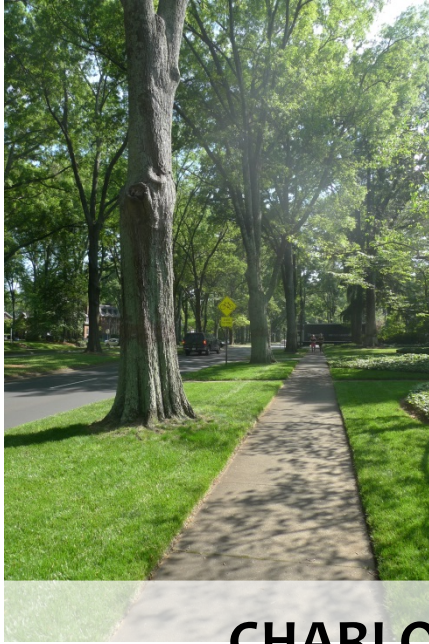
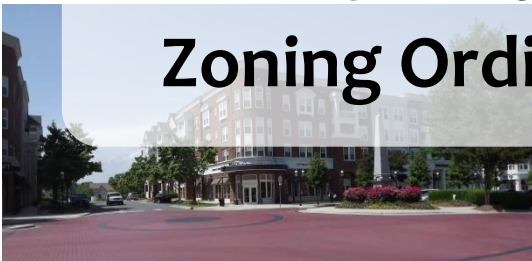


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CHARLOTTE, NORTH CAROLINA Zoning Ordinance Approach Report



APPROACH

CLARION

Clarion Associates, LLC
In Association with
Kittelson & Associates and Opticos Design

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INTRODUCTION AND OVERVIEW

A. PROJECT OVERVIEW

The Charlotte-Mecklenburg Planning Department is undertaking a comprehensive assessment of the Charlotte Zoning Ordinance, along with a consultant team led by Clarion Associates, and including Kittelson & Associates and Opticos Design.

The project focuses on how well the current Zoning Ordinance implements City policies and plans, such as the *Centers, Corridors, and Wedges* growth framework, the General Development Policies, and recent area plans. The project also looks at best practices for zoning in other communities (both in North Carolina and throughout the nation), and suggests a range of possible new zoning and land use tools to improve the Zoning Ordinance and better achieve Charlotte's planning and development goals.

The project will result in two main reports:

Zoning Ordinance Assessment Report. The assessment report provides a more detailed overview of the project and identifies how well the Zoning Ordinance is equipped to implement adopted plans and policies, as well as other strengths and weaknesses of the ordinance.

Zoning Ordinance Approach Report. This document looks at best practices for zoning ordinances generally and possible tools for an updated Charlotte Zoning Ordinance in the future, whether as a result of incremental updates or a major comprehensive revision.

B. OVERVIEW OF THE ZONING APPROACH REPORT

This Approach Report provides an overview of essential issues that Charlotte should consider in moving forward toward preparing a new Zoning Ordinance. Our analysis and discussions have highlighted numerous ways in which the current regulations could be improved to streamline the development review process, improve development quality, and better ensure the type of development desired by the community.

Following this introduction, the Approach Report is organized into two main parts:

- **Preparing to Update the Zoning Ordinance.** This section discusses essential questions and issues the City should consider prior to beginning the actual drafting of new zoning regulations, including developing an inclusive public involvement strategy, and determining whether the zoning regulations should be consolidated with other land use regulations into a unified development ordinance.
- **Determining the Organizing Approach.** Another important early consideration will be the organizing framework for the ordinance—that

is, whether it should be a traditional use-based ordinance, or a form-based ordinance, or some type of hybrid approach that is unique to Charlotte, which is increasingly common around the country. This section provides an overview of these various types of approaches, including pros and cons of each.

- **Essential Elements of an Effective Zoning Ordinance.** This section identifies key elements of any effective zoning ordinance. Topics addressed include overall document management issues like format and organization, as well as substantive issues including the lineup of zoning districts, land uses, development quality standards, and review procedures. This section includes general commentary to explain the purpose behind certain sections and, in some cases, different options for the City to consider. It does not present a detailed outline of a new ordinance; rather, it generally focuses attention on the types of structural and policy issues that will need to be confronted.

This report also includes several **case studies** that illustrate the experiences of other large cities that recently updated their zoning ordinances, including Denver, Philadelphia, and Raleigh. The case studies talk about substantive innovations in the communities, as well as practical information like staffing and resources devoted to the zoning update projects.

This Approach Report, along with the accompanying Zoning Ordinance Assessment Report, are intended to help define expectations about the general organization, content, and structure of a revised Charlotte Zoning Ordinance before the detailed drafting work begins. The documents are intended to provide an organizing framework for continued discussions of key zoning and development regulation issues by Charlotte stakeholders.

PREPARING TO UPDATE THE ZONING ORDINANCE

Every city is unique, and each successful big-city zoning reform effort requires tailoring to specific local needs. However, there are several common issues that every jurisdiction should consider before undertaking detailed drafting work. These include developing a broad-based public outreach program to generate community support, ensuring effective coordination among all the various local agencies that interact with the zoning ordinance, considering whether to combine multiple ordinances into a unified ordinance, and determining the overall organizing principle for new zoning regulations (e.g., use-based, form-based, hybrid, etc.).

A. BUILDING COMMUNITY SUPPORT

Charlotte has demonstrated a strong commitment to inclusiveness and transparency through its area planning process and other recent planning efforts. The public process for the zoning reform work should continue and strengthen this commitment. We recommend that the approach to the public process for the new zoning regulations should emphasize the following:

- *Collaborate:* The public process should be designed and facilitated in full collaboration with the City Council, the Planning Commission, the planning staff, and other local government agencies, including interdepartmental partners that help administer the Zoning Ordinance.
- *Assess:* The public process should be informed by a candid review of Charlotte's Zoning Ordinance, building on the Assessment Report prepared as part of this current process, and also including detailed, section-by-section reviews of the document's strengths and weaknesses.
- *Explore:* The stakeholder and public engagement should be conducted in an open manner that allows participants, including the internal project team, the freedom to explore a creative range of regulatory issues and possible responses.
- *Educate:* An effective public process should be about listening and learning by all participants.

Evaluating and comprehensively revising development regulations is different from preparing new area plans in several important aspects that need to be considered in crafting a realistic public input program. Development regulations are more technical in nature than area plans. Language and standards must be very clear and precise. While citizen input is important, it tends to be more focused than with most area plan projects, with more emphasis on technical review.





To help provide consistent and detailed technical feedback, most zoning ordinance update projects establish an **advisory committee** to assist the project by providing input and feedback. The appointment of an advisory committee made up of representatives from a variety of interest groups, including the Planning Commission and development and neighborhood interest groups, is a proven way to ensure a diversity of input while minimizing project costs. The advisory committee, which we recommend contain approximately 10 to 12 members who are regular users of the Charlotte Zoning Ordinance or have a detailed understanding of land use issues, can serve as an initial sounding board, providing technical input throughout the project. Typically, the advisory committee meets to review work products and discuss issues during each of the major milestones of the update project (e.g., after completion of incremental drafts of the new ordinance).

Additional outreach, through public meetings, design charrettes, workshops, and presentations, can supplement any work with the advisory committee. While committee meetings are typically detail-oriented, broader public meetings should be designed as higher-level events that are highly visual and interactive. Public input also will occur in numerous meetings as part of the final adoption phase of the project, especially before the City Planning Commission and City Council.

The following are some other public involvement tools to be considered:

- A **project website** is a key tool for communicating with the public. A new website should be designed specifically for the zoning update project, either as a freestanding site or as a dedicated area on the city's existing site. New work products should be placed on the website when they are available for public review. The website can serve as a tool by which the public may comment on the process and the work products as they are completed. (An example of a recent citywide zoning project that used a dedicated website is the Raleigh Unified Development Ordinance: <http://raleighudo.com/>.)
- A **citizen preference survey**, which is conducted in early in the process and helps provide general guidance for the project.
- A **project brochure** that summarizes—in a concise and graphically pleasing format—the project, the key issues the project will address, the approaches the new ordinance will take to address the issues, and who to contact for more information.
- **Systematic outreach to members of the local media** (for example, local newspaper, radio, and TV stations) through press releases, press conferences, personal contact, and other strategies that work in tandem with other efforts the City may be engaged in; and
- The use of **local public access television**, through the taping of several short informational programs.

Regardless of the type of public input process selected, the importance of effective public input and education cannot be overstated. With a strong



citizen involvement process, adoption of significant zoning revisions need not be a battle. Without it, adoption is often very difficult. Consequently, we recommend that the public involvement work program be discussed in detail during the initial stages of the update of the Charlotte ordinance. A strong public participation effort will be very important to effective implementation of Charlotte's plans and policies and creation of effective new zoning regulations.

B. COORDINATING WITH MULTIPLE CITY DEPARTMENTS

As part of the update of the Zoning Ordinance, the planning project team should coordinate with other Charlotte agencies and departments to ensure effective integration with all codes and regulations that are relevant to the land development process. Working with the Transportation, Utilities, Neighborhood & Business Services, and Engineering and Property Management departments, among others, the project team should review their respective regulations and requirements that play a role in regional, area, and site development to ensure that the new Charlotte zoning regulations:

- Are consistent with the City's policies and development framework, including those policies established by other agencies;
- Provide developers with both sufficient standards to plan development and offer flexibility, where necessary, for infill and redevelopment sites; and
- Reflect current best practices in planning and land development.

Many communities establish a **technical review committee** comprised of representatives of affected agencies that works on a parallel track with a citizen advisory committee. The City of Anchorage followed this approach and scheduled regular meetings with its technical committee (on the same days as the citizen committee) throughout the update of the municipality's zoning code.

Similarly, it may be possible to work with other City departments to look at projects involving greenways and trails, sustainable infrastructure, sewer improvements, and stormwater controls. Sample issues that may involve interdepartmental coordination include the use of low impact development (LID) regulations; dedication of public and private open space; requirements and incentives for green infrastructure and alternative energy sources such as solar, geothermal, and wind; and conservation and sustainable site design.

C. CONSIDER CONSOLIDATING ZONING AND OTHER REGULATIONS

Regulations dealing with zoning, land use, and development issues in Charlotte are contained in multiple principal documents, primarily the Zoning and Subdivision ordinances, but also a number of other related documents such as the Floodplain Ordinance, the Tree Ordinance, and the Sediment and Erosion Control Ordinance, to name just a few. Having development regulations scattered among multiple ordinances presents a challenge to anyone trying to develop in Charlotte (see sidebar on the next page).

Hypothetical Challenge Posed by Multiple Development Ordinances

A property owner wishing to develop residentially-zoned land for a multiple-lot commercial use must review procedures and standards for rezonings and site plan approval in the Zoning Ordinance, and procedures and standards for division of the property and provision of public improvements in the Subdivision Ordinance, standards for protecting trees in the Tree Ordinance, and standards for stormwater management in the Sediment and Erosion Control Ordinance. If the property abuts a waterway or lies in a floodplain, the owner must also consult the Floodplain Ordinance.

The property owner must be able to find all the applicable regulatory provisions from among the separate ordinances, determine how they interrelate (i.e., which approvals come first), and resolve any conflicts and ambiguities created where different ordinances address the same or similar aspect of development or development review.

One alternative is for Charlotte to continue with a freestanding Zoning Ordinance, maintaining the system with which the City is familiar. However, another option that should be considered early in the drafting of new zoning regulations is whether to combine the various sets of development regulations into a consolidated document, frequently referred to as a “Unified Development Ordinance” (UDO). Many communities have found that a unified ordinance streamlines the development process, is simpler for the user to understand, and easier for the city to administer. This is the approach taken in a number of North Carolina communities, including Raleigh, as well as hundreds of communities around the country.

A UDO often can result in a more concise document overall (as compared with multiple separate ordinances), since repetition can be avoided. For example, terms used in separate ordinances can be defined once, rather than multiple times. Also, a consolidated set of common procedures can be established that deal with both zoning and subdivision and related issues; for example, the procedure for appealing an administrative decision may be stated once, rather than multiple times in different documents.

A UDO also can lead to fewer internal conflicts, since there is less risk of inconsistent updates over time. This is a common problem in communities that maintain multiple related ordinances. For example, a definition of a key term may be updated in the zoning ordinance, but the definition of that same term is not updated in the subdivision regulations.

DETERMINING THE ORGANIZING APPROACH

One of the key decisions facing the City during its early work will be deciding upon the zoning approach or model that the revised zoning ordinance should follow. Each of the models in use today is intended to protect public health, safety, and property values, as well as to assist the community in achieving its planning and development goals. Each has strengths and weaknesses, and the drafting team will need to be well-versed in the approaches and able to explain them to citizens, stakeholders, and appointed/elected officials. The zoning models include:

- **Conventional (Euclidean) Zoning** focuses on controlling the location of various types of land *uses* and on managing the building height, bulk, and mass within zoning districts.
- **Negotiated (Transactional) Zoning** evolved out of the perceived rigidity of Euclidean zoning and allows landowners, through a negotiated process, to vary standards in the zoning ordinance and limit uses specific to their properties.
- **Performance Zoning** addresses the rigidity of Euclidean zones and standards by focusing not on land uses and building mass but on the *impacts* those uses and buildings impose on their land and neighbors.
- **Form-Based Zoning** emphasizes controls on the *form* of the built, physical environment – both the public realm (streets and the areas between buildings) and detailed building forms (although not necessarily architectural style). It emphasizes the need to create a sense of place and de-emphasizes control of specific land uses.
- Ordinances that employ some balance of more than one of the above approaches are typically called **Hybrid Ordinances**, and the particular balancing of approaches is unique to every community.

These types are discussed in greater detail in the following sections.

A. CONVENTIONAL (EUCLIDEAN) ZONING

Conventional zoning is sometimes called “Euclidean” zoning, named after the town of Euclid, Ohio, which won the first lawsuit over the legality of zoning. Conventional zoning has long focused on controlling the location of various types of land uses and on managing the height, bulk, and building mass within zoning districts to protect public health, safety, and property values.

Beginning with the earliest zoning ordinances, like the 1916 New York City ordinance, conventional zoning ordinances divided the community into “zones” for residential, commercial, and industrial uses. Within each type of zone, the ordinances defined an invisible “box” within which buildings could be

constructed on each property. The box was seldom explicitly drawn, but the combination of front, side, and rear setbacks and maximum heights did in fact define a bounded three-dimensional area within which the building had to be located. In addition, many ordinances established minimum lot sizes and/or lot widths, which then determined the permitted pattern of development in that area. As residential, commercial, and industrial zone districts proliferated, the combinations of invisible boxes and their closeness or separation grew more complex.

The setback and height rules were designed to prevent a perceived evil – overcrowding of neighbors – rather than to create consistency. But they often did create consistency along the way, because (at least in residential subdivisions) many buyers or builders did size and site their houses similarly. The results are apparent around the country in hundreds of pre-war suburbs, like many of Charlotte’s older urban neighborhoods.

The basic Euclidean zoning tools have stayed relatively constant over the years, albeit with enhancements. The fairly simple use-based model has expanded to address many issues associated with the quality of new development, like off-street parking, landscaping, signs, building design, and environmental protection. Illustrations have been slowly introduced, though not until recently to the extent seen in form-based codes.

For decades after World War II, conventional zoning was used in large part to accommodate the automobile, though this trend has reversed in recent decades as many communities are placing greater emphasis on resource protection, walkability, and compact development.

Inherent in conventional zoning is the idea that certain land uses need to be separated from others (for example, the factory should not be next to the day care center). Over time, however, planners have recognized that many types of different uses can easily coexist, such as the corner store and the apartment building. In recent years, this has resulted in the creation of zoning districts that allow a mixture of uses by right in many use-based ordinances. Despite this evolution, however, most zoning regulations are still based on the control of where defined uses can occur.

Conventional zoning today is often criticized for its lack of flexibility, its perceived failure to create predictable development patterns, and its inability to ensure that permitted buildings “fit” better with their neighbors and/or with the community’s urban design goals. Indeed, form-based zoning, discussed below, evolved in large measure as a reaction to these perceived weaknesses of conventional zoning.

On the other hand, conventional zoning has been tested and repeatedly upheld by the courts. Its basic structure and concepts are familiar to landowners, local-government officials, and planners, and it has proven relatively effective as a tool for implementing local plans and policies.

Charlotte’s current Zoning Ordinance is a conventional Euclidean ordinance that has introduced some mixed-use districts in recent years. It is organized primarily around a set of 109 zoning districts, with methodical lists of uses

permitted in each district. While any revisions to the ordinance may possibly introduce a new organizing framework that deemphasizes the regulation of uses, it is likely that a new or revised ordinance still would identify and regulate land use in some fashion.

B. NEGOTIATED (“TRANSACTIONAL”) ZONING

Negotiated, or “transactional,” zoning evolved out of the perceived rigidity of Euclidean zoning and allows landowners to vary uses and development standards in a zoning ordinance through a negotiated process. When approved, transactional zoning becomes a “mini-zoning ordinance” that regulates development of the site.

One of the earliest and most prominent forms of transactional zoning, nationally, was the “planned unit development,” or “PUD,” which was enacted in local zoning ordinances throughout the country beginning in the 1960s as a way to give developers more flexibility to design innovative projects and communities flexibility to place limitations and conditions on development approvals. Still very much in use today, the tool is often applied where zoning ordinances lack standards to address environmental and/or design issues (which today are often established as part of a conventional zoning ordinance), or where a proposed development is of sufficient size that a special approach may be warranted.

Currently, development decisions under Charlotte’s Zoning Ordinance are dominated by a form of transactional zoning, the conditional rezoning. City records show that between 2007 and today, the City has approved 375 conditional rezonings, a substantial number of development approvals.

As with the PUD, one primary benefit of the conditional rezoning is that a site plan is required as part of the development approval, which provides certainty as to what will occur on a particular site. Also, community leaders and developers have flexibility to modify and supplement (or opt out of) certain development standards in order to address specific issues on a particular site. There also is an ability to place limitations or conditions on a specific project beyond the rules established in the Zoning Ordinance.

On the other hand, experience has shown that, when a community begins to embrace transactional zoning, it has the potential to dominate the development review and approval process. Developer applicants find that the negotiation inherent in the process causes a loss of predictability, which can lead to longer approval times and higher carrying costs. Similarly, neighbors cannot rely on existing zoning to protect them and have little certainty about what new development or redevelopment might occur next door. Finally, staffs are required to devote substantial time not only to negotiating the approvals, but trying to administer various zoning requirements specific to a site, once a project is approved, making enforcement difficult.

According to interviews with Charlotte stakeholders, the results of the conditional rezoning process in the City have been generally good in terms of the projects approved and built, and conditional rezoning should continue to be

a part of the City's zoning framework because they achieve good results. However, there were also concerns expressed. Some stakeholders stated that the process creates uncertainty both for developers and the neighbors, because it is unpredictable, requires too much detail for each application, and there is some uncertainty and inconsistency in the application of the conditions imposed on projects. Some neighborhood representatives also expressed frustration with the current conditional rezoning process because it requires citizens to spend significant time meeting with City staff and at public hearings and meetings when they believe proposed development projects will negatively impact their neighborhoods (and often after significant stakeholder time already was invested in the area plan process). There was a fairly strong agreement that a more predictable environment like the City established within the Transit Oriented Development (TOD) districts is a preferable approach in areas where there is a strong consensus about the type of development that should occur.

C. PERFORMANCE ZONING

Traditional Euclidean zoning limits conflicting and incompatible uses by regulating land use and bulk. Performance zoning, however, regulates the effects or impact of land uses on surrounding lands and neighbors through performance standards. It does this by emphasizing several key elements:

- First, there is an emphasis of clear and measurable performance standards to address negative impacts. These provisions usually address concerns such as traffic flow, buffering, landscaping, density, environmental mitigation, noise, and access to light and air – and in some instances development form. In a number of cases, the standards specify numeric ratios that are keyed to open space, impervious surface, floor area, and height.
- Second, because there is a decreased emphasis on use, performance zoning ordinances typically include a limited number of zoning districts, usually established on a rural to urban continuum, which allow a mix or number of different uses within a district, as long as the development can comply with the performance standards.
- Third, because of the de-emphasis on districts and uses, and an emphasis on clear measurable, standards to address negative impacts, most development approvals in performance zoning ordinances are administrative in nature (where staff applies the standards). There are few options for discretionary/transactional zoning decisions.

The strengths of a performance zoning ordinance are that it can encourage lively, mixed-use developments; the rules governing development form and the standards applied to development are set out in the ordinance and not negotiated; and most approvals are granted administratively, meaning development review is streamlined.

The downsides of the approach are that, in many instances, development of workable performance standards is difficult and time-consuming to prepare;

many of the standards that have been developed are complex, formulaic in nature, and difficult to understand and administer; in some instances the standards require expensive equipment to monitor compliance; and the approach requires a sophisticated and well-trained staff to administer.

Currently, no large city has a zoning ordinance based completely on performance zoning. Chicago has used a hybrid approach for its manufacturing districts, using performance standards in addition to Euclidean zoning. In fact, and probably because of the challenges in preparing a tailored performance zoning ordinance, there are only limited instances where community-wide performance zoning ordinances have been adopted. They have generally been in small and medium-sized communities that have placed a strong emphasis on character protection.

D. FORM-BASED CODES

Form-based codes (FBCs) provide an alternative approach to Euclidean zoning that emphasizes physical form, rather than the separation of uses. They have been utilized to reinforce support and encourage a variety of place types, from residential neighborhoods to mixed-use environments. Generally, they emphasize walkability, high-quality design, and building upon the existing character of places. A brief review of FBCs adopted in North Carolina is presented at the end of this report.

The practice of form-based coding has increased rapidly since its initial application to entitle site-specific, predominantly greenfield “planned development” projects in the 1980s and 1990s, such as the 1987 “Urban Code” for Seaside, Florida. These projects utilized FBCs as a means to implement innovative development patterns that would have otherwise not been feasible under conventional zoning. Interest and knowledge of form-based coding has expanded rapidly since then. As of November 2012, there were more than 250 adopted FBCs of different variety and scope across the country (Borys and Talen).

FBCs are commonly structured to include a set of minimum components, including the following (based on the standards of the Form-Based Codes Institute):

- **A Regulating Plan.** A plan or map of the regulated area that designates the locations where different building form standards apply, based on clear community intentions regarding the physical character of the area being coded. A Regulating Plan may be synonymous with a zoning map, or can be created as a requirement of a zoning district.
- **Public Space Standards.** Specifications for elements within the public realm, such as sidewalks, travel lanes, on-street parking, and street trees.
- **Building Form Standards.** Regulations controlling the configuration, features, and functions of buildings that define and shape the public realm.

- **Administration.** A clearly defined application and project review process.

Many FBCs have also incorporated standards for urban form (such as block size and perimeter), architecture, landscaping, signage, and environmental resources.

They typically are based on spatial organizing principles that identify and reinforce an urban hierarchy, such as the rural-to-urban transect. The transect focuses first on the intended character and type of place and second on the mix of uses within the place. Transect zones are typically calibrated to local conditions, and can be used as an organizing basis for most, if not all, of the form elements of a code, including building form and placement, street and public space design, and signage and lighting. They have also been utilized to ensure gradual transitions between planning areas that minimize compatibility issues through the organization of transect zones on a regulating plan or zoning map.

Whereas use is primary in most conventional codes, in form-based ordinances physical form and character are primary, with secondary attention paid to use. FBCs often are developed following intensive community visioning exercises, resulting in graphically rich standards that are clearly illustrated to demonstrate a project's outcome.

Most FBCs emphasize prescriptive built form standards, such as building placement, height, frontage, massing, and building type controls (most of which are also used in conventional ordinances), often in lieu of tools such as FAR and density. Although it is rare to completely abandon traditional tools like FAR and density, most FBCs seek to define the built envelope to the extent that the form of anticipated densities can be accurately predicted.

FBCs are relatively new; however, they do have some distinct advantages and disadvantages when considering their application.

In terms of advantages, first, since FBCs address both private and public realm standards, they can provide a graphic platform helpful to organize Unified Development Ordinances. They can integrate thoroughfare standards, for

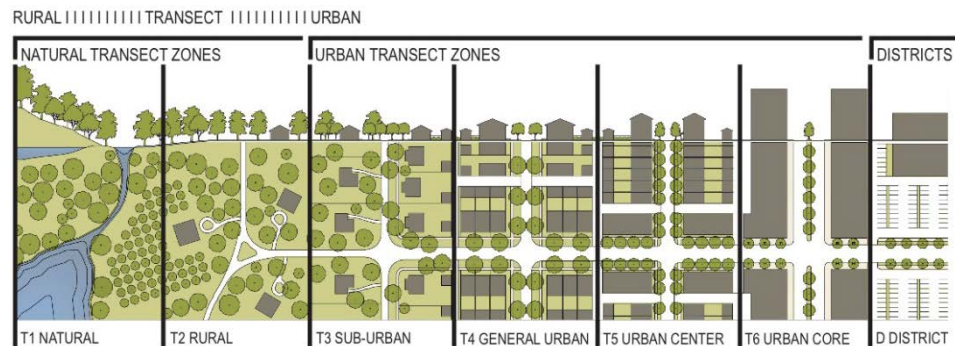


Figure 1: The Rural-to-Urban Transect. The transect is often utilized to describe and organize form-based codes. The model transect describes a continuum of intensity, ranging from the most rural to the most urban conditions.

example, with frontage and setback standards rolled into one user-friendly document.

FBCs can be effective to regenerate and revitalize areas where parcel-by-parcel redevelopment and/or intensification is desired, and are often drafted as part of, or in response to, a community planning process. As they are implemented in areas where there is strong community consensus about the desired form and type of development, they are able to focus on removing specific barriers to development that might exist, and define the desired outcome with a high degree of predictability. This predictability can support streamlined administration, as entitlements may be established with FBC zoning and rezoning is not necessarily required.

Because FBCs are context-based and typically based on detailed studies of local conditions, they have been effective in preserving neighborhood form and resolving issues of neighborhood compatibility. For example, zoning districts and standards are often “calibrated” to encourage smooth transitions between higher density mixed-use areas and surrounding lower-density residential neighborhoods through careful attention to form and scale.

On the other hand, FBCs typically incorporate extensive graphic content and can require more extensive reorganization of existing ordinance material than other strategies, FBCs can be longer and thus can be more expensive and time-consuming to prepare.

FBCs also utilize different nomenclature and terms, favor prescriptive building form and placement standards over conventional measurement parameters (such as FAR and density), and often measure some parameters differently (such as maximum number of building stories rather than maximum building height). These differences can create a need for both additional staff training and public education and can also increase time and expense associated with preparation.

While FBCs are highly descriptive and can provide a much greater level of detail, they are often subject to greater public interest and scrutiny than conventional zoning standards. This can also create the potential for more lengthy and complicated public review and adoption processes.

While FBCs have traditionally been utilized to help streamline administrative processes, more prescriptive standards may require a great deal of flexibility in implementation that affects the way in which codes can be administered and interpreted. For example, FBCs might establish a minimum ground floor level of 18” or a minimum ground floor height of 12’, both of which may require some modulation or flexibility when applied to actual projects.

Finally, while existing online code hosting platforms such as Municode are currently working to upgrade their capabilities to incorporate more graphic layouts, a FBC may necessitate additional time and expense to prepare for web-based access.

As the application of FBCs has transitioned from site-specific projects to entire jurisdictions, most have combined form-based zoning practices with aspects of

modern performance, transactional, and conventional zoning. These “hybrid” form-based codes, discussed below, reach across a broad spectrum that depends on community preferences and conventions. While some codes may incorporate some form elements into an otherwise use-based structure, other codes may utilize form as an organizing principle, electing for a more comprehensive rewrite.



E. HYBRID ORDINANCES

While there has been much healthy debate about which model is “best,” in reality most modern citywide zoning ordinances do not follow any single model but employ elements of all these models to deal with the different planning goals and development issues that arise in different areas of the community.

The term “hybrid code” generally refers to zoning regulations that combine various aspects of all the zoning models discussed above. In particular, the term is used by many planners to recognize that there is a diverse range of approaches to regulating development and achieving desired development form in a zoning ordinance. These approaches reach across a broad spectrum that emphasizes form, use, and performance standards to varying degrees.

For example, at one end of the spectrum, the term can describe a code that continues to include land use as an overriding organizing principle, but also establishes standards that encourage or require walkable urbanism in targeted areas. Such approaches may be appropriate if a community wants to continue to prioritize use-based development while recognizing that select locations (like the downtown, or transit station areas) or types of development (like mixed-use development) should have a greater emphasis on form.

On the opposite end of the spectrum, the term can describe a code that uses form as an overriding, organizing principle (rather than use), which may be appropriate in a community that wants to shift to regulating development primarily on a form-based platform.

This is a time of experimentation in new zoning approaches, and indeed a wide spectrum of hybrid examples is being applied throughout the U.S. There are hundreds of approaches along various interim points of the spectrum mentioned above. In fact, it is safe to say that no two hybrid zoning systems are the same, just as no two form-based systems are the same.

Our experience has taught us that there is no single approach to hybrid zoning controls, or for using a formula to determine the “best” zoning approach for a community. Whether the topic is urban form, or sustainability, or affordable housing, or sensitive land protection, America’s cities tend to refer to some models and then deviate from them during drafting. They generally follow an “a la carte” approach to drafting and adopting new zoning controls, and in most instances end up with some form of a hybrid ordinance.

F. TAILORING THE APPROACH FOR CHARLOTTE

In terms of the appropriate organizing approach, the key issue facing the City is not simply “form-based” versus “Euclidean” versus “performance” versus “transactional.” Rather, the key questions are likely to be which tools make the most sense given Charlotte’s policy goals, where they should be applied, and how to draft them.

Like most big cities, Charlotte is a community of choices and significantly different types of places. A wide variety of regulatory approaches and techniques may be applicable to different areas of Charlotte—some where the City wants to promote stability, and others where the City intends to promote specific types of change. In all likelihood, some form of hybrid approach will work best, drawing on the best of all the various zoning traditions described above.

The City has an opportunity to challenge itself to come up with an approach that is unique to Charlotte, building and improving upon the approaches other cities have used, as well as the positive results and strong traditions already established in Charlotte.

The key will be to get the right match between zoning tools and the land use and development challenges to be met. That applies to the most traditional tools, like Euclidean use-based districts, as well as the most cutting-edge form-based approaches.

Substantive Issues. To make those choices well, Charlotte should consider the following issues:

- **Comprehensive Change versus Targeted Change.** An early question to ask is whether the community intends to apply new zoning approaches across the entire city or target them to specific areas. It is surprising how often this basic question is not asked at the start of the discussion, which often leads to significant miscommunication about the nature of the controls that are needed. It often is true that stable residential neighborhoods (like Charlotte’s Wedges) require relatively little attention in a zoning update, while redeveloping areas, corridors, and downtowns (like Charlotte’s Centers and Corridors) require more focused attention.

For form-based codes, this question is especially important. In general, citywide form-based systems are much more complex (given the wider variety of buildings, streets, frontages, and contexts that they have to address) and, as a corollary, often have to be made more flexible and less “prescriptive” than those targeted to specific places that have clearly defined or intended urban forms. In general, the smaller the area being targeted, the more detail the standards can include, and the more form-based elements can be successfully addressed. To date, very few medium- and large communities have adopted citywide form-based codes that include most of the traditional form-based elements.

- **Build on Existing Strengths.** Some good tools already exist in the current ordinance, like the TOD districts. Rather than assuming that the process must start from scratch, the City should build on the existing tools that have been effective. Determining which tools are effective and should be carried forward will help determine and shape the new ordinance. For example, if the current district-based lists of permitted uses are considered important for neighborhood protection or other reasons, that will lead by default to developing some form of conventional or hybrid code.
- **Voluntary vs. Mandatory Controls.** Is the intent to encourage new forms of development – or to require them? Many stakeholders who can easily agree to guidelines or incentives for different forms of development will balk at standards requiring those outcomes. Often, the answer is a mix of both. For example, building design standards may be mandatory for commercial and mixed-use buildings but advisory for industrial uses. Form-based controls may be mandatory in downtown and transit-oriented nodes but voluntary or optional in other areas. The answer to this question sometimes changes during the course of a zoning reform effort. Some communities that intend to create mandatory zoning standards later reverse course and decide to create advisory guidelines, either because of the diversity of the area being targeted makes regulatory standards too complex or because of opposition to the proposed controls themselves.
- **Public Land vs. Private Land.** Traditional Euclidean zoning often controls only private land, or only private land plus publicly-owned building sites, but not the design of streets, roads, parks, and green infrastructure, because those are under the control of transportation or parks departments. Recently, form-based theory advocates have proposed that good urban form requires closer coordination between building frontages and street design than the “private/public” dichotomy allows. This is almost certainly true, but bridging that gap and establishing zoning standards for public spaces requires significant cooperation between the planning department and other public agencies. If that cooperation does not exist, then any controls established as part of the zoning ordinance will probably wind up being advisory rather than mandatory.

Practical Considerations. Beyond the substantive questions related to the best new zoning framework, City leaders should consider a host of practical considerations before embarking on any major zoning updates.

- **Staff Size and Capabilities.** Every zoning system – whether form-based or not – needs to be able to be administered quickly and efficiently with the staffing level that the city can sustain. In general, as zoning codes address more elements of development and design, the amount of time required to review compliance and/or the number of staff required to process applications on a timely basis increases. Electronic plan review systems can reduce these

requirements, but it is important to avoid adopting controls that require skills or staffing levels that the city cannot sustain over time.

- **Political Feasibility.** There is a wide spectrum of regulatory tolerance among different communities, and even within different parts of the same community. Some people want a tightly controlled regulatory system, while others prefer a “light hand” to avoid restricting growth and development. Charlotte’s elected and appointed officials, staff, and a potential advisory committee will need to consider which approaches will work best for Charlotte in light of what portion of the work staff wants to handle internally, local citizen involvement expectations, City politics, and other factors.

Politics always plays a role in zoning reform efforts. The amount of zoning change that a community can accept is often directly correlated to the amount of frustration with (and inversely correlated to support for) the current zoning tools. Unfortunately, experience shows that the most dramatic zoning reforms are often possible only when the current system is perceived as very “broken.” Zoning systems that citizens and stakeholders think are “working OK” almost never get replaced with dramatically different systems.

- **Budget.** Another key factor in updating an ordinance is the estimated staff cost, as well as any budget for outside consultants. The case studies at the end of this report provide some comparisons of budgets from other major cities that have recently tackled significant code updates. Beyond just the labor costs, however, a financially realistic strategy should also factor in the estimated costs of infrastructure, facilities, and programs that may be needed to achieve the overall vision. For example, will new publicly funded streetscape improvements be necessary to help achieve the vision of new mixed-use districts, and/or to serve as catalysts for redevelopment in key areas?
- **Time.** Major updates for code revisions for cities the size of Charlotte typically take between two to three years, though many have taken longer, especially if zoning maps are prepared concurrent with the preparation of new regulations. Of course, time does not stand still while zoning reform efforts are underway. The business of reviewing and approving new development and redevelopment must go on, and some parts of the current regulations generally need immediate attention. As a result, it is common for large cities to request that portions of the current ordinance be revised, clarified, or simplified to deal with “hot button” issues even before the outline of the new ordinance is completed – but with the expectation that the redrafted sections will be reflected in the new ordinance.
- **Accountability.** A key consideration will be naming the persons and agencies responsible for leading the zoning update. Naming who is responsible is one of the best ways to make the project accountable –

when something seems stalled, the citizens, the elected officials, and other stakeholders know whom to call and to prompt. The key responsible groups may include not just leaders of the affected Charlotte agencies, but also elected or appointed officials and citizen stakeholders who can pledge significant time to the effort. One way to promote accountability is to produce an annual report card listing action steps to be taken each year (plus those unfinished from previous years).

KEY ELEMENTS OF AN EFFECTIVE DEVELOPMENT ORDINANCE

A. USER-FRIENDLY ORGANIZATION AND FORMAT

As Charlotte’s development regulations have expanded and changed to address issues raised by rapid growth, they have become increasingly complicated (and in some cases confusingly organized), and thus more difficult to navigate and understand. A substantial number of the stakeholders interviewed indicated that they find the regulations difficult to understand and use. Thus, a new zoning ordinance provides an opportunity to present the regulations in more straightforward, efficient, and intuitive way. Below is a discussion of several recommendations to make the City’s development regulations more user-friendly.

1. Document Organization

Beyond the potential consolidation of zoning and related ordinances into a unified ordinance (discussed in the prior section), other organizational improvements should be considered in an update of the Charlotte Zoning Ordinance. In general, the goal of the new organization should be to place frequently used information where it can be easily referenced, and to remove some of the current repetition by consolidating related information. A new, more logical organization should help ensure that ordinance users can quickly find the information they need -- particularly those who do not use the ordinance on a regular basis. In addition, an improved organization will make it easier to see the overlaps between related sections and should make future amendments easier and more consistent.

Some of the major organizational improvements to consider include:

- **Procedures:** Create a single “Administration” chapter that identifies the agencies and officials charged with review and/or decision-making responsibilities under the ordinance, plus the procedures and criteria for each type of development application. Certain details of the procedures (such as submittal requirements and timelines for review) may not need to be included in the ordinance itself, but rather relocated to a separate user’s guide where they can be updated without a formal ordinance amendment.
- **Districts:** Continue to group regulations for the general zoning districts in a single chapter (as the Charlotte ordinance does now), but condense standards into a shorter, more graphic format, as discussed later in this report.
- **Uses:** The current ordinance has use-specific standards dispersed throughout the document, which can lead to confusion and inconsistency as the document is updated over time. Consolidate

TYPICAL ORGANIZATION OF A UNIFIED DEVELOPMENT ORDINANCE

- General Provisions
- Zoning Districts
- Use Regulations
- Development and Design Standards
- Environmental Protection Standards
- Subdivision Standards
- Administration and Review Procedures
- Nonconformities
- Enforcement
- Definitions and Rule of Measurement
- Index

standards addressing principal uses, accessory uses, and temporary uses into a single chapter containing use tables and use-specific standards for each of these types of uses. This would pull information from Charlotte’s current Table 9.101, as well as the use-specific standards currently listed in both the Chapters 9-11 district regulations and the Chapter 12 supplemental use standards.

- **Development Standards:** Consolidate the various standards that affect development quality, such as landscaping, site design, building design, and parking. This should include any existing standards that are carried forward (e.g., residential adjacency, landscaping and screening, and parking), as well as any new development standards introduced in an ordinance update.
- **Definitions:** Consolidate definitions into a single article at the end of the ordinance and, if a unified ordinance is prepared, review similar definitions incorporated from the various ordinances to eliminate conflicts. The document also should include a simple index that provides quick access to key terms.

We recommend preparing a detailed annotated outline to flesh out a new ordinance organization prior to beginning detailed drafting. The purpose of an outline is to allow stakeholders to examine the overall structure and policy direction of a proposed new or revised ordinance without getting bogged down in the actual wording of each provision.

2. Add and Enhance Graphics and Formatting

The old adage, “a picture is worth a thousand words,” is certainly true when trying to communicate the concepts common to development regulation. Tables, flowcharts, illustrations, and other graphics are also very helpful in conveying information concisely (and in many cases, more clearly than words alone), thus eliminating the need for lengthy, repetitive text. The current Charlotte Zoning Ordinance makes limited use of tables, no use of flowcharts, and only moderate use of graphics.

We recommend expanding the use of photographs, illustrations, diagrams, and other graphics to more clearly show how dimensional standards are measured and how development standards (e.g., parking, landscaping, buffers, building design) are applied. We recommend expanding the use of tables to more succinctly show development standards with multiple variables, such as standards for access management, street design, driveways, signs, and even public hearing notice requirements. We also recommend that all review procedures in the new administration chapter be enhanced with flowcharts, which quickly convey the interrelationships between procedural steps.

Ordinance graphics can be effectively accomplished using a number of different software programs. Simple diagrams and tables can be produced using Microsoft Word or Excel, and more complex drawings depicting dimensional standards can be drafted using products such as Trimble’s Sketch Up and Adobe Creative Suite (Photoshop, Illustrator, and InDesign). These programs

Table 50-24-3: Permitted Parking Areas²⁶

Type of Lot	Permitted Parking Area
Residential Districts	
All Lots	The rear yard and one side yard
Non-corner lot with dwelling unit and no garage	The area between one side lot line and the nearest side wall of the dwelling unit and its extension to the improved street abutting the front yard. (See diagram to the right)
Non-corner lot with dwelling unit and detached garage	The area between the closest side lot line to the side wall of the dwelling unit nearest to the garage, and its extension to the improved street abutting the front yard. (See diagram to the right)
Non-corner lot with dwelling unit and attached garage	The area between the closest side lot line to the common wall separating the dwelling unit and garage, and its extension to the improved street abutting the front yard. (See diagram to the right)
Corner lot	By variance per Section 50-37.9
Mixed Use and Special Purpose Districts	
All Mixed Use and Special Purpose Districts	Buildings or projects constructed after <i>(insert effective date of ordinance)</i> shall locate no more than 50% of off-street accessory parking within required front yard areas. ²⁷
Form Districts	Parking only permitted on those portions of the lot permitted for the building type being constructed pursuant to Sections 50-16 and 50-22.

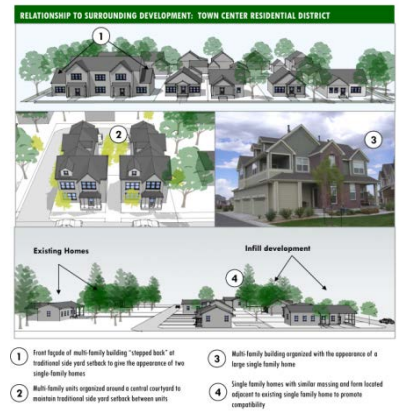
This sample graphic from the Duluth, MN code shows permitted parking areas.



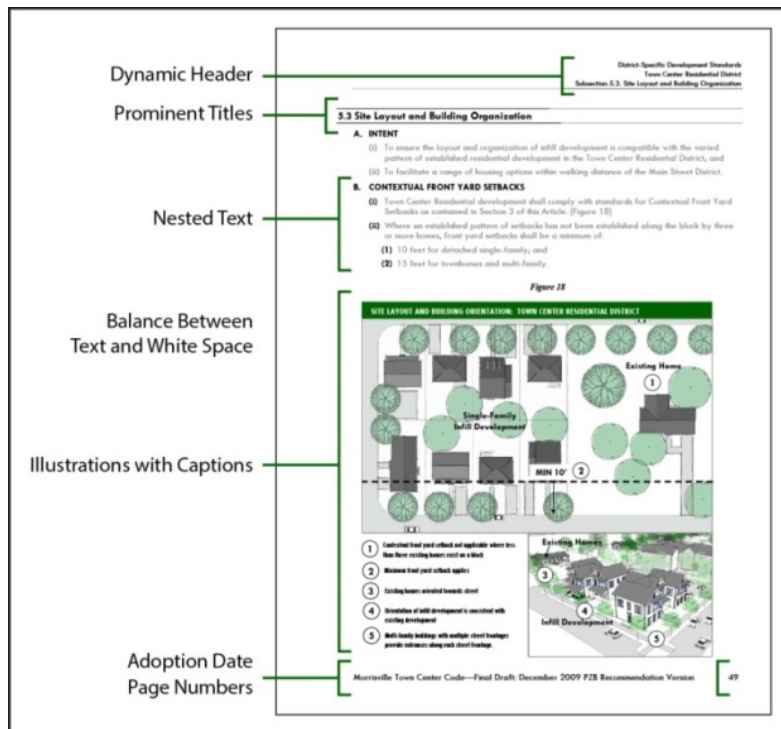
Photographs can be used to illustrate proper compliance with development standards, such as this image, which shows an appropriate dumpster screening.

allow staff to quickly create and update drawings depicting dimensional standards, without having to outsource the work to a consultant.

Another way to improve the overall appearance of the ordinance and make key information more prominent will be to employ a variety of page formatting techniques, such as those illustrated in the example at the right, which can more quickly alert the reader as to where they are in the document. More extensive use of headers and footers, section headings, and also a more creative use of font types and sizes, may all be used to illustrate the hierarchy of topics in the ordinance. More extensive use of cross-references also would be helpful to identify interrelationships (though often users find that too many cross-references make a document overly cumbersome).



The sample graphic from the Morrisville, NC, code (top) combines the use of Sketch Up modeling and word processing to convey the relationship of surrounding development to the Town Center Residential District.



This sample ordinance page illustrates a variety of effective page formatting techniques.

B. ZONING DISTRICTS

Zoning district regulations define what may be built on a landowner’s property. They establish standards that regulate the basic physical aspects of development (height, setbacks, building placement, etc.). This section addresses important topics related to the review and update of Charlotte’s zoning districts, with the closely related topic of land uses addressed in the following section.

Charlotte’s existing Zoning Ordinance establishes a total of 109 zoning districts, including general zoning districts, parallel conditional districts, special-purpose conditional districts, conditional districts with optional provisions, and overlay

districts. They are listed in a chart in the separate Zoning Ordinance Assessment Report.

The City has an opportunity to consider a significant restructuring and simplification of this material as part of a comprehensive zoning update project. In summary, these modifications, which are described further below, include the following:

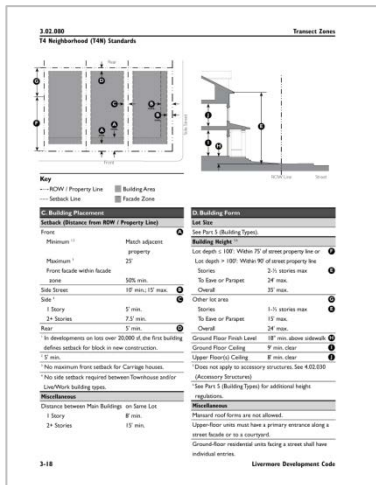
- **Improve the district presentation** through better organization, format, and the use of graphics and illustrations;
- **Simplify and modernize the districts** by consolidating redundant districts, deleting obsolete districts, refining districts to incorporate best practices, and deleting districts where new, more modern districts (e.g., mixed-use districts) can be created that serve the same purposes in more relevant ways; and
- **Better align the districts with plans and policies** by creating new districts to implement plans and policies where none exist.

1. Improve the Organization and Presentation of the Zoning Districts

In the current ordinance, all district and use regulations are presented in a text-based format that extends across several chapters and over 300 pages. For each group of districts (single-family, multi-family, etc.), there are narrative purpose statements followed by tables of permitted uses, lists of various use-specific standards, and dimensional requirements (maximum density, minimum lot width, etc.). This lengthy format can run to dozens of pages for just one or two districts. Additional chapters devoted to overlay and conditional districts add many additional pages.

To make the district structure more understandable and user-friendly, we suggest the City consider a number of formatting and organizational changes. There are a variety of improved, modern approaches to laying out district information in use around the country. At minimum, we recommend that any presentation of the Charlotte zoning districts include the following elements:

- A purpose statement summarizing the intended character and range of uses for the district (with special attention paid to specific purpose statements for all districts, not just the top-level district categories), including the land use classifications in Charlotte’s plans and policies that the district generally is intended to implement;
- The principal intensity and dimensional standards applicable in the district; and
- Graphics showing lot patterns and building types typical of the district, and how dimensional standards apply to the principal development types allowed in the district.



Livermore, California, uses a plan-view graphic to illustrate lot standards, and cross-section views to depict building form. Additional standards are detailed in tables below the graphics.

Sec. 2.2.2. Attached House

	R-6	R-10
A. Lot Dimensions		
A1 Area (min)	9,000 sf	6,000 sf
A2 Width - interior lot (min)	60'	50'
A2 Width - corner lot (min)	80'	65'
A3 Depth (min)	80'	60'
A4 Density (max)	6 u/a	10 u/a
B. Principal Building Setbacks		
B1 From primary street (min)	10'	10'
B2 From side street (min)	10'	10'
B3 From side lot line (min)	5'	5'
B4 Sum of side setbacks (min)	15'	10'
B5 From rear lot line (min)	20'	20'
B6 Residential infill rules may apply (see Sec. 2.2.7)	yes	yes
C. Accessory Structure Setbacks		
C1 From primary street (min)	50'	50'
C2 From side street (min)	20'	20'
C3 From side lot line (min)	5'	5'
C4 From rear lot line (min)	5'	5'
C4 From alley, garage only (min)	4' or 20' min	4' or 20' min
D. Height		
D1 Principal building (max)	40/3 stories	40/3 stories
D2 Accessory structure (max)	25'	25'
D3 Residential infill rules may apply (see Sec. 2.2.7)	yes	yes
E. Ground Floor Elevation		
E1 20' or less from front property line (min)	2'	2'
E1 More than 20' from front property line (min)	n/a	n/a
F. Allowed Building Elements		
Porch, stoop		
Balcony		
See Sec. 1.5.11 for specific building element requirements.		

Part 10A: Unified Development Ordinance
City of Raleigh, North Carolina

2 - 5
May 31 2013 | DRAFT

The Raleigh, North Carolina, Unified Development Code was formatted as landscape layout, which is fairly unique for zoning codes. Some form elements are depicted in graphics with additional standards in the tables immediately below.

2. Simplify and Modernize the Districts

The Assessment Report notes that the number of districts in the current Zoning Ordinance is relatively high, even for a major urban area the size and complexity of Charlotte. The current districts have been added to the ordinance over many years, resulting in a number of districts that may overlap in terms of their function or purpose. In other cases, distinctions between similar districts may no longer be significant (particularly where special conditional districts are similar to general districts or other special conditional districts).

As part of future zoning updates, the City has an opportunity to consider simplifying the district lineup where possible. Possible types of changes that are often seen in comprehensive zoning updates around the country include:

- Consolidation.** Consider consolidating districts with overlapping purposes. For example, the single-family residential districts substantially overlap in purpose, and there likely is little significant physical difference in projects built to R-3's maximum density of three units per acre and minimum lot area of 10,000 square feet and those developed at the R-4's maximum density of four units per acre and minimum lot area of 8,000 square feet. This is an example of a fine-grained approach to zoning that requires further discussion; some communities may see this as an opportunity for consolidation, while others decide it needs to remain, recognizing the important local history behind creating the distinction.

- **Renaming.** Consider renaming districts to more clearly describe their intended character. For example, if MUDD and the MX districts are supplemented with or replaced by other mixed-use tools, then all the districts should be named to help distinguish the locations where each is most appropriate. (For example, “urban neighborhood mixed use,” “corridor mixed use,” etc.)
- **Elimination of Districts.** Consider removing districts that are unused, or that become unnecessary with the introduction of new districts or other changes to the district lineup. We heard in stakeholder meetings that some current districts are seldom (or never) used, and thus may be unneeded or obsolete. For example, very little land is zoned O-3 (CD), O-3, and UI. If zoning classifications are not being applied, it may be because there is no demand for them or they do not adequately accommodate modern development trends. In either case, the City should consider whether to retain or modify them.

3. Establish New Mixed-Use Districts to Implement Charlotte’s Plans and Policies

Despite the fact that Charlotte has many districts already, one or more new districts may be needed to ensure effective implementation of Charlotte’s plans and policies, and in particular to accommodate existing and planned mixed use and activity centers. The centers are intended to function as the focus of community activity for smaller subareas of the City and are to be developed throughout Charlotte at locations generally indicated on the CCW Land Use Policy Map and more specifically identified in the area plans.

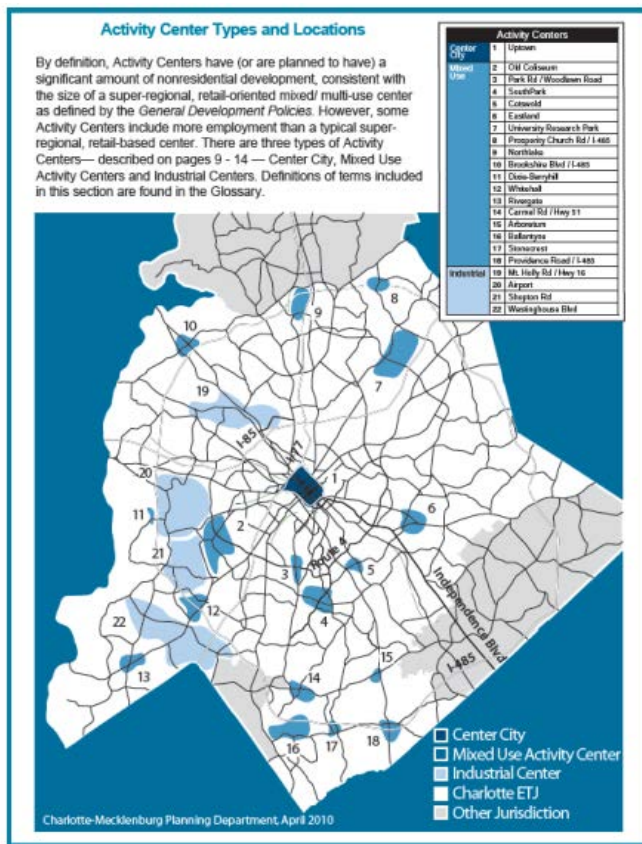
Collectively, the CCW Growth Framework, the GDP, and the area plans call for mixed use to be implemented at a variety of scales. These include a City Center, certain major Mixed-Use Activity Centers and Industrial Centers scattered through the City, transit-oriented development surrounding existing and planned transit stations along the Growth Corridors, a hierarchy of mixed-use centers along Growth Corridors, and convenience and neighborhood (maybe some community) mixed-use centers serving neighborhoods within the Wedges. They also call for low- and moderate-density single-family and multifamily development within the Wedges and for higher-density housing integrated with nonresidential uses within the mixed-use centers and transit-oriented station areas.

A number of the current districts fit within this framework (even though that may not be clear in the ordinance), and others could with refinement. The Assessment Report discusses the districts in terms of their substantive alignment with Charlotte’s planning goals. The report provides specific examples of how some districts are relatively good fits with Charlotte’s plans and policies. For example, the TOD districts are one of the stronger parts of the current ordinance and are substantially in line with the adopted plans, though some enhancements might be necessary. In other cases, there may be no good districts to match the plans, and/or significant tailoring is necessary through

tools like conditional rezonings to ensure the districts are appropriate for specific circumstances.

In a comprehensive zoning update, Charlotte has an opportunity to build on the existing tools to establish a broader lineup of new base zoning districts that implements the mixed use and activity center concepts embraced in the plans and policies. Many other communities have tackled these issues in their ordinance updates. Examples and key considerations are discussed in the sidebar on the following pages.

The ultimate goal should be a revised set of zoning districts that feature use, development, and design standards sufficient to implement Charlotte’s adopted plans and policies, including future new and revised area plans.



DRAFTING NEW MIXED USE DISTRICTS: KEY ISSUES

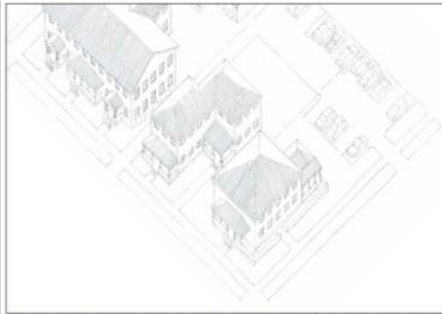
- **Location and Applicability.** Mixed-use districts could be limited to areas designated on the Area Plan Concept Maps. Or, they could be allowed anywhere they meet specified locational criteria, which might include population served, service radius, minimum separation from other mixed use districts, and location with respect to arterial/secondary roadways.
- **Approval Process and Incentives.** Approval of proposed mixed-use districts typically is subject to standard rezoning procedures. However, procedural and other incentives can be considered to encourage full implementation of the mixed-use concept.
- **Use Mix.** All mixed-use districts generally should contain a mix of residential, commercial, institutional, and/or office uses. The particular combinations of uses will vary by district; for example, the amount of residential in Industrial Centers likely will be lower than in the neighborhood centers. A city has options for choosing how prescriptive to be: prescribe a minimum mix of uses at set percentages (e.g., at least 40 percent residential, at least 30 percent retail, at least 20 percent office, etc.); require a mix of uses but not mandate a set percentage; or encourage, but not require, a mix of uses through incentives. Appropriate incentives might include allowing a greater variety of uses in the mixed-use districts than in other districts, or allowing preferred types of housing to not count against total floor area/units approved in the rezoning.
- **Site Area and Development Size.** Acceptable district sizes (minimums and maximums), including the floor area of retail, office, and institutional uses, may need to be developed. Prospective applicants whose properties are smaller than the specified minimums may be required to prepare joint development plans with adjacent property owners, unless existing development meets the characteristics of the mixed-use center. Creating a unified development plan by multiple property owners should be encouraged.
- **Density/Intensity.** Should there be minimum density and intensity standards in the new mixed-use districts, as in the TOD districts? For residential development, minimum densities could be required for larger centers, to ensure such areas do not become exclusive office and retail developments. For commercial development, options include setting minimum FAR standards and also setting minimum height standards in order to target intensity at key locations (e.g., along arterial streets).
- **Parking.** Centers should be pedestrian-friendly, in part by limiting on-site parking. Techniques to reduce parking are similar to those already used in Charlotte's TOD and PED overlay districts, and include requiring or encouraging shared parking, establishing maximum parking limits, allowing on-street parking to count towards parking requirements, and giving credit reductions for mix of uses, close-by on-street parking or public parking, or proximity to transit.
- **Leveling the Playing Field.** For mixed-use districts to succeed and actually be a cost-effective choice for developers, it will be important to level the playing field by making sure that the districts are not more onerous than development options in other, non-mixed-use areas. One good way to do this is to apply some standards that are applicable in the mixed-use districts to similar types of development city-wide. For example, at least some of the design standards applicable in the mixed-use districts also could be applied to other new commercial development outside the mixed-use districts – such as standards requiring ground floors of new commercial development to be pedestrian-friendly.

MIXED-USE DISTRICT CASE STUDIES

Duluth, Minnesota: Unified Development Ordinance. The new zoning code integrates several components of sustainable community development, including the creation of five new mixed-use districts. The mixed-use districts were established to promote pedestrian-friendly design, allow for residents to live in close proximity to non-residential uses, and to accommodate existing development patterns in certain areas and along specific corridors. These new districts were in some cases renamed from previous zone districts, and in other cases were established through aggregations of multiple zone districts. For example, the Mixed Use-Neighborhood (MU-N) district was created by consolidating the R-4 (apartment residential) and C-1 (commercial) districts, which were similar to one another. Because of the pyramid zoning in Duluth (in which more-intensive districts allow all uses permitted in less-intensive districts), the C-1 district, as well as others, was already functioning as a mixed-use district.



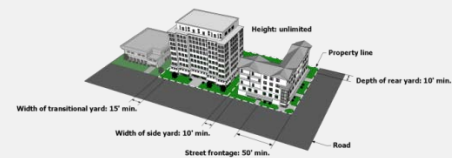
3.02.090 T4 Neighborhood-Open (T4N-O) Standards



General Note: The illustration above is intended to provide a brief overview of the Transect Zone and is descriptive in nature.

A. Purpose	B. Allowed Building Types ¹										
This Zone's primary purpose is to provide an appropriate transition from a neighborhood main street environment into the residential areas, and to provide flexible buildings as a residential form that can allow a mix of residential and walkable neighborhood-serving commercial and service uses.	<table border="0"> <tr> <td>Carrriage House</td> <td>Single-Family House¹</td> </tr> <tr> <td>Duplex, Side by Side</td> <td>Duplex, Stacked</td> </tr> <tr> <td>Duplex, Front and Back</td> <td>Bungalow Court</td> </tr> <tr> <td>Townhouse</td> <td>Live/Work</td> </tr> <tr> <td>Fourplex and Sixplex</td> <td>Courtyard Apartment</td> </tr> </table>	Carrriage House	Single-Family House ¹	Duplex, Side by Side	Duplex, Stacked	Duplex, Front and Back	Bungalow Court	Townhouse	Live/Work	Fourplex and Sixplex	Courtyard Apartment
Carrriage House	Single-Family House ¹										
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Duplex, Front and Back	Bungalow Court										
Townhouse	Live/Work										
Fourplex and Sixplex	Courtyard Apartment										
	¹ See Part 5 (Building Types) for descriptions and regulations.										
	² Permitted only if already legally existing at time of adoption, 05/01/18.										

Livermore, California: Development Code. The code establishes several mixed-use zone districts through new, form-based transect zones and also traditional non-transect zone districts. The previous version of the code included one mixed-use district and other districts (such as the commercial-office district) where residential uses were permitted with a conditional use permit. The new transect zones are somewhat of a hybrid, since they regulate form but also include permitted uses within the transect zones. For example, the T4 Main Street-Open (T4MS-O) transect zone allows commercial block and live/work building types, and establishes several form-based standards, yet still limits non-residential uses to neighborhood-oriented services and commercial uses, either by-right or through special review.



Indianapolis, Indiana: Zoning Ordinance (in progress). Indianapolis is considering adoption of four new mixed-use districts to promote walkability, encourage economic development in established activity centers, and proactively pave the way for future transit improvements. Like Duluth, a couple of the proposed mixed-use districts are renamed existing districts that were already functioning as mixed-use due to a pyramidal zoning framework. One of the proposed mixed-use districts in Indianapolis is meant to serve a well-established neighborhood and promote "urban-village" development throughout the city. Another proposed district is dedicated to transit-oriented development within walking distance of a [future] station.

4. Implementing District Changes

In the long term, assuming that district changes are pursued and new districts are introduced, how should Charlotte go about converting from the old districts to the new? In any major ordinance update, there is a continuum of approaches to revising the zoning district structure.

- **All at Once.** On one end of the spectrum, a handful of communities choose an ambitious approach and change the entire district lineup at one time—creating, modifying, and/or eliminating all current districts as necessary—to create a wholly new district lineup that closely implements adopted plans in terms of district character, allowable uses, development intensity, and standards. Such an approach is typically seen in communities that perceive major disconnects between the ordinances and plans (a 2010 plan and a 1950s ordinance). Such an approach is only truly effective if it is accompanied by the preparation of a new map that rezones all or substantial parts of the entire jurisdiction. Remapping an entire community (especially one the size of Charlotte) in one fell swoop has been done (recently in Denver, Miami, and Fayetteville NC), but takes a significant amount of resources and involves substantial political and logistical challenges.
- **Incremental: Gradual Improvements.** On the other end of the spectrum, most communities take a more incremental approach, concentrating on single categories of district conversions, or certain geographic areas, or other specific issues as local resources allow. Some communities adopt new districts in the text of the ordinance, and then remap over time through landowner- or city-initiated rezonings. Raleigh, for example, embarked on a new zoning map only after adopting its new UDO. This type of gradual roll-out typically involves less political upheaval, but is spaced out over more time and so takes longer to achieve full plan implementation.

In many cases, the level of change pursued helps determine the appropriate strategy. For example, for residential districts subject to minor consolidation and relatively little change, a simple transition table adopted in the new ordinance might suffice. But adoption of a major new set of mixed-use districts, especially if no mixed-use zoning is already in place, would be a more significant undertaking and likely involve parcel-by-parcel remapping and more extensive public outreach.

C. LAND USES

The term “land use” refers to the way a parcel or building is utilized. Even in those communities that have begun to embrace form-based codes, some sort of identification and at least minimal regulation of uses typically is necessary.

In the current Charlotte Zoning Ordinance, land uses are listed primarily in Chapter 9 (General Districts). Each set of districts (single-family, multi-family, etc.) includes a narrative list of principal uses permitted by right or under prescribed conditions, plus accessory uses and structures. The uses also appear in Table 9.101. Definitions for many, but not all, uses are alphabetized with other defined terms in Chapter 2.

Because the uses appear in different formats and locations, there are potential inconsistencies and frustrations for the ordinance user. Organizationally, the uses should be consolidated in a new chapter, as noted above. Substantively, the organization and definition of the uses could be improved.

1. Classification and Interpretation of Uses

An update of the Charlotte ordinance offers an opportunity to improve the clarity and user-friendliness of the document by revamping the organization and presentation of land uses. This involves several issues:

Establish a Hierarchy of Uses. The uses should be organized clearly, consistent with professional practice, and grouped in common-sense categories. If uses are not organized well, staff and applicant time is lost in attempting to locate the use in the document. In addition, the likelihood of uses being classified differently in several places creates the potential for inconsistencies and vagueness.

While Table 9.101 in the Charlotte Zoning Ordinance does arrange the current use lists into general categories (e.g., “residential uses,” “institutional uses”), there is no further sublevel of organization. In the body of the chapter, all use lists are alphabetical—for example, the reader moves from “boarding houses” to “bus stop shelters” to “cemeteries,” etc. An ordinance user must know precisely the name of a particular use under this system in order to find it in the document. (Someone looking for “transit shelter” may not realize they should look instead for “bus stop shelter.”)

We recommend categorizing individual “use types” within a logical system of larger categories and subcategories. For example, the category of “residential uses” could include a subcategory of “group living,” which could include specific use types such as “group home” and “senior living.” Standards in the ordinance can simply refer to a category of uses and, by definition, include all of the uses within that category rather than listing them individually. All uses in a category typically have similar land use impacts, and thus creating well-defined categories allows the elimination of many specific lines in the tables, as well as accommodating potential future uses not in existence today. There are some broader use types in the current Charlotte ordinance, such as “retail sales,” but there are opportunities for further streamlining (e.g., moving the “retail florist”

use type into a larger retail category.) In establishing a new organizational framework, the City may draw on classification systems that have been developed for other communities around the country, including a national model from the American Planning Association.

Define All Uses. Both use categories and specific use types should be defined as precisely as possible. If uses are defined or definitions are unclear, zoning staff is called upon to interpret the ordinance. If the applicant disagrees with the interpretation, the Zoning Board of Adjustment or the courts could be called upon to interpret the ordinance. From the applicant's perspective, unnecessary delay is incurred in the development approval process.

Establish a Process for Unlisted Uses. The ordinance should define a process and set criteria that staff may use to interpret whether a use type not expressly listed in the use table should be permitted in a particular zoning district. The standards should require review of the nature, function, size, duration, impacts, and other characteristics of the use in relation to those of use types listed as permitted in the district, as well as in relation to the purpose and intent of the district. They would also provide criteria that staff would use to determine when unlisted uses interpreted as permitted should be formally added to the use table via the ordinance amendment process.

2. Table of Permitted Uses

The existing ordinance summarizes all permitted uses in a consolidated master table (9.101). There are at least two opportunities for improving this important reference tool:

- Introducing additional columns to help organize and distinguish between broader use categories and specific use types, as noted above; and
- Introduction of specific cross-references to applicable use-specific standards in the table itself, versus the current generic reference to “conditions.” (These could be formatted as active hyperlinks in the online version of the ordinance.)

An excerpt from a use table from another jurisdiction is reproduced below:

APPENDIX A: SUMMARY TABLE OF ALLOWABLE USES																																	
Use Category	Use Type	RESIDENTIAL												DOWNTOWN RESIDENTIAL				COMMERCIAL				INDUSTRIAL			MIXED-USE			DOWNTOWN		ADDITIONAL STANDARDS			
		RS-1	RS-2	RS-4	RS-5	RS-8	RM-10	RM-16	RM-24	RM-36	RMH	DH	DHL	DRM	DRH	DP	CN	CO	CC	CH	CT	CA	IL	IG	IP	MC	MN	MR	DCC		DHC	PS	
Commercial Uses																							19.5.5.										
Agriculture	Crop Production	C	C	C								C							S			S										C	B
Ambulance Service																			S			S					F				A	C	
Animals and Related Services	Animal Boarding	C	C									C							S	S	S	C			S	S	S	S				D-2	
	Animal Grooming															S	S	S							S	S	S	S				D-3	
	Animal Husbandry											C																				C	D-4
	Animal Retail Sales															S	S	S							S	S	S	S				D-5	
	Livestock Farming (Equine / Swines)	S	S										S									C										C	D-6
	Stable or Riding Academy	C	C										C																				D-7

A typical master use table example, showing general use categories and specific use types.

Some communities have experimented with modifications to the typical use table format. For example, Henderson, Nevada, (illustrated on the next page) organized its use chapter by listing each use individually, with its own mini-use table (just for that use), along with the use definition, parking requirements, and any use-specific standards. The master use table showing all uses was placed in an appendix.

O. PUBLIC SAFETY FACILITY

RESIDENTIAL										DOWNTOWN RESIDENTIAL				
RS-1	RS-2	RS-4	RS-5	RS-8	RM-10	RM-16	RH-24	RH-36	RMH	DH	DRL	DRM	DRH	DP
C	C	C	C	C	C	C	C	C		C	C	C	C	C
COMMERCIAL					INDUSTRIAL			MIXED-USE			DWTWN			
CN	CO	CC	CH	CT	CA	IL	IG	IP	MC	MN	MR	DCC	DHC	PS
C	C	C	C	C	C	C	C	C	C	C	C	C	C	C

- 1. Definition**
Facilities for public safety and emergency services, including police and fire protection, not including detention facilities.
- 2. Standards**
Substations may be allowed as accessory to other primary uses (e.g., station within a recreation center or mall), subject to design review requirements. Stand-alone sub-stations require approval of a conditional use permit.
- 3. Off-Street Parking Requirement**
Schedule "C" (Section 19.7.4.C.3)
- 4. Off-Street Loading Group**
None.

The Henderson, Nevada, Zoning Ordinance consolidates all information pertaining to each use, including definition, standards, parking and loading requirements, and an individual use table.

3. Use-Specific Regulations

The revised ordinance should consolidate all of the special standards that apply to mitigate the impacts of certain uses regardless of the underlying zoning district. The current Charlotte ordinance includes many of these standards in the narrative use lists in Chapter 9 (addressing uses such as dormitories and schools), as well as many additional standards in Chapter 12, "Special Requirements for Certain Uses."

As part of an ordinance update, all these existing standards should be evaluated for clarity, to eliminate redundancy with any new standards of general applicability, and for consistency with adopted plans and policies. Additional standards for other uses may be necessary. We also recommend adding new use-specific standards for other common uses that are currently being addressed through conditions in the development approval process (such as was done for microbreweries until the recently adopted new standards). By making more uses permitted, but ensuring compatibility with surrounding areas and mitigating impacts through new objective standards, discretionary review is limited and the development review process can be streamlined and made more predictable.

Consolidation also should allow elimination of repetitive text in the current ordinance. For example, Charlotte's ordinance permits "temporary buildings and storage of materials" in multiple districts. The document repeats identical qualifying language for this use multiple times for each set of districts (i.e., "The use is in conjunction with the construction of a building on the same lot where

construction is taking place or on an adjacent lot. Such temporary uses shall be terminated upon completion of construction.”).

4. Accessory and Temporary Uses and Structures

The Zoning Ordinance lists multiple permitted accessory uses and structures allowed in each district in Chapter 9, with cross-references to supporting standards in Chapter 12, Part 4. The ordinance identifies only a handful of temporary uses and structures – primarily “temporary buildings and storage of materials,” which is allowed in multiple districts.

Both accessory and temporary uses can be controversial if not carefully defined and limited. An ordinance without comprehensive standards addressing both can lead to abuses. An effective ordinance should identify a broader range of accessory and temporary uses than is in the current ordinance (e.g., seasonal sales, contractors’ trailers) and also a range of performance standards designed to make the regulation of such uses clear, efficient, and consistent (e.g., location on site, hours of operation, expiration times for temporary uses, signs, etc.).

D. DEVELOPMENT AND DESIGN STANDARDS

As with other major topics like zoning districts and land uses, we recommend that the City consider using a comprehensive review of the Zoning Ordinance as an opportunity to consolidate and update all the various provisions to the physical layout and design of new development. This wide-ranging category of regulations includes provisions such as parking and loading, landscaping, and building design. Typically in a major zoning ordinance update, communities choose to carry forward some existing regulations in these areas with few significant substantive changes, while others are significantly revised. For example, outdated urban design standards might require a sweeping overhaul, while parking standards may just need tweaks. Regardless of the level of change anticipated, a zoning update provides a chance to review all regulations for clarity and effectiveness, to ensure they are meeting the City’s policy goals, and to ensure they are not working at cross-purposes with other City requirements.

Key issues of specific interest to Charlotte are possible new citywide nonresidential design standards, an improved focus on neighborhood compatibility, updates to various transportation-related issues, and a major new emphasis on environmental sustainability.

1. Consider Citywide Nonresidential Design Standards

As noted in the Assessment Report, the current Charlotte regulations include some thoughtful design standards for nonresidential development that were developed for individual districts, particularly the TOD districts, the PED overlay, and other pedestrian-oriented districts. While an area-based approach has been appropriate in the past, an update of the Zoning Ordinance provides an opportunity to take a fresh look at the City’s approach to design standards,



focusing more on establishing unified and consistent standards for comparable areas. Unified standards could help reduce repetition and bulk in the document; for example, many of the current TOD design standards are repeated in the PED district section and elsewhere.

This is not to say that area-based design standards would be unnecessary. Charlotte is a city of many different places and character types, and special approaches will always be needed in one or more districts. But an ordinance that starts with some uniform standards as a base, and then supplements those with district-based or development-based standards as necessary, could help bring greater consistency and effectiveness to the City's design regulation efforts. For example, citywide standards could establish general design requirements for large building façades, and those might be supplemented with additional detail in neighborhood-oriented districts where ground-floor design treatments are especially important.

Like the current district-specific standards, consolidated standards could be structured to address a wide variety of common design aspects like building orientation, building placement, primary facade treatment, massing, materials, roof form, and surface parking location. In some cases, these new standards would not need to be developed from scratch, but rather simply build on and incorporate the City's current array of design standards from the existing districts.

There is a wide range of potential approaches to regulating design. On one end of the spectrum, voluntary design guidelines can encourage, rather than require, good design. This approach provides maximum flexibility, but can be tougher to administer and have less predictable results. On the opposite end, mandatory design standards are more straightforward to administer and achieve the most predictable results, but offer less flexibility and are more frequently challenged (though menus and alternative compliance can help allow room for creative approaches). Many successful systems fall somewhere in the middle, offering some of both approaches.

2. Neighborhood Compatibility

In addition to general nonresidential design standards, an updated ordinance should consider how best to ensure that infill and redevelopment projects respect local character and are compatible with existing development, particularly in terms of transitions between nonresidential development and residential neighborhoods. Neighborhood acceptance of new, often more-intensive development depends in large part upon whether there are standards to ensure that new development is high quality and compatible with surrounding architecture and streetscapes. As noted in the Assessment Report, this was one of the topics of concern most frequently mentioned by stakeholders in our discussions about recent projects; yet, there are few, measureable standards to help ensure compatibility with existing neighborhoods in the current Zoning Ordinance.



New zoning tools should be considered to smooth transitions between different land uses, and ensure respect for older and established built context. One of the best approaches in this regard is the development of new context-based design standards for infill development. Such standards promote consistency and compatibility between new infill development or redevelopment and its surroundings through the use of average front setbacks, context-based maximum building heights, the use of architectural transitions between existing structures and new larger adjacent structures, requirements for unifying design or architectural themes that repeat or replicate design features on established buildings, and other similar requirements. The Charlotte Zoning Ordinance already takes a limited step in this direction through the establishment of average front setbacks and height step-down requirements when new development is adjacent to single-family uses (though the height step-down standards are not consistent and some districts, including UMUD and MUDD, do not have them).

These standards could be integrated into a new or revised ordinance as a means of helping to foster redevelopment and new activity centers in established areas. Some communities “bundle” these standards with incentives for redevelopment in the form of density bonuses, relaxed parking or open space standards, or expedited processing. Techniques to ensure greater compatibility do not have to be written as mandatory standards; instead, the ordinance can develop optional approaches – such as allowing developers to choose from a menu of appropriate transition tools, such as using similar uses as transitions; building step-downs; open space/greens as dividers; or fences/walls.

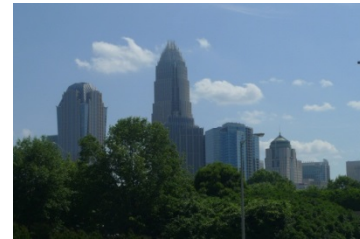
The state’s recent passage of limitations on local authority to regulate residential design makes the issue of design-based compatibility standards challenging. There are some effective design-oriented tools in place around the country that may not be viable in North Carolina. Legal review of possible approaches would be an important first step prior to undertaking detailed drafting.

Beyond design, a new ordinance can provide various other tools to use in discretionary approvals to protect residential neighborhoods from potential adverse impacts of adjacent non-residential uses, including limitations on hours of operation, noise, and lighting.

3. Environmental Protection and Sustainability

Increasingly, public officials across the nation are realizing that good development should contribute to the community’s sustainability—i.e., its ability to meet the needs of its present population while ensuring that future generations have the same or better opportunities. While every community defines “sustainability” differently, the overall concept generally refers to the protection and enhancement of society, the economy, and the environment. In terms of zoning regulations, the environmental aspect of sustainability usually receives the most attention.

Charlotte's land use policies, particularly *Centers, Corridors, and Wedges*, emphasize the need for the City to pursue sustainable development strategies as the City grows. Two of the guiding principles of CCW are "diligent consideration of environmental benefits and impacts" and "a healthy and flourishing tree canopy." Sites and buildings are intended to be designed to be sustainable, through building and site designs that conserve water, energy, and other natural resources; and through protection of environmentally sensitive areas such as wetlands, creeks, and the natural tree canopy.



Zoning ordinances can be important tools to help advance a community's environmental sustainability goals. Examples of zoning strategies that communities are pursuing include:



- Encouraging development patterns that reduce dependence on automobiles, which release greenhouse gases that pollute the air and contribute to climate change. This is often done (as Charlotte has done, and as was the case in Cary, North Carolina) through the creation of mixed-use districts that help reduce vehicle miles traveled, and through standards to ensure better multi-modal connectivity between different areas of the community.
- Encouraging urban agriculture, which can ensure access to local food products. Zoning ordinances define and allow community gardens, farmers markets, and backyard accessory uses like small chicken coops.
- Preserving and planting trees and other vegetation that clean the air, provide shading, and reduce heat island effects. While trees are dealt with in Charlotte primarily outside the Zoning Ordinance in the separate Tree Ordinance, they are handled through zoning-based tree and landscaping provisions in many communities.
- Promoting the conservation of and protecting the quality of water, a threatened natural resource that is vital to so many aspects of our lives. Especially in the Southwest where water is scarce, communities such as Tucson, Arizona, have used zoning tools to incentivize (and require) low-water usage in new development projects.
- Promoting energy conservation and the use and production of renewable energy. Zoning ordinances in hundreds of communities nationwide have been amended to allow greater use of solar panels and residential-scale wind turbines.
- Promoting recycling and solid waste reduction. While these are not typically a subject of zoning ordinances, communities such as Henderson, Nevada, have adopted zoning ordinances that incentivize new development and redevelopment projects that reduce solid waste.

There are several ways that communities are reviewing and updating their zoning regulations to promote environmental sustainability:



Remove Obstacles. Zoning ordinances often unintentionally create obstacles to sustainable developments. For example, solar panels produce renewable energy, yet many ordinances do not allow solar panels in residential areas or only permit them as special uses requiring a public hearing. Some historic districts prohibit front-facing solar panels. Also, small, compact wind turbines that can produce enough power for an entire home in a moderate wind area are usually not allowed because of residential height restrictions. Restrictions on the height or placement of accessory structures can restrict the use and placement of both solar panels and wind turbines. Neither of these uses is described in the current Charlotte ordinance; a future ordinance might define both and specify acceptable locations and performance standards.

Create Incentives for Sustainable Development Practices. Because some sustainability tools and approaches are cutting-edge and often involve new technologies, the use of voluntary incentives in a zoning ordinance, rather than mandates, can be particularly effective. For example, if a developer provides a green roof, which can reduce storm water runoff, absorb carbon dioxide, and help lower urban temperatures, he or she might be allowed increased density or an extra floor on a building as has been done in Portland, Oregon. Similarly, a developer might be given credit towards any open space requirement for providing a community garden, which can contribute to food self-sufficiency, or be given extra landscaping credit for protecting native vegetation beyond what would otherwise be required by open space protection standards.

Enhance Regulations to Address Environmental Sustainability. Charlotte has a number of regulations already on the books that are helping the City meet environmental sustainability goals. For example, opportunities for additional mixed-use and pedestrian-oriented activity center development in the MUDD, TOD, and PED Overlay districts encourage people to walk and take transit between where they live, work, shop, and recreate, and thereby reduce auto use and promote healthier lifestyles. Riparian buffer requirements help protect water quality, as do stormwater management standards, post construction controls, and erosion controls. Landscaping requirements for shade trees in parking lots and along streets help reduce the heat island effect generated by paved surfaces. Outside of the Zoning Ordinance, the stormwater management standards and floodplain regulations help reduce flooding and the adverse impacts of flooding. In the Tree Ordinance, requirements to retain tree canopy help maximize the air cleaning provided by trees.

As these current standards are considered for inclusion in an updated Zoning Ordinance, they should be closely evaluated (and reviewed in light of any adopted or pending legislation) and modified and enhanced as necessary to not only remove barriers to sustainable development practices, but also promote their expanded use. For example, stormwater management standards and post-construction controls could further encourage low impact development (LID) measures such as bio-retention, and lighting standards might promote the use of light emitting diode (LED) lighting, which is more energy-efficient than conventional light sources.

We also recommend that, in addition to addressing environmental sustainability in respect to the individual elements of development, the ordinance should include more comprehensive standards that address the sustainability of a development as a whole. There are evolving best practices for how best to do this. Tucson is a good example of a community that is undertaking comprehensive, citywide zoning reforms to address environmental sustainability in a variety of ways. Their program is focusing on, in part: identifying impediments to sustainable development (some of which are outside the zoning regulations); streamlining the development review process for projects that align with the city's sustainability goals; incorporating new requirements to address sustainability goals where needed, but offset with incentives and flexibility where possible; and addressing adaptive reuse as well as new development.



Recognizing that environmental sustainability can play out differently for projects on different sites, a number of communities have adopted minimum point systems that allow the individual developer to select options from a menu of rated sustainability practices that make the most sense for their project. Such practices include using solar panels, orienting buildings to the south (to maximize solar warming in winter), using high-efficiency heating and air-conditioning systems, using high-reflectance windows and roofing, including roof gardens, using xeriscape or native plant materials for landscaping, and providing a community garden. Developments that meet LEED or similar standards often are exempt from the point requirement. Morrisville, North Carolina, recently adopted such a menu system for its Town Center.

The techniques for integrating sustainability goals into local land-use regulations are not only evolving around the country, but they also are usually very localized and tailored to the particular concerns and interests of the individual community. Throughout the drafting process, we recommend that Charlotte seek continuing feedback from the community as to what types of sustainability measures will be most appropriate.

4. Transportation, Parking, and Connectivity

Transportation-related issues are typically addressed in both zoning ordinances and subdivision regulations, with parking and loading addressed in conventional zoning ordinances and street standards addressed in subdivision regulations. Different zoning models treat transportation differently, although all need to include these same core regulatory functions. The following sections discuss how these are being addressed in modern ordinances, particularly as communities consider how to meet contemporary transportation needs through their development regulation and administrative systems. It is important to note that Charlotte is already using many of these regulatory techniques, whether in the Zoning Ordinance or in complementary ordinances and policies, and the City's progressive overall approach to transportation is being well-supported through zoning and other regulations.

a. Parking

Parking requirements have been a critical element of zoning ordinances for decades, although the focus on regulation has typically been the establishment of on-site minimum standards, usually relative to particular uses that parking is intended to serve. Although this approach remains widely used, especially in communities that are heavily automobile-oriented, it has faced increasing criticism in recent years over its tendency to create excess parking supply, impede the flexibility of other elements of zoning and land development ordinances, and generally lead to a physical form of development that reinforces vehicle-dominant patterns of travel.



Parking Maximums. Communities experiencing a transition in land use patterns and overall character—especially in ways that show increases in density, more compact development, and, as a result, a greater emphasis on walking, bicycling and transit connections—have begun using approaches that encourage the use of other modes. The most common of these is the establishment of parking maximums in key zoning districts. From a transportation perspective, the intent of parking maximums is to restrict development from providing parking supply to satisfy exceptional levels of demand, thus allowing land to be better utilized for active uses (such as more residential units or more retail or office space) and prompting operators of land uses to be more mindful of managing parking use. Charlotte has already made use of these in its TOD districts.

Communities such as Charlotte that wish to provide choices in development patterns to residents and businesses have found a successful balance in requiring both parking maximums and minimums (and perhaps both in certain districts) ensuring that a basic level of parking supply is provided to avoid undesirable impacts on businesses or neighborhoods but also that parking’s footprint is appropriate.

In addition, communities have begun to employ other alternative parking strategies, particularly when they have moved toward zoning and land development systems that emphasize the physical form, look, and feel of development over a strict segregation of uses. Many form-based codes continue to rely on use-based parking requirements but supplement these with other strategic approaches—sometimes codified in the ordinance and sometimes pursued through administrative processes—to ensure that parking’s overall impact is not counter to the desired form of development.

Parking Requirements and Management Strategies. Transportation demand management (TDM), or the area of transportation policy that seeks to reduce driving (and especially drive-alone) demand in areas of high activity and development intensity, is not typically the purview of zoning ordinances, though zoning can be tailored to these kinds of policy approaches for appropriate areas of a community. Cambridge, Massachusetts, has long been a leader in demand management strategies and the parking requirements of its zoning ordinance reflect this. They feature exemptions for small businesses and non-residential uses (where four or fewer spaces would be required),

sharing provisions for institutional uses, reductions for affordable housing and transit-adjacent areas, and requirements to demonstrate connectivity to transit and study parking utilization for residential development projects.

Parking Reductions. In addition to minimum and maximum parameters, modern zoning ordinances may also allow reductions below a designated minimum when transportation alternatives to automobile access are provided or when the community context of a particular land use is such that minimum parking levels are not required. It is usually market forces and other local conditions that drive the latter of these—Seattle’s zoning-based parking requirements reflect an extensive effort in neighborhood-specific local surveying that reflected lower levels of demand and use than what industry standards suggested. However, there may be cases where, due to exceptional site constraints or characteristics of a specific land use, it is not practical to meet a minimum requirement.



Zoning ordinances focused on permitting high-intensity development, especially with a mix of uses, have been at the forefront of understanding parking reductions; Charlotte is already using this on high-intensity development districts. Transit station areas have also been a key impetus for reducing parking, although with differing results. Like Charlotte, Portland, Oregon, has allowed development of certain uses to provide no parking when within allowed distances from high-capacity transit corridors (although this has caused recent controversy in Portland as neighborhoods have expressed concern of parking spill-over from some recent developments). Other cities, such as Chicago and San Diego, have used a percentage basis (30 percent and 15 percent, respectively) for reducing minimum requirements when within transit stations.

Shared Parking. Shared parking is another approach, though one that is often taken in tandem with more conventional district-based parking requirements. It tends to work best with particular land uses where parking demand is focused on specific periods of the day; sharing compatibility is found when two land uses with different parking demand periods are physically adjacent. For this reason, shared parking is often inherent in mixed-use developments that house one or more businesses that are complementary, ancillary, or support other activities, such as a small convenience store located in the lobby of an office building. When applied at the district-wide level, it can produce appreciable results. San Diego is one example of a development ordinance that includes (and requires use of) a shared parking methodology, allowing detailed calculations based on uses and intensities.

Charlotte’s ordinance currently allows up to half of a typical district-based parking requirement to be met through joint use between two or more adjacent uses, although it requires the applicant to demonstrate that there is not substantial overlap in uses. Including more advanced guidance on how sharing works and is permitted, as in the San Diego example, might help to streamline and even encourage use of this allowance.

Other Approaches to Parking Flexibility. One approach to shared parking is to allow street parking to count toward a requirement, including parking

already in place on a street before development occurs. In some districts, Charlotte allows on-street spaces that a development provides to count toward minimum requirements, though it does not specify how existing parking may be used. This typically involves land uses and zoning districts that are characterized by regular access throughout the day and high parking turnover—for example, retail businesses, restaurants, and some medical and wellness uses—as opposed to uses that feature a primary need for long-term parking—such as offices and residential uses. Nashville, Tennessee, is one example of a development ordinance that has allowed this, although it only allows half of the available spaces adjacent to a development to be counted toward the requirement.

Modern zoning ordinances are also beginning to provide increased flexibility in the distance allowed between parking and a principal land use, allowing developers to count parking that may not be fully on the same site toward zoning requirements. Charlotte’s 400-foot maximum distance under typical parking requirements may be increased if a development meets certain conditions to enable safe, convenient connections between parking and the uses it serves. Portland allows a distance of 300 feet, where some suburban communities in its region seeking to promote downtown infill development are allowing greater distances—Hillsboro and Tualatin allow 500 and 700 feet, respectively.

Reserving Parking for Special Uses. Bicycle parking, already required of many zoning districts in the current ordinance, has been used more and more in zoning ordinances in the last two decades as communities begin to understand the benefits of providing multimodal transportation. Bicycle parking tends to fall under the purview of zoning in a manner similar to vehicle parking—regulated according to uses and development intensity. Charlotte has provided considerable attention to requirements and the purpose of bicycle parking, distinguishing between long-term and short-term bicycle parking and requiring both in some districts, as well as specifying how the numbers of required spaces must be provided among different storage types (such as bicycle lockers or covered or sheltered rack areas). There may nonetheless be opportunities to take more holistic approaches to providing bicycle parking, allowing individual developments to make in-lieu contributions to public funds to construct shared parking facilities or allowing incentives to the development beyond what is permitted in a district for providing additional bicycle parking space. In addition, zoning ordinances are also beginning to identify requirements for vehicle parking serving demand-managing services, especially carpools and vanpools, shared vehicles and, in limited cases, circulator shuttle vehicles. Charlotte is also using this approach in tandem with parking reductions.

b. Sidewalks and Non-Motorized Improvements

Components of street design, including both vehicle-based components such as moving travel lanes and parking as well as non-motorized components, are often addressed in subdivision regulations. However, companion documents that guide street design—such as Charlotte’s USDG and peer resources developed in other cities—have supplemented the traditional role of

subdivision regulations and have allowed overall development ordinances to follow emerging movements in street design. The national momentum toward inclusive, accessible transportation—seen in such examples as the Complete Streets movement—has inspired many policies and strategic directions in local governments.

Sidewalks. Modern development ordinances typically pay more explicit attention to pedestrian movement and accessibility, defining not only sidewalk requirements in street design standards but also curb ramps, street crossings, and other accessibility factors. In addition, development ordinances are beginning to understand how sidewalks play an important role in public space and have begun to designate appropriate uses of the sidewalk—and the dimensions in which different uses can be allowed. This applies most notably to sidewalk dining and retail space. San Francisco and Chicago have both established guidelines for sidewalk dining use. Sidewalk requirements are included in all of Charlotte’s recent area plans and detailed standards for construction and use (especially for sidewalk cafes) in Chapter 19 of its code of ordinances. A more direct relationship with the zoning ordinance may help users to understand how particular districts are expected to contribute to public street infrastructure and allowed to engage with the public right-of-way.



Street Trees. Although not transportation-related, street trees and canopy are a vital part of the public realm amenity that streets are increasingly charged with providing and a key strategic approach to managing environmental impact of development (particularly with regard to stormwater management). Development regulations that are including trees in a street design typology typically specify standards for placement and acceptable plant types. Though not directly in the zoning ordinance, street tree requirements are addressed in Charlotte’s Tree Ordinance.

c. Street Connectivity and Access

The regulation of how streets connect is a relatively new concept in land development ordinances, though it has taken multiple forms in various cases. Charlotte has been a leader in these approaches and has demonstrated that these requirements do not constrain the physical form of development to a particular form, a particular level of density, or in a way that is focused on particular street types. The City should consider keeping this element of development regulation into the future, and may also consider how other emerging practices as listed below could enhance its efforts.

Master Street Plans. Although still not widely used, some development regulations are beginning to rely on a street master plan to govern where critical connections must be made as development occurs. The street design and circulation standards typically addressed in subdivision regulations refer development applicants to this plan and establish guidelines for how key connections must be made. North Carolina features a particular system of thoroughfare planning that local governments have tied to zoning and subdivision regulations, although recent changes to that system—from a purely

function and traffic-based system to one incorporating a broader range of travel modes—have pointed to a need for development regulations to address multimodal accommodation as well.

Computed Indices. One of the more common—and easily understood—approaches to street connectivity requirements is the use of a simple index, most often defined as the ratio of street network links or segments (block-length street extents) to nodes (intersections or street endpoints). This ratio is typically expressed as a number, with new development required to meet a threshold number in the streets it provides. Some ordinances, such as in Cary, have defined a minimum number of intersections per linear mile of roadway, especially on collector and arterial thoroughfares on which new development is being added, or per square mile of area. This may offer an alternative measure when block lengths are difficult to achieve, and it may also be an easier approach to coordinating a desired level of street connectivity with access policies from partner transportation agencies—especially state transportation departments.

Block Dimensions. Another approach is establishing dimensional requirements for the street network to ensure that it meets a desired level of connectivity. Common applications of this include setting acceptable or preferable block length or block perimeter measurements, requiring additional connecting streets to be included in a development plan if those measurements are exceeded. Charlotte is familiar with this system, as it has been included in the current USDG and subdivision ordinance. This approach tends to emphasize urban form more than simply relying on a connectivity index, as it focuses on connecting streets and blocks as the basis for providing public rights-of-way (regardless of the classifications or functional roles between connecting streets). Indeed, Charlotte not only specifies acceptable block lengths but also ties them to a land use context. Charlotte already includes similar requirements in its subdivision ordinance, with a preferable length of between 400 and 600 feet.

Access Approaches. Although street connectivity is important to understand at a corridor or area scale, development at smaller scales still has an access need that is addressed in zoning and subdivision regulations. Modern zoning ordinances are offering a more sophisticated set of conditions for how access is to be provided than they have in the past, limiting multiple driveways from public streets to private properties and requiring cross-access connections outside of the public right-of-way.

d. Street Classification

Although not often the purview of zoning ordinances, overall development regulations will often establish standards for different street types, usually based on a traffic-oriented functional classification. Modern ordinances are expanding this approach by providing a more holistic definition of street function, especially as the street provides certain public amenities that are critical to a given land use.

Charlotte has been at the forefront of citywide implementation guidance for a street typology that is responsive to both functional needs of the transportation system and the various dynamics of different land uses. The USDG, which address the relationship of buildings to the street based on street type, have functioned as a companion document to the City's area planning process since their adoption in 2007. Other cities that have developed street design guidelines—such as Chicago, Los Angeles, Atlanta, Pittsburgh and Omaha—use these to varying degrees with their zoning ordinances and subdivision regulations as ways of ensuring that streets fit a variety of purposes, and ordinances will often refer to these documents for the guidance they offer. Some cities have begun to link these more closely with their zoning ordinances through requirements on how street types are applied, both in new street construction and in development-based contributions to public infrastructure. Even when the street design document remains a separate entity from a zoning ordinance, zoning and subdivision regulations have begun to use these companion resources to ensure that minimum requirements can nonetheless contribute to the urban form and character expressed in comprehensive and area plans.

Emerging trends include narrowing local streets to control traffic speeds, especially relative to particular land uses or zoning districts where heavy vehicle access is not expected or not common—this applies especially to residential districts. Incorporating alleys into street requirements is also being used increasingly in modern ordinances, as communities have recognized the benefit of alleys for loading, parking and other auxiliary service access needs.

E. ADMINISTERING THE ZONING ORDINANCE

The updated zoning ordinance should consolidate and update all provisions dealing with administration of the zoning regulations: the officials and departments with review and decision-making responsibility, the applicable review criteria, the process for obtaining different types of development approval, etc.

An ordinance update provides an opportunity to streamline the process to eliminate unnecessary hearings and avoid delays in review, and to encourage concurrent reviews where possible. All procedures should be consistent with actual practice (at least until a clear decision to change from current practice has been made). Communities are increasingly using diagrams, flow charts, and tables to delineate which processes and procedures are required for a particular development application. Predictability gives developers and staff the tools they need to navigate the development review process effectively and efficiently.

1. Clarify Responsibilities

An effective ordinance should clarify the different roles of the review and decision-making bodies in the zoning and land development review and approval process. Provisions such as these help establish clear lines of authority in the City’s decision-making procedures. This material currently is Chapter 3 of Charlotte’s Zoning Ordinance. It would benefit from the creation of a summary table similar to the one below (from another community), which provides an example of a format that allows applicants and officials to quickly determine the review process for each type of application. In order to simplify and reduce the bulk of the ordinance, drafters should put as much information as possible in tables like this, rather than text.

A procedures summary table from the Youngstown, OH code helps the user quickly reference applicable sections of code and identify the approval process associated with each application.

TABLE 1105-A: SUMMARY OF PROCEDURES						
H = PUBLIC HEARING REQUIRED R = RECOMMENDATION D = REVIEW AND DECISION			A = APPEAL P = PUBLISHED NOTICE REQUIRED M = MAILED NOTICE REQUIRED			
Section	Procedure	Notice Required	Director	Design Review Board	Planning Commission / BZA	Other Body ¹ City Council
1105.04(a)	Building Permit				A	CBO: D
1105.04(b)	Certificate of Occupancy				A	CBO: D
1105.04(c)	Zoning Permit		D		A	
1105.04(d)	Sign Permit		D		A	
1105.04(e)	Multi-building Layout Permit		D		A	
1105.04(f)	Timber Harvesting Permit		D		A	
1105.04(g)	Division and Transfer of Property Without a Plat		D		A	
1105.04(h)	Minor Subdivision		D		A	
1105.04(i)	Design Review in CDO			D	A	
1105.04(j)	Certificate of Appropriateness	P, M				HDPC: D FA: D FBA: A
1105.04(k)	Floodplain Development Permit					FA: D FBA: A
1105.04(l)	Conditional use or reuse Permit	P, M			D-H	A
1105.04(m)	Major Subdivision	P, M	Preliminary Plat	R	D-H	
	Final Plat		D	A		
1105.04(n)	Variance	P, M			D-H	
1105.04(o)	Floodplain Variance	P, M				FBA: D-H
1105.04(p)	Redevelopment Code Text or Map Amendment	P, M	R		R	D-H
1105.04(q)	Historic District Designation	P, M	R			R D-H
1105.04(r)	Comprehensive Plan Amendment	P, M	R		R	D-H

1. BZA = Board of Zoning Appeals; HDPC = Historic District Preservation Commission; CBO = Chief Building Official; FA = Floodplain Administrator; FBA = Floodplain Appeals Board

2. Establish Common Procedures

Many communities have achieved greater consistency and predictability in the processing of development by establishing a set of common procedures that generally apply to most types of applications. These common procedures take the potential applicant from the rules governing application form, contents, and fees, through the actual application submittal and review stage, to the rules governing the form of the final decisions made.

Many of these provisions are included in the Charlotte ordinance but they apply to specific procedures, and often are repeated. There is an opportunity for consolidation. For example, the appeals process in Chapter 5 includes a “determination of completeness,” stating that a notice of appeal will not be deemed properly filed unless it is complete. A similar provision appears in the

Amendments section in Chapter 6. Existing provisions should be consolidated in the revised ordinance in order to eliminate duplication and to provide greater certainty to staff and applicants about how land-use applications are generally processed. By placing such general provisions here, they will not need to be repeated throughout other sections.

As a starting point, many ordinances include the following common procedures:

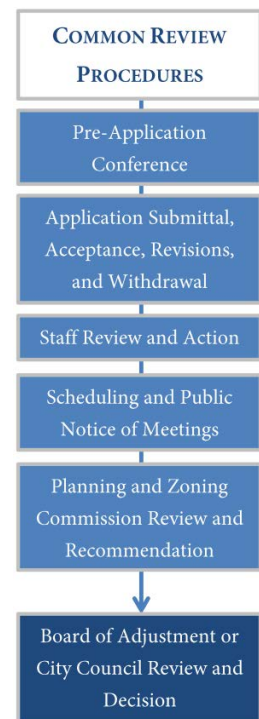
- Application Filing
- Pre-application Conferences
- Completeness
- Concurrent Processing
- Notice
- Neighborhood Meetings
- Standard Conditions of Approval
- Effect of Inaction on Applications
- Lapse of Approval.
- Withdrawal and Reapplication

In addition to clarifying common procedures, the administration chapter should consolidate and describe all of the information specific to each type of development application. This would include review criteria and any exceptions or modifications to the common procedures. The ordinance update should restructure all procedures so that they follow a consistent format, to the maximum extent practicable. Key features of each procedure should be summarized in a separate flowchart that is prepared for each individual process.

3. Consider Expanding Authority for Administrative Modifications

Under Section 4.107 of the current Zoning Ordinance, the Zoning Administrator is authorized to grant administrative deviations, subject to specific standards, from: certain measurable and quantifiable standards under the Ordinance, except for density and signage, of no more than five percent; yard and buffer requirements that do not exceed two feet, or three feet for heating, ventilation, and air conditioning units; or handicapped ramp or other encroachments into a yard, if the encroachment is required by law and there is no other reasonable location. There are also other provisions in disparate parts of the Ordinance that authorize the Administrator to grant other minor deviations.

Today, many communities in North Carolina and across the nation use similar procedures to allow minor deviations from certain dimensional or numerical standards based on specific criteria. Such procedures provide relief where application of the dimensional or numerical standard creates practical difficulties in allowing development that otherwise advance the intent of the



deviated standard. As part of the zoning update, we recommend the City consider carrying forward and potentially expanding the existing authority.

Standards for which administrative deviations are commonly authorized in other communities include lot dimensions, setbacks, height limits, yard encroachments, number of off-street parking spaces, fence height, lighting fixture height illumination levels, dimensions and planting rates and spacing for streetyards, buffers, other landscaped requirements, and in some instances certain design or form standards. The extent of allowable deviation is typically ten or 15 percent (versus Charlotte's current five percent), though higher percentages might be allowed in districts or for types of development where greater flexibility may be needed or desired to encourage redevelopment or achieve community goals.

Also, the criteria for approving an administrative deviation should be enhanced to clarify that deviation must not undermine the intent of the standard being deviated from, and shall impose no greater impacts on adjacent properties than would occur through strict compliance with the subject standard.

4. Put the Ordinance Online

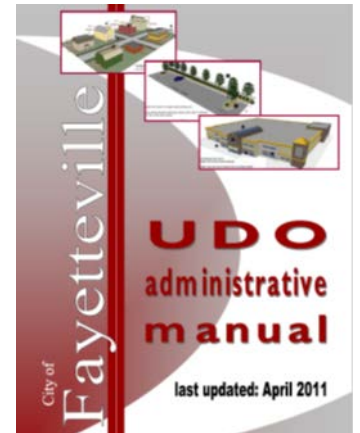
Zoning was once a book – but it is not a book anymore. In the near future, almost all zoning information, administration, and staff guidance will take place using highly searchable, highly graphic electronic versions of the zoning regulations seamlessly integrated with GIS and other address-based query systems. Ultimately, an update of Charlotte's Zoning Ordinance update should be designed with that in mind. The goal should be an exceptional web-based ordinance and customer service system that can be printed in book form if needed. A better computerization of the ordinance can be a key tool for explaining City requirements to the public, as well as clarifying linkages between the Zoning Ordinance and other local plans and regulations.

The field of ordinance computerization is rapidly evolving. Enhancements that were groundbreaking a decade ago, such as extensive use of online hyperlinks, are now common. Most online ordinances today offer search capabilities and carry forward the illustrations and graphics from the printed ordinance. Code codifiers have improved their ability to incorporate graphics and illustrations.

Los Angeles recently initiated an update of their Zoning Code that promises to break new ground in terms of ordinance computerization. The city has committed to developing a rule-based, interactive online Zoning Code that is compatible with the city's GIS systems. Budgeted at over \$1 million, the system is intended to provide a superior user experience that offers major benefits to the public in terms of understanding, navigating, and successfully complying with the city entitlement processes and procedures. Further, it is hoped the system will provide efficiencies on the business side and allow the city to improve customer service directly to users.

5. Create an Administrative Manual

It is common for ordinances to refer to a manual containing those specifications and technical requirements that are too detailed to include in the ordinance itself—i.e., where their inclusion would “clutter” the ordinance to such an extent that the ordinance becomes very difficult to understand and apply. Examples include fee schedules and specific requirements for the scale and content of plans being submitted. Also, because these detailed requirements are typically subject to frequent minor modifications, including them in a manual referenced by the zoning ordinance avoids both cluttering the ordinance and the need to go through an involved ordinance amendment every time a minor modification is needed. A supplemental manual may be prepared after adoption of a new ordinance. While development of an administrative manual is not integral to the ordinance’s adoption, such a manual is a tool that makes the new regulations function more efficiently and effectively.



F. OTHER KEY ELEMENTS OF AN EFFECTIVE ZONING ORDINANCE

1. Subdivision

If the Subdivision Ordinance is combined with the Zoning Ordinance into a Unified Development Code, a distinct chapter should be devoted to subdivisions. It should include those elements that are distinct to subdivisions, including design, improvement, and dedication standards applicable to subdivisions, which are currently in the Subdivision Ordinance. Where design and development standards could be applicable to either subdivision or site planning of an existing platted lot, such standards should be located to the consolidated development standards chapter, with a cross-reference in the new subdivision article. The chapter also should include the cluster subdivisions, the current version of which appears in the residential districts section of the Zoning Ordinance. The subdivision procedural requirements should be moved to the new consolidated administration chapter. In addition, the ordinance should require that subdivision plats comply with the development standards of the zoning district in which they are located.

2. Nonconformities

Nonconformities are lawfully established lots, structures, uses, signs, and characteristics of uses (such as landscaping or lighting) that no longer comply with local zoning regulations. Typically, all legal nonconformities are “grandfathered,” or allowed to continue in accordance with the regulations of new ordinance. This authority typically is qualified – for example, change in a nonconforming use may be allowed only to a less intensive nonconforming use or a conforming use. It is the burden of the owner or person asserting a nonconforming right to prove the existence of a legally nonconforming use, structure, or lot. Reasonable repair and maintenance of nonconformities typically is allowed and encouraged to keep nonconforming structures in safe condition. Changes in tenancy and ownership status do not affect nonconforming rights.

All nonconformity provisions appear in Chapter 7 of Charlotte's Zoning Ordinance. The chapter is generally consistent with the standard practices noted above. One area where the provisions are relatively lenient regards the destruction of a nonconforming structure; the Charlotte ordinance allows repair or replacement so long as a building permit is issued within 12 months of the date of damage. Many communities prohibit the repair or reconstruction of a nonconforming structure that is destroyed beyond a threshold value (normally 50 to 80 percent of the fair market value).

Nationally, another area where many communities have increasingly become more stringent is the treatment of nonconforming site characteristics, like landscaping. Typically, ordinances prohibit any actions that increase the degree or extent of the nonconforming feature. However, many communities today consider requiring specified site features to be brought into compliance in conjunction with, and proportional to, the substantial remodeling or enlargement of the associated development. Such requirements can use a sliding scale to require a degree of compliance proportional to the value of the remodeling or degree of enlargement. For example, a 50 percent expansion of the square footage of an existing development might trigger a requirement that at least 50 percent of the landscaping deficiencies be made compliant, while an 80 percent expansion might require full compliance. Nonconforming site feature regulations would also include an important "safety valve" provision waiving full compliance where prevented by physical constraints on the site.

3. Definitions and Rules of Interpretation

The drafting of a new set of definitions for Charlotte should begin with the lists of definitions found throughout the current Zoning Ordinance. Existing definitions should be revised as necessary to ensure they do not contain substantive or procedural requirements, and that key definitions conform to federal and North Carolina constitutional and statutory requirements. Definitions should be added as necessary (e.g., "overlay district") and illustrations developed if necessary.

CASE STUDIES

The following pages include an overview of form-based codes that have been adopted in North Carolina, plus three case studies from large cities that have recently adopted major amendments to their zoning or land development ordinances.

- 1. Form-Based Codes in North Carolina**
- 2. Denver, Colorado**
- 3. Raleigh, North Carolina**
- 4. Philadelphia, Pennsylvania**

Form-Based Codes in North Carolina

North Carolina municipalities are among some of the earliest and most frequent adopters of FBCs in the country, with the Center for Applied Transect Studies (CATS) code study listing 17 adopted FBCs (Borys and Talen). A review of five codes demonstrates the range of form-based approaches present in North Carolina, which include both “pure” FBCs as well as “hybrid” codes.

The codes, include the application of FBCs to both greenfield areas and infill areas, and include at least one application in a National Historic District (for the Town of Davidson Old Town). The recently adopted Unified Development Ordinance for the City of Raleigh, North Carolina, presented as a case study at the end of this report, is also included here.

- **Town of Davidson Unified Development Ordinance, 1995.** This “pure” FBC has a very simple organization – only 25 pages in length – and strong graphic content. Using form as an organizing principle, it provides graphic standards for building types that incorporate building placement, parking, encroachments, height, and land use onto single page spreads.
- **Town of Belmont Unified Development Ordinance, 2003.** This hybrid FBC maintains land use districts but organizes them along an intensity spectrum, placing allowed building types and their applicable development standards at the forefront of each district’s standards. The code incorporates strong graphic standards for both private and public realm controls.
- **Town of Cornelius Land Development Code, 1996.** This hybrid FBC maintains a use-based organization but introduces graphic private realm controls, including building placement, building types, frontage types, and architecture.
- **City of Durham Compact and Downtown Design Districts, 2011.** This district-specific, hybrid FBC was introduced to implement the 2008 Ninth Street Plan and was incorporated into the Durham Unified Development Ordinance. While the code maintains a use-based organization, it creates two districts (Compact CD and Downtown DD Design) that introduce form controls regulating building placement, frontage, public space, parking, architecture, and streetscape.
- **City of Raleigh Unified Development Ordinance, 2013.** This hybrid code also maintains a use-based organization but organizes graphic standards for each district by allowed building type, and includes form-based standards for frontage, landscaping, signage, and thoroughfares. The Code was developed in tandem with a citywide Street Design Manual that enables pedestrian-friendly streets.

Generally, the key components of FBCs that have been utilized in North Carolina include the following:

1. Some North Carolina form-based codes have implemented zone districts that utilize the transect, while others have restructured or calibrated their existing zone districts (as well as their zoning map) to promote transect-based development patterns.
2. Most include specific form-based standards for building and frontage types, and some go to the extent of using these types as a primary organizing principle for the code.
3. Most are to some extent holistic (and organized as unified development ordinances) in that they integrate both public realm (e.g. subdivision, streets, and open spaces) and private realm (e.g. zoning) standards. In the most successful examples, standards are organized in a manner that follows a logical, hierarchical sequence from conceptual to detailed elements, allowing easy interpretation by all users of the code.
4. While the majority of studied examples are mandatory, city-wide codes, most include a floating "TND" zone designed for application to large land areas in a similar manner to Charlotte's MUDD districts. FBCs tend to differentiate between "New Community Plans" when such ordinances are applied to greenfield areas and "Infill Community Plans" when such ordinances are used for infill and redevelopment.

IV. URBAN REGULATIONS		STOREFRONT BUILDING	DAVIDSON LAND PLAN CODE
Building Placement/Parking/Vehicular Access	Encroachment/ Pedestrian Access to Building	Permitted Height	Permitted Uses
<ol style="list-style-type: none"> 1. Buildings shall be placed on the lot within zone represented by the hatched area. 2. Generally, building and street facades must extend parallel to frontage property lines. 3. Parking shall be located to the rear of the building. 4. Points of permitted access to the parking indicated by arrows. 5. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas. 6. Parking areas on adjacent lots should be connected. 7. Trash containers shall be located in the parking area (see Parking Regulations). 8. Mechanical equipment of ground level should be placed on the parking lot side of building and away from buildings on adjacent sites. 	<ol style="list-style-type: none"> 1. Balconies, bay windows, porches at an upper level and their supports at ground level, together with overhangs above head height are permitted within the sidewalk as shown by the hatched area. 2. Main pedestrian access to the building is from the street (indicated by larger arrow). Secondary access may be from parking areas (indicated by smaller arrow). 	<ol style="list-style-type: none"> 1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or the highest level of a flat roof. 2. The height of parapet walls may vary depending upon the need to screen mechanical equipment. 3. Building height to ridge may vary depending upon the roof pitch. 	<p>Permitted uses are indicated above.</p>
<p>Description:</p> <p>The storefront building is a small scale structure which can accommodate a variety of uses. The structure is typically a maximum of 15,000 square feet. A group of storefront buildings can be combined to form a mixed-use neighborhood center. Individual storefront buildings can be used to provide some commercial services, such as a convenient food store, in close proximity to homes. Davidson's Main Street provides a good example of a neighborhood center of storefronts and the Village Market Cafe at Southern Village, Chapel Hill, NC., serves as a good single building example.</p> <p>Photo: Neighborhood Center, Seaside, FL.</p>	<p>Special Conditions:</p> <ol style="list-style-type: none"> 1. The intention of buildings in all locations must be to relate the principal facade to the sidewalk and public spaces of the street. 2. Drive-thru customer services are permitted only at the rear of building. Drive-thru facilities are prohibited in the Village Center. 3. Corners: Setback at street corners will generally replicate frontage conditions. 4. Front and side setbacks will vary depending upon site conditions. Setbacks should be used in a manner which affords pedestrian activity. Squares or plazas within building setback areas can act as focal points for pedestrians. 		

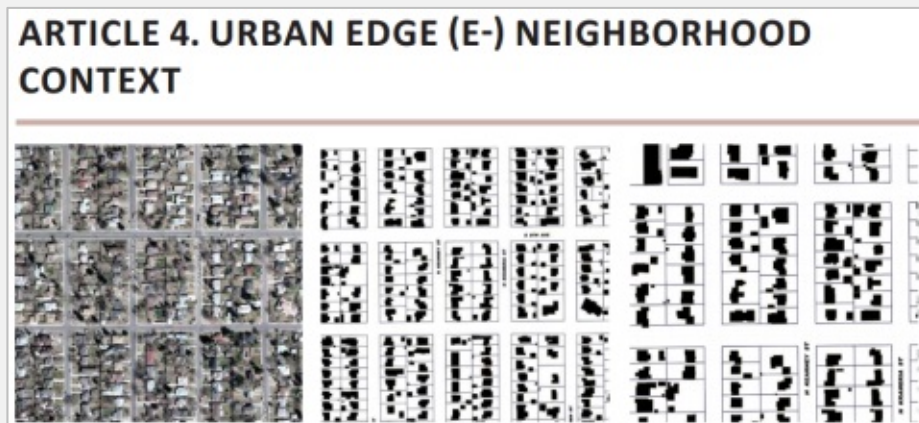
Figure 2: The 1995 Town of Davidson Land Plan organizes development standards for form-based zones into a single clear and concise 11x17 page. Regulations for Building Placement, Parking, Encroachments, Height, and Land Use are included.

Case Study: Denver, Colorado

Zoning Code Update

PROJECT DESCRIPTION

The 2010 Denver Zoning Code update was a major overhaul of the previous zoning chapter of the City Code. For the first time in Denver, form-based context districts were introduced throughout the entire city. A context-based approach sets standards for compatible development. The neighborhood contexts (such as “Suburban Neighborhood” and “General Urban Neighborhood”) are distinguished from one another by their physical and functional characteristics, such as street, alley and block patterns; building placement and height; diversity, distribution and intensity of land uses; and diversity of mobility options. These context districts helped to implement Blueprint Denver, the city’s plan that identifies areas of stability and areas of change. The new code is intended to guide Denver into a sustainable future while achieving excellence in design of the built environment.



MAJOR FOCUS AREAS

Implement Denver’s Adopted Plans

Blueprint Denver identified the overhaul of development regulations as a top priority to achieve the city’s long-range vision to maintain a high quality of life. Specifically, Blueprint Denver identified problems with the existing zoning code such as haphazard potential land use patterns, a lack of support for mixed-use and pedestrian-friendly development, and insufficient intensity to spur investment in amenities and services essential to support pedestrians and transit users.

Prepare for Continued Growth and Prosperity

The 2010 zoning code update enabled the city to attract and direct growth to the areas with the greatest capacity:

- 1) commercial corridors and transit station areas,
- 2) redevelopment and infill areas near downtown, and
- 3) large-scale developing communities like the Stapleton and Gateway neighborhoods.

Project Details

TYPE OF CODE: HYBRID ZONING CODE

ADOPTED: 2010

DURATION: 2005-2010 (FIVE YEARS)

CONTACT: TINA AXELRAD, PROJECT MANAGER, 720.865.2937, TINA.AXELRAD@DENVERGOV.ORG

ALLOCATED BUDGET: NO

CONSULTANT FEES: \$850,000

ACTUAL COST: \$850,000 PLUS STAFF TIME

NUMBER OF STAFF: INCREASED OVER TIME

Modernize and Improve an Outdated Code

As with many comprehensive ordinance rewrites, Denver wanted to repeal antiquated ordinances, respond to current land use trends, and introduce a balanced approach of building form and use.

IT TAKES TIME...

One of the biggest challenges that Denver faced was estimating the level of city staff involvement necessary to complete the project. There were no general fund dollars allocated to the project aside from the expectation that one full-time senior-level employee would spend time managing the project. In the first three years of the zoning ordinance update, a project manager was spending approximately 50-60% of their time working on the ordinance update with the consulting team. In the remaining two years of the zoning code update project, the city reassessed their approach and assigned a core project team that consisted of three project managers, and five or six staffers dedicated to mapping and scenario testing the new code provisions. By the fifth and final year, the project managers were spending nearly 100% of their time on the zoning code update. Although the evolving approach may have added to the overall duration of the project, it allowed the City and County of Denver to take the reins and institute a sense of ownership of the new code.

SINCE ADOPTION

Since adoption in 2010, there have been 14 amendments. Most of the amendments were considered “omnibus” amendments that corrected multiple technical issues and cleanup items. The remaining items were single-topic amendments that were addressed as they emerged, such as additional zoning districts (and neighborhood contexts), sign code changes, provisions for urban agriculture, and readdressing the non-conforming uses section.

The majority of code users reportedly view the new code as a significant improvement. There is a stronger framework and rationale for decision-making; the code has been praised for its ease of use and the overall clarity of technical information; the variance case load has decreased; and the new administrative adjustments process is perceived to be working well.

One of the reported shortcomings of the new code is an ongoing struggle between zoning and urban design. Although the new code does regulate building form and intensity, many in the community had expectations that zoning would reach further into the design realm. The city has other mechanisms for regulating design, including conservation overlay districts for neighborhoods wanting to get into more detail.



Key Stats	
1956	YEAR OF PREVIOUS OVERHAUL
7	NEIGHBORHOOD CONTEXTS
22.5	PERCENTAGE OF LAND EXCLUDED FROM ZONING MAP AMENDMENTS
45	STAFF MEMBERS ON TECHNICAL REVIEW COMMITTEE
200+	NUMBER OF MEETINGS HELD WITH STAKEHOLDERS AND GENERAL PUBLIC IN FINAL YEAR OF PROJECT.

Case Study: Raleigh, North Carolina

Unified Development Ordinance



PROJECT DESCRIPTION

Following a 2009 comprehensive plan update, the City of Raleigh completed its first zoning code update in 40 years. The unified development ordinance (UDO) is a major shift from the existing code: it consolidates numerous existing zoning districts, introduces new mixed-use districts, and incorporates form-based provisions. The UDO is intended to help the city improve livability as outlined in their comprehensive plan by directing development toward transit corridors and helping to create walkable mixed-use centers. Highlights from revised development standards include subtler skyscrapers, neighborhood transitions, more open spaces, smaller parking lots, varying (and clearly defined) heights, and better sidewalks and bicycle facilities.

MAJOR FOCUS AREAS

Follow the Plan

The UDO was the result of a carefully crafted process to build consensus for major code issues during the update of the comprehensive plan. Most of the heavy lifting related to zoning actually was addressed with the public prior to the onset of the UDO project. The city solicited input on what type of code (performance-based, form-based, and context-based) should be developed, and what regulations should be incorporated in the new zoning code. An action plan in the comprehensive plan specifies, for example, that regulations should be developed for accessory dwelling units, parking reductions, and mixed-use zoning incentives as short-term priorities. There were no surprises when it came time to update the code.

A Modern Code for a Modern Era

From 2005 to 2012, the Raleigh population grew from 360,000 to 423,000. The UDO project needed to accommodate this growth and respond to national trends, while also addressing some local resistance to growth. Many in Raleigh are apprehensive about moving forward as a progressive midsize city, and the project needed to highlight the protection of local character.

The Right Rules for the Right Places

Since the previous code adoption in the 1950s, Raleigh had been amending code and adding zone districts and uses through a piecemeal approach. The UDO consolidates and eliminates 21 base or overlay zone districts and ensures that standards are associated with representative zone districts.

Project Details

TYPE OF CODE: FORM-BASED; HYBRID

ADOPTED: 2013

DURATION: 2009-2013 (FOUR YEARS)

CONTACT: TRAVIS CRANE, SENIOR PLANNER,
919.996.2656,
TRAVIS.CRANE@RALEIGHNC.GOV

ALLOCATED BUDGET: YES

CONSULTANT FEES: \$500,000

ACTUAL COST: ON BUDGET

NUMBER OF STAFF: 20 AT PEAK, 5 CORE TEAM

VIEW THE CODE ONLINE:

[HTTP://WWW.RALEIGHNC.GOV/BUSINESS/CONTENT/
PLAN/CURRENT/ARTICLES/NEWRALEIGHCODE.HTML](http://www.raleighnc.gov/business/content/plan/current/articles/newraleighcode.html)

Ensuring an Effective Transition

The City of Raleigh developed several resource documents to ease the transition from the old code to the unified development ordinance, including a zoning conversion reference guide and online Prezi[®] presentations to ease the transition from the old way of doing things to the modern context-based zoning approach.

Ready Your Staff

At the onset of the project, it was expected that the time spent on the UDO would be split approximately at 80% for the consultant and 20% staff time. The city quickly realized, however, that it would be closer to a 60/40 split. A core team of five project staff was dedicated to the project from start to finish, but at the peak there were over 20 staff members working on components of the code or scenario testing. One of the project managers initially estimated that he would be spending half of his time on the UDO in its final year, but actually spent close to 100% of that year fully dedicated to seeing the project through adoption.



SINCE ADOPTION

- The city established a six-month review period between the UDO adoption date and the effective date (Sept. 1, 2013). This holding pattern is intended to allow staff, elected officials, citizens, and the development community to become more comfortable using the code prior to it becoming fully effective. Developers can elect to rezone to the new context-sensitive districts, or wait for the city to go forward with a comprehensive remapping of the city and process their application under the legacy code. Most developers have chosen to voluntarily rezone to the new districts because of the added flexibility.
- One of the biggest challenges was the abandonment of density regulations in the mixed-use districts. Rather, the city elected to regulate density by establishing permitted height. Much of the ongoing training is related to how form-based controls would apply versus the legacy code that regulated units-per-acre. Staff currently provides onsite training three days per week to firms that want to learn more about a specific scenario using the UDO.
- The city expects several minor cleanup items as well as broader “omnibus” items never fully vetted during the UDO’s development. Some officials have opened discussion on topics where consensus was not previously reached, including, for example, building transparency in mixed-use districts.

Article 3.2. Base Dimensional Standards
Sec. 3.2.1. Detached House

	RA	CU	NE	CO	DU
A. Lot dimensions					
A1. Area (sqft)	4,500 sq'	4,500'	4,500'	4,500'	4,500'
A2. Width (feet)	30'	30'	30'	30'	30'
B. Principal Building Setbacks					
B1. Front yard setback (feet)	10'	5'	5'	5'	5'
B2. Side yard setback (feet)	5'	5'	5'	5'	5'
B3. Rear yard setback (feet)	10'	5'	5'	5'	5'
C. Alternative Setback Setbacks					
C1. Front yard setback (feet)	10'	5'	5'	5'	5'
C2. Side yard setback (feet)	5'	5'	5'	5'	5'
C3. Rear yard setback (feet)	10'	5'	5'	5'	5'
C4. Street view setback (feet)	5'	5'	5'	5'	5'
C5. Street view setback (feet)	5'	5'	5'	5'	5'
C6. Street view setback (feet)	5'	5'	5'	5'	5'
C7. Street view setback (feet)	5'	5'	5'	5'	5'
C8. Street view setback (feet)	5'	5'	5'	5'	5'
C9. Street view setback (feet)	5'	5'	5'	5'	5'
C10. Street view setback (feet)	5'	5'	5'	5'	5'
C11. Street view setback (feet)	5'	5'	5'	5'	5'
C12. Street view setback (feet)	5'	5'	5'	5'	5'
C13. Street view setback (feet)	5'	5'	5'	5'	5'
C14. Street view setback (feet)	5'	5'	5'	5'	5'
C15. Street view setback (feet)	5'	5'	5'	5'	5'
C16. Street view setback (feet)	5'	5'	5'	5'	5'
C17. Street view setback (feet)	5'	5'	5'	5'	5'
C18. Street view setback (feet)	5'	5'	5'	5'	5'
C19. Street view setback (feet)	5'	5'	5'	5'	5'
C20. Street view setback (feet)	5'	5'	5'	5'	5'
C21. Street view setback (feet)	5'	5'	5'	5'	5'
C22. Street view setback (feet)	5'	5'	5'	5'	5'
C23. Street view setback (feet)	5'	5'	5'	5'	5'
C24. Street view setback (feet)	5'	5'	5'	5'	5'
C25. Street view setback (feet)	5'	5'	5'	5'	5'
C26. Street view setback (feet)	5'	5'	5'	5'	5'
C27. Street view setback (feet)	5'	5'	5'	5'	5'
C28. Street view setback (feet)	5'	5'	5'	5'	5'
C29. Street view setback (feet)	5'	5'	5'	5'	5'
C30. Street view setback (feet)	5'	5'	5'	5'	5'
C31. Street view setback (feet)	5'	5'	5'	5'	5'
C32. Street view setback (feet)	5'	5'	5'	5'	5'
C33. Street view setback (feet)	5'	5'	5'	5'	5'
C34. Street view setback (feet)	5'	5'	5'	5'	5'
C35. Street view setback (feet)	5'	5'	5'	5'	5'
C36. Street view setback (feet)	5'	5'	5'	5'	5'
C37. Street view setback (feet)	5'	5'	5'	5'	5'
C38. Street view setback (feet)	5'	5'	5'	5'	5'
C39. Street view setback (feet)	5'	5'	5'	5'	5'
C40. Street view setback (feet)	5'	5'	5'	5'	5'
C41. Street view setback (feet)	5'	5'	5'	5'	5'
C42. Street view setback (feet)	5'	5'	5'	5'	5'
C43. Street view setback (feet)	5'	5'	5'	5'	5'
C44. Street view setback (feet)	5'	5'	5'	5'	5'
C45. Street view setback (feet)	5'	5'	5'	5'	5'
C46. Street view setback (feet)	5'	5'	5'	5'	5'
C47. Street view setback (feet)	5'	5'	5'	5'	5'
C48. Street view setback (feet)	5'	5'	5'	5'	5'
C49. Street view setback (feet)	5'	5'	5'	5'	5'
C50. Street view setback (feet)	5'	5'	5'	5'	5'
C51. Street view setback (feet)	5'	5'	5'	5'	5'
C52. Street view setback (feet)	5'	5'	5'	5'	5'
C53. Street view setback (feet)	5'	5'	5'	5'	5'
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C55. Street view setback (feet)	5'	5'	5'	5'	5'
C56. Street view setback (feet)	5'	5'	5'	5'	5'
C57. Street view setback (feet)	5'	5'	5'	5'	5'
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C59. Street view setback (feet)	5'	5'	5'	5'	5'
C60. Street view setback (feet)	5'	5'	5'	5'	5'
C61. Street view setback (feet)	5'	5'	5'	5'	5'
C62. Street view setback (feet)	5'	5'	5'	5'	5'
C63. Street view setback (feet)	5'	5'	5'	5'	5'
C64. Street view setback (feet)	5'	5'	5'	5'	5'
C65. Street view setback (feet)	5'	5'	5'	5'	5'
C66. Street view setback (feet)	5'	5'	5'	5'	5'
C67. Street view setback (feet)	5'	5'	5'	5'	5'
C68. Street view setback (feet)	5'	5'	5'	5'	5'
C69. Street view setback (feet)	5'	5'	5'	5'	5'
C70. Street view setback (feet)	5'	5'	5'	5'	5'
C71. Street view setback (feet)	5'	5'	5'	5'	5'
C72. Street view setback (feet)	5'	5'	5'	5'	5'
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C74. Street view setback (feet)	5'	5'	5'	5'	5'
C75. Street view setback (feet)	5'	5'	5'	5'	5'
C76. Street view setback (feet)	5'	5'	5'	5'	5'
C77. Street view setback (feet)	5'	5'	5'	5'	5'
C78. Street view setback (feet)	5'	5'	5'	5'	5'
C79. Street view setback (feet)	5'	5'	5'	5'	5'
C80. Street view setback (feet)	5'	5'	5'	5'	5'
C81. Street view setback (feet)	5'	5'	5'	5'	5'
C82. Street view setback (feet)	5'	5'	5'	5'	5'
C83. Street view setback (feet)	5'	5'	5'	5'	5'
C84. Street view setback (feet)	5'	5'	5'	5'	5'
C85. Street view setback (feet)	5'	5'	5'	5'	5'
C86. Street view setback (feet)	5'	5'	5'	5'	5'
C87. Street view setback (feet)	5'	5'	5'	5'	5'
C88. Street view setback (feet)	5'	5'	5'	5'	5'
C89. Street view setback (feet)	5'	5'	5'	5'	5'
C90. Street view setback (feet)	5'	5'	5'	5'	5'
C91. Street view setback (feet)	5'	5'	5'	5'	5'
C92. Street view setback (feet)	5'	5'	5'	5'	5'
C93. Street view setback (feet)	5'	5'	5'	5'	5'
C94. Street view setback (feet)	5'	5'	5'	5'	5'
C95. Street view setback (feet)	5'	5'	5'	5'	5'
C96. Street view setback (feet)	5'	5'	5'	5'	5'
C97. Street view setback (feet)	5'	5'	5'	5'	5'
C98. Street view setback (feet)	5'	5'	5'	5'	5'
C99. Street view setback (feet)	5'	5'	5'	5'	5'
C100. Street view setback (feet)	5'	5'	5'	5'	5'

Key Stats

- 21** ZONE DISTRICTS ELIMINATED OR CONSOLIDATED, INCLUDING OVERLAY DISTRICTS.
- 50** PUBLIC MEETINGS WITH ELECTED OR APPOINTED OFFICIALS DURING THE FINAL YEAR BEFORE ADOPTION.
- 10** MINIMUM PERCENTAGE OF THE OVERALL BUILDING SQUARE FOOTAGE DEDICATED TO OPEN SPACE FOR DOWNTOWN AND HIGH-DENSITY DISTRICTS.

Case Study: Philadelphia, Pennsylvania

Zoning Code Update



PROJECT DESCRIPTION

The City of Philadelphia completed a comprehensive overhaul of their zoning code in 2012. The zoning code update was part of an integrated planning and zoning process. Although it may seem backwards to jump into a zoning code update without first completing a comprehensive plan update, the overall project provided Philadelphia citizens with a better understanding of why planning and zoning must work together. Major improvements in parking standards, procedures, landscaping, tree protection, sustainability, open lands protection, and form/design controls were incorporated into the new code.

MAJOR FOCUS AREAS

Amend Broken Zoning Processes and Procedures

The city was hearing between 3,000 and 4,000 variances and conditional use permit requests per year under the old code system. Because so much of the city was “underzoned” (meaning that a substantial number of properties were nonconforming,) most changes to property involved a public hearing. Through the zoning code update, Philadelphia reduced the number of processes that go to public hearing. Part of this process meant re-categorizing many conditional uses as permitted uses.

Reduce the Base and Overlay Districts through Consolidations and Retirement

Many new districts had been established over time to respond to new development, and the resulting patchwork had become unwieldy. Through the zoning code update process, Philadelphia consolidated or eliminated 22 base zone districts and 22 overlay districts, resulting in a simplified and transparent approach to land use and zoning.

Modernize Parking Standards

Philadelphia eliminated most commercial parking standards for the downtown. The national trend is to eliminate parking standards and requirements to let the market respond instead. The city also significantly reduced the parking standards for residential uses downtown.

Enhance Overall Sustainability

The new code includes new provisions that allow urban food production and encourage development around nodes of mass transit, among other sustainability-related goals. Philadelphia also increased the number of districts list where solar and geothermal infrastructure may be installed as an accessory use.

Project Details

TYPE OF CODE: HYBRID ZONING CODE

ADOPTED: 2012

DURATION: 2008-2012 (FOUR YEARS)

CONTACT: NATALIE SHIEH, PROJECT
MANAGER, 215.683.4652,
NATALIE.SHIEH@PHILA.GOV

ALLOCATED BUDGET: APPROXIMATELY
\$200,000

CONSULTANT FEES: \$750,000

ACTUAL COST: ON BUDGET

NUMBER OF STAFF: TWO FTE

VIEW THE CODE ONLINE: ZONINGMATTERS.ORG

Protect Neighborhoods and Promote Quality Design

Philadelphia has many neighborhoods that consist of 80 percent row-houses. The new code established setbacks and step-back provisions to protect these neighborhoods from being overshadowed by redevelopment and infill, and codified the ability for even non-conforming structures to expand within a reasonable building footprint. For the first time, the city established a Design Review Commission for review of buildings downtown. This pivotal move provides the city with further weight above and beyond the shaping of buildings to ensure that the future of downtown Philadelphia is respected.

Improve Readability and Organization

As is the case with most modern code updates, the Philadelphia update included improvements to the overall structure and design of the document. Graphics were added throughout the entire code, enhancing the readability of the document. Land uses, sign controls, and procedures were structured in tabular format to make the code user-friendly and easy to understand.

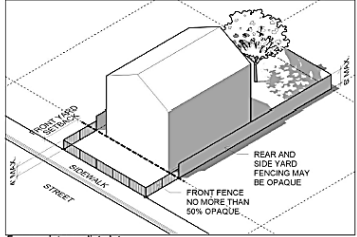
SINCE ADOPTION

- Code users reportedly find the new document as easy to use, administer, and enforce as the previous version, mostly because the city was cautious not to adopt provisions that would be difficult to administer or enforce. Most find the code easy to navigate to find technical information, in part because of ongoing training of the citizens and development community through a Citizen's Planning Institute.
- Although the code itself is functioning well, the culture among its users has not fully developed. A long-term change in philosophy away from the way Philadelphia has "always done things" may still be necessary in order to fully take advantage of the new tools within the code.
- As with most major code updates, staff completed a technical "cleanup" amendment shortly after adoption. Two major substantive amendments since adoption included further prohibition of uses along commercial corridors, and expanded neighborhood notice and meetings requirements.

Residential District Standards
Fences shall be permitted in residential districts pursuant to this §14-706(3) (Residential District Standards).

(a) **Intermediate Lots**

(1) **Front**
Any fence located nearer to the lot line than the required building setback or the actual distance of the building from the lot line (whichever is greater), shall be no more than four ft. in height and no more than 50% opaque.



(2) **Side and Rear**
Fences in the rear or at the side that are located further from the front lot line than the required building setback or the actual distance to the building from the front lot line (whichever is greater) may be no more than six ft. in height.

Key Stats

258	PAGES OF CODE REDUCED THROUGH UPDATE.
44	NUMBER OF BASE AND OVERLAY DISTRICTS REDUCED THROUGH CONSOLIDATION OR ELIMINATION.
4	NUMBER OF AWARDS RECEIVED FOR EITHER SUSTAINABILITY OR THE INTEGRATED APPROACH TO PLANNING AND ZONING

CONCLUSION

This Approach Report looks forward to alternative approaches of what the Charlotte Zoning Ordinance might look like in the future, whether as a result of incremental updates or a major comprehensive revision. The report provides an overview of essential issues that the City should consider in moving forward toward updating its regulations. Our analysis and discussions have highlighted numerous ways in which the current regulations could be improved to streamline the development review process, improve development quality, and better ensure the type of development desired by the community.

Key early steps in the process will include:

- Developing an inclusive public involvement strategy;
- Determining whether the zoning regulations should be consolidated with other land use regulations into a unified development ordinance; and
- Consideration of the overall organizing framework for the ordinance—that is, whether it should be a traditional use-based ordinance, or a form-based code, or some type of hybrid approach that is unique to Charlotte, which is increasingly common around the country.

The actual drafting of a new or revised ordinance will require consideration of a host of organizational and substantive issues, as illustrated in the third part of this report, “Essential Elements of an Effective Zoning Ordinance.” Examples of issues to be considered include the creation of a suite of new mixed-use districts, streamlining of the ordinance’s approach to land uses, and new administrative tools to possibly improve the efficiency of the development review process.

As illustrated in this report’s case studies from Denver, Philadelphia, and Raleigh, each major citywide ordinance project has been unique, and a range of practical considerations (like staffing and budget) should be considered along with the substantive zoning issues.

This Approach Report, along with the accompanying Zoning Ordinance Assessment Report, are intended to help define expectations about the general organization, content, and structure of a new or revised Charlotte Zoning Ordinance before the detailed drafting work begins. The documents are intended to provide an organizing framework for continued discussions of key zoning and development regulation issues by Charlotte stakeholders.