Sprawl-inducing local development regulations. Bad zoning—
which includes premature zoning, excessive zoning, single-use zoning,
and large-lot zoning—hampers high-quality growth. Other hin-
drances include the creation of private streets, misplaced priorities
of regulators, and the inexperience of both the public and private
sectors with innovative development and smart growth strategies.

Local jurisdictions’ fiscal structure. Competition among juris-
dictions to capture taxable development is a major obstacle to re-
gional planning. This is due in part to a reliance on property and
sales tax revenue; there may also be a range of different tax bases
among jurisdictions within a region.

What Are the Potential Solutions?
Even with such diverse challenges, smart growth on the fringe is high-
ly achievable. Several strategies can help overcome the barriers and
guide decision makers toward a new vision for growth on the edge.

Sustained education and community involvement. Long-term
education programs should involve citizens not only in the vision-
ing process but also throughout the implementation of a commu-
nity plan. Leadership training, especially of public officials, is a ma-
jor component of a strong education program.

Development regulations that encourage smart growth on the
fringe. Tools that communities can use to encourage smart growth in
suburban areas include agricultural zoning designations, conserv-
ation easement programs, transfer of development rights or pur-
chase of development rights systems, context-sensitive tools, forma-
based zoning codes, and new transportation standards and rules.

Comprehensive local planning. Transportation planning should
precede development. Road plans should focus on publicly designed
street grids and the encouragement of private owners to propland and
plan fringe areas. Land use developers and planners should consid-
er the long-term impacts from development projects and aim to
preserve the broader ecological system for greenfield projects. Their
plans should protect historic sites and the character of rural areas
and create a strong public framework for the transportation and in-
frasture system, with which development must conform.

Regional planning and coordination. Communities should work
together to develop a regional plan, identifying growth and non-
growth areas. This regional planning process should include sce-
nario development, hands-on charrettes, and a visual display of al-
ternatives. In addition, local planning must be consistent with
regional planning, and there should be consideration for intra-
regional revenue and tax-base sharing.

Incentives for smart growth development. Governments can pro-
vide incentives to develop in high-priority growth areas and to pre-
serve in no-growth areas. Tools successfully used include density bonus
systems, transferable development rights programs, conservation eas-
ements, and land banking programs. Local governments also can pro-
vide money for infrastructure development in growth areas.

Improved development and planning processes. Where possi-
ble, land use leaders should establish public/private partnerships
to initiate, guide, and encourage smart growth through the use of
public powers and private resources. These partnerships should transcend political leadership through the use of nongovernmen-
tal organizations, including them in all significant discussions and
decisions regarding smart growth. Local governments can stream-
line the approvals process, and developers can focus on the out-
comes, rather than the process, of smart growth.

Agglomerating land. Communities could allow ground-leasing and
appropriate development through land banks.

Smart Growth on the Fringe Begins with Education at All Levels
Smart growth principles are the same whether they are applied to
urban infill or fringe areas. It is, therefore, important to establish
such principles in light of future growth, so that smart growth prin-
ciples become de facto and are not perceived as being forced on
new development. The education required to meet this goal will
enlighten all stakeholders, including public officials, environmen-
tal groups, the private sector, the financial community, and the
general public.

Strong partnerships are required. By working together to find
out mutual desires and to establish goals, the public and private
sectors can determine the desired result and then develop a process
around it. Such relationships should be ongoing.

Transportation infrastructure is a critical factor. Most objec-
tions to sprawl are associated with transportation difficulties, traf-
fic congestion, and reduced air quality. In planning for new com-
munites on the fringe, planners and developers must shape transpor-
tation plans that are understandable and connected, and they
must provide multiple transportation options, including side-
walks that will promote pedestrian use.

Regionalism and regional vision are key. Establishing a vision
for an entire region will enable stakeholders to articulate how de-
velopment should occur, and it will ensure that growth happens at
an appropriate scale and pace.

The role of the private sector is to implement the vision. The pri-
vate sector needs to take the lead in implementing the vision, which
itself is hard to achieve than the planning itself. At the same time,
the public sector needs to provide incentives for smart growth.

With the right tools and incentives, developers can create vi-
brait, contextually appropriate communities that meet today’s de-
mands for suburban growth.

Victoria R. Wilson is a senior associate for community outreach at ULI.
In May 2004, ULI convened a group of 29 participants in Washington, D.C., to
collaborate on the implications of developing the suburban fringe in a manner
consistent with smart growth principles. This article is reprinted from the
summary of that meeting.

Urban Land May 2005
Now, some leading-edge developers are bringing together many of the best practices and tools from green building, smart growth, and related movements to create innovative communities with lasting value, at a scale where it matters most—the neighborhood. With an intersecting network of buildings, infrastructure, and human and natural systems, neighborhoods provide unique opportunities for realizing sustainable development.

**Green Neighborhoods in the Suburban Sprawl Ring**

The most compelling example of a green neighborhood currently under development may be Vickers—a mixed-use project in Cumming, Georgia, outside of Atlanta. With 100 homes occupied and the village center underway, the project will have 600 homes and a commercial and civic core at completion in 2010. Homes are sited to take advantage of the terrain and solar gain; sidewalks and paths more easily between housing, parks, and the downtown mixed-use core; preserved natural trees and landscape are integrated throughout the project.

Vickers is located on 214 acres of former agricultural land 30 miles north of Atlanta in the city's sprawl ring. It is being developed by Hedgewood Properties, a custom homebuilding and development company known for high-end, infill housing and conservation development in the suburbs. Rather than building large houses on one-third-acre lots as is common in Atlanta's suburban ring, Hedgewood partners Pam Sessions and Don Donnelly have chosen instead to build a green neighborhood clustered around a mixed-use village core.

The Vickers plan grew out of recognition by Sessions and Donnelly of unmet demand for sustainably developed neighborhoods, as well as their personal frustrations with housing and neighborhood options. The husband-and-wife team initially owned 20 acres of the Vickers site and had made it their family home. "We had bought this piece of farmland in the 1980s, and now, with two children in school, found ourselves driving them everywhere. We wanted to create an environmentally responsible, walkable community that we ourselves would want to live in and where our kids could feel free to meet friends and explore," explains Sessions.

Sessions and Donnelly worked with master planning and design firm Duany Plater-Zyberk & Company to create a plan for the neighborhood and its connectivity to its surroundings. Vickers' narrow streets and traditional architecture embody a new urbanist design vocabulary reminiscent of historic Atlanta neighborhoods, relates Sessions. A network of sidewalks and paths connects residents within the neighborhood to conservation land and parks, active recreation areas, the village core, and two local schools. The design team planned the project so that all residents are within a five-minute walk of a community amenity.

The village center, with its community green, will have small shops, restaurants, offices, a new YMCA, and 125 housing units ranging from townhouses, to condominiums above retail space, to live-work spaces. Single-family homes in the surrounding medium- and low-density tiers are planned at densities of two to six homes per acre. One-third of the land on the site is being preserved for green space and recreation areas. Parks are located around old-growth trees and natural features, such as the site's two ponds, and a creek and its wetlands form the spine of Vickers' conservation area, located a safe distance from the commercial core.

Sessions jokes that suburban homebuyers at Vickers site "trading large lots for lots of community amenities." The smaller craftsperson-quality homes are earning a 30 percent premium over comparable housing in the region, with 90 percent of the customized homes selling before the start of construction. All of Vickers' homes meet EarthCraft Home standards for energy efficiency, indoor air quality, and human and environmental health. Hedgewood's builders have employed techniques to minimize the impact of construction. For example, leftover gristmill was ground up and returned to the soil as an additive to improve its quality; wood chips from trees cut down on the site were incorporated into erosion control efforts; and an innovative grading technique and machinery were used to help Hedgewood save three additional acres of land.

While Vickers is a greenfield suburban development, Hedgewood Properties and its planning team are creating a neighborhood that provides alternatives to automobile use. Residents are closely connected to schools, parks, restaurants, shopping—and to one another—so that walking and bicycling are options.

**Green Neighborhoods on the Urban Edge**

In Colorado and several other western states, developer Jim Leach is building green neighborhoods in direct partnership with homebuyers. Leach, president of Boulder-based Wonderland Hill Development, so far has completed 15 cohousing neighborhoods with his resident partners (see "Living Together," page 69, February). The cohousing community model typically combines compact clustered homes, a pedestrian-based orientation, commonly held community amenities, and resident social participation, all in small neighborhood settings of 15 to 40 homes. Residents typically partner with a developer in developing a cohousing community, and sometimes develop it themselves. A leader in the creation of Built Green Colorado standards for residential construction, Leach has made the intimate neighbor-

![Preserved natural trees and landscape are integrated throughout Vickers, a neighborhood with a mix of housing styles (above and opposite page) clustered around a mixed-use village core and located on 214 acres of former agricultural land 30 miles north of Atlanta. One-third of the land on the site is being preserved as green space and for recreation areas (top).](image-url)
At the Hearthstone cohousing project, located on the urban edge of Denver, 33 townhouses are clustered on a 1.6-acre site around a linear common green.

hood scale of cohabiting a foundation of environmentally sustainable development.

Wonderland’s Hearthstone cohousing project, developed on the urban edge of Denver, illustrates the potential for environmental and social innovation through cohabiting. Some 33 townhouses are clustered on a 1.6-acre site around a linear common green and a

hood common house.

The cohabiting neighborhood model offered Hearthstone resides an opportunity to make environmentally friendly choices they probably would not have been able to make as individual homebuyers, points out Leach, including use of green building technologies such as solar-powered homes in a walkable, socially innovative neighborhood. Turnover in the popular 240-unit neighborhood is so low that most homes are sold by word of mouth. Homes resell at an estimated 30 percent premium over surrounding David’s houses.

Today, Sessions and Leach are responding to what has been identified as the “cultural creatives” demographic, identified by Paul H. Ray and Sherry Ruth Anderson in their 2001 book The Cultural Creatives: How 50 Million People Are Changing the World. These homebuyers and residents value authenticity, community, creativity, and environmental stewardship. Most feel alienated from the conventional market and tend to purchase older homes. The real estate and market research polling firm American LIVESTES estimates that 22 percent of the American population identifies with cultural creative values. “It’s really a lifestyle choice,” says Sessions, “and green building and land conservation are part of that.”

When given an opportunity, many homebuyers who would not label themselves as cultural creatives may choose to purchase homes in green neighborhoods. Recent surveys by the Cahners Residential Group and Professional Builder magazine found that 80 to 90 percent of homebuyers interviewed say new homes do not meet their expectations for environmental conservation. Well-designed, environmentally sensitive developments have the power to persuade homebuyers. Homes at Prairie Crossing, the conservation development west of Chicago, initially sold at a 15 percent premium over housing in the surrounding area. Ten years after the first homes were completed, the premium is now 33 percent. Vickery’s high premium of 30 percent only one year into sales suggests that well-executed green neighborhoods that integrate pedestrian-based connections to community services and shopping may command even higher premiums over the long term.

Master Planning for Green Neighborhoods

Developers with an understanding of sustainable development and green building have made it possible for those with less green building experience to get involved in building environmentally friendly neighborhoods. In Playa Vista, a 1,100-acre mixed-use development project in Los Angeles, the Playa Vista corporation created development and green building standards for commercial development and neighborhood residential clusters that incorporate 3,200 housing units. The western division of Standard Pacific Homes, builder of five green condominium projects at Playa Vista, has gone on to make green building a standard practice. Stapleton Development Corporation and its primary developer, Forest City Stapleton, Inc., created green building and development standards for mixed-use neighborhoods that eventually will accommodate 30,000 residents and 35,000 jobs on the site of Denver’s old Stapleton International Airport. (see feature box on page 127)

Like the site-specific plans for Vickery, these master plans develop with and around natural systems, make environmental conservation a feature for community amenities, and create a convenient network of pedestrian connections. Green building standards tied to a competitive request for proposals (RFP) process can help to motivate builders to participate.

Green Neighborhood Standards

A half dozen nonprofit organizations, building associations, and public agencies are in the process of developing or piloting national and regional guidelines for green neighborhoods. The goal is for these guidelines, incorporating third-party certification, to provide developers with a set of standards and a certification process to brand and market their projects.

Among the most anticipated guidelines are Leadership in Energy and Environmental Design (LEED) standards for neighborhood development, being developed by the U.S. Green Building Council in collaboration with the Congress for the New Urbanism, the National Resources Defense Council, and other organizations, including the Urban Land Institute. Southface Institute and the Greater Atlanta Homebuilders Association are collaborating with ULI Atlanta on EarthCraft Community standards, which are being piloted at Vickery and three other Atlanta developments. In addition, Audubon International is partnering with and certifying developers of environmentally sustainable communities through the Audubon Signature program. The Entergy Foundation, one of the largest investors in green neighborhoods to date with $550 million in grants, loans, and equity investment. Its Green Communities Initiative, launched last fall, defines green neighborhood standards for developers of affordable housing.

Green City Neighborhoods

Nonprofit developers in poor urban neighborhoods have understood the connection between environmental sustainability and neighborhood-scale development for years. In Chicago, Bethel New Life (BNL), a faith-based community development corporation on the city’s west side, has made green neighborhood development part of its overall community and economic development strategy. The initiative dates to the 1980s when, as BNL founder and president Mary Nelson says, “We started hopping into brownfields just about everywhere we wanted to do housing.” Since then, BNL has built infill housing and rehabilitated commercial properties on former brownfields, created jobs through environmental remediation, helped to save a historic park conservatory, collaborated with the city to plant trees and develop five parks, and worked to create safe and attractive pedestrian connections. More recently, BNL has integrated green building into its practices and focused on transit-oriented development.

BNL’s constituency neighborhood, West Garfield Park, with 20,000 residents, is far larger than the 33-unit Hearthstone neighborhood, but BNL’s approach shares with them an understanding of the neighborhood as a network of natural and built systems that offer opportunities for sustainable development. By working with these systems in a creative and thoughtful way, the developer has the opportunity to create projects that are far more innovative environmentally, socially, and economically than conventional developments or a single green building.

What may be the country’s most ambitious green neighborhood project is being developed at Manhattan’s Battery Park City. Five years ago, Battery Park City Authority (BPCA) chief executive Tim Carey and his staff released green standards for residential—and later commercial—development on the 92-acre landfill site. These are being integrated with BPCA’s master plan for a walkable, bikeable neighborhood along 1.2 miles of the Hudson River waterfront (see "Towns"
The Epicenter, a 130-unit apartment building in Seattle, Washington's Fremont Avenue area district, used recycled timber from a nearby site to build an outdoor pedestrian canopy.

Free, page 79, July). The first green residential high-rise project has been developed at the site, the Solair, with 283 environmentally friendly units (see "Marketing Green Multifamily Housing," page 61, February). With their natural wood floors and green materials, triple-filtered air, concierge service, rooftop garden, and views of the Hullocks, apartments at the Solair are renting at a premium over comparable units in lower Manhattan—in what is still considered a recovery zone after the terrorist attacks of September 11, 2001. The Solair’s rooftop garden, irrigated with collected rainwater, helps to counteract the heat island effect, and the building’s gray- water recycling plant provides water for the city’s Tandrup Park being built next door (see "Tandrup Park," page 82, July). The Solaire, developed by the Garden City, New York-based Albanese Organization, connects to the walking and bike path in Rockefeller Park, and its residents are within walking distance of restaurants, grocery stores, public schools, the subway, and bus systems.

The scale of the project enabled the Albanese Organization to order innovative green materials and technologies at an attractive price, with suppliers willing to cut a deal because of the project’s scale and high profile. Several manufacturers even refined products to suit the project’s needs.

Is It Green? The Epicenter building, a 130-unit apartment building in the Fremont Avenue area district of Seattle, is an interesting case in the evolving understanding of green neighborhoods. Its style of contemporary architecture does not suggest conservation development or green design. Its target tenant would probably be more aptly described as “metromaxxial” than cultural creative. So, is it green? Epicenter’s developer, Seattle-based SP Multifamily LLC, a division of Security Properties Inc. Inc., did not go out of its way to make the building green, except for including a modest green roof and meeting Seattle’s stringent energy-efficiency and stormwater mitigation codes. But these codes take the building 20 percent beyond the energy performance of new structures in most municipalities. The developer saved and moved the beloved 19th-century Red Door Alehouse to a new location across the street, where it was restored, and used recycled timber from the site to build an outdoor pedestrian canopy. The building is located on a major thoroughfare next to a popular walking and biking path. Except for some missed opportunities for green construction and occupant health, the answer to the question whether it is green is probably yes.

The Neighborhood as Building Block for Sustainable Development If sustainable development is the goal, then understanding neighborhood-scale development for environmental innovation is key. Developers who have made sustainable development a priority are finding that they have a new and evolving set of tools available to them to make project decisions. Public agencies are finding ways to support green neighborhood development through integrated standards based on green building, low-impact practices, and the tools of smart growth, transit- oriented development, and new urbanism. National standards may soon make green neighborhood development a standard of the art, rather than cutting-edge practice.

The advantages of green innovation at the neighborhood scale go beyond competitive pricing. Clustering of buildings and multi-family structures by their nature conserve energy. Neighborhood-scale developments can support graywater recycling plants such as the Solair’s, or community-based energy production plants such as wind farms and solar arrays. Mix-used green neighborhoods reduce auto pollution and support community and economic life. Social organization at the neighborhood level creates opportunities for community and environmental stewardship, as that developed in cohabiting neighborhoods.

Developers who have researched their resources and imagination in the development of green neighborhoods are earning handsome rewards. The market acceptance—and enthusiasm—for homes in well-executed green neighborhoods suggests that there is an underestimated demand and market for projects that integrate environmental sustainability with community-oriented design.

Stella Tarlau is president of Tarlau & Associates, a Washington, D.C.-based planning and communications firm with a focus on environment, development and building innovation. The firm’s in-depth case studies of Victory and Broadstreet will appear in the upcoming book, Housing for Emerging Multi-Market Crowds on Creating Demographics to be published by The Urban Land Institute this spring.

Healthful Communities Across the United States and around the world, developers, designers, planners, and health officials are making changes to promote healthful communities,largely in response to the continuing rise in obesity rates. The federal Centers for Disease Control and Prevention (CDC), with the National Institutes of Health (NIH), is commissioning multidisciplinary studies this summer to improve understanding of the role the built environment plays in causing or exacerbating obesity and related health problems such as Type 2 diabetes and heart disease, and to support the creation of prevention and intervention strategies that affect the built environment.

This research is part of a long-term initiative,” explains the CDC’s Andrew Dannenberg, associate director of science at the National Institute of Environmental Health Sciences, part of the CDC. “We are trying to establish networks to involve the health people in the process of the built environment more routinely.” A joint CDC-funded Planning Association Project is working to create model zoning codes that promote physical activity, sidewalks, cycling and open space. “Local communities can then choose to adopt these models as they make them come to life,” says Dannenberg.

Developer options varies depending on the negative impact zoning codes can have on health. “I don’t think the codes are deliberately out there to prevent healthy living, but do have to talk your way through it,” comments Chicago-based developer Daniel McCaffrey, founder of McCaffrey Interests. “Codes were not written for healthy communities. But they can be worked through.”

In smaller cities, developers will need to use race from traditional land-oriented subdivisions development for a pedestrian-friendly environment. “I wish the approach was more community-oriented,” says one developer. “Developments that would give us more opportunity to create our own neighborhoods. We need a more fluid and transparent process,” notes Sara Pittman, owner of Carbons, North Carolina-based developer and city planner and developer Teresa Global Properties. Adoption of form-based codes, which are neither prescriptive of nor oriented toward single functions, can stimulate developments that enhance health, maintains Elizabeth Moul, principal of Los Angeles-based Moul Architects. “In the inner cities to implement a form-based code is the best way to speed up the process and make the outcome visible,” she says. The need to improve the connectivity of established suburban areas poses another challenge, adds Moul. “We are working with the school districts. They are really important, because if they come to think of their schools as hubs of activity, then it will stimulate more people to walk to them, and between them and nearby shopping,” she says.

While noting the value of working with health professionals, Randall Lewis, marketing director of the California-based Lewis Group of Companies, a developer and health helped retain people. Once people graduate (from college) here, they leave. We need more urban centers that will keep them,” he says. In Jackson, for example, the city provides incentives for construction of housing above office space. The city also works in coordinating a waterfront area with a trail and artist studios in a work-live conversion of a warehouse, she notes. Blue-collar Jackson is an example of a city where obesity has soared, Wikerson says, 39 percent of its clients have elevated cholesterol levels. “The city has begun to paint bike lanes and to all traffic patterns, especially near schools,” she notes. Jackson

In Davidson, North Carolina, all development must be linked to greenways and cycle paths. has obtained seed money for its fitness initiatives with young people from the Robert Wood Johnson Foundation, founder of the Active Living Research and the Active Living Leadership Initiative based at Stanford University (SUSD), which is working with private sponsors and health insurers and房地产 developers to incorporate health into commercial public infrastructure.

“we have a sleepier program and are currently adjusting the fourth round of proposals. Results are coming in” explaines, foundation researcher Sam Zale. “At the beginning of the project, we were targeting a number of transitioning communities. Today, we are finding a number of small communities, and governments, and the other agencies enabled in the design process of the project, known as the Preserve. Michigan governor Jennifer Granholm has made exercise and improved health a priority for the state’s economy, launching an Iterfaced Health Initiative in October. The cost of health care is the second leading cause of death in the U.S. and the benefits of leading a healthier lifestyle on your ability to work and how much you earn has never been more clear. The goal of the program is to reduce the number of deaths from heart disease, cancer, and stroke by 20% in five years. The program is focused on increasing physical activity, improving diet, and reducing stress.

Michigan is one of 20 states selected to participate in the program. The program is designed to help people make healthier choices and increase physical activity, which can lead to improved health outcomes. In addition, the program is designed to help people reduce their risk of chronic diseases, such as diabetes and obesity.

“The focus of the program is to help people make healthier choices and increase physical activity,” says the governor. “We understand that our state’s health and economic future depend on getting people to move more and eat healthier.”

Michigan’s program is one of many being implemented in other states, including California, New York, and Pennsylvania. The programs are designed to help people make healthier choices and increase physical activity, which can lead to improved health outcomes. In addition, the programs are designed to help people reduce their risk of chronic diseases, such as diabetes and obesity.

The programs are being implemented in partnership with local communities, schools, and businesses. They encourage residents to make healthier choices and increase physical activity by providing education, resources, and support. The programs are designed to help people make healthier choices and increase physical activity, which can lead to improved health outcomes. In addition, the programs are designed to help people reduce their risk of chronic diseases, such as diabetes and obesity.

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