recently amended its guidelines.)

Large, new schools built in a previously undeveloped area often act as a magnet for new residential development, drawing people and resources away from existing schools and neighborhoods. Because school districts and local governments do their planning in isolation from one another, the new growth often takes local officials by surprise, causing them to scramble to build the roads, water mains, sewer lines and other services to support it. This uncoordinated planning is one reason many suburban schools open with classroom trailers parked outside, the critics say. Large, drive-to schools that can't fit comfortably in neighborhoods fail to serve as the neighborhood resource and focal point that they might. Rather than a neighborhood asset, today's auto-oriented schools are seen as such traffic generators that residents actually fight to keep them out.

When schools are built on the edge of town, more tax money must be spent to extend infrastructure and roads and bus more kids longer distances from home to school. For example, though Maine lost 27,000 students between 1970 and 1995, school busing costs in the state rose from \$8.7 million to over \$54 million. For the neighborhood that has lost its school, property values tend to drop substantially as residents perceive disinvestment in their community. A 1999 study produced by Case Western Reserve University and Pricewaterhouse showed that disrupting neighborhood schools reduces property values by 9.9 percent.

A lack of careful, coordinated planning between school districts and local jurisdictions exacerbates problems. School districts are often exempt from local planning decisions, leading to isolated school building and site selection choices, made without input from the communities schools are supposed to serve. Zoning and development codes that sequester shops,



jobs, and housing from schools create gulfs between daily destinations. These schools are often in areas with wide, multi-lane roads that encourage high speed traffic and hazardous intersections, cul-de-sacs and winding subdivision roads with few entrances and exits, and missing and incomplete sidewalks. This makes walking or biking dangerous and confusing, if not impossible, so kids depend on adults for transportation.

In fact, many jurisdictions actively discourage kids from walking to modern schools. In suburban DeKalb County, Georgia, 57 percent of school principals rate the area around their schools moderately to extremely dangerous for kids on foot or bicycle, according to a survey by the county health department. Neighboring Gwinnett County actually has sited schools on highways in commercial and light industrial zones in order to fetch a higher resale price should the school fall into disuse. Indeed, the phenomenon of building spread-out schools in unwalkable environments is so common it now has a name: "school sprawl".

As a result, fewer children walk or bicycle to school. As recently as 1969 roughly half of all students walked or biked to school. In 2001 the number was closer to one in 10. A study in South Carolina discovered that children are four times as likely to walk to schools built before 1983 than to those built after that year. The report attributed the change largely to the increasingly remote and pedestrian-hostile settings of newer schools. Public health officials now recognize the costs, in the childhood obesity epidemic. At the same time, the rise in rush-hour traffic associated with school trips has been identified by the U.S. Environmental Protection Agency as a key contributor to air quality problems in a number of cities.

Now, smart growth advocates, public health officials, historic preservationists, and advocates for small and community schools are all working together to change the way schools are built and renovated.

Smaller schools have lower dropout rates and less violence, several studies indicate. Students at small schools attend more regularly, have higher grades, and are more likely to participate in after-school enrichment activities. More adults volunteer at schools in the center of their neighborhoods than at those on the edge of town. In fact, participation in civic activities declines by 10 percent with every 10 minutes spent in traffic, according to researcher Robert Putnam, author of "Bowling Alone". Educators nationwide confirm that smaller, central schools act as anchors and magnets for communities. Schools districts and states are taking a second look at revitalizing historic old school buildings, and many communities are taking advantage of a new federal "Safe Routes to School" program that invest transportation dollars in making it safe for kids to walk and bicycle to school. For more information, see NAR's Public Schools Toolkit for REALTORS®.

ONLINE RESOURCES

NAR's Public Schools Toolkit for REALTORS®: www.realtor.org/pubschoolstoolkit

Safe Routes to School Program: www.saferoutestoschools.org

"Why Johnny Can't Walk to School": www.nationaltrust.org/issues/ schoolsRpt.pdf

Council of Educational Facility Planners International: www.cefpi.org ne of the central goals of smart growth principles is to expand the range of choice in housing, both in style and location. The idea is that homes for the people who live, work and play in our metropolitan regions should be both affordable and accessible to jobs and essential services. Across the region, each jurisdiction should accommodate owner-occupied, rental and low-income housing in a mix that doesn't disadvantage any community.

Most REALTORS[®] are familiar with the phrase, "Drive until you qualify." What they mean, of course, is that families in search of their piece of the American Dream increasingly must drive farther and farther into the hinterland to find homes with mortgages they can afford. This simple equation is based on the fact that largescale housing developments are often designed for a single income bracket. While many of the subdivisions offer very similar detached homes, the price difference is based mainly on their distance from convenient city and town centers. Such homogenous development has limited the choices open to families.

Market surveys and real-life experience shows that many people would gladly buy or rent in closer-in areas, and would be happy with a townhouse, apartment or a house on a smaller lot in a well-designed neighborhood – if they could afford it. Yet until recently the market has not offered many of these options, and close-in housing has become prohibitively expensive.

Poorly planned growth and unfair zoning practices and codes have meant reduced variety, rising costs, and limited choices in the housing market. The regulatory practices often referred to as "exclusionary zoning" mandate large lot and house sizes or forbid smaller, rental, or multi-unit buildings, essentially restricting development to one-size-fits-all, high-cost housing. Existing neighborhoods convenient to amenities are being converted to well-to-do enclaves, and the high-dollar housing built on the suburban fringe near new office and commercial campuses offers too few affordable options. The increase in average home size has

Housing is becoming more costly and less available to increasing numbers of people.

- For the last several years, rents have been rising faster than wages. At the same time, workers earning the median wage of \$14 can't afford to rent a twobedroom apartment in most markets, and 11 of the 20 fastest-growing jobs pay less than \$20,000.
- The supply of low- and moderatelypriced rentals has been shrinking since

the mid-1980s, and new apartments are increasingly expensive.

Meanwhile, affordability problems are creeping up the wage scale, according to the Joint Center for Housing Studies at Harvard University. The number of households earning between \$32-50,000 per year who must spend 30 percent or more of their incomes on housing increased 40 percent between 1997 and 2001. also made affordability more difficult to achieve; the average home size went from 1,500 square feet in 1970 to more than 2,400 square feet in 2005. This gentrification and the isolation of job centers far from the homes accessible to many families blocks workers from opportunities promised by development. Other regulations and tax codes that deter maintenance of rental units, block the redevelopment of vacant property, and encourage new construction over preservation all bar the upkeep and replacement of rental housing.

The problem is most acute for those on the lowest end of the wage scale. Affordability issues are especially tough for the country's fastest-growing minority, Hispanics, whose ownership rates continue to lag behind those of the general population, as do those of African-Americans. In 2005, the National Low Income Housing Coalition reported that there was not a locale in the United States where a full-time, minimum-wage earner could afford fair-market rent for a two-bedroom apartment. And the U.S. Department of Housing and Urban Development (HUD) reports that approximately 5.4 million households in the United States - an all-time high - face worst-case housing needs, defined as living in severely inadequate housing or paying more than half of their income for housing.

In job centers, housing options are not being built at price ranges commensurate with the salaries of those who work nearby, burdening both employees and businesses. Businesses in regions lacking workforce housing close to reliable transit have trouble attracting employees, especially low-wage and entry-level workers like recent college graduates and service staff:

- The employer-led Silicon Valley Leadership Group (SVLG) reports that even high-wage Bay Area tech firms rank the cost of housing first and traffic congestion third as top concerns in "retaining a highly skilled workforce."
- The Atlanta Neighborhood Development Partnership found that in the 1990s, much

of the new housing built in the 10-county region was high-end, despite the fact that two-thirds of jobs pay no more than \$40,000. As a result, Atlanta's key jobs centers have a shortfall of 185,000 homes for those earning less than \$35,000.

Metropolis 2020 observes that in Chicago's Naperville suburb, "a high proportion of new single family homes are affordable only to workers with a household income over \$80,000, while a high proportion of jobs created [there] in the 1990s paid \$30,000 or less."

Many communities are beginning to recognize the seriousness of this problem and the need to house firefighters and police officers, teachers and librarians, and nurses, and home health aides. Recent graduates, young couples, and grandparents all need affordable housing. They are starting to encourage diverse housing options such as 'granny flats,' mixed-income developments, and projects to redevelop unused buildings. They are also requiring and rewarding developers that incorporate affordable units into their projects.

Cities, towns, and suburbs can employ smart growth principles to build homes that serve all members of the community, accommodating new populations and helping current residents find what they want. Sound growth management policies provide more affordable housing than traditional land use policies, according to a report by the Brookings Institution.

ONLINE RESOURCES

NAR's Housing Opportunity Program: www.realtor.org/housingopportunity

Joint Center for Housing Studies, Harvard University: www.jchs.harvard.edu

"Making the Case for Mixed Income, Mixed Use Communities": www. smartgrowthamerica.org/AtlantaAfford abilityReport.pdf

"Meeting Our Nation's Housing Challenges": www.mhc.gov/MHCReport.pdf

IIIF. Public Health

Spread-out development was in part born out of a public health movement to separate where people lived from the factories then common in cities. "Garden cities" of suburban housing developments were also seen as an antidote to overcrowded cities where disease spread too easily. Now, both of these threats have virtually disappeared, and we are coping with a new set of health problems that are aggravated by spread-out, auto-oriented development.

Physical Inactivity. Only about one-quarter of Americans get the recommended amount of exercise, while approximately 40 percent of Americans are entirely sedentary. Traditional sprawling development patterns discourage, rather than encourage, everyday physical activity. People who live in spread out, sprawling areas are less likely to have easy opportunities to get physical activity in the course of a day. They may live in housing subdivisions that are isolated from stores, schools, or other destinations that they or their children may want to reach on foot.

Neighborhood streets may connect only to busy high-speed arterial roads that are unpleasant or even unsafe for walking or biking. Transit service may be infrequent or too far away. And the many places they need to visit in a day may be many miles apart, but with convenient parking just steps from the front door. That means the most obvious and practical way to get everything done is via automobile. In fact, as a result of these changes to our landscape, the number of trips that U.S. adults made on foot plummeted 42 percent between 1975 and 1995, while the annual number of miles driven per person increased four times faster than the population. This lack of activity has contributed to the obesity epidemic and is a factor in more than 200,000 deaths a year.

Fortunately, smart growth development helps reverse the trend. According to public health

research, people who live in neighborhoods with a mix of shops and businesses within easy walking distance have a 35 percent lower risk of obesity, and people in walkable neighborhoods – and those who take transit regularly – are more likely to meet minimum physical activity standards. The Centers for Disease Control and Prevention and the National Institutes of Medicine are both now recommending encouraging such 'active living' through changes to the built environment.

Air and Water Pollution. Recent studies have demonstrated that people in more sprawling places breathe more polluted air, and that the degree of the sprawl directly correlates to the severity of the pollution. The reason is that sprawling development requires more driving, which creates more emissions. In fact, the difference in ozone levels between the most sprawling and least sprawling metro areas is 41 parts per billion: enough to shift a metro area from "code green" air quality to an unhealthy "code red." [this is from the first Measuring Sprawl" report conducted by Reid Ewing for SGA].

Research shows that the more we drive, the more smog and ozone we create, and the more these byproducts of driving contribute to rising rates of asthma in American children and in adults. In fact, during a period of rapid suburbanization between 1980 and 1995, children's asthma rates doubled, and



one in ten Americans now suffers from the condition. Other pollutants emitted by cars, such as benzene and particulate matter, better known as soot, are associated with increased risk of lung and other cancers, particularly for those who live near major roadways. Ninety percent of total cancer risk in the Los Angeles Basin is attributable to toxic air pollutants emitted by mobile sources. See: South Coast Air Management District Multiple Air Toxics Exposure Study (MATES-II) at www.aqmd.gov

Sprawling development also degrades water quality, mainly by creating more "impervious surface" so rainwater laden with automobile oil, trash and other pollutants rushes into nearby streams.

Smart growth solutions can help address both air and water quality, and some jurisdictions are encouraging smart growth developments as a way to meet air quality standards. **Traffic Safety.** Traffic crashes are a leading cause of death and injury in the United States, killing about 42,000 people every year, and people living in sprawling areas are more likely to die either as motorists or as pedestrians. Sprawling developments typically include high-speed roads that are more hazardous for people on foot and bicycle, while smart growth neighborhoods encourage slower traffic and include sidewalks and other essential facilities for safe walking and bicycling.

Studies find that the most sprawling metropolitan areas, built with the longest distances between destinations, and the most car-centric road designs, have the highest traffic injury and fatality rates and are the most dangerous for walkers, cyclists, **and** drivers. For example, in the nation's most sprawling region, Riverside, California, 18 of every 100,000 residents die each year in traffic crashes. The eight least sprawling metro areas all have traffic fatality rates of fewer than 8 deaths per 100,000.

Smart growth helps address traffic safety by creating "complete streets" that work for everyone who is using them, and by retrofitting streets with "traffic calming" measures that slow traffic. Perhaps more importantly they allow more people to get out of their cars – and studies show that the more people out walking and bicycling, the safer the streets.

ONLINE RESOURCES

Active Living by Design: www.activelivingbydesign.org

Measuring the Health Effects of Sprawl: www.smartgrowthamerica.org/ healthreport.html

Mean Streets 2004: Traffic and Pedestrian Safety: www.transact.org/ report.asp?id=235 Mericans are paying \$84 million a day (\$31 billion annually) to live in communities that are laid-out inefficiently, according to the 2005 book, Sprawl Costs: Economic Impacts of Unchecked Development, the culmination of a 10-year research effort at Rutgers University and the Brookings Institution. "We are all paying a staggering price for sprawling development in this country, and that price will only go up as gas prices increase," writes coauthor Robert Burchell. "Sprawling communities need longer public roads, increase the cost of new water and sewer hookups by 20 percent to 40 percent, impose higher costs on police and fire departments and schools, and more. These costs are passed on to businesses and residents through higher taxes and fees and sometimes through fewer public services. And in most cases, sprawling developments do not generate enough property taxes to cover these added costs."

Shifting just 25 percent of low-density development to more compact growth would save American taxpayers billions of dollars, according to *Sprawl Costs*. For example, we would save:

- \$2.6 billion over 25 years (from 2000 2025) because 4.6 million fewer water and sewer hookups would be needed for singlefamily, detached homes;
- \$110 billion over 25 years in road construction costs because the need for local roads would be reduced by 188,000 lane miles;
- \$24 million/day in costs associated with the automobile because Americans would drive 56 million fewer miles each day (calculated when gasoline was less than \$2 a gallon.)

In November, 2002, Federal Reserve governor Edward Gramlich cited another study by the Research Institute for Housing America in telling a Fed-sponsored conference that smart growth strategies could save \$250 billion in infrastructure costs over the next 25 years.

"Fix it first." Even as we're over-investing in subsidizing new sprawl development, we're dramatically under-investing in maintenance, repair and upgrading of infrastructure in existing areas. This is economically unsustainable in the long haul, notes Professor Burchell. As rising gas prices squeeze taxpayers and budgets tighten for state and local governments, more and more officials - in states from Massachusetts to Pennsylvania to Tennessee - are abandoning traditional subsidies for sprawl development and adopting a "Fix it First" policy. Where they are undertaking new capital projects, they are insisting that hard-won infrastructure investments go as far as possible. They're investing in sensible economic development, preparing for future growth, and properly accounting for and deploying the scarce resources they possess.

Preserving and expanding the tax base.

When economic vitality departs existing areas for sprawling new locales, remaining taxpayers suffer a double whammy of declining services and rising tax rates, even as residents of the receiving areas see their taxes rise to accommodate new growth. By emphasizing strategies such as the revitalization of depressed areas, the reuse of aging buildings, redevelopment of dying strip centers and



development of vacant and abandoned properties, communities can build the tax base for the benefit of both city and suburb dwellers. A prime example is the cleanup and use of "brownfield" industrial sites. According to one estimate, every acre of brownfield that is redeveloped saves 4.5 acres of open space [President Bush during signing ceremony for Brownfields Act, 2002].

Strengthening regional economies. Smart growth is critical to the long-term economic sustainability of metropolitan regions. When employers can't recruit a reliable workforce because of grueling commutes; when working parents can't find housing that puts them within reach of both jobs and their children; when key industries are scattered randomly so that they have all the disadvantages and none of the important benefits of aggregation; when quality of life begins to erode – people and businesses leave and economies decline. Beyond that, however, there is growing research demonstrating that productivity and overall economic performance are improved when smart growth elevates regions' employment density, improves transportation efficiency, and reduces city-suburb gaps in economic health.

Community character, quality of life and the "creative class". Richard Florida, author of "The Rise of the Creative Class," offers yet another argument in favor of the kinds of communities smart growth aims to produce. According to Florida, metropolitan regions that are mostly placeless sprawl lacking in vibrant centers of urbanity are competing poorly in the changing economy. In a 2003 article for Washington Monthly, he wrote:

"My research finds mobile, demanding creative workers migrating to certain kinds of places they favor: places where they can find not just "a job" but lots of opportunities, and where they can find participatory amenities – active outdoor sports, not just stadiums; café-and-gallery "street-level" culture, not the symphony. They also seek places of demographic diversity, openness to newcomers, and stimulating cultural interplay. And the catch is, such regional qualities tend to be self-reinforcing. A region with many creative industries and creativeclass workers will thus attract more of both, while the losing regions – well, they lose them."

ONLINE RESOURCES

Smart Growth is Smart Business: http:// sgusa.convio.net/site/PageServer?page name=smart_business

Workforce Development and Smart Growth: http://www.fundersnetwork.org/infourl_nocat2778/info-url_nocat_show. htm?doc_id=51633

Investing in a Better Future: http:// www.brookings.edu/urban/ publications/200403_smartgrowth.htm

IIIH. Smart Growth in a Rural Setting

A dapted from the Urban Land Institute, as published in "Solving the Problem of Sprawl: 10 Principles for Smart Growth on the Suburban Fringe" in *On Common Ground Magazine*, Winter 2006.

America is a nation with an unquenchable thirst for developing land. And the majority of that growth is in the ever-expanding suburbs. Planners, researchers, developers and even the staunchest conservationists concede that there is no way to stem the demand for suburban and exurban growth. So the bottom line is – if it is a foregone conclusion that growth in the U.S. will continue to occur farther and farther from central cities – what can be done to make sure that growth is smart, not sprawl?

The Urban Land Institute (ULI) has published Ten Principles for Smart Growth on the Suburban Fringe to outline clear, attainable methods for solving the sprawl riddle while building the best urbanism possible.

Michael Pawlukiewicz, ULI's Director of Environment & Policy Education, directed the team that compiled the report that opens with the staggering fact that "across the country, land is being developed faster than ever before: more than two million acres of open space is converted each year."

"We know there will be a lot of growth in the U.S. According to the Census Bureau, we'll grow by 50 million people in the next 20 years," Pawlukiewicz said. "Even though we would like those people to live in cities or close-in suburbs, the fact is most of the population growth will continue in the farther suburbs.

Pawlukiewicz also noted that even though people will continue moving to the fringe, this nation can build with better development patterns to avoid the problems that sprawl development of the past 50 years has given us. Sprawl has created traffic jams, degraded the environment and misused land.

"We have to move toward compact nodes of development," he said. "As we identify appropriate sites for these development nodes we must also make sure we identify and protect land for recreation, agriculture and habitat conservation. We have to make sure that development and the protection of natural areas and resource areas go hand in hand."

Pawlukiewicz said transit-oriented development can be a powerful tool for smart growth – but communities must be sure to coordinate transportation investments with planning for smarter land use. He also stressed the importance of promoting compact, walkable and mixed-use communities where everyone has transportation choices including walking, public transportation and driving.

Robert Lang, director of the Metropolitan Institute at Virginia Tech and part of the research team for the Ten Principles publication, said suburbia needs to focus on smart growth principles such as building compact multifamily subdivisions that conserve land.

"When preserving green space, it must be integrated into an overall plan. Much of suburbia's green areas are chopped up in pieces and don't really add up to a habitat," he said. "Typical exurbia is comprised of multifamily homes adjacent to retail and separated by a pedestrian-unfriendly fence or large lot single family homes built chock-a-block."



Lang said a conventional subdivision built without using smart growth principles typically has very limited connectivity that abuts retail and is often separated by a wall. He noted the irony that a resident in a subdivision house closest to retail actually has the farthest trip because he must wind through the subdivision to reach way out and over to it.

"Without smart growth principles, the cycle is cheap – developers come in and build chocka-block and conservation principles are not used. It's not an enduring form," he said.

Pawlukiewicz said local land-use policy must have a vision for an appropriate and sustainable future and then organize policies, codes and regulations to make it easy and profitable for the private sector to implement that vision.

"Everybody blames developers for sprawl and while they are not without fault, most of what they develop is in keeping with public zoning codes and land-use regulations," Pawlukiewicz said. "In most suburbs, sprawl is easy and profitable to build. Local governments are mostly responsible for regulating land use. Their policies make it difficult to build mixed-use communities or use better urbandesign practices like putting buildings close to the street or to narrow the streets to make them safer for pedestrians. The codes and regulations must be changed so that it is easy and profitable to do the right thing, the smart thing. The sprawl that we see in the U.S. is, in fact, the implementation of public policy."

10 Principles for Smart Growth on the Suburban Fringe

1 Create a Shared Vision for the Future...and Stick to It

A successful visioning process is rooted in a community's landowners, developers, elected officials, environmental groups, citizen activist groups and local business. Temptations will emerge that run counter to the vision in the form of appealing short-term economic development opportunities. If a way cannot be found to make the proposal enhance the vision, it should be rejected.

2 Identify and Sustain Green Infrastructure

Green infrastructure is a network of habitat, parks, greenways, conservation easements and working lands sustaining native species, natural ecological processes, plus air and water resources. Between 1982 and 1997, the amount of urbanized land in the U.S. increased by 47 percent while the nation's population grew by only 17 percent. Considering those numbers, it becomes obvious that green infrastructure is a community's natural life-support system and must be strategically planned and managed as carefully as built infrastructure.

3 Remember that the Right Design in the Wrong Place Is Not Smart Growth

Traditional design – with its back alleys, front porches and spaces where kids play and neighbors congregate – is critical, but not the only component of smart growth. Design must be integrated with local climate, land conditions, transportation facilities and economically viable development that preserves open space and natural resources, infrastructure that serves existing and new residents, compact development such as new town centers, and other factors that take a holistic approach to stamping out sprawl.

4 Protect Environmental Systems and

Conserve Resources. Take advantage of building orientation, prevailing winds and tree cover for cooling. Manage the effect of the sun's rays for enhancing or limiting heating. Conserve water by using conservation-designed appliances and plumbing fixtures, harvested graywater, recycled water and natural (nonpiped) drainage systems and pervious paving to recharge aquifers.

5 Provide Diverse Housing Types and Opportunities. Direct growth to walkable mixed-use subdivisions that offer more diverse housing types such as: rental and ownership of single-family houses with yards, townhouses and multi-family apartment buildings to meet the varied lifestyles of people living in the suburbs.

6 Build Centers of Concentrated Mixed Uses.

Sustainable urbanized fringe development has a convenient mix that meets people's daily needs: homes, schools, stores, services and amenities. A concentration of mixed uses on the fringe provides a critical mass and a sense of place that gives communities a strong identity and a heart. Mixed-use projects create a destination with housing, employment, retail and public services. Successful communities include a full range of uses and activities: office, retail, entertainment, hotels, housing and civic institutions.

7 Use Multiple Connections to Enhance Mobility and Circulation. Traffic congestion is a big problem in conventional suburbs because clusters of residential subdivisions with only one entry and one exit concentrate the traffic onto and off arterial roads, which quickly become clogged because of the lack of connectivity and alternative routes. To avoid becoming a placeless collection of disaggregated subdivisions, a network made up of vehicular, pedestrian, cycling, park and open-space connections must be planned. Communities should create a template for a street grid with a hierarchy of connected streets to guide development and promote connectivity.

3 Deliver Sustainable Transportation Choices. Smart Growth communities provide a range of transportation choices, but to be sustainable, these alternatives must be built in rather than added later to a car-based culture. Staged development of real estate and transportation facilities ensures that a range of options will be available to travelers – walking, cycling, transit, carpooling, telecommuting and driving – and that each will be adequately supported.

9 Preserve the Community's Character.

America's commercial landscape, largely due to the proliferation of chain stores and franchises, has deteriorated from the unique to uniform, from stylized to standardized. National franchises and chain stores can change their standard building designs to fit local character, but only do so in communities savy enough to reject off the shelf architecture and demand customized, site-specific design that addresses local historic preservation, site planning and vernacular architectural concerns.

(D) Make It Easy to Do the Right Thing. One major barrier to better development on the fringe is local regulation. Most local zoning and subdivision regulations make it easier and faster to build conventional lowdensity, auto-dependent developments than undertake Smart Growth on the suburban fringe. Developers build sprawling projects because they are easier and cheaper to construct. Local officials should make local regulations more flexible to encourage mixed uses, narrower streets, compact development and other smart practices.