Paul Beyer, Director of Smart Growth
Governor's Smart Growth Cabinet
Albany, NY

# DENSITY

## Description:

Community density is measured by the number of housing units or buildings permitted per acre of land. Allowable densities for each zoned district are set forth in the municipal zoning code. For example, a conventional, low-density suburban subdivision might be zoned for one house per acre—homes are thus separated from each other (and other types of land uses) by greater distances. Traditional village centers, on the other hand, may allow densities of ten or more units per acre, whereas cities with high-rise apartment buildings can accommodate densities in the hundreds of units per acre.

Density has an impact on the function, affordability, character, and quality-of-life of a community. Low density (dispersed, large-lot, isolated land uses) keep shopping, recreation, work, and civic buildings separate and far from one another, which increases car-travel distances and makes daily destinations more difficult and time-consuming to access. The road network and design necessary to support this type of development typically creates an unsafe and uncomfortable environment for pedestrians, bicyclists, and transit riders.

Higher densities and mixed-use zoning allow housing and other buildings to be arranged closer together, making them more accessible by foot, bicycle, mass transit, or short car ride. If planned and designed correctly, density can create a greater sense of community and neighborhood identity than conventional suburban sprawl.

Density is not an either/or proposition; a community need not choose between either very-high or very-low density. Plenty of creative middle ground exists between conventional, low-density suburban subdivisions and high-density urban-form high-rises, between a cul-de-sac bedroom community and an urban neighborhood, and between the strip mall and the downtown canyon of a large city. Indeed, hybrid forms of development can combine targeted density, open space, public space, and various building heights to create the same feeling of spaciousness found in modern suburbs.

Advocates for higher density must make it clear that density in the suburbs does not mean high-rise apartment buildings in the middle of a subdivision—"we don't want the city in our suburbs," the common refrain goes. On paper, four small houses built on a one-acre parcel of land, for example, is four times the density of surrounding houses on one-acre lots—a hair-raising proposition for most suburban residents. Yet those four houses could simply take the form of smaller, detached single-family homes (like a residential village setting) that would fit within, and even complement, almost any suburban setting.

Townhouses, one of the most popular forms of housing, particularly among older adults, are often placed within conventional suburban areas, even though they may constitute a density of six to eight units per acre (six to eight times the density of conventional one-unit-per-acre housing). In 2003, for the first time in the nation's history, average sale prices per square foot of attached housing, condominiums, townhouses, and apartments exceeded the price of detached housing.

Good design can help to incorporate higher densities into most conventional communities and surroundings without a perceived change in character. This is often referred to as "disguised density." Many multi-family housing types (duplexes, triplexes, quadplexes, and townhomes) are now designed to look like large, modern, suburban homes by providing side and back entrances to hide the multi-family appearance and offering sophisticated facade design that improves curb appeal. Such multi-family units can also be placed on a lot in ways that minimize the visual impact and preserve suburban community character. For example, the units can be placed back-to-back on a long, narrow lot to minimize the visual impact from the street.

Density, in and of itself, should never be thought of as a panacea. Poorly planned and poorly designed density can be just as bad as poorly planned, low-density sprawl. But density done right—well-designed and well-placed, with ample input from the community and its stakeholders—can provide manifold benefits to municipalities seeking to create age-integrated communities. Through photographs, renderings, and effective outreach and education, communities can present density in a less threatening and more acceptable way.

**Benefits:**

*For Residents:*

- Well-planned density increases security and public safety:
  - *Building Placement—*
    - Compact community design can create safer communities in a number of ways. For example, in her landmark 1961 book, *The Death and Life of Great American Cities*, urban historian Jane Jacobs coined the phrase "eyes-on-the-street"—direct lines of vision from buildings to the street, which deters crime by creating a "neighborhood crime watch" or "citizen surveillance" effect. This occurs in urban neighborhoods, where buildings are close to the street and sidewalk.
    - Buildings that are located close to the street (particularly in mixed-use areas) create greater visibility to the street and a sense of safe enclosure for pedestrians—that is, create "public rooms" between streets and buildings. A continuous line of buildings, with ample entrances and minimal blank exteriors, bolsters that sense of safety. Long stretches of blank walls and vacant lots diminish safety.

- *Increased Street Activity*— A deserted street is a more dangerous street. Without the threat of people watching, criminals are more inclined to commit a crime. Conversely, vibrant, active, lively streets create an ever-present neighborhood watch effect that deters criminal activity. Narrow streets, for example, tend to reduce traffic speed and volume, which increases pedestrian activity. Wide sidewalks, with buffers from the street (on-street parking, landscaping, green space), create a safer walking environment (discussed in greater detail in the manual's "Traffic-Calming, Mobility" section). And, compact, mixed-land uses attract more business patrons and passers-by at all hours of the day, creating regular pedestrian activity and movement.

- *Public and Communal Space*—
  - Public parks, squares, and centers can be designed to deter crime. "Crime Prevention Through Community Design" is one established approach to neighborhood design that creates safer public spaces in two ways: (1) Natural Surveillance, maximizing pedestrian activity and lines of vision to create "eyes-on-the-streets" and to avoid secluded areas; and (2) Access Management, strategically placing entrances, exits, fencing, gates, lighting, and landscaping to limit access points and to control the flow of people in and out of a public area.
  - Well-designed public and communal space also creates a greater sense of community and neighborhood pride, which can translate into greater vigilance and mutual protection. A study by the Harvard School of Public Health found that community spirit and a willingness to get involved in local affairs can reduce violent crime by up to 40 per cent ("Focus on Livable Communities," *Land Use Planning for Safe, Crime-Free Neighborhoods,* Sacramento, CA: Local Government Commission, Center for Livable Communities: http://www.lgc.org/freepub/docs/community_design/focus/plan_safe_neighborhoods.pdf).
  - *Community Forestry*— The presence of abundant vegetation may provide a calming effect that reduces the likelihood of crime. A study at the University of Illinois Urbana-Champaign found less stress and crime in well-landscaped, tree-lined urban neighborhoods.

- Well-planned density promotes "walkable communities":
  - *Increased access to amenities and destinations*—
    - Higher building density shortens the travel distances between destinations, which better accommodates pedestrian and bicycle travel and increases access to daily amenities.
    - Denser development near transit lines, commercial centers, and community facilities offers even greater access to life's daily destinations and important community amenities, a quality that is particularly important for older adults, persons with disabilities, and families with children.

- Higher density has a positive impact on choice and affordability:
  - *Greater Choices—*
    - Higher density development can include a variety of housing types, thus offering greater choices for residents who have cost constraints.
    - Accessory dwelling units (ADU) increase the density of housing allowed on a residential parcel by allowing either an attached or detached unit on property with a primary residence. ADU units come in the form of an attached in-law apartment, carriage house, or converted garage/basement apartment, or a detached cottage (ECHO housing, elder cottage, or "granny flat"). These units offer lower-cost and lower-maintenance housing choices for individuals (such as elderly adults, recent graduates, young professionals, individuals with disabilities) who want to live close by their family members who are living in the primary residence. The broader benefit to the larger community is a more age-diverse neighborhood.

  - *Affordability*— Denser Development:
    - Generally lowers the cost of land per unit;
    - Provides greater economies of scale, lowering costs for building materials;
    - Results in smaller units—typically requiring less infrastructure and lower site-preparation costs.
    - Municipal density bonuses allow developers to further minimize rents and prices (see "Incentive Zoning" section).

*For the community:*

- Municipal fiscal management is improved—
  - Sprawling development can exact a tremendous fiscal strain on municipalities. The infrastructure costs (roads, sewers, utilities) and municipal service costs (police and fire) associated with typical low-density suburban residential development usually exceeds the returns generated from tax revenues. The American Farmland Trust found that suburban residential development typically costs a municipality $1.16 for every dollar generated in taxes, a net loss of 16 cents on the dollar.

  - Compact development offers cost-saving benefits to a municipality, maximizing infrastructure by serving a greater number of households in its service area and often requiring little or no extension of existing infrastructure. In this respect, compact (especially mixed-use) development can be a revenue-generator for struggling municipalities, helping local governments balance their budgets and hold the line on taxes. Senior housing does not typically add schoolchildren or school costs and bolsters this benefit.

**Impediments or barriers to development or implementation:**

- *Local Zoning*: Most suburban zoning codes favor large-lot zoning. Many municipalities have imposed minimum-lot-size requirements to limit density and to limit the development of smaller homes, multi-unit homes, and

multi-family buildings. Large lots increase the total cost of a home purchase and make it less financially feasible for developers to build small homes. In this way, large-lot zoning effectively prices many seniors out of a housing market.

- *Community Opposition and Misperceptions:* Many residents have negative impressions and fears about density. Municipal officials and advocates for compact development must address these concerns carefully and patiently, with rational arguments and successful examples.

  For example, a project's impressive design qualities—attractive design, high grade materials, beautiful landscaping, adequate green buffer areas, ample public and/or open space, community recreational opportunities—can quell some of the fears about density. By addressing design upfront, advocates can often demonstrate that well-designed density can improve how a neighborhood functions. Also, a variety of housing types can provide architectural diversity from the standard "cookie-cutter" subdivision. As local land use expert, Michael McCauley, said, "Design doesn't trump fear, but it can facilitate acceptance." (Michael C. Thomsitt (Fall, 2001), "NIMBYism: Navigating the Politics of Local Opposition," "Does Design Make a Difference?" in *The NIMBY Report*).

  Ultimately, community concerns and misunderstandings about density must be addressed head-on with facts and figures. Here are a few examples of how to address three prevalent concerns about high-density housing.

  - *School Costs:* Some residents fear that denser development will overload the school district with children and costs. But multi-unit housing often generates a smaller number of schoolchildren per-unit/per-household than low-density subdivisions. A simple analysis of the households that occupy each type of housing illustrates this point: multi-family housing attracts more childless couples (young professionals, retirees, and empty-nesters), singles, and small families. Large single-family homes attract families with more children. A Rutgers University study revealed that 58 schoolchildren are generated for every 100 three-bedroom, single-family homes (48 of whom will attend public schools); just 12 schoolchildren are generated from 100 two-bedroom condominiums (10 of whom will attend public schools). Since owners of multi-family rental housing pay commercial property tax rates, and schoolchildren do not typically live with seniors, higher-density senior housing would actually subsidize the school district.

  - *Traffic Congestion:* Many suburban residents blame increasing traffic problems on too much development, equating "too much" development with "too dense." But in reality, much of their traffic can be blamed on dispersed, low-density housing and the system of collector roads that serve it. Higher-density housing, combined with a mix of land uses, reduces the amount of car travel per household because destinations

are closer and more inter-connected. While single-family homes produce at least two cars per household, many apartment or condominium dwellers need only one. Well-planned density can increase walking, biking, and transit ridership, reducing both the number of trips and the number of miles we travel in our cars.

- *Property Values:* Reliable and objective studies have found that proximity to higher-density, multi-family housing either has no effect, or a positive effect, on property values. In one study by the National Association of Home Builders, the value of single-family homes within 300 feet of condominiums or apartments increased 2.9 per cent between 1997-1999, compared to a 2.7 per cent increase for single-family homes that were not near apartments or condominiums. Indeed, several studies have shown that well-designed apartments actually increase the value of nearby single-family homes. Many of the high-density, mixed-use New Urbanist communities built in the 1990s saw dramatic increases in property values for the single-family homes within them; homes in New Urbanist developments also held their value better than other development projects in the housing market downturn.

These and other concerns should be addressed early and often—through public education and stakeholder forums. Advocates for density must provide successful examples to substantiate their case. For individual projects, municipalities may want to facilitate meetings between developers and nearby residents to promote greater dialogue and communication.

**Resource—statutory authority in New York State:**

- *Zoning:* Through zoning, a community may increase density through the use of maximum lot sizes, reduced lot coverage, and setbacks:
  - Grant of specific powers: General City Law §20.
  - Grant of Power: appropriations for certain expenses incurred under this article: Town Law §261.
  - Adoption of zoning regulations: Town Law §264.
  - Grant of power: Village Law §7-700.
  - Adoption of first zoning law: Village Law §7-110.

- *Cluster Zoning:*
  - General City Law §37;
  - Town Law §278;
  - Village Law §7-738.

- *Incentive Zoning:* Communities may offer developers a density bonus in exchange for meeting needs that are identified by the community, such as increasing housing options for older adults, families with small children, and people with disabilities:
  - General City Law §81-d;
  - Town Law § 261-b;
  - Village Law § 7-703.

- *Planned Unit Development (PUD):* PUDs, especially for larger scale projects, can be used to create dense, mixed-use infill projects:
  - General City Law §81-f;
  - Town Law §261-c;
  - Village Law §7-703-a.

- *Transfer of Development Rights (TDR):* TDR programs can be used to help redirect growth from the periphery to targeted growth areas to create greater density:
  - General City Law §20-f;
  - Town Law §261-a;
  - Village Law §7-701.

- *Subdivision review; approval of plats; development of filed plats:*
  - General City Law §32;
  - Town Law §276;
  - Village Law §7-728.

- *Subdivision review; approval of plats; additional requisites:*
  - General City Law §33;
  - Town Law §277;
  - Village Law §7-730.

**Resource—regulations and ordinances:**

- Richard Haughey (2008), *Getting Density Right: Tools for Creating Vibrant Compact Development.* A 200-page report, available in paperback and DVS, describes tools used nationwide to support compact development, including visioning, planning, and new regulations. Washington, DC: Urban Land Institute. ULI, National Multi-Housing Council, 2008. Available in bookstores; through the Urban Land Institute at www.uli.org; by calling 1-800-321-5011; or by contacting Peggy Meehan at (202) 332-2303 or peggy@highnooncommunications.com.

- *EcoDensity— Vancouver EcoDensity Charter: How Density, Design, and Land Use Will Contribute to Environmental Sustainability, Affordability, and Livability* (adopted by the Vancouver City Council June 10, 2008). Vancouver, British Columbia, Canada: City of Vancouver.
- http://www.civicinfo.bc.ca/practices_innovations/eco_density_initiative--vancouver--2009.pdf.

- Los Angeles, CA, City Planning Department, "Advisory Agency Policy No. 2006-1: Small Lot Subdivision Ordinance" to engineers, surveyors, and subdivision consultants (Ordinance #176,354, effective January 31, 2005): www. cityplanning.lacity.org/Code_Studies/Housing/smalllotpolicyFINAL.pdf.

- Rodney Cobb and Scott Dvorak (American Planning Association) (2000), *Accessory Dwelling Units: Model State Act and Ordinances*. Washington, DC: AARP. http://assets.aarp.org/rgcenter/consume/d17158_dwell.pdf.

- Maggie Kaufman (August, 2005), *Bibliography of Selected Resources on Second Units.* Links to numerous informational resources related to accessory dwelling units, including regulations and ordinances. Sacramento, CA: California State Department of Housing and Community Development, Housing Policy Division. www.hcd.ca.gov/hpd/secondunits0805.pdf.

- Department of Design, Construction, and Land Use, *Seattle's Housing Choices*. Seattle, WA: City of Seattle. Detailed descriptions of numerous accessory apartments, detached elder cottages, and two examples of a cottage community; also includes discussion and comparison of codes. www.seattle.gov/DCLU/news/Housing_Choices_Brochure.pdf.

- Sage Computing, Inc. (June, 2008), *Accessory Dwelling Units: Case Study*. Washington, DC: U. S. Department of Housing and Urban Development, Office of Policy Development and Research. This study examines the history and benefits of Accessory Dwelling Units (ADU); highlights six communities that have successfully implemented ADU ordinances; provides ordinance language—in Oregon, California, Virginia, and three in Massachusetts. http://www.huduser.org/Publications/PDF/adu.pdf.

- Portland, Oregon—the regional government's mandate to increase density by allowing accessory units was expanded to also permit permanent, freestanding accessory units on existing lots. Ordinance: Title 33 (Planning and Zoning), Chapter 33.205 (Accessory Dwelling Units): http://www.portlandonline.com/bps/index.cfm?c=34561&a=53301.

**Resource—examples and ordinances:**

- Steven Fader (2000), *Density by Design: New Directions in Residential Development*. Washington, DC: Urban Land Institute. Fourteen case studies of denser-than-typical projects, showcasing developments of small-lot subdivisions, accessory units, new urbanist housing communities, higher-density development, transit-oriented development, mixed-income and mixed-housing types, infill, and adaptive use. Available in book stores or from the Urban Land Institute's Online Book Store (Order No. N25) at: https://netforum.uli.org/eWeb/DynamicPage.aspx?Site=ULIMC_0512&WebKey=d5f2bf97-b11e-47f4-b329-8a5bd57fcd8c&FromSearchControl=Yes.

- A "disguised density" concept, with structures that resemble large single-family homes, but contain multifamily units— Morgan Woods Development, Edgartown, MA, on Martha's Vineyard: a 60-unit, 21-building community built on 12 acres of land assembled and donated by the Town, providing housing that is affordable to the island's permanent residents. Washington,

DC: Urban Land Institute, *Terwillinger Models of Excellence*, *Creating Workforce Housing:* www.uli.org/~/media/Documents/AwardsandCompetitions/Terwilliger/Profiles/Morgan_Woods.ashx. Also, The Community Builders, Inc., "Our Projects; Morgan Woods": http://www.tcbinc.org/what_we_do/projects/morgan_woods.htm.

- Cottage communities— The Cottage Company: www.cottagecompany.com . Nationally recognized leader in building complete, connected communities of "not-so-big" detached single-family homes. Have completed, seven sustainable communities in the Pacific Northwest as in-fill within existing single-family neighborhoods, close to jobs and transportation—in diverse locations, including prime waterfront property near Silverdale, Washington; a Seattle-area neighborhood; a rural island town; and a tranquil woodland.

- Third Street Cottages—the City of Langley, WA (pop. 1100) adopted an innovative "Cottage Housing Development" (CHD) zoning code provision to preserve housing diversity, affordability and character, and to discourage the spread of placeless sprawl—Ross Chapin Architects: http://www.rosschapin.com/Projects/PocketNeighborhoods/ThirdStreetCottages/ThirdStreet.html.
  - *Smart Growth in Action: Third Street Cottages:* http://www.smartgrowth.org/pdf/cs_001_3rdStreetCottages.pdf.
  - Joshua Greenberg, *Third Street Cottages and Dome Village: Smart Solutions for High-Density Housing:* http://www.greendesignetc.net/SmartGrowth_06_(pdf)/GreenbergJoshua-smart%20growth(present).pdf.

**Resource—written and web:**

- Urban Design Associates (August, 2004), *The Architectural Pattern Book: A Tool for Building Great Neighborhoods*. New York, NY: W. W. Norton & Company. Book documents the revival of the traditional architectural pattern book as a means of implementing urban design.

- Urban Design Associates (January, 2003), *The Urban Design Handbook: Techniques and Working Methods*. New York, NY: W. W. Norton & Company. A comprehensive guide to the complex process of urban design.

- Dennis J. Asla (November 1, 2008), *Urban Design and the Bottom Line: Optimizing the Return on Perception*. Washington, DC: Urban Land Institute. Author presents the benefits and impact of good design upon all facets of an urban area—the community, businesses, employees, the general public, city officials, and the developer.
  - Third Street Cottages, Langley, WA*: s*ee page 39 in *Urban Design and the Bottom Line.*

- David A. Foster (2003), *Smart Growth in Action: Accessory Dwelling Unit Development Program*, Santa Cruz, CA: City of Santa Cruz Department of Housing and Community Development: http://www.smartgrowth.org/pdf/cs_018_SantaCruz.pdf. Also, "Smart Growth Resource Library," *Smart Growth Online*: http://sgnarc.ncat.org/engine/index.php/resources/2005/10/03/Smart-Growth-In-Action-Accessory-Dwelling-Unit-Development-Program-Santa-Cruz-California ; or: Smart Growth Online, "An Overview of Smart Growth Projects": http://www.smartgrowth.org/action/: scroll down to see link to "Smart Growth in Action: Accessory Dwelling Unit Development Program, Santa Cruz, CA."

**Additional Resources:**

- *General:*
  - "Compact Development: Changing the Rules to Make it Happen," Urban Land Institute Community Catalyst Report, ULI, National Multi-Housing Council, Washington, DC, 2007.
  - Visualizing Density, Julie Campoli and Alex S. MacLean, Lincoln Institute of Land Policy, Cambridge, MA, 2007.
  - Getting Density Right: Tools for Creating Vibrant Compact Development, ULI, National Multi-Housing Council, 2008.
  - Higher Density Development: Myth and Fact, ULI, National Multi-Housing Council, AIA, Sierra Club, 2005.
  - "Compact Development: Selected References," ULI InfoPacket, 2008
  - Compact Development CD: A Toolkit to Build Support for Higher Density Housing, Local Government Commission, Sacramento, VCA, 2002, available at http://www.lgc.org/freepub/community_design/guides/compact_development.html .
  - "The Density Dilemma: Appeal and Obstacles for Compact and Transit-Oriented Development," Anthony Flint, Lincoln Institute of Land Policy Working Paper, Cambridge, MA, 2005.
  - "Compact Development for More Livable Communities," http://www.lgc.org/freepub/docs/community_design/focus/compact_development.pdf.
  - "Does Design Make a Difference?," *The NIMBY Report*, National Low Income Housing Coalition, Fall 2001.
  - "Current Preferences and Future Demand for Denser Residential Environments," Dowell Myers, Funders Network for Smart Growth and Livable Communities, June 2001.
  - "Neighborhood Explorations: This View of Density," San Francisco League of Conservation Voters, accessible at www.sflcv.org/density/.
  - National Town Builders Association, www.ntba.net.
  - American Institute of Architects, www.aia.org.

- *School Costs:*
  - "1999 American Housing Survey," US Bureau of the Census and HUD, Washington, DC.

  - "High Density Development Doesn't Mean Drain on Schools," Ralph Zucker, Real Estate Weekly, September 12, 2007, citing study by David Listokin, Rutgers University Bloustein School of Planning and Public Policy.

- *Bring Along the Public and Developers:*
  - Breaking the Developer Logjam: New Strategies for Building Community Support, Douglas R. Porter, ULI, 2006.
  - Karl Kehde – Smart Land Development, www.landuse.org.
  - Community Design: A Team Approach to Dynamic Community Systems, W. Arthur Mehrhoff, Thousand Oaks, CA, 1999.