Classifying and Defining Uses and Building Forms: Land-Use Coding for Zoning Regulations

By S. Mark White, AICP

Defining and classifying uses is at the heart of conventional zoning systems.

In zoning law, the term “use” refers to the purpose for which a parcel or building is utilized. Land-use classification systems are a systematic organization of land uses for purposes of planning or plan implementation. Conventional, or “Euclidean,” zoning assigns land uses to districts that are established in the ordinance. The theory behind Euclidean zoning is that assigning the right uses to each district protects the districts from intrusion by inappropriate uses. Precise definitions and distinctions between uses are needed not only to allocate uses to the appropriate districts, but also to determine how the uses are classified and the regulations that apply to them.

Form-based zoning (FBZ) has emerged as an alternative to conventional zoning. FBZ is based on the theory that design controls can resolve many potential inconsistencies between land uses. Design controls for FBZ ordinances include building envelope standards, building frontage requirements, fenestration (window and entryway), facade coverage, and traditional facade modulation techniques. FBZ regulations apply these elements to differentiate districts by building form and building-street relationships. By contrast, under Euclidean zoning, a use relates to the function of a structure and not its form.

FBZ can empower the evolution of traditional urbanism in existing and new neighborhoods. However, a pure FBZ ordinance ignores many of the secondary impacts of uses, such as traffic, noise, and lowering of property values. Accordingly, most existing FBZ ordinances include restrictions on uses along with design controls.

Defining and classifying uses is time-consuming and cumbersome, requiring the administrator to issue administrative interpretations as to which ITE category a specific land use fits. If the alternative land-use categories have significantly different fee amounts (which is typical), property owners and developers will argue for the category that carries the lower fee. If their arguments prevail in an administrative proceeding or court action, this can have a significant fiscal impact on the community.

Land-use classification systems are also useful for cutting-edge TDR regulations. While TDR typically involves transfers of densities and intensities between similar uses, some programs allow residential densities to transfer to commercial or non-residential uses on other sites. Land-use classification systems can be useful for determining which uses qualify for density transfers from a sending to a receiving site, and for calculating the appropriate transfer ratio.

Zoning use lists and other land-use regulations are often developed and adopted without a link to a land-use coding system. However, local governments increasingly use land-use classification systems to regulate uses, which is the focus of this issue of Zoning Practice. Land-use classification systems have the following advantages:

- Systematically categorizing uses.
- Coding systems allow zoning administrators and code users to see the relationships between uses, which creates a framework for allocating uses to various zoning districts.
- Defining uses.
- Land-use classification systems provide a basis for crafting definitions for principal, discretionary, and accessory uses.
Streamlining.

Land-use classification systems can shorten the length of an ordinance by providing an external reference for uses. This is particularly useful when staff have to address uses rarely seen in the jurisdiction. Instead of lengthening the ordinance and increasing printing costs by defining each use in the code document, the definitions can be reserved for uses that involve the majority of staff time.

Use relationships.

When a list of uses is published in matrix format, the reader can easily tell where the community permits the uses. The traditional enumerated list of uses permitted in each district does not allow such comparisons.

WHY WE NEED CLASSIFICATION SYSTEMS

While form-based zoning is the latest trend in the planning profession, use districting remains the mainstay of most zoning ordinances. This is expected to continue into the foreseeable future because key participants in the land-use planning process have legitimate interests in district uses.

First, developers and landowners are interested in preserving uses that maintain the economic viability of commercial and industrial zoning districts. A simple change in commercial zoning from a district with limited uses to one with a broader range of uses can yield significantly higher rents from the same building. However, some commercial landowners are key proponents of use restrictions. This was one of the earliest justifications of Euclidean zoning. For example, a key objective of New York City’s 1916 zoning district regulations was to protect the city’s Garment District. Local governments continue to use zoning to preserve land for uses that generate high employment or tax ratables, and to maintain opportunities for economic development.

Second, public officials have a significant interest in separating uses that can create public nuisance situations. Protecting the public health, safety, and welfare remains the most significant justification for zoning and land-use regulations. While environmental regulations can mitigate many impacts created by intensive land uses, spatial segregation is still one of the most powerful means to avoid adverse impacts on sensitive land uses.

Third, neighborhoods are interested in use-based zoning to protect property values and to maintain the tranquility of residential neighborhoods. Regardless of how well a building is designed, the uses that occupy the building can generate noise, vibration, and similar characteristics that are incompatible with a residential living environment. Examples include high-turnover restaurants, adult bookstores, nightclubs, bars, and other uses that generate high traffic volumes or characteristics that neighbors often find objectionable. On the other hand, zoning regulations must mediate neighborhood concerns with regional needs for affordable housing, living environments for disabled persons, and site locations for churches, cell towers, medical facilities, and other land uses that have regional benefits but that are typically unpopular with neighborhoods. Federal regulations governing such uses, such as the Telecommunications Act of 1996 and the Religious Land Use and Institutionalized Persons Act (RLUIPA), are designed to balance these competing interests.

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ASK THE AUTHOR

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Zoning administrators are also concerned with use regulations because they are required to give applicants a clear answer on what is permitted in a district and the applicable procedures for variances. They must be prepared to give interpretations and help to avoid arguments and disputes. In addition, a clear use classification system helps to avoid litigation.

Third, the list of permitted uses should be consistent with the local government’s zoning scheme. Further, from the applicant’s perspective, it means an unnecessary delay in the development approval process. If the applicant disagrees with the interpretation, courts could be called upon to interpret the ordinance. Because ambiguities in interpretation, courts could be called upon to interpret the ordinance. Because ambiguities in interpretation and definitions minimize the amount of time zoning staff needs to prepare interpretations and potentially minimizes litigation. Under most zoning systems, omitting a use can permit the evolution of the use from one another. Planners and code enforcement administrator.

Conversely, overinclusiveness creates a de-emphasis on use controls. Zoning district use lists can be underinclusive, often require several modifications. First, the list of uses must be comprehensive. Second, the uses must be well organized. Uses should be placed under categories where possible. This does not mean every particular use can be covered to the extent possible. For example, a general use category for retail sales will encompass a number of potential sales establishments, including some not in existence either today or in the future, it is impossible to contemplate every possible use when the regulations were drafted. While it is because today’s uses were largely unknown when the regulations were drafted. Today’s uses were largely unknown when the regulations were drafted. While it is known that future uses are likely to be perceived—problems with locating them.

Finally, even zoning ordinances with comprehensive use listings typically do not define every use that will become the subject of a variance. Zoning district use lists can be underinclusive, often require several modifications. First, zoning district use regulations typically in existence either today or in the future, it is impossible to contemplate every possible use when the regulations were drafted. While it is known that future uses are likely to be perceived—problems with locating them.

In the absence of well-defined uses, the classification system can require several modifications. First, zoning district use regulations typically in existence either today or in the future, it is impossible to contemplate every possible use when the regulations were drafted. While it is known that future uses are likely to be perceived—problems with locating them.

OBJECTIVES OF USE CLASSIFICATION SYSTEMS

To achieve these goals, the following are required:

1. The terminology must be clear and as free as possible from interpretation. This makes the list of permitted uses easier for applicants. In addition, a clear use classification system helps to avoid litigation.

2. The uses must be well organized. Uses should be placed under categories where possible and consistent with local land-use policies. Specific definitions should be provided where necessary. Many classification systems described above contain definitions of uses and industry classifications. Their purpose is to provide the ones involved in mediating competing concerns. They must be prepared to give interpretations and help to avoid arguments and disputes. In addition, a clear use definition is necessary to avoid arguments and disputes.

3. Uses should be clearly defined. If uses are not clearly defined, zoning staff is called upon to give interpretations and potentially minimizes litigation. Uses under most ordinances today.

In the absence of well-defined uses, the classification system can require several modifications. First, zoning district use regulations typically in existence either today or in the future, it is impossible to contemplate every possible use when the regulations were drafted. While it is known that future uses are likely to be perceived—problems with locating them.
Industrial classification systems.

**EVOLUTION AND APPLICATIONS**

**LAND-USE TAXONOMY:**

expenses, damages, and attorneys fees. A lawsuit, along with potential litigation for such expenses, damages, and attorneys fees, can be a significant financial burden for the municipality. Therefore, it is essential to establish a comprehensive land-use classification system that can accommodate them in a sufficient number of locations. The result may be an unwinnable exclusion from the jurisdiction or failure to accommodate them in a sufficient number of locations.

The North American Industrial Classification System (NAICS) is the standard system used by government agencies to classify establishments into industries. It is a successor to the Standard Industrial Classification (SIC) system. NAICS was developed to provide a classification system that is more comprehensive and consistent with state and federal law. For example, constitutional law, federal legislation, and state statute require comprehensive plans that are consistent with state and federal law. For this reason, NAICS is used by the United States Department of Commerce for economic activity. SLUCM land-use categories have no particular relationship to noise impacts. SLUCM land-use classification systems are designed to accommodate a variety of activities, functions, structures, sites, and ownerships. They are not intended to provide a uniform and comprehensive classification system for rating the relative simplicity of conventional zoning regulations. Most states prohibit regulation of land use. Is it interested in maintaining the relative simplicity of conventional zoning regulations? Answering this key question will go a long way in determining the application of a land-use coding system for a particular jurisdiction. How can planning in a jurisdiction be better designed to achieve the goals of the political and regulatory system? Answering this question is key to determining the application of a land-use coding system. The application of a land-use coding system is to categorize industries into land-use categories. For example, industrial classification systems are used in a variety of applications. The function classification works as an identifier to establish an extensive system of land-use classification into a single model that can be used for a variety of applications. The application of a land-use coding system is to categorize industries into land-use categories. For example, industrial classification systems are used in a variety of applications. The function classification works as an identifier to establish an extensive system of land-use classification into a single model that can be used for a variety of applications. The function classification works as an identifier to establish an extensive system of land-use classification into a single model that can be used for a variety of applications.
THE FIVE CLASSIFICATION STANDARDS OF LBCS

Activity. An observable characteristic of land based on actual use. It describes what occurs in physical or observable terms (e.g., farming, shopping, manufacturing, vehicular movement, etc.). For example, an office activity refers only to the physical activity on the premises, which could apply equally to a law firm, nonprofit institution, courthouse, corporate office, or other office use. Similarly, residential uses in single-family dwellings, multifamily structures, manufactured houses, or other building types would be classified as residential activity.

Function. The economic use or type of establishment using the land. The type of establishment determines the characterization of land use. Land-use terms, such as "agricultural," "commercial," and "industrial," relate to establishments. The type of economic function served by the land use gets classified in this dimension; it is independent of activity on the land. Establishments can offer a variety of on-premise activities yet serve a single function. For example, two parcels are said to be in the same functional category if they serve the same establishment, even if one is an office building and the other is a factory.

Structure. Type of structure or building type on the land. Land-use terms embody a structural or building characteristic, which indicate the utility of the space (in a building) or land (when there is no building). Land-use terms, such as "single-family house," "office building," "warehouse," "hospital building," or "highway," also describe structural characteristics. Although many activities and functions are closely associated with certain structures, it is not always so. Many buildings are often adapted for uses other than their original use. For instance, a single-family residential structure may be used as an office.

Site. The overall physical site development character of the land. For most land uses, it is simply expressed in terms of whether or not the site is developed. But not all sites without observable development can be treated as undeveloped. Land uses, such as parks and open spaces, which often have a complex mix of activities, functions, and structures on them, need categories independent of other dimensions. This dimension uses categories that describe the overall site development characteristics.

Ownership. Legal and quasi-legal ownership constraints of the land. Ownership refers to the relationship between the use and its land rights. Since the function of most land uses is either public or private and not both, distinguishing ownership characteristics seems obvious. However, relying solely on the functional character may obscure such uses as private parks, public theaters, private stadiums, private prisons, and mixed public and private ownership. Moreover, easements and similar legal devices also limit or constrain land-use activities and functions. This dimension allows classifying such ownership characteristics more accurately.

Source: American Planning Association, Land-Based Classification Standards, LBCS Tables, at www.planning.org/LBCS
are currently permitted before taking the use list
planning staff should be aware of where uses
land-use map or transect-based plan. However,
policies expressed in the jurisdiction’s future
system. Ideally, the uses should conform to the
policies and, if applicable, the existing zoning
starting point, consult the comprehensive plan
be distributed to individual zoning districts. As a
the initial list of uses is developed, they should

two level classifications in the use matrix.
the range of permitted uses may use one or
design interests and with less of an interest in
level of classification. Those with greater
use will typically use levels to the fifth or sixth
that is interested in tightly controlling land
land-use classification system. A jurisdiction
mine the number of levels employed in the
building fenestration.

administrative process, most jurisdictions end up
stricting. Because updates must go through the
ers want to maintain some form of use dis-
new urbanism, neighborhoods and develop-
concepts. While comprehensive plans fre-
hybrid of conventional and form-based zoning
system of LBCS.
list based on the structure classification
a much shorter list of uses or an abbreviated
and reserve land for higher economic uses.
unwanted intrusions into residential districts,
integrity of the districting scheme, avoid
need a longer list of uses to maintain the
dictions that want conventional zoning will
how to structure a system of uses. Juris-

local conditions.

local conditions. The list should not be simply
cut and pasted, but should instead reflect
local conditions. The list should not be simply
as the LBCS function and structure categories,
begin with a comprehensive list of uses, such
would like to encourage. It is good practice to
receive applications, and uses the jurisdiction
process, uses for which the staff expects to
uses currently going through the permitting
should include existing uses or use categories,
use trends, jurisdictions typically develop
upon staff experience and identified land-

Based

Develop an initial list of uses.

the ordinance and can create a rather cumber-
uses must be repeated in each district where
the use regulations. The disadvantage is that
dating all of the district regulations, including
vidual districts has the advantage of consoli-
...
expressly in LBCS or NAICS. To the extent such uses are known, they must be defined and assigned to a zoning district. The ordinance must allow many of them—adult uses in particular—a place in the jurisdiction, allocating sufficient land area to pass judicial standards. It is impossible for the zoning staff to anticipate all future uses. Technological advances and market conditions will undoubtedly create new ones. Accordingly, zoning district regulations should include good standards for making administrative interpretations for them. If they do not, the landowner will normally need to request a text amendment to permit the use in one or more of the existing zoning districts (or create a new district for the use). A use variance is permitted in some states but requires a standard of review that will not work for many sites. The interpretation standards can be tied to the land-use classification system along with performance standards such as trip generation and compliance with appearance or community impact standards.

Defining the uses. There are several ways to define uses, including directly in the zoning ordinance. This option expands the text of the zoning ordinance but minimizes the need to refer to external sources. Local governments can use a hybrid approach by defining those uses that will consume the majority of staff time while leaving the others to external references such as LBCS definitions. A second option is to cross-reference LBCS. The ordinance should include a date and location for the sources so that applicants can obtain recent definitions. Code drafters should avoid the practice of cross-referencing the “latest” edition of the LBCS document. Normally, future updates to LBCS will not automatically become legally incorporated into the zoning ordinance by reference because an external reference would have the effect of amending the zoning ordinance without following the procedures required by state zoning statutes. When revisions are made to LBCS or other code references, a simple text amendment should be adopted that incorporates that edition by reference. Again, code drafters should avoid “punting” uses that are controversial or difficult to understand. Failing to define a use could expose the ordinance to invalidation based on total exclusion from the jurisdiction or vagueness. Due process requires that zoning rules be ascertainable to a reasonably intelligent person. If the ordinance is too vague to convey meaning, or if staff is given unfettered discretion to determine where the uses are permitted, some courts will strike down the zoning provisions. While the remedies vary between states, some courts will order that the use be permitted or award damages. Even if the penalty is simply to amend the ordinance to conform to state or federal law, litigation is costly and can undermine public confidence in zoning administration.

Distinctions between uses. The primary purpose of zoning district lists is to allocate uses to districts. Once completed, the jurisdiction must determine how they are permitted. Under most ordinances, uses permitted by right are entitled to be established with a simple building permit if they comply with the ordinance standards. Conditional uses, special uses, or special exceptions require a public hearing and discretionary review by zoning agencies such as the planning commission, board of zoning adjustment, or legislative bodies such as a county commission or city council. Even for by-right uses, the zoning regulations can make other distinctions, including standards for square footage or scale, design, parking, landscaping and buffering, or similar standards. Code drafters can make the distinctions in the use matrix, in a separate section that includes dimensional standards, or in both.
## Classification Systems Employed

San Antonio, Texas.

In 2002, San Antonio updated its unified development code to incorporate new urbanism and update the city's conventional zoning district categories. The city combined two zoning regimes: an older one that included aging, traditional city neighborhoods, and a newer set of zoning districts adopted in 1987. In combining these districts, the city adopted an updated list of permitted uses based on LBCS and NAICS.

An early draft of the zoning district standards included a streamlined list of uses based on LBCS structure classifications and a few uses selected from the function category. The list was responsive to the city's master plan policies that directed a more design-based code based on principles of new urbanism. While the streamlined use classification system was praised by the local media, participants in the steering committee charged with updating the ordinance found that a longer list of uses would be more administratively convenient in the long run. To avoid future interpretation problems, the city ultimately adopted a longer, more comprehensive list of uses.

Hillsborough County, Florida.

A design-based code could use a reference to building form, rather than simply uses, in each zoning district. These codes focus on building design.

## Regulatory Alternatives for Classifying and Coding Uses

<table>
<thead>
<tr>
<th>Regulatory Alternative</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consolidates uses into a matrix.</td>
<td>Abbreviates text, and reader may compare uses</td>
<td>Scatters district regulations.</td>
</tr>
<tr>
<td>Uses NAICS/LBCS to expand uses.</td>
<td>Improves thoroughness and allows local government to tailor districts more effectively to different situations.</td>
<td>Complicates the ordinance.</td>
</tr>
<tr>
<td>Uses LBCS structure classification to replace use classification.</td>
<td>Allows zoning to focus on building form rather than uses, consistent with the mandate of neighborhood groups.</td>
<td>Not likely to be acceptable to some.</td>
</tr>
<tr>
<td>Uses LBCS structure to supplement use classification.</td>
<td>Preserves ability to regulate building form more complicated than regulating by building type alone.</td>
<td>More complicated than regulating by building type alone.</td>
</tr>
<tr>
<td>Expands list of uses permitted by discretionary review (e.g., conditional use permit, special exception).</td>
<td>Promotes mixed use by permitting wider range of uses while preserving discretionary control.</td>
<td>Lengthens the ordinance. Some mixing of uses consistent with plan policies could be discouraged by discretionary review or thwarted by political opposition.</td>
</tr>
<tr>
<td>Expands list of uses permitted by right in each district, but subject to criteria prescribed in the ordinance.</td>
<td>Preserves control over potential adverse impacts through the use of standards while providing streamlined permitting.</td>
<td>Eliminates case-by-case review at public hearings.</td>
</tr>
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In Hillsborough County, Florida, the traditional neighborhood development code divides new planned developments into four subareas: greenspace, residential neighborhoods, commercial, and core. Within each subarea, a zoning matrix using the LBCS structure classification controls building form.
The uses are displayed in a matrix that corresponds to the city's 20 zoning districts, within which uses are permitted in one of several ways (see Frederick, Maryland, Use Matrix). Standards are included for interpreting omitted uses. For questions about whether a use falls within an existing category, the zoning administrator looks first to the use classifications. If the classifications prove insufficient to answer the question, the administrator applies trip generation as identified in ITE's trip generation manual or local studies.

The LMC also creates incentive-based performance standards for increases in density and intensity. While applicants can use their property for the uses and intensities permitted in the baseline zoning classification, they may be required to meet additional criteria or standards to achieve development at higher densities or intensities. The specific requirements for these incentive-based standards are outlined in § 313 of the Land Management Code.


Institute of Transportation Engineers. 2003. Trip Generation. 7th ed.


RESOURCES

Use-based zoning protects residential areas from the potential impacts of certain uses, including adult uses, which, in turn, are protected under the law from residents.

Michael Davidson
CAN CLASSIFICATION SYSTEMS SIMPLIFY REGULATION?