

Chapter 2

DEVELOPMENT CODES AND SMART GROWTH

This chapter discusses land development regulations and smart growth. Sections 2.1 to 2.7 outline the elements, standards, and procedures of land development regulations and, in particular, the concept of a unified development code that consolidates such regulations in a single document. Section 2.8 proposes a series of strategies for evaluating and revising land development regulations. Section 2.9 describes smart growth principles formulated by the American Planning Association and the U.S. Environmental Protection Agency and sets forth an approach for conducting a smart growth audit.

2.1 Land development regulations and unified development codes

The term “**land development regulation**” is a shorthand reference to a broad range of governmental controls that affect one’s ability to use or develop land. Historically, such regulations came in the form of zoning ordinances, subdivision regulations, impact fees, floodplain controls, sign ordinances, stormwater controls, erosion and sedimentation regulations, and various other local laws.

Zoning divides a community into **districts** and specifies different sets of rules or development standards for each district, although some requirements will be common to all districts. Zoning district regulations address three basic sets of issues:

1. The **permitted use** of land and buildings. The general use categories in most communities are residential, commercial (or business) and industrial (or manufacturing). Larger communities will have multiple districts within each of those categories. Some communities may have separate categories for agricultural uses, public uses, and such specialized uses as colleges and universities.
2. The **intensity** of the use. Knowing that a particular tract can be used for residential purposes is one important dimension affecting the future of the property, but it is also important to know how many residences can be placed on the property—that is a measure of intensity, expressed as **density**. In single-family residential districts, density is usually expressed indirectly through **minimum lot sizes**. In nonresidential districts, intensity is sometimes regulated directly through a **floor area ratio** (expressing how many square feet of building can be built on one square foot of land); in some communities, intensity in commercial districts is regulated indirectly through building height limits.
3. **Height, bulk, and other dimensional standards**. These standards define, in three dimensions, what portion of a lot can be occupied by buildings.

Regulations may require that buildings be **set back** from property lines by specified distances or that **yards** of a particular dimension be maintained on some or all sides of a building (note that **yard** and **setback** standards serve essentially the same purposes, although local details may vary). There may be different rules for the dimensions of accessory buildings, such as garages.

The other basic local land development regulations are **subdivision controls**. Such regulations typically specify how land should be developed, including: street widths and design; requirements for sidewalks, shapes of lots and blocks; specifications for street lights, street trees, bus stops and other amenities; and requirements for the installation of public utilities and other services for new development.

At one level, subdivision and zoning regulations are separate. Much new development in the U.S. begins with a **rezoning**, which is a change of zoning district from one type of use or intensity to another type of use or intensity. On the urban fringe, agricultural or other low-intensity district types are often rezoned to residential, commercial, or industrial districts consistent with plans for the area. In developed areas, a district or a parcel may be rezoned to permit more density or intensity of residential use or to change the permitted uses. The primary guide for whether property ought to be rezoned is the local **comprehensive plan**, a policy document in text and map form prepared under the direction of the planning commission with input from the public, which is then adopted by that body and the governing body. The plan should contain a unified physical design for the public and private development of land and water. The process of rezoning goes through the local planning commission for a recommendation and on to the governing body (usually a city council or board of county commissioners). There is usually public notice of the action and one or two public hearings at which neighbors and others may express their views. In short, the process is a public and political one.

In contrast, the review of proposed subdivisions is often largely technical. Standards contained in subdivision regulations are typically developed by engineers and other technical experts with the city, sometimes with little or no input from the planning commission or city council. In the review process, engineers for the local government check the developer's runoff calculations and determine whether the proposed facilities will be adequate; they recheck the developer's proposed street designs against the community's standards; and they verify that proposed utility systems will tie into the public system. Although many subdivision proposals eventually go to the governing body for acceptance of proposed **dedications** (a process for transferring legal control of property to a public entity) of streets and public facilities, the review is usually largely complete at that point. Many communities do not have public hearings on subdivisions, and if hearings are held, they are often narrow in scope.

There are logical as well as historical reasons why the zoning and subdivision processes are separate. Zoning developed in this country in response to concerns about incompatible uses (e.g., industrial uses) moving into residential or commercial areas, and those regulations focused on those issues. In contrast, subdivision regulations evolved as a system to provide accurate descriptions of small parcels of land and eventually grew to include requirements for the improvement of public streets and roads.

Increasingly, jurisdictions are consolidating land development regulations into more comprehensive (and comprehensible) documents that present controls in a more seamless and systematic manner. These are called **unified development codes**, which are intended to address several issues.

First, as a substantive matter, weaving all of the regulations together in one legal document ensures that the regulations thoroughly implement the comprehensive plan. The drafting of a unified code provides a forum in which those drafting the code can review the advice and comments of technical experts in the context of the broader public policy goals set out in the comprehensive plan. Further, drafters of a unified code can mitigate some of the concerns of the experts; for example, engineers will often accept a reduced road size if they believe that the proposed code provides a reasonable and finite limit to the total amount of development that will rely on that road or if standards for road connectivity are added to the regulations.

Second, the best unified development codes build on the strengths of **planned development regulations**; that is, such codes blend the use and intensity review process (typically a part of the zoning process) with design review (traditionally part of subdivision review). The integrated review process allows citizens and neighbors of the proposed development to get a clearer picture what is being proposed on the site. For example, neighbors may object to a rezoning for a proposed “neighborhood commercial center,” envisioning it as a convenience store with 22 gasoline pumps, a tall canopy over the pumps, and enough lighting to serve a stadium parking lot. A unified code, which requires the developer to package and present the rezoning proposal to include a design plan showing good pedestrian access, limited automotive access, and lots of landscaping (and no gas pumps), would likely convince neighbors that the project would result in a true “neighborhood” center. While it may still be possible for the neighborhood center to be built without undergoing review under the terms of the planned development regulations, the absence of such regulations could mean that the center would be subject to a series of separate applications and not the product of a unified proposal reviewed at one time rather than sequentially and without specific design requirements.

Third, the development code approach reflects the way modern development occurs, eliminating the often arbitrary distinctions between subdivisions and developments. If, for example, the subdivision ordinance contains a community’s road standards, is a development not subject to subdivision or platting bound by those standards? With a development code, there are no questions about the applicability of subdivision ordinance standards to developments exempt from subdivision.

Fourth, consolidating various development regulations into a single document helps provide full disclosure of the myriad regulations that can affect a proposed development. This leads to better predictability for all—developers, citizens, and public officials. When consolidation occurs in a thoughtful and deliberate manner, the development code approach can help to eliminate inconsistencies and redundancies among various code provisions. Keen attention to organizational issues can also help make regulations easier to understand, administer and, ultimately, enforce.

Fifth, creating the code is a process that should lead to the elimination of duplication, contradictions, and confusion resulting from the presence of development regulations in several different ordinances, different parts of the local code, or drafted at different points in time by different people. Zoning and subdivision regulations often contain different definitions of basic terms like “street,” meaning the effect of the zoning ordinance may be to allow construction of a dwelling on a street that does not meet the subdivision standards. Although there may be logical reasons for such a provision, it is important to review all such apparent inconsistencies and eliminate or explain them.

The advantages of a development code are particularly apparent when it comes to administrative and procedural provisions. Consolidation of all provisions related to zoning map amendments and the review and approval of proposed developments is inherently efficient and sensible. Such an approach lends itself to the drafting of consistent standards and criteria governing such matters as public notices, hearing requirements, decision-making criteria, and other factors common to nearly all development review processes. Planners can organize procedures in a way that tracks the “typical” development process, starting with basic land-use/intensity considerations (zoning classification) and proceeding through a series of more site- and project-specific issues, such as platting, site planning, the presence of conditional uses, and variances.

2.2 Organization and Structure of a Development Code

The basic ingredients of a development code are obvious: all the regulations and standards that have historically been scattered throughout zoning ordinances, subdivision regulations, and various other land development regulatory documents. The challenge is to organize those regulations in a way that makes sense. The process of creating a development code requires breaking conventional ordinances into their component parts, throwing out duplicative language, reconciling inconsistent or conflicting provisions, reassembling the regulations into a coherent structure, and editing them for consistency and clarity of language.

While there is no single organizational scheme that will work for every jurisdiction, every development code includes a number of common elements. In the discussion below, the “city code” identifies the code that contains all city ordinances, ranging from animal control to zoning; a “Chapter” indicates a major heading within the city code, such as “utilities” or “zoning”; an “Article” indicates a major sub-heading within a chapter, such as “definitions” within the “zoning” chapter; and a “Section” refers to a particular, numbered section of the code, such as the definition for “street.” A table of contents for a development code might look like this (the table of contents has been annotated to explain the purpose of each Article):

I General Provisions

This Article contains a lot of legally important material that is often of little daily concern. For discussion of the specific items included in this Article, see Section 2.1.1 below.

II Boards and Commissions

Many local zoning ordinances include language establishing the local planning commission and zoning board of appeals or adjustment. If these provisions have been included in a more general Chapter of the city code about dealing with all city boards and commissions, they can be left there. Otherwise, they must be incorporated into the new development code. State law will specify what many of these provisions must be, but it is important to fill in the gaps regarding the powers and procedures of each of these bodies. If a community has an architectural review board, historic preservation board, or environmental review board, their procedures may also be included in this Article.

III Procedures

One of the first questions that a developer or other potential user of property asks is How do I get my project approved? Similarly, homeowners often want to know What do I have to do to get my new deck (or garage or pool) approved? The procedures Article of the code should answer such questions and spell out procedures for every type of approval necessary for a project. See the discussion in Section 2.1.4 below.

IV Use Standards

The development code will specify what uses can take place in which districts, just as a zoning ordinance does. When drafting the code, one might best consolidate all of these provisions into one comprehensive Article, as discussed below in Section 2.1.2. Note that an alternative approach is to label this Article “District Standards” and to incorporate the use, intensity, and dimensional standards into one Article. Although that approach appears to make a simpler top-level outline, it may lead to a needlessly complex Article.

V Intensity and Dimensional Standards

The development code must also specify what intensities of uses will be allowed in each district and what height, setback, yard, and other dimensional standards will apply. (See discussion immediately above about merging this Article with the “Use” Article and see Section 2.1.2 below for more detailed discussion of what is included in this Section.)

VI Development Standards

The development standards Article will merge standards related to the development of a single lot (e.g., off-street parking, on-site stormwater design, driveway access, utility easements) with the related standards that affect development of an entire subdivision (e.g., street and utility

easements, street design, public utilities, shared stormwater systems, automobile circulation, pedestrian circulation). See Section 2.1.3 below for a detailed discussion. Note that standards for “parking and loading” are often placed in a separate Article, to provide quick and easy reference to those standards, which are often presented in lengthy tables, specifying the requirements for each category of use. Regulations for business and advertising signs are sometimes included under this Article or in a separate Article (or, in a few cases, even in a separate Chapter of the city code). Regulations for floodplains are often kept in a separate Article; because they must be approved by a federal agency for a community to qualify for the federal flood insurance program, it is often easiest to show that the community is still using the approved regulations by keeping those regulations (including the related definitions) in a separate Article of the code.

VII Administration and Enforcement

This Article should assign specific responsibility for administration and enforcement; see discussion in Section 2.1.5 below. The treatment of nonconforming uses (i.e., legally established buildings, lots, and uses that do not conform to the provisions of the current ordinance) is often included in this Article, but the issue can also be addressed in a separate Article on “nonconforming uses.”

VIII Definitions and Interpretation

Most of the contents of this Article will consist of definitions of individual words and phrases. Note, however, that this Section should also clarify other issues of interpretation, such as whether zoning district boundaries should be presumed to follow property lines and how a particular body or official should interpret the words “may” and “shall.” Note that this Article is often found at the beginning of a zoning ordinance or other Chapter of a city code. Because definitions are reference material, essentially the glossary for the ordinance, there are good reasons to place it at the end. Each community, however, should make its own decision about the placement of this and each of the other Articles.

2.2.1 General (Introductory) Provisions

An opening Chapter (although it does sometimes appear at the end of the code instead) should include provisions establishing the code’s legal context and framework. These provisions are described in the following list.

- **Authority.** A statement of authority is the description of the state statutes, constitutional provisions, or municipal charter elements that provide the legal basis for the code.

- **Purpose.** Purpose statements in a code are clear expressions of what the jurisdiction seeks to accomplish in executing the ordinance. The statements will often refer to the protection of the public’s health, safety, and general welfare, and to specific objectives related to the ordinance (e.g., strengthening neighborhood commercial areas or increasing residential density to support transit). Please note that, with increased concern about health issues (e.g., obesity rates in the U.S. population), the phrase “public health” has taken on renewed significance. Purpose statements should also reference the principles and Sections or Articles of the comprehensive plan that apply. Courts will often examine the purpose statements of a code when anyone brings a legal challenge to the actions of a local government under a development code. The best way to show the purpose is to specify it in the code.

- **Applicability.** In this Section, code writers need to specify the types of situations or activities the development code regulates (typically private use or improvements and the types of activities that are excluded (certain public activities under most codes).

- **Short title.** The short title is the legal name for referring to the development code without setting out a full citation, such as “Smarttown Unified Development Code.”

- **The system of maps.** This Section establishes a procedure for the creation, updating, and copying of official zoning and other related maps, and provides a way to identify at any time the most current, legally defensible version of such maps.

- **Transitional provisions.** Transitional provisions clarify how new or changed rules will apply to projects that are: partially built, under development review, or caught “in transition” by the new regulations.

2.2.2 Use Standards

One of the central organizational questions officials need to confront when preparing a development code is how to handle basic zoning-related provisions—those pertaining to allowed uses and lot and building standards (bulk dimensional requirements). Older zoning codes often follow a district-based scheme, where all of the rules for the R-1 district are listed before there is any discussion of the R-2 district. More modern codes and the approach recommended here group functionally similar provisions (e.g., “use standards”) together, regardless of zoning district. Thus, the use standards for all districts will be presented in one place, making extensive use of tables; for a community with a lot of districts, the table and this Article can be broken into two parts, “residential” and “nonresidential,” and, in some cases, a third category for “mixed use.”

Use standards address a number of issues:

- **Permitted uses** are those uses permitted “by right” in a particular district (most residential and typical commercial uses are permitted uses in at least some zoning districts).
- **Conditional or special uses** are those uses permitted only after a discretionary review by the zoning board, planning commission, or governing body; gravel quarries, landfills, and other unusual or high impact uses often fall in this category.
- **Restrictions or limitations on uses** will need to be specified. For example, the code may specify that kennels in a particular district may not have more than 12 runs or that swimming pools must be fenced. If most uses are presented in tabular form, these restrictions or limitations can be placed in notes to the table.
- **Accessory uses** are uses incidental and subordinate to the principal use but on the same lot. It is important to be specific about which accessory uses are allowed where. A detached garage at a residence and a trash dumpster at a business are typical accessory uses. For example, it is often useful to treat a “drive-through facility” as an accessory use, so that it is possible to have a fast-food restaurant in one or more districts while prohibiting the accessory use (i.e., the drive-through facility) in certain districts, such as downtowns or pedestrian-oriented areas.
- **Prohibited uses** are those not permitted by right or conditionally. The code should contain a general provision that “all uses not specifically permitted are prohibited.” It is sometimes useful to be specific; namely, some uses may not be permitted, but only in specific circumstances (e.g., “Drive-through facilities are not permitted as an accessory to any use in the Neighborhood Commercial District”; or “Uranium processing plants, rendering plants and gambling casinos are specifically prohibited in all districts.”).

Generally, those drafting the code will take their lead about what uses will be permitted uses in specific parts of the community from the community vision as expressed in the comprehensive plan. The details affecting those uses (e.g., height, bulk, etc.) will be spelled out in the zoning code. For example, the comprehensive plan may indicate that a particular area should be “residential, including multifamily, at moderate densities” and define the range of “moderate density” (say, 8 to 24 dwelling units per net acre). The zoning ordinance should then clarify the exact density for each moderate-density district and clarify whether apartments and single-family homes can be mixed in the same district or two (or more) districts will be needed to implement the concept of “residential, at moderate densities.”

Zoning creates multiple districts and allows different uses in different districts. Unfortunately, much of the poorly planned or executed growth of the later twentieth century occurred in part because local officials and planners were carried away with the

separation of uses, often prohibiting such logical combinations as apartments above downtown stores, accessory dwelling units on larger lots, and live-work arrangements for professionals and artists in some districts. Thus, as part of the process of updating local codes to achieve smart growth, planners and public officials must review the proposed use combinations to be certain that smart growth, mixed-use combinations are encouraged and facilitated, not just allowed. If providing apartments above the new mall is permitted only as a “conditional use,” the developer may choose the easier path and just build the mall. Not all mixtures of uses will prove to constitute “smart growth” in all zoning districts, but those drafting the code need to carefully consider the possible combinations to achieve the goal and not simply base decisions on past regulations and trends.

Those drafting the code will also need to review how different districts are related to one another geographically. From the early days of zoning until late in the twentieth century, it was common to place “industrial” uses as far as possible from residences. Before modern pollution controls came into common use in the 1970s, that strategy made a lot of sense. For some uses (oil refineries, rendering plants, chemical plants), it still does. For other uses, including research and development facilities and high-tech industries, however, there is no need to separate them from sensitive uses. Further, smart growth dictates that employment centers should be as close as possible to residential areas (referred to as the “jobs-housing balance”), preferably with easy access by mass transportation.

Similarly, as retail has grown in scale and become less neighborhood oriented, retail developers have resorted to siting most projects in the only areas where there is enough land available to accommodate their oversize-store format; namely, on the urban fringe. Smart growth principles call for some shopping and commercial activities to be within walking distance of residential neighborhoods. Obviously a supercenter operated by one of the major discounters is not a desirable use near a neighborhood, but a store selling similar things in a different format may work well in a neighborhood center so that it is in walking distance and has a pedestrian orientation.

Thus, the process of creating a new development code requires code drafters to reexamine the entire districting scheme of the community to ensure that there are adequate mixtures of uses in many zoning districts and that most shopping, service, and employment activities can be located in districts close to where people live (subject to significant development compatibility standards in those locations).

2.2.3 Intensity and Dimensional Standards

Intensity standards come in several forms:

- **Density** for residential units is typically expressed as a number of dwelling units per net acre (“12 DU/acre” means that the permitted density is up to 12 dwelling units per net acre”).

- **Minimum lot sizes** for single-family residential units are the inverse of “density” and can be converted to an approximate density number by dividing the lot size into the number of square feet in an acre (43,560); thus, a minimum lot size of 10,700 feet results in a density of about 4 units per acre.
- **Floor-area ratio (FAR)** specifies the maximum number of square feet that can be built for each square foot of land area; thus, on a 10,000-square-foot lot with an FAR of 2, it is possible to build 20,000 square feet of building. Note that, because of on-site parking requirements and yard and setback requirements, such intensity may be achievable only with a building that covers only part of the lot but that goes up three or four stories;
- **Height** limitations are sometimes imposed in nonresidential areas in lieu of FAR limits. The height limit can be a very effective intensity limitation in a downtown area, where buildings are typically built to cover most of a lot and height is the primary variable. On the other hand, a generous height limitation may be a way of ensuring that an area can support transit. A height limit is generally unnecessary as an intensity limit in warehousing and manufacturing areas, where most modern facilities are just one or two stories.

Intensity and density regulations are critical to implementing smart growth principles in four ways:

1. Smart growth is generally relatively dense growth. More dense neighborhoods provide more destinations within walking distance.
2. Consequently, the per-unit cost of installing and maintaining underground utilities and streets should be reduced because, all things being equal, there will be fewer feet of pipe and pavement per dwelling.
3. Higher densities save land; if a new development with 400 homes is developed at 6 units per acre (about 67 acres), rather than 2 units per acre, the result saves 130 acres of land, left in open space or other uses.
4. Higher densities are necessary to support efficient and economical mass transit, which can result in, among other things, saved commuting time, environmental benefits, and infrastructure savings (e.g., less heavily traveled highways requiring less maintenance). Unfortunately, the base zoning in place in many developing areas allows only one or two units per acre. Thus, developers often have to obtain a rezoning to achieve densities supportive of smart growth principles. In the political climate of the early twenty-first century, neighbors almost always turn out to oppose rezonings that lead to density increases. Thus, part of a smart growth update to development codes must address the aesthetic, traffic, and open space impacts of the density to

educate the public about the positive aspects of density and ways to mitigate the perceived and real negative impacts of increased density.

Although most zoning ordinances for downtown areas superficially encourage appropriate intensity levels for uses there, other provisions often thwart those densities. The most common such provisions are suburban-like standards that require downtown developers to provide off-street parking and on-site stormwater detention, just like a mall developer would provide. Stated intensities in the downtown area must be achievable, not just printed numbers hindered by other rules in the code.

1. Finally, a code designed to implement smart growth must carefully blend intensity calculations with density considerations for mixed uses. The benefits of mixed-use in a commercial area may be lost if the number of square feet of commercial activity is reduced for every square foot of residential use. Similarly, a close examination of the real (as opposed to the perceived) need for parking may suggest some synergy with mixed-used development and a corresponding reduction in required parking spaces. Indeed, maximum, rather than minimum, parking requirements are becoming more popular in modern codes. There is a more detailed discussion of parking requirements below in Section 2.4.1. This Article should, at a minimum, include the four following standards: **Yards and setbacks** are related concepts, used to preserve open space around buildings and separation between neighboring buildings. Although some local ordinances make subtle distinctions between the two (for example, saying that parking is allowed in setback areas but not in yards), for the purposes of this report the two are interchangeable. The existing zoning ordinance will provide a good starting point for considering yards or setback standards and building heights, although yard and setback requirements should be reduced proportionately when lot sizes are reduced to allow greater density.
2. **Building height** regulations serve the purpose of maintaining scale in a district. Height limits typically start at 30 or 35 feet in single-family neighborhoods and may scale up to much higher numbers in downtown and other intense areas. Height limits are sometimes given in stories; where given in feet, 10 feet per story is a reasonable conversion figure.
3. **Building coverage** is usually expressed as a maximum permissible percentage and refers to the portion of a lot covered by a building. It is largely an aesthetic measure.
4. **Impervious coverage**, as opposed to building coverage, is a measure of the portion of the lot that is covered with surfaces through which water cannot easily flow, including buildings, paving, and decks. Impervious coverage limits are significant in a smart growth program because the amount of impervious coverage is proportionately related to the amount of runoff and, thus, to the extent and cost of required stormwater facilities.

Communities with building coverage ratios in their current ordinances may want to consider replacing them with impervious coverage ratios in a development code; communities without either one should consider adopting impervious coverage limits, at least for nonresidential zoning districts. All such standards, however, should be adapted to the planning concepts driving the smart growth program. Thus, in a downtown area to be intensely developed, the maximum allowed impervious coverage should be 100 percent. In a suburban setting it could range from 25 percent in single-family residential areas to 50 percent or a little more at multifamily projects and modern industrial parks and as much as 80 percent in intense commercial districts; some commercial developers may try for 100 percent coverage even in suburban settings, but local governments should not allow that to happen.

2.4 Development Standards

2.4.1 Site-Specific Standards

Many development standards are specific to the particular lot or site occupied by a single user or a group of related users (e.g., residents of an apartment complex or tenants in a shopping center). These standards in this Article would likely include the following:

- **Parking and loading** standards spell out how much space should be reserved for off-street parking, for loading and unloading of trucks, and for “stacking” lanes for drive-through facilities. Parking standards are typically provided in a table that lists categories of land use and the parking formula to be applied to each. For example, a local ordinance may require 1 parking space for each 300 square feet of office space, 1 for each 200 square feet of certain types of retail space, 1 for each bedroom in an apartment complex, and 1 for every 2 seats of seating capacity in a place of public assembly, such as a house of worship or an auditorium. Collections of parking standards are available from the American Planning Association, and parking generation rates are available the Institute of Transportation Engineers (ITE). Those same sources provide recommended formulas for loading space for retail and manufacturing uses and for stacking spaces for drive-through facilities; stacking spaces

Green Roofs

Many cities are experimenting with green roofs to counter the urban heat island effect.

In Chicago, all public buildings and planned unit developments are subject to green roof standards, which vary by building type and purpose and by zoning district. As of June 2004 there were more than 80 public and private green roofs in the city, amounting to more than 1 million square feet. Portland, Oregon, offers builders a density bonus for installing rooftop gardens and eco-roofs in the central city area. (Eco roofs act as stormwater facilities.) The green roof must cover at least 50 percent of the roof to qualify for a bonus.

Green roofs consist of vegetation and soil planted over a waterproofing membrane. Additional layers, such as a root barrier and drainage and irrigation systems may also be included. The term “heat island” refers to urban air and surface temperatures that are 2 to 10°F (1 to 6°C) hotter than nearby rural areas. Elevated temperatures can affect communities by increasing peak energy demand, air conditioning costs, air pollution levels, and heat-related illness and mortality.

For additional information:

Retzlaff, Rebecca. “Building Green: Onus or Bonus?” *Zoning Practice*. April 2005.

U.S. EPA Heat Island website
www.epa.gov/hiri/about/index.html

are typically expressed as a multiple of the number of drive-through lanes, often requiring space for four or five cars to be “stacked” behind the car currently using the facility. The seas of asphalt that surround big-box retail stores and malls often represent additional parking built by the developer beyond the local government’s minimum requirement. Because such extra parking wastes land and generates excess stormwater runoff and heat, more and more local governments are increasingly setting a maximum parking standard or allowing shared parking. Shoup (2005) recommends a thorough reexamination of parking standards. He found the ITE parking generation rates to be statistically suspect. Shoup presents convincing evidence that off-street parking requirements distort transportation choices, warp urban form, debase urban design, increase housing costs, burden low-income households, damage the economy, and degrade the environment.

- **Landscaping** standards should serve both aesthetic and environmental functions. Many local governments today require that a portion of most developed sites be dedicated to landscaping and that landscaping be incorporated into parking lots to soften the visual effect of the lot and reduce the heat generation from it. Such requirements vary by zoning district. They can be as high as 25 percent or more in light industrial districts; 4 or 5 percent in commercial areas; or zero in the downtown or other intensive commercial districts. Landscaping standards should specify not only the amount of landscaping but also the type. Deciduous trees provide shade, but evergreens and many shrubs provide visual buffers; lawn and flowerbeds break up the paving but provide neither shade nor screening. The landscape regulations should include a list of locally viable and easily maintained plants, developed by a landscape architect or other expert familiar with the community; most local parks departments have such a person on staff.
- **On-site circulation** standards specify how vehicles and pedestrians move on site so that conflicts between them are minimal, and ensure that fire lanes near the buildings remain open for emergency access. Where there is simply an office building with a single parking lot, such design will be relatively simple. Where there are multiple businesses, some with drive-through lanes, and some shared parking lots, however, the site plan can become complex. Although the local government ought not to draw the site plan, it must have standards to ensure that the site will function as intended. (See Chapter 4, Model Pedestrian Overlay District, and Model On-Site Access, Parking and Circulation Ordinance)
- **Easements** designate routes for sewer and water lines and other utilities to ensure that the land above buried utilities will remain open and accessible to repair and maintenance crews. Different utilities will have different needs, and the site planning standards ultimately must blend all of those

together. Similarly, easements can be used to designate and preserve access routes, such as bike and walking paths.

2.4.2 Development Standards for Environmentally Sensitive Lands

Many local codes include a separate Article or part of an Article dealing with development standards for environmentally sensitive lands (e.g., floodplains, wetlands, woodlands, steep slopes, and water bodies). Such regulations are not particular to a zoning district or type of use; rather, they apply wherever and whenever the specific environmental resources or conditions exist.

In his landmark work, *Design with Nature* (1969), landscape architect and planning pioneer Ian McHarg argued that new development could be designed to protect environmental features and incorporate them as amenities in a development. This approach represented a significant change from conventional, post-WW II development patterns that maximized lot sizes, contained wide residential streets, and minimized open space. Such sites were prepared for development by clearing, grading, and removing all environmental features (e.g., streams were redirected underground through pipes.) McHarg's approach also runs counter somewhat to the pre-WWII traditional grid-like development patterns that contained uniform, rectangular lots on rectangular blocks.

Smart growth principles call for increased density, greater street connectivity, smaller lots, and compact development pattern, all of which are applied on a traditional grid street layout. The challenge of applying smart growth in areas with environmentally sensitive lands is to address the possibly contrary objectives of maximizing the use of land while protecting its important environmental characteristics. If a 100-acre tract had 10 acres of wetland and was zoned to allow residences at 5 units per acre, the conventional approach would often lead to filling the wetland to ensure that the developer could get 500 units onto the site. A restrictive approach might allow the developer only 450 units, requiring that the wetlands be left untouched. In contrast, a smart growth approach, following McHarg's ideas, would allow the developer 500 units but require that they be built on only the 90 acres of dry ground, preserving the wetlands as an amenity. Assuming that an additional 10 acres would be required for roadways and easements, the net difference in lot sizes between the traditional approach and the smart growth approach would be about 10 percent, reducing the average lot size from about 7,800 square feet to just under 7,000 square feet.

Not all communities have embraced McHarg's approach. Some communities have few environmental constraints that limit developable land or preclude the use of a grid street pattern (e.g., when the land is flat and relatively unforested). The fundamental issue is that a community implementing a smart growth plan must develop a philosophy of how the environmentally sensitive lands will be treated and accommodated in the context of growth. There are at least three approaches:

1. **Eliminate or minimize the sensitive lands** to allow a traditional pattern of development (note that federal and state law will impose some limits on this approach).

2. **“Design with nature,”** integrating the sensitive lands into a development pattern and allowing increased use of other lands on the same site.
3. **Protect the sensitive lands entirely from development** by either purchasing them with public money or requiring that developers set them aside permanently (exercise caution if using the latter technique so as to avoid a challenge to the regulation as an unconstitutional “taking” of property).

Having adopted a philosophy or policy, the local government can then establish criteria for the protection of particular types of sensitive lands:

- **Floodplains.** In general, guidelines of the Federal Emergency Management Agency (FEMA) suggest that floodways, which carry the major flood flow should remain undeveloped, while the flood fringe can be developed, subject to reasonable controls to limit the damage to property. Because local ordinances must conform to FEMA guidelines to qualify the properties in the community for federal flood insurance, most communities will follow these guidelines. The extent to which the flood fringe may actually be developed will vary with local conditions. Where the banks are steep and the flood fringe relatively narrow, it is usually desirable to limit development significantly even on the flood fringe. In contrast, on the Great Plains and in other flat areas, where the flood fringe may be miles wide, development designed to mitigate flood damage may be entirely appropriate.

Note: A floodplain is defined as land area susceptible to inundation by water as a result of the flood. Within the floodplain are the floodway and the flood fringe. The floodway is the portion of the floodplain that must be left unaltered in order for it to carry and discharge an amount of water that federal and state floodplain regulations and maps consider to be a 100-year flood. The flood fringe is the remainder of the land that lies within a 100-year floodplain that is not part of the floodway.

- **Wetlands.** Some wetlands are protected by federal or state law, which will control any activities affecting those wetlands. There are many other wetlands, however, of local significance not regulated by the federal or state government. Larger wetlands play an important role in flood mitigation, and most wetlands contribute to bio-diversity in a region. Development of or even immediately adjacent to a wetland will disrupt its ecological and physical functions.
- **Steep Slopes.** Steep slopes may be unstable slopes, but that will depend in part on the geology of the site and on the surface soil characteristics. Thus, those drafting regulations for steep slopes must base those regulations on local environmental and geotechnical evaluations. Many communities allow development at reduced densities on steeper slopes, but a reduction of density does not solve the problem of instability. In

protecting steep slopes it is important to remember that prime agricultural lands rarely occur on such slopes; thus, as a community plans for growth, there may be a trade-off between allowing new development on some slopes or allowing new development of agricultural land.

- **Woodlands.** The protection of woodlands should be based on local analysis of the character and viability of woodlands. Some substantial growths of trees consist primarily of “invasive species” (i.e., species not native to the area) that actually may supplant native vegetation and harm the local ecology. On the other hand, where there are remaining stands of native or even old forests, they are worth preserving. It may be possible to allow some low-density development woven into a forest system without unduly disrupting the forest, but if the wooded area is small in size it is often better to attempt to preserve the entire tract.
- **Prime Agricultural Land.** The physical characteristics of prime farmland (flat, generally well-drained) make it extremely suitable for development. Further, many communities started as farm-service centers and thus are located in areas surrounded by prime farmland. Thus, the pressures on agricultural land are both significant and constant. It is not practical in most communities to protect all existing agricultural land or even all prime farmland. On the other hand, there may be highly productive keystone parcels (e.g., certain sites that produce high-quality grapes for wine) essential to the regional economy that should be preserved. Because any residential development adversely affects the ability to farm lands around it, it is desirable to concentrate new development that affects farmland, rather than allowing it to be spread out on many sides of a farming community. A community interested in protecting woodlands or steep slopes must also recognize there are trade-offs as to where development is allowed; restrictions on development of woodlands or steep slopes will increase the development pressure on nearby farmland.

2.4.3 Development Standards for Utilities and Other Infrastructure

Developers who subdivide land for residential development, or create shopping centers or industrial complexes are typically required to provide the infrastructure necessary to serve the new development. As used here, infrastructure includes:

- streets and roads;
- sidewalks;
- curbs and gutters;
- other stormwater facilities;

- electrical facilities;
- sewerage (wastewater) collection; and
- water distribution.

Developers typically provide the new roads, pipes and other facilities within the development and reasonable connections back to the larger sewer, water, road, or stormwater systems. In the case of a large development, a community may require that the developer also contribute to improvements of surrounding roads or other facilities (e.g., adding a turn lane or a traffic signal) to help absorb some impacts of the new activity generated by the development.

Many infrastructure standards are generated by engineers who perform detailed calculations of how large a pipe must be to provide adequate water flow and pressure to a specified number of homes or how wide a road must be to provide access to the same development. There are policy considerations hidden in those specifications. Wider roads may handle more traffic, but they also encourage higher speeds; a community that wants less and slower traffic in residential neighborhoods may lobby for narrower roads. Installing an “oversized” water and sewer line to serve a new development and “allow for future expansion” may actually encourage future expansion in or near that location; thus, such oversizing makes sense only if the community has planned for additional growth in that area and has the other infrastructure (such as roads) to serve it.

Smart growth plans and codes put a strong emphasis on pedestrian circulation. A traditional approach to pedestrian circulation has been to require sidewalks on one or both sides of streets and roads. Although sidewalks along local streets still represent an important part of a pedestrian circulation system, additional considerations that shape a smart growth plan for such circulation include the following:

- Providing pedestrian connections between neighborhoods and destinations that, while in close proximity with one another, have a street layout that requires a circuitous trip out of one development onto an arterial street and into the destination development. Examples include pedestrian paths that link adjacent cul-de-sacs and neighborhoods, paths from neighborhoods to schools that avoid busy arterial streets, and direct walking routes from residential areas to transit stops and stations.
- Addressing possible conflicts between multiple users on shared pathways, such as bicyclists, inline skaters, runners, and walkers, and persons with baby strollers.
- Incorporating urban design elements that help create desirable, walkable communities. Minimize blank building walls, provide midblock connections to create direct routes for people on foot and shade trees and other comforts (e.g., benches and awnings) and elements with visual interest (e.g., fountains or public art).

- Ensuring safe pedestrian crossings with clearly marked crosswalks and traffic calming measures.

END SIDEBAR

Still, simply establishing standards for what infrastructure a developer must provide is only part of the equation. A developer may provide an ample and beautiful road system that functions efficiently within the new subdivision. If, however, that system feeds into an overloaded arterial road (perhaps a state highway once used primarily as a farm-to-market road) that provides the only route back to town, the overall level of service (LOS, which is) for residents of the development—and those who live beyond—will not be good.

Some communities have established **adequate public facility ordinances** as part of their land development regulations. Such ordinances tie or make the availability and adequacy of public facilities a condition of development approvals. (They are also known as **concurrency ordinances**, based on terminology in Florida planning statutes that the facilities be available concurrent with the impact of developments). The purpose of such ordinances is to ensure that public facilities have sufficient available capacity to serve development at a predetermined LOS. A development is determined to be in compliance with the ordinance if its impacts do not exceed the ability of public facilities to accommodate those impacts at a specific LOS. If the proposed development cannot be accommodated by the existing system at the required service level, the developer must either install or pay for the required infrastructure improvements or postpone part of all of the development until the local government provides the needed public facilities. Alternatively, the local government can elect to give greater priority to constructing new or expanded facilities to make development possible. State law in Florida, for example, requires concurrency. Washington State requires concurrency as part of its growth management program but only for locally owned (not state-owned) transportation facilities. Jurisdictions in Colorado, Maryland, and New Hampshire also have adequate public facilities ordinances. Such systems require a major commitment in terms of evaluating LOS for infrastructure, upgrading and expanding public facilities in a timely manner, and establishing a method for keeping track of capacity and reserving it for approved developments.

2.5 Development Review and Approval Procedures

A Chapter on procedures in the development code presents an opportunity to consolidate and reconcile all of development-related review and approval procedures. This Article of the code will describe the powers and duties of various entities involved in the development review and approval process. Essential players in development review include the following:

- **The Governing Body** (city council or planning commission). Under most state laws, a “rezoning” of land (see below) can take place only with the approval of the governing body. Similarly, a “dedication” of land for public use (e.g., the roads in a new development) must be formally

accepted by the governing body. Thus, the governing body in almost every community will have a key role in development review. In some communities—particularly smaller communities, where there is less regular business to come before the governing body—the local legislature may want to be more actively involved in development review.

- **Planning Commission.** In most states, the planning commission has multiple roles. It is typically responsible for preparation and initial action on the comprehensive or master plan. It serves as an advisor to the governing body on zoning and thus must review all rezoning proposals before they go to that body. It typically also has the primary responsibility to review proposed subdivisions, although the aspects of subdivisions involving “dedication” still must go to the governing body (see above). Local ordinances often give the planning commission additional responsibility for reviews of site plans and other types of development approvals.
- **Zoning Board.** Called variously the board of zoning appeals, board of adjustment, or zoning board of appeals (or adjustment), this body hears administrative appeals. When an applicant disagrees with a decision about a permit application, including the interpretation of the zoning code by the code administrator, or believes the facts surrounding the application justify a relaxation of the zoning code standards, the applicant can appeal to the zoning board. That board can not only reverse the action of the administrative official; it can, under specified circumstances, grant a variance from a regulation that it finds imposes an “undue hardship” (or similar standard) for a particular piece of property. This rule applies in all states of the U.S. In some states, this board has the responsibility to review special use permits, conditional use permits and/or special exceptions.
- **Technical Review Committee.** Although not established by state law, many local governments have such a committee (sometimes called the Development Review Committee) that provides technical review of subdivisions and other proposed developments. This body checks the details of a proposed street and utility design, lot configuration, sensitive lands and other elements before a proposal is sent forward for further review by the planning commission and/or governing body.
- **Planning Director.** The planning director (or comparable official, such as a zoning or code administrator—see below) is typically responsible for receiving most applications for development permits. The director ensures that the applications are complete, forwards them to the appropriate review body, and handles other administrative functions under the code. The planning director or code administrator typically approves permits that require administrative check-off only (e.g., verifying that dimensional standards are met). Some communities give the planning director the

authority to approve small development projects that meet a specified list of criteria.

- **Code administrator.** The code administrator is responsible for enforcement (see Section 2.1.5). In some communities, the person holding this position is also responsible for the administrative issuance of permits.

The seven major types of development review that lead to the issuance of a permit:

1. A **building permit** requires zoning approval or clearance by the planning director, code administrator, or similar official. The standards the official(s) will apply are the ones discussed above (primarily the use, intensity and dimensional standards). There is the possibility of an appeal to the zoning board if the permit is denied.
2. A **sign permit** is permission to build a sign. In some communities, the sign ordinance is incorporated into the zoning ordinance. In others, it is a separate ordinance. Whichever the case, an applicant for a sign permit must have the proposed signage reviewed and approved (or approved with conditions or denied) by the code administrator.
3. **An appeal of an administrative decision** goes to the zoning board and may result in a **variance** if the board finds an “undue hardship” or similar standard, as applied to a particular piece of property. In most states, the only appeal from the zoning board is to the courts, although a few states allow an appeal to the governing body.
4. **Rezoning** means changing the zoning designation of a piece of property from one zoning district to another, thus making it subject to different regulations. The process usually begins with an application to the planning director. Because rezoning is a legislative decision (typically made before there is a detailed plan for the development), this application may not be sent to the technical review committee (if one is in place.) The first consideration of the rezoning thus occurs at the planning commission; in most states, the planning commission holds a public hearing on the proposal. It then makes a recommendation to the governing body. A positive recommendation sends the proposal forward to the governing body, which may then approve or deny the proposal. Response to a negative recommendation from the planning commission varies by state, but the governing body can typically still elect to approve the proposal—sometimes only by a supermajority (e.g., two-thirds of all members).
5. Some governing bodies hold additional public hearings on rezoning proposals, although most state statutes do not require them if the planning commission has held a hearing on the same proposal. Appeals of rezoning decisions go to the courts. In about a dozen states, rezoning of individual properties is considered quasi-judicial, and the courts will examine

whether the decision of the governing body was reasonable, based on the evidence before it. In other states, rezoning remains a matter of legislative discretion and the courts will intervene only if they find a violation of the constitution or some other serious problem with the action.

- **Use by review** occurs when a use is not allowed by right. The local name for a use by review varies, but special use and conditional use are the most common terms. In some states, an applicant submits an application for such a use to the zoning board, with the possibility of an appeal to the courts if the application is denied. In other states, local governments have the discretion to assign this review to a different local body. Most send it either to the planning commission (typical in larger communities) or the governing body. There usually will be a public hearing on the proposed use. Although the decision about a use by review should be based on criteria in the ordinance, if the governing body does the review, it may consider the request from the applicant the equivalent of a request for a rezoning. If so, it will act in the best interest of the community (or that part of the community that has testified at the public hearing). Courts can review decisions about use by review. It will base its decision on issues of reasonableness, based on the record given to the authority that made the initial decision.

- **Subdivision (plat) review** is a process for reviewing proposals that result in the division of large tracts of land into buildable lots. The precise definition of subdivision is specified in each state law. The process will differ by state, but typically the application will be submitted to the planning director, who will usually forward it to a technical review committee. That committee will review the proposal to see that it conforms to all standards of the ordinance—particularly those standards for infrastructure, described above. In most communities, the technical review committee is a group of experts that does not vote on the proposal (although the proposal will go forward with comments of the committee members). The formal review of the proposal occurs before the planning commission. Although some commissions hold public hearings on subdivision proposals, many do not because the subdivision review is largely technical (the proposal either meets all of the development standards and approval criteria and must be approved, or it doesn't meet standards and criteria and must be denied). In some states, the planning commission has final authority to approve the subdivision, but in others it is the local legislative body. If the plat includes proposals to dedicate roads or other facilities to public use, the governing body must review those dedications.

In some communities, the action of the planning commission on a plat can be appealed to the governing body. Otherwise, it can be appealed to the courts. Subdivision plat reviews may take place in two or three stages:

- (1) A **sketch plan**, which is simply a general concept, usually presented to the technical review committee and, perhaps, the planning commission, to obtain feedback before the developer spends a lot of money on engineering fees to do a more detailed plan;
 - (2) A **preliminary or tentative plat**, which shows all of the details of the subdivision of land but does not include all of the construction details on public improvements (this is most the critical stage of review); and
 - (3) A **final plat**, which is the document that will be recorded in the land records of the county—it will be accompanied by full construction details on the entire proposed infrastructure. Final plats can be filed in stages, with each stage representing a portion of the preliminary or tentative plat.
- **Planned [Unit] Development.** Since the 1970s, many local governments have adopted a form of planned development controls. Planned unit development regulations blend the rezoning and subdivision review process together, with the preliminary plat approval typically coinciding with the rezoning approval and becoming a condition of that approval. They provide the developer with flexibility in meeting dimensional and other standards on each individual lot while ensuring that the overall density of the project is consistent with the community's requirement. In a suburban or exurban residential setting, planned developments often involve the clustering of development on smaller lots, with some of the land preserved as open space, which may be active (e.g., a golf course) or passive (e.g., a greenbelt). Review of planned developments requires initial review by the technical review committee (if one is in place), a recommendation by the planning commission, and final action by the governing body. Most planned development processes involve at least three stages of approval: 1) a concept plan, for general feedback; 2) preliminary or tentative plan, which grants the rezoning but conditions the rezoning on a specific plan, which is also the preliminary subdivision plat; and 3) final plans and plats for each phase of the project.

2.6 Enforcement and Administration

This Article set outs explicitly how the jurisdiction will administer and enforce the development code. Provisions in such an Article will likely address the following:

- **Permits required.** This is a statement that specific work can be undertaken only after the issuance of a permit and that such permits will

be issued only if the proposed work conforms to all aspects of the development code.

- **Violations.** The code should list all actions that will constitute a violation. Some examples include: undertaking specified construction or other work without a permit; subdividing land without required approvals; recording a document showing the subdivision of land without required approvals; undertaking work in violation of the terms or conditions of a permit; and using land or building on land in a way inconsistent with the terms of the code.
- **Enforcement Provisions.** This list describes all the enforcement actions the local government may take in case of a violation, including issuing a stop-work order; withholding permits or certificates for the site or project; revoking permits or certificates already issued after some type of hearing; seeking injunctive relief; seeking civil (monetary or other) penalties; and seeking criminal penalties.
- **Penalties.** The code should spell out the maximum civil and/or criminal penalties that the jurisdiction may impose and should specify whether such penalties may be cumulative for each separate violation or for each day or other period of a continuing violation.
- **Procedures.** Most local enforcement efforts begin with informal contact with the violator, such as calling them or visiting their home to discuss the violation, followed by a written notice of the violation with a reasonable opportunity to cure. Any further action, such as revoking issued permits, should employ a hearing process to ensure that the affected parties are given due process under the law. Certain other actions, such as withholding permits, should be subject to appeal. This Section should spell out how all such procedures work.

2.7 Construction and Interpretation

Many codes present definitions and rules of construction (i.e., that is, how various phrases or words will be used throughout. An example would be “Trillium County Community Development Department, herein after referred to as “the Department.”) In an introductory Article (see Section 2.1.1), although an increasing number of codes includes definitions and terminology near the end as in a glossary. Although the definitions are sometimes placed near the beginning of a code, the most frequent users of the code will be familiar with most of the words and thus will not often need to refer to these materials; for those users, definitions near the beginning actually get in the way of efficient use of the code. Regardless of where they appear, definitions are an essential element of a good code. Crafting a good definitions Section would seem fairly straightforward, and for the most part it is. There are some basic rules:

- Terms defined in related state statutes should match the state definitions; the specific statutes giving those definitions should be formally cited.
- The definition for a term should be consistent throughout the development code.
- Where a term is defined or used in a specific way in the comprehensive plan—or any element of the comprehensive plan (e.g., the land-use element; the transportation element; etc.)—that definition or meaning should be carried over to the development code.
- General terms (e.g., person or land) need not be specifically defined; there should be a reference to a named dictionary to consult when seeking the meaning of such terms.
- A common term used with a specific meaning (e.g., director) must be defined (e.g., “means the head of the Department of Planning and Zoning”);
- Where local practice gives an odd meaning to a word, it may be desirable to enhance the meaning of the word by turning it into a phrase (e.g., use “driveway access” rather than “driveway” where the intent is to refer to the connection between the driveway and a public road);
- Definitions for each use and regulatory phrase should be provided. The definition should *not* incorporate development standards. For example, a definition of a kennel should not describe the use as “an indoor-outdoor facility for domestic animals with not more than 12 runs and a 6-foot fence around it.” Rather it should be defined generically, using development standards to establish requirements for size, fencing, and other features. There are tricky issues, however, that will be resolved differently in different communities. One is how to handle use-related terms. Some communities group all use definitions (e.g., kennel, campground, automobile dealer) in one part of the definitions Article (or even a separate Article) and more general definitions (e.g., street, sidewalk, director) in another part or Article.

Another difficult issue is how to handle terms with specific applicability. For example, consider the term “alteration” in floodplain, historic preservation, and airport regulations. An alteration to a historic property would mean something very different than an alteration that would affect the condition of a floodplain or an alteration that might interfere with flight paths to an airport.

A way to solve this problem is to use synonyms for the term in each of its various applications. For example, as to “alterations,” use “modifications” or “changes” in the historic preservation provisions; “floodplain alterations” in the floodplain provisions; and “obstructions” in the airport-related regulations. If it is impossible to find enough

synonyms to meet all the required instances, the related definition should be conditional (e.g., “for purposes of this Article/Section only, alteration shall be construed to mean...”).

There are other issues to address in this Article:

- **Inclusive provisions** clarify that the singular includes the plural and words of one gender should be construed to include words of other genders, as the context may suggest.
- **Clarifications of how the words “may” and “shall” are used in the code.**
- **Indication of how duties may be delegated** (e.g., “any duty assigned to the director under this code may be delegated by the director to any person reporting to the director,” or “director shall mean the director or the director’s designee”).

This Article or, alternately, another one on administration and enforcement should describe a procedure for determining how the jurisdiction will classify and regulate new or unusual uses. For example, when video rental stores suddenly became popular, the closest definition in most local zoning ordinances provided only for “retail sales of books or sound recordings.” Clearly a video rental store is, in many ways like a bookstore or a music store, but code definitions were typically not broad enough to include video rental. Some codes refer to an organized system, such as the American Planning Association Land-Based Classification System (<http://www.planning.org/lbcs/>) and provide that an unlisted use should be treated the same as any listed uses under the same general heading in that system. Others provide for an interpretation by the zoning administrator or the zoning board; some combine the two. Any of those approaches will work, but it is important to include one of them.

2.8 Strategies for Change

2.8.1 Overview

There are four basic approaches to incorporating smart growth objectives into existing development regulations:

1. Corrective Amendments
2. Selective Amendments, Additions, or Supplements
3. Supplemental Codes or Ordinances
4. A comprehensive Rewrite

For some communities, the choice among these alternatives will be relatively obvious. For others, the worksheet shown in the sidebar may help.

BEGIN SIDEBAR:

For each statement that is true of the community add or subtract the number of points listed in column 2 to a running total. See the key at the bottom of the worksheet to interpret the numerical results. Check ALL that apply:

Item	Points	Score
There is no comprehensive or master plan, or such plan is more than 10 years old.	STOP and see note	
New comprehensive plan was adopted within last year.	1	
The comprehensive plan is 1 to 5 years old.	3	
The comprehensive plan is more than 5 years old.	5	
Development regulations have NOT had a major update since the last comprehensive plan was adopted.	5	
Development regulations have had some corrective amendments since the comprehensive plan was adopted, but they still do not totally match plan.	3	
Development regulations have been fully updated to conform to the comprehensive plan.	-2	
The zoning map bears close resemblance to future land-use element of comprehensive plan.	1	
The zoning map has many similarities to future land-use element, but some major differences in undeveloped or developing areas exist.	3	
The zoning map bears little resemblance to future land-use element.	5	
Annual growth rate in percent (enter nearest whole number for growth rate; if less than 1 percent, enter 1)	%	
Much new development occurs outside existing city boundaries.	5	

Item	Points	Score
The majority of new development has only septic tanks for sewer service.	5	
Many new homes front on cul-de-sacs with the only pedestrian connections following the street grid.	4	
There is "leapfrog" development in and around the community (i.e., developments are separated from the existing community by large undeveloped areas).	5	
The average density of new residential development is lower than the average density of developments built 30 years ago.	3	
The average density of new residential development is less than three units per acre.	5	
Most new residences have pedestrian access (i.e., they are within six blocks) to at least two of the following uses: convenience shopping, school, park, and library. <i>Note: Block lengths will vary depending on local conditions.</i>	-3	
Most new residences must depend primarily on automobile access for all of their daily activities.	5	
Most new commercial development occurs along major arterials.	5	
There is excellent pedestrian access from neighborhoods to most new commercial development, regardless of where it is located.	-3	
There is a comprehensive system of bicycle and pedestrian paths in the community.	-2	
The zoning ordinance last had a major update more than 20 years ago.	10	
The zoning ordinance last had a major update between 10 and 20 years ago.	5	
The zoning ordinance has had a major update in the last 5 years.	-2	
Zoning and other regulations have already been incorporated into a development code.	-8	

NOTE: If the community does not have a current comprehensive or master plan, it cannot achieve smart growth. Any energy or funds that might be spent on new or updated development regulations should be redirected to the preparation of a new comprehensive or master plan that includes smart growth goals.

SCORING

Score	Recommended Action
40 or more	A comprehensive rewrite of the development regulations is both essential and long overdue; do not cut corners.
30 to 39	A comprehensive rewrite of the development regulations is strongly recommended; it may be possible to get by with a supplemental code or supplemental ordinances addressing smart growth issues.

Score	Recommended Action
20 to 29	A comprehensive rewrite of the development regulations is one option to consider, but a supplemental code or supplemental ordinances addressing smart growth issues or even selective additions or supplements may be adequate.
10 to 19	A comprehensive rewrite is not recommended; consider a supplemental code or ordinances or selective additions or supplements to existing ordinances.
5 to 9	Corrective amendments to the existing code should be adequate; consider selective additions or supplements to existing ordinances.
Less than 5	Consider nothing more than corrective amendments

2.8.2 Corrective Amendments

Ideally, jurisdictions that have updated their development regulations on a regular basis will be better able to implement smart growth goals through strategic amendments to existing standards and procedures. Some of the types of amendments that can be accomplished through corrective amendments include the following:

- Updating parking requirements to reflect smart growth goals
- Updating other site development standards to reflect smart growth goals
- Requiring pedestrian accessibility for new developments
- Amending street design standards to incorporate smart growth goals
- Increasing the mixture of uses in some zoning districts

Corrective amendments typically require the least staff work of any of the methods of updating development regulations. Ideally, staff will be able to compose a drafting checklist for these amendments by consulting the comprehensive plan and any adopted smart growth elements. Further, many of the types of changes suggested here are likely to be accepted by the community without much controversy, which facilitates the adoption process. With a little luck and community acceptance, a community could adopt many corrective amendments within three to six months after adoption of the comprehensive plan or other triggering step.

2.8.3 Selective Addition of New Material

When existing ordinances are sound but lack a few important regulatory tools, new provisions or Sections must be added through the code amendment process. Such amendments may involve adding several pages or even tens of pages to some parts of the code. New zoning districts aimed at implementation of smart growth goals will also require new development standards and review procedures. Examples of new material that might be added include the following:

- Adding adequate public facility standards for new developments
- Adding environmental standards to protect sensitive lands (assuming that the code already contains adequate procedures for such regulations and includes appropriate clustering provisions)
- Adding cluster development procedures to allow developers more easily to “design with nature”
- Adding new zoning districts to implement particular smart growth goals
- Adding landscaping standards to existing site development standards
- Splitting development standards so that there are different standards for things like streets and sidewalks in the downtown, suburban, and, possibly, exurban, areas
- Establishing new procedures to facilitate the approval of desirable infill and other smart growth projects
- Mandating certain types of uses in certain situations, such as retail or pedestrian-oriented activities on the first floor of all buildings in the central business district

The amount of work involved in preparing new material will vary, depending on the level of complexity of the new provisions and the specificity of the sources. For example, if the comprehensive plan says that all new downtown buildings should have retail on the first floor, drafting the code amendments to meet that objective will be fairly simple. If, on the other hand, the comprehensive plan has broad statements about the need for new landscaping standards or updated parking regulations, the update will require some policy discussion with the planning commission and governing body before moving to drafting or formal adoption can occur. Some of the types of additional provisions suggested above may attract community interest and opposition, possibly extending the adoption process. Nevertheless, it should be possible to prepare and adopt updates through this process in less than 12 months after the adoption of the comprehensive plan or other triggering event.

2.8.4 Alternative Code (e.g., a parallel new urbanist code)

Alternative codes represent an increasingly common approach to encouraging or at least accommodating development at odds with older, conventional development regulations. Under this approach, a community adopts an entirely new set of standards and procedures that serve alongside (parallel to) an existing code. There are three types of supplemental codes to consider:

- **A smart growth zoning code** with special districts to be applied primarily to developing or redeveloping areas, with the old zoning left in place in developed areas. This is probably the simplest approach because it does not disturb mature parts of the community.
- **A new urbanist zoning code** available as an option for development in certain zones. Implementation of such a code is typically through a process similar to the one used for planned development, with the initial approval by the planning commission and governing body placing the land in a special zoning district with different use, intensity, dimensional, and site development standards than traditional districts.
- **A comprehensive development code** incorporating subdivision and site development standards, but overlaid onto existing zoning, which would remain in place.

The process for preparing a supplemental code will be somewhat less complex than, but just as lengthy as, the process for preparing a comprehensive rewrite, described below. There will undoubtedly be the need for consultant assistance and/or substantial research by the staff on alternative approaches. That research will provide the basis for informal discussion with stakeholders and public officials about possible approaches. Preparation of a draft code should occur only after those steps are complete, which may take from six to nine months. Allowing for at least three months for drafting and some time for public discussion of the draft code before it moves into the formal hearing process, the formal adoption process may begin in 15 to 18 months after it begins, with adoption usually taking another three months or so.

2.8.5 Comprehensive Rewrite

There are cases in which corrective amendments, an occasional new provision, and alternative codes represent mere patches on an overall code framework that is completely out-of-step with local objectives and policies or one that has become virtually unusable due to piecemeal amendments carried out over a long period of time. In such cases, a comprehensive rewrite of all local land development regulations may represent the only cure.

A comprehensive code amendment includes dozens of corrective amendments, a substantial amount of new material, and a complete reorganization and reformat of the

regulations. It should also include a comprehensive edit of all Sections of the regulations to ensure consistent use of terminology, drafting conventions, and overall writing style.

Preparation of a comprehensive development code rewrite can take from 15 to 24 months, from the beginning of the process to final adoption. Although the drafting process itself may take only a few months (usually three to six months), planners need to conduct extensive discussions with stakeholders and to undertake in-depth research about alternative approaches before drafting even begins. Because such a code will contain many substantive changes from existing rules—and because the new format and new terminology may make people think that it involves even more changes than it actually does—there will be a need for substantial informal discussion of the draft code before it goes to the adoption process. With a comprehensive rewrite, there are likely to be some changes and delays even in the final adoption process as more stakeholders become interested and identify more issues needing attention.

2.9 Analyzing Local Policies and Codes to Determine Consistency with Smart Growth Principles

2.9.1. APA’s Definition of Smart Growth.

The American Planning Association adopted a policy guide in 2002 that defined smart growth to mean:

[U]sing comprehensive planning to guide, design, develop, revitalize and build communities for all that:

- Have a unique sense of community and place;
- Preserve and enhance valuable natural and cultural resources;
- Equitably distribute the costs and benefits of development;
- Expand the range of transportation, employment and housing choices in a fiscally responsible manner;
- Value long-range, regional considerations of sustainability over short term incremental geographically isolated actions; and
- promote public health and healthy communities.

The policy guide notes “[c]ompact, transit accessible, pedestrian-oriented, mixed use development patterns and land reuse epitomize the application of the principles of smart growth.” In contrast to prevalent development practices, says the guide, smart growth “refocuses a larger share of regional growth within central cities, urbanized areas, inner suburbs, and areas that are already served by infrastructure.” In addition, smart growth

“reduces the share of growth that occurs on newly urbanizing land, existing farmlands, and in environmentally sensitive areas.”

The full policy guide may be accessed at:

<http://www.planning.org/policyguides/smartgrowth.htm>.

2.9.2 The U.S. EPA’s Smart Growth Policies

The U.S. Environmental Protection Agency has published a series of smart growth policies that appear on its website (www.epa.gov/smartgrowth) and in publications that it has sponsored through the Smart Growth Network, a partnership of government, business, and civic organizations that support smart growth, including APA. These policies, which form the framework for this report and are similar to principles contained in the APA smart growth policy guide described above, are summarized here:

(1) Community and Stakeholder Collaboration in Development Decisions.

This collaboration ensures the early and frequent involvement of all stakeholders throughout the planning and development decision-making process. The means of engaging the community and stakeholders are myriad and range from early stakeholder input in community plans to ongoing feedback and evaluation of plan implementation as projects are constructed. Ensuring a high level of public involvement is fundamental to guaranteeing that community needs are fully integrated into the planning and development process, as well as contributing to avoidance or creative resolution of development conflicts.

(2) Compact Building Design. This refers to the act of constructing buildings vertically rather than horizontally, and configuring them on a block or neighborhood scale that makes efficient use of land and resources, and is consistent with neighborhood character and scale. Compact building design reduces the footprint of new construction, thus preserving greenspace to absorb and filter rain water, reduce flooding and stormwater drainage needs, and lower the amount of pollution washing into our streams, rivers and lakes. Compact building design is necessary to sustain transit ridership at levels necessary to make public transit a viable transportation option.

(3) Direct Development Towards Existing Communities. This refers to the act of encouraging reinvestment and redevelopment of communities that possess previous investment of infrastructure and development. Directing development to existing communities strengthens the tax base, ensures a closer proximity of a range of jobs and services, increases the efficiency of already developed land and infrastructure, and reduces development pressure in edge areas, thereby preserving more open space, and, in some cases, strengthening rural communities.

(4) Distinctive and Attractive Places. These are regions, and towns, communities whose architectural and natural elements reflect the interests of all residents and that reinforce and contribute to community cohesiveness. Such places set standards for development and construction that respond to community values of architectural beauty and distinctiveness, as well as expand choices in housing and transportation. Ultimately

such places retain their economic vitality and value over time, in the process making an efficient use of infrastructure and natural resources.

(5) Mix Land Uses. This refers to the act of putting differing land uses (residential and commercial, residential and business, etc) in close proximity to one another to foster alternatives to driving, such as walking or biking. Mixed land uses provides a more diverse and sizable population and commercial base for supporting viable public transit, and enhance the vitality and perceived security of an area by increasing the number of people on the street. Mixing land uses helps streets, public spaces and pedestrian-oriented retail again become places where people meet, attracting pedestrians back onto the street and helping to revitalize community life.

(6) Predictable and Cost-Effective Development Decisions. This refers to the act of removing barriers in the regulatory process that inhibit the construction of pedestrian-oriented, compact, mixed-use development, and making public investment and infrastructure decisions that support such development activity. In doing so, governments create a fertile policy framework that frees the private market to provide pedestrian- and transit- friendly development.

(7) Preserve Open Space and Farmland. This refers to the act of protecting natural areas (habitat, farm and ranch land, places of natural beauty and critical environmental areas (e.g. wetlands)) from being converted to development, either through the acquisition of land or development rights, or removal of development pressure. Protection of open space provides fiscal benefits, prevents flood damage, provides a less expensive and natural alternative for providing clean drinking water, combating air pollution, attenuating noise, controlling wind, providing erosion control, and moderating temperatures.

(8) Range of Housing Choices. Housing choice means providing households of all income levels with the ability to live in a home that meets their needs. This requires communities to promote housing of varying type (apartment, a rowhouse, or a traditional suburban) and cost, and locating them in proximity to places of work, services, and transportation. Expanded housing choice allows communities to mitigate the environmental costs of auto-dependent development, use their infrastructure resources more efficiently, ensure a better jobs-housing balance, and generate a strong foundation of support for neighborhood transit stops, commercial centers, and other services.

(9) Variety of Transportation Choices. Transportation choice means providing residents with multiple, safe and connected options- driving, rail and bus transit, bicycling, walking - to get from one place to the other. Doing this effectively requires adopting development practices- mix land use, compact building design, etc- that support multiple travel choices, or modes. Providing choice ultimately enables regions and communities to move toward a less congested transportation system and cleaner air. Transportation choice means providing residents with multiple, safe and connected options- driving, rail and bus transit, bicycling, walking - to get from one place to the other. Doing this effectively requires adopting development practices- mix land use, compact building design, etc- that support multiple travel choices, or modes. Providing choice ultimately enables regions and communities to move toward a less congested transportation system and cleaner air. Transportation choice means providing residents

with multiple, safe and connected options- driving, rail and bus transit, bicycling, walking— to get from one place to the other. Doing this effectively requires adopting development practices—for example, mix land use and compact building design—that support multiple travel choices, or modes. Providing choice ultimately enables regions and communities to move toward a less congested transportation system and cleaner air.

(10) Walkable Neighborhoods. These are places that locate within an easy and safe walk goods (such as housing, offices, and retail) and services (such as transportation, schools, libraries) that a community resident or employee needs on a regular basis. Walkable neighborhoods are characterized by mixed land uses, compact building, inviting pedestrian corridors, and a streetscape that serves a variety of users -- pedestrians, bicyclists, transit riders, and automobiles. Walkable neighborhoods allow persons to substitute walking, bicycling or other non-auto modes for short trips, thus contributing to reduced congestion and better air quality.

2.9.3 The Smart Growth Audit

Note: This section originally appeared in different form as “Conducting A Smart Growth Audit” by Dr. Jerry Weitz, AICP, in the PAS Memo (April 2002), 1-4.

Smart growth audits assess growth policies and implementation measures in a systematic manner. The ultimate goal of the audit is to change existing plans, policies, and practices so that they promote accepted principles of smart growth. Even though the audit may result in a final report, it must be viewed as a means to an end—what a government does with the findings of a smart growth audit is much more important than producing the audit report itself.

2.9.3.1 Scope of the Smart Growth Audit

A smart growth audit seeks to identify consistencies and inconsistencies between stated intentions, accepted principles, and actual practices. The audit examines whether adopted plans and policies encourage and facilitate smart growth and are consistent with one another.

The auditor cannot assume that governments have embraced generally accepted or locally adopted principles of smart growth. Therefore, it must first examine the extent to which local plans and policies embrace accepted smart growth principles, and then evaluate implementation measures and their effects. There are numerous sources for smart growth principles that are accepted by the planning profession and others.

2.9.3.2 The Seven Steps of the Audit

The smart growth audit is conducted in seven steps. Followed sequentially, these steps provide a method for conducting a comprehensive audit.

(1) Define Smart Growth in Community Context. This step involves defining smart growth, selecting from a list of smart growth policies principles (see above), and achieving local consensus on such definitions, policies, and principles. Various stakeholders, such as homebuilders, developers, neighborhood representations, and

planning commissioners, should debate and propose definitions and principles. The local governing body should reconcile conflicting views and select the most appropriate definition, policies, and principles.

(2) Decide Whether to Conduct Audit. Smart growth audits are often initiated as part of a community's efforts to revise its comprehensive plan or development regulations. In some instances the need for an audit will be borne out of a comprehensive plan revision, in which case the local government should include the task in the implementation component of the local comprehensive plan.

The local governing body should make a formal decision to commit time and resources to a smart growth audit. That decision should be made in consultation with planners, citizens, the planning commission, other development-related advisory boards and commissions, and interest groups with a stake in long-range planning. The governing body's approval is necessary when the audit requires additional spending, or if it is to be adopted as part of a plan, program, or budget. Local governments with appropriate staff, budget, and prior guidance may choose, without governing body approval, to complete various smart growth auditing tasks and then use the results to inform the planning and implementation processes.

(3) Determine Audit Scope and Content. Because no two communities will define smart growth in the same way or emphasize the same smart growth principles, the scope and content of a smart growth audit will differ from community to community. Priorities will differ among communities, and sometimes within the community itself over time. Local governments should develop a list of all the plans, policies, programs, and regulations that will be considered for including in the audit. A comprehensive audit looks at the comprehensive plan, small area or neighborhood plans, facility capital improvement master plans, the zoning ordinance, subdivision regulations, and other land-use regulations.

If a comprehensive audit cannot be undertaken, auditors should pay special attention to those policies and regulations that have the strongest influence on shaping growth in the community. In most cases this will be the zoning ordinance and facility plans for transportation and sanitary sewer. Auditors are cautioned, however, that unless the comprehensive plan itself includes goals, policies, and objectives that support smart growth, regulations should not be expected to promote smart growth on their own.

(4) Select Auditor and Reviewer. While planning staff in metropolitan areas may have resources and expertise to conduct an audit, outside assistance might be needed or desired. Local staff members may not observe issues and problems in the same manner as someone outside the community, such as consultants. Even if the local staff or one or more community organizations are capable of conducting an audit, there are advantages to using a consultant. A consultant can bring expertise in smart growth not available on staff, articulate how local policies compare with those of other communities, lend additional credibility to the process, and organize and implement the audit without interruptions that staff are likely to confront. The local planning agency should assign a

project manager, whether or not a consultant is used.

The local government also needs to decide who will review and comment on the audit. Establishing an independent review team or panel is useful. The principles of review should be determined locally rather than suggested by the outside auditor, because the outside auditor will likely not have detailed knowledge about the community. The review team should include planners, academics, designers, land developers, and builders who have appropriate backgrounds and interests in smart growth. Environmental health and civil engineering professionals are also appropriate for inclusion on the review team.

(5) Choose Criteria for Evaluation. This step involves developing a set of criteria against which existing growth policies can be compared. Articulating the principles in a checklist form provides for easier implementation (see Table 2-1 for an example). These criteria should relate directly to the smart growth definitions or principles agreed upon in advance by the community. Such a checklist would include items such as:

- Efficiency of land consumption
- Direction of growth
- Density
- Urban form
- Land use
- Jobs-housing balance
- Open space
- Housing
- Transportation
- Environmental factors.

The checklist should provide some commentary and principal rationales for selecting the evaluation criteria. Including commentary helps inform stakeholders and elected officials on exactly why smart growth policies should be pursued in your community.

For example, under the topic of urban form, the checklist may ask, “Does the land-use plan propose a sequential, phased pattern of future development in areas contiguous to developed areas so that a compact urban (or suburban) form can be obtained?” The accompanying commentary may read, “Smart growth means that urban areas are expanded efficiently (only as much land is used as is needed) and in a pattern where new growth is contiguous to existing developed areas. To develop in a contiguous and compact form means that scattered development and sprawl can be avoided. Sequential development also provides for a better return on the public investment in public facilities, and it reduces the linear footage that facilities must be extended.”

(6) Compare Document with Evaluation Criteria. This step involves assessing all the plans, including the comprehensive plan, policies, and implementation measures related to development and determining the extent to which they encourage and facilitate smart growth principles. This comparison also should assess how policies and regulations work together as a system. If the community is not conducting a comprehensive audit, this

process involves those plans, policies, and measures selected for auditing. The auditor should note of any inconsistencies between policies or gaps in policies and regulations. Analyzing content and assessing information are the most time-consuming steps in the smart growth auditing process (Avin and Holden 2000). During this step of the audit, Avin and Holden (2000) suggest that auditors produce a synopsis of the findings for each document, so that others can quickly grasp their significance for smart growth.

(7) Implement Recommendations. Local elected officials should formally accept the smart growth audit recommendations and systematically integrate them into the local government's short-term work program of the comprehensive plan.

In considering whether audit recommendations can be implemented, the following questions might be asked (Mazmanian and Sabatier 1989):

- ❑ Do the audit's recommendations provide clear and consistent (measurable) objectives?
- ❑ Is the extent of change modest and reasonable to accomplish?
- ❑ Are adequate resources allocated to implementation?
- ❑ Is a single agency responsible for overall implementation, and does it have the skill and commitment to implement the recommendations of the audit?
- ❑ In cases where more than one agency is responsible for implementation, are the appropriate mechanisms in place to coordinate their actions?
- ❑ How might socioeconomic conditions and future technologies affect implementation?

Depending upon local circumstances, carrying out a smart growth audit's recommendations might involve an iterative process of implementation, reformulation, then back to implementation. Before progress can be monitored, implementation must be well under way. Smart growth proponents should be realistic in establishing expectations for success.

An inventory of baseline conditions must be compiled so that changes from the existing conditions and progress toward smart growth principles can be measured over time. Communities already familiar with the technique of benchmarking might consider adapting this tool for use in smart growth monitoring programs. If the goal is to adopt new regulations, evaluation may simply be to note whether those regulations have been adopted. Regulations will need to be revisited after they are adopted to verify that the purposes and intentions of the regulations are being achieved.

**Table 2-1:
A Recommended Smart Growth Audit Checklist
With Commentary**

TOPIC	DOCUMENT	YES	NO	REVIEWER COMMENTS
EFFICIENT LAND CONSUMPTION				
Population and employment projections: Are they realistic in terms of regional and state projections?	Comprehensive Plan			
<i>Commentary: Population projections provide the basis for all other planning efforts, including projections of households, numbers of housing units, acreage needed for residential land use, job base, and community facilities and services. Population projections should not exceed any population projection for the jurisdiction published by a regional or state agency.</i>				
Are housing unit projections based on a housing needs assessment?	Comprehensive Plan			
Is the amount of future residential land use shown on the land-use plan based on calculations of the number of acres needed for each type of residential land-use category and prevailing or planned densities (e.g., 200 acres of R-1 vacant land at 3 units per acre = 600 units; 75 acres of MR vacant land at 8 units per acre = 600 units, etc.), based on reasonable projections of housing units by type?	Comprehensive Plan			
Is the land-use plan efficient in terms of the amount of undeveloped land devoted to residential uses when compared with the projections of residential land needed?	Comprehensive Plan			
<i>Commentary: By "efficient," it is meant that the amount of vacant acreage devoted to residential uses in the future land-use plan should be approximately equal to the projections of land needed for residential use based on the housing needs assessment. A smart growth land-use plan does not designate excessive amounts of future residential land use when they are not needed. Exceeding the projected residential acreage needs by more than 15 percent in the land-use plan (which can be shown by calculating the difference between existing residential land-use acreage and future residential land-use acreage shown on the plan) would probably be grounds for a finding that the plan is not achieving smart growth. Excessive residential acreage in a plan will encourage consumption of more land than is needed for residential uses and encourage residential development to spread out at lower densities than those suggested in the land-use plan.</i>				
DIRECTION OF GROWTH (INWARD, NOT OUTWARD)				
Do land-use policies favor an inward "direction of growth," toward existing developed areas (where such areas exist), instead of promoting or favoring new development on the fringe of developed areas (i.e., "greenfield")?	Comprehensive Plan			
Does the land-use analysis identify in quantitative terms (i.e., number of acres and preferably buildout potential in numbers of units) what the potential is for residential infill development?	Comprehensive Plan			
Are there specific policies that promote and encourage infill development (where such areas exist)?	Comprehensive Plan			
<i>Commentary: Efficient land use, or smart growth, means that undeveloped land within built-up areas should be used rather than left vacant, because it saves on the consumption of land at the urban fringe and often can make use of existing infrastructure (e.g., roads, water and sewer line capacity, etc.). Local governments cannot be smart about infill development unless they have provided an inventory of vacant lands that can serve as infill development sites. A land-use plan is smart when it studies the capacity of residential infill land (currently vacant or underused), determines the capacity of that land for new residential units, and poses policies, strategies, and regulations supportive of development on infill sites.</i>				
Does the land-use plan contain an analysis of redevelopment potential? If it finds there is redevelopment potential, does the land-use analysis identify what the redevelopment potential means in terms of new housing units and square footage of nonresidential development?	Comprehensive Plan			

TOPIC	DOCUMENT	YES	NO	REVIEWER COMMENTS
Does the plan recognize the need to reclaim and reuse any temporarily obsolete or abandoned sites (TOADs) and to clean up and reclaim for future use any "brownfields"?	Comprehensive Plan			
DENSITY				
Does the land-use element contain an analysis of developed residential densities and how they relate to planned densities and densities permitted by zoning districts?	Comprehensive Plan			
<p><i>Commentary: Cities and counties should calculate the built residential densities (i.e., number of units per acre) of recent developments to get an idea of the average or prevailing densities being constructed. These figures on existing densities should be compared to the land-use plan for differences or inconsistencies. They should also be compared to allowable densities according to the various zoning districts in which the recent development is located. If actual (built) densities are much less than planned densities, or if actual densities are much lower than the maximum densities permitted by zoning district, residential development is not occurring efficiently with regard to land consumption and use of planned infrastructure. Smart plans bring actual (developed) densities in line with densities recommended in plans and allowed by zoning ordinances. In other words, if the number of residential acres consumed vastly exceeds the number of acres projected to be used during a given time period, it can be observed that residential growth has occurred inefficiently, counter to accepted principles of smart growth.</i></p>				
Do land-use policies encourage the establishment of minimum (not just maximum) densities to promote the efficient use of lands designated for higher densities? Alternatively, does the plan address any findings that density allowances in the land-use plan and zoning district have been underutilized?	Comprehensive Plan			
Do land-use regulations establish minimum densities to promote efficient use of lands designated for higher densities?	Zoning Ordinance			
<p><i>Commentary: Underuse of residential lands, due to building at lower densities than planned and zoned, results in the consumption of land for residential use faster than planned. This means more land is needed for residential uses, which probably means that land needs will be satisfied by taking more land out of productive agricultural use at the urban fringe. One way to strive for more efficient use of land for residential development is to establish minimum densities in areas where it is very important that planned densities be achieved (e.g., around transit stations, and in areas master planned for sewer service, to name just two).</i></p>				
Do minimum lot sizes allow for urban-sized lots?	Zoning Ordinance			
<p><i>Commentary: City zoning ordinances should provide a significant portion of single-family zoning devoted to single-family development on lots of 5,000-6,000 square feet. Cities that provide zoning for urban lots should receive higher scores in a smart growth audit. (Also see discussion under "housing").</i></p>				
Is at least some of the residential land in the community planned and zoned for densities between 8 and 15 dwelling units per acre, with even higher densities provided for in urban centers?	Comprehensive Plan and Zoning Ordinance			
URBAN FORM				
Does the land-use plan propose a sequential, phased pattern of future development in areas contiguous to developed areas, so that a compact urban (or suburban) form can be obtained?	Comprehensive Plan			
<p><i>Commentary: Smart growth means that urban areas are expanded efficiently (only as much land is used as is needed), and in a pattern where new growth is abutting (contiguous to) existing developed areas. To develop in a contiguous and compact form means that scattered development and sprawl can be avoided. Sequential development also provides for a better return on the public investment in public facilities, and it reduces the linear footage that facilities must be extended.</i></p>				
Does the zoning ordinance zone much of the fringe land as exclusively agricultural (i.e., a holding category), or with a substantial minimum lot size that discourages single-family tract housing and preserves large sites for viable farm use?	Zoning Ordinance			

TOPIC	DOCUMENT	YES	NO	REVIEWER COMMENTS
<p><i>Commentary: Smart growth means that land-use controls inhibit the scattering of low-density residential uses at the urban fringe--a condition that constitutes, the epitome of sprawl. Many local governments in the metropolitan Atlanta region have "agricultural" districts, but they allow a minimum lot size of one acre. Minimum lot sizes need to be much higher (i.e., 10 acres is probably the smallest land area that can function effectively as a farm; preferably 25-40 acres) to discourage "exurban" development, "hobby" farms that are really residential tracts, "ranchettes," and other forms of low-density suburban sprawl. In cases where large agricultural minimum lot sizes are not feasible, the smart growth auditor should look for other ways that the comprehensive plan and regulations discourage the consumption of agricultural lands on the urban fringe, such as a greenbelt or taxation policies.</i></p>				
LAND USE				
Does the land-use plan designate areas, where appropriate, for mixed-use development?	Comprehensive Plan			
Do plan policies discuss opportunities and encourage the mixing of land uses at the building, site, and neighborhood levels?	Comprehensive Plan			
Does the local zoning ordinance provide at least one or more zoning districts that allow mixes of residential and commercial uses?	Zoning Ordinance			
If the community has a downtown, are residential uses allowed in the central business zoning district?	Zoning Ordinance			
Do the future land-use plan and zoning ordinance allow for compatible, small-scale neighborhood commercial uses (e.g., corner store) adjacent to or within residential neighborhoods?	Comprehensive Plan and Zoning Ordinance			
Does the local zoning ordinance provide for traditional neighborhood development (TND)?	Zoning Ordinance			
Are home occupation regulations flexible enough to allow a wide variety of telework activities, while maintaining the peace and quiet of the neighborhoods in which they are located?	Zoning Ordinance			
<p><i>Commentary: Mixing of land uses is a major tenant of smart growth. Plan policies and land-use regulations should provide for and even encourage mixed land uses, especially residential and commercial. Such mixtures allow people to work and reside in the same area, sometimes even within the same building. It is generally accepted that mixing land uses allows for walking, shorter trips, and reduced vehicle miles traveled, which can help to improve air quality and relieve traffic congestion.</i></p>				
JOBS-HOUSING BALANCE				
Does the comprehensive plan consider the appropriateness of balancing jobs and housing, both qualitatively and quantitatively?	Comprehensive Plan			
Do any small area plans or corridor plans for the community consider and integrate the notion of jobs-housing balance?	Subarea Plans			
Do planned unit development (PUD) regulations provide for an appropriate mixture of housing and jobs, or do the PUD regulations result in predominantly single-family residential developments with no jobs nearby?	Zoning Ordinance			
<p><i>Commentary: The concept of jobs-housing balance holds that communities should plan for a rough match between the number of jobs and the number of housing units. A desirable range is approximately 1.5 housing units for every job in the community. Plans should also investigate whether the characteristics of housing in the community match the needs of workers residing in the community, and whether the types of jobs in the community match the skills of the resident work force (i.e., consider the "qualitative" aspects of balance). A quantitative balance of jobs and housing does not necessarily signal smart growth, especially if there are qualitative mismatches between jobs and housing.</i></p>				
OPEN SPACE/ GREEN SPACE				
Does the plan establish a goal, policies, and implementation measures to set aside a certain percentage of total land area in the community as open space or green space?	Comprehensive Plan			
Do all (or most) zoning districts require a minimum open space ratio (i.e., percentage of land area for each development that must be open space)?	Zoning Ordinance			

Do land-use regulations require developers to consider connecting open spaces and greenways to existing destinations and open space reservations?	Zoning Ordinance			
TOPIC	DOCUMENT	YES	NO	REVIEWER COMMENTS
Are open spaces and green spaces accessible to all or most of the residents of the community?	Parks and Recreation or Green space Master Plan			
Has the community considered a special funding measure such as a special local option sales tax or general obligation bond referendum for acquisition of green spaces?	Comprehensive Plan; funding components			
Do local land-use regulations provide for "conservation subdivisions" or "cluster subdivisions" as a matter of right?	Zoning Ordinance and Subdivision Regulations			
<i>Commentary: Open space, conservation, and cluster subdivision practices are one of the more effective ways of setting aside green space and open space. Local regulations are not "smart" unless they provide for, and even encourage, these types of subdivisions. When clustering or conservation design is not allowed, subdividers wind up incorporating all land into the individual lots which are then sold and the opportunity to preserve natural features and open space is then lost, probably forever.</i>				
ENERGY CONSERVATION				
Does the comprehensive plan identify energy conservation as a goal, and do policies exist to promote energy conservation?	Comprehensive Plan			
Do land-use regulations require the planting of shade trees along new subdivision roads and within parking lots?	Zoning Ordinance and Subdivision Regulations			
Does the community have guidelines for designing development sites and buildings for energy efficiency?	Design Guidelines			
Does the local zoning code provide an option for subdivisions to be designed for solar power use?	Zoning Ordinance			
<i>Commentary: There are multiple ways a local plan can promote energy conservation. For instance, tree protection ordinances help retain and enhance shade, which reduces cooling costs. Shade tree requirements along streets and parking lots provide aesthetic benefits in addition to helping to attain energy conservation objectives. Local governments can adopt design guidelines for energy efficient buildings and site designs. Though more popular in the 1970s than today, changing local codes to facilitate efficient energy use can provide for designing subdivisions with appropriate solar access, which then facilitates solar panels (and cells) for domestic energy use.</i>				
WATER QUALITY				
Do local land-use regulations prohibit development within, and the filling of, floodways and floodplains?	Zoning Ordinance; Other Regulations			
Have the community's development regulations been revamped recently to encourage or require best management practices for water quality?	Various land-use regulations			
Does the local jurisdiction have the minimum required water quality ordinances in place as required by state administrative rules?	Various land-use regulations			
<i>Commentary: Local governments should adopt regulations for the protection of water supply watersheds, groundwater recharge areas, and wetlands that are consistent with any state standards or guidelines.</i>				
Has the community instituted programs of water quality monitoring and other related programs to ensure total maximum daily loads (TMDLs) are not exceeded?	Various land-use regulations			
AIR QUALITY				
Does the comprehensive plan discuss the issue of air quality and identify policies and implementation measures to protect air quality?	Comprehensive Plan			
TOPIC	DOCUMENT	YES	NO	REVIEWER COMMENTS

Do transportation policies and the future transportation system provide for local street networks (as opposed to the conventional hierarchical system of arterials, collectors, and local streets)?	Comprehensive Plan			
Do development regulations have some requirement to consider and if appropriate provide for new local streets at designated intervals (e.g., every 1,500 feet)?	Various land-use regulations			
<i>Commentary: Over time, planners have learned that a major cause of traffic congestion is, in addition to an overreliance on automobile travel, the way road systems have been built. Conventional thinking, which is not considered to be “smart” growth, calls for local roads to empty onto collector roads which often empty onto a single (or few) arterials. Because only one or a few major routes of travel are provided, all traffic is concentrated onto those few roads, resulting in traffic congestion. Smart growth means providing a road network with more than one means of through travel in any given area.</i>				
Does the comprehensive plan provide for an analysis of local street standards and recommendations for reducing excessive right-of-way and pavement widths?	Comprehensive Plan			
Have street standards been revised to lower any excessive requirements for local subdivision streets?	Various land-use regulations			
<i>Commentary: Many suburban street standards require excessive pavement widths for streets (e.g., 29-36 feet wide for local streets). Smart growth means local streets are placed on a “diet,” so that “skinny” streets are provided. Reducing street pavement width standards (e.g., to 24 feet rather than 29-36 feet) reduces development costs and impervious surfaces and may increase safety by lowering vehicle speeds.</i>				
Are sidewalks required within new residential subdivisions with the cost paid for by the developer?	Subdivision Regulations			
Do land-use regulations encourage or require the provision of bike paths in accordance with a bikeway master plan?	Various land-use regulations			
Do development regulations require the installation of a sidewalk along existing public streets abutting the development, where such sidewalk does not already exist?	Various land-use regulations			
Do subdivision regulations allow the planning commission or local governing body to require the connection of subdivision streets to existing streets and the stubbing of streets to allow connections to future subdivision developments?	Subdivision Regulations			
Do land-use regulations encourage, if not mandate, the provision of interparcel connections between individual developments, where compatible?	Various land-use regulations			
<i>Commentary: Smart growth includes the objective of reducing reliance on major thoroughfares. Requiring driveways to connect with adjacent compatible developments is one way to reduce the need for vehicles to exit a development onto a thoroughfare, just to get to an adjacent or nearby store or activity.</i>				
Are land-use regulations “transit-friendly” or “transit supportive?”	Various land-use regulations			
<i>Commentary: Developments near rail stations and along bus routes need to be planned for the transit user. This means requirements that pedestrian facilities connect from the transit corridor or rail station to adjacent and nearby developments. It also means that businesses should be oriented to the transit user, rather than the automobile. Various design changes are needed to make developments friendly to the transit user. For instance, large building setbacks from the major thoroughfare with parking lots in front and no designated pathways on-site make for a pedestrian “hostile” environment, counter to the principles of smart growth. Land-use plans and regulations also need to ensure a certain density threshold in the area of rail stations and bus routes to ensure they have minimum ridership levels.</i>				
PARKING				
Have local parking regulations been reviewed with an eye toward reducing excessive on-site parking requirements?	Zoning Ordinance			
TOPIC	DOCUMENT	YES	NO	REVIEWER COMMENTS
Do land-use regulations include maximum parking ratios (i.e., a cap on the number of parking spaces that can be built in a particular development or simply eliminate parking requirements??	Zoning Ordinance			

Do parking regulations provide for reductions of on-site spaces in places where transit is available?	Zoning Ordinance			
Is on-street parking allowed in places where it can be safely provided, such as in downtown areas and pedestrian-retail districts?	Zoning Ordinance			
<i>Commentary: Planners and policy makers now realize that minimum parking requirements in land-use codes are often excessive, or may not be needed. Under a smart growth approach, the need for on-site parking is more carefully evaluated to determine whether alternatives are available that will allow a reduction.</i>				
Do engineering construction specifications for parking lots allow for porous pavements where appropriate?	Construction Specs.			
<i>Commentary: Porous pavements are environmentally smart because they allow the infiltration of stormwater into the ground, versus having stormwater runoff into streams and/or detention structures. However, there is not a lot of literature yet to show that porous pavements have "proven" themselves. Generally, porous pavements are not designed to handle heavy loads such as garbage trucks. Practices today generally limit porous paving materials to overflow parking and areas that are not heavily used. Porous pavements also require provisions for cleaning or vacuuming the "pores," or they will become clogged and no longer function as designed. Pavement engineers should be consulted when considering regulations allowing for porous pavements.</i>				
WATER, SEWER AND OTHER INFRASTRUCTURE				
Does the comprehensive plan provide clear discussions of how water and sewer infrastructure policies are tied to the goals and objectives of the land-use plan? Transportation plan?	Comprehensive Plan			
Do water and sewer facility master plans provide for the phasing of future trunk water and sewer extensions into areas designated for development in the short-term, versus allowing such lines to be extended without restraint anywhere in the community?	Comprehensive Plan			
<i>Commentary: Some communities designate "urban service boundaries," beyond which they do not intend to extend public water and sewer lines. Smart growth means tying facility planning and land use together. Controlling infrastructure is one of the most powerful means of guiding the urban form of a community (see related commentary under "urban form").</i>				
Does the comprehensive plan reference the plans and policies of the local school system, with an eye toward bringing consistency of school-siting policies with comprehensive plan policies?	Comprehensive Plan			
PERMITTING PROCESSES				
Have land development permitting processes been comprehensively reviewed to identify opportunities for eliminating duplication, unfairness, excessive and unnecessary requirements, etc.? If so, have inefficient processes been reformed?	Special study; various land-use regulations			
Does the community's building code provide flexibility with regard to restoring historic structures, as opposed to providing rigid requirements that discourage such restoration?	Building Code			
REGIONALISM AND INTERGOVERNMENTAL RELATIONS				
Does the comprehensive plan place the community within the context of the region in which it is located?	Comprehensive Plan			
Does the comprehensive plan recommend intergovernmental agreements where needed to foster cooperation toward attaining mutual goals of community building?	Comprehensive Plan			
Do comprehensive plan policies reflect notions of social equity and environmental justice?	Comprehensive Plan			

Source: Jerry Weitz and Leora Susan Waldner, *Smart Growth Audits*, Planning Advisory Service Report No. 512 (Chicago: American Planning Association, November 2002), Appendix A.

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