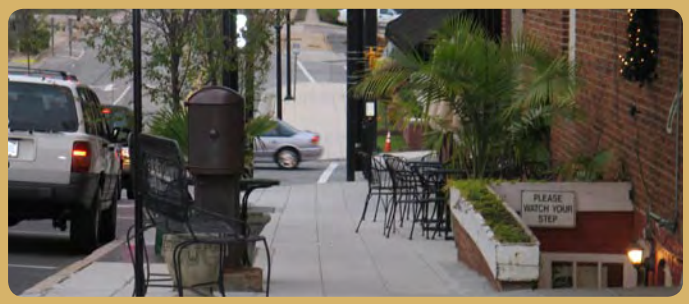
Diagnosis Report & Annotated Outline

for revisions to the

Zoning and Land Development Codes
Town of Wake Forest, NC

04.13.10



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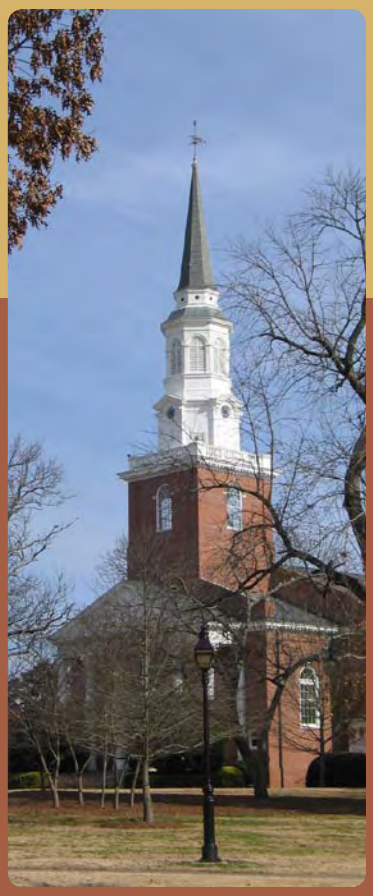
INTRODUCTION



1.1 PURPOSE OF THIS REPORT

The Town of Wake Forest has retained The Lawrence Group to analyze its existing Zoning and Land Development Ordinances. The purpose of this analysis is to compile a professional critique of the current regulatory system in place for the Town of Wake Forest and recommend comprehensive changes to both the process and the standards. This report is informed principally through a detailed analysis of the existing plans and regulations for the community as well as specific commentary from town staff and community stakeholders. This report is the summation of this analysis and is intended to present to town officials a road map for sweeping changes to ensure consistency with all recently adopted plans.

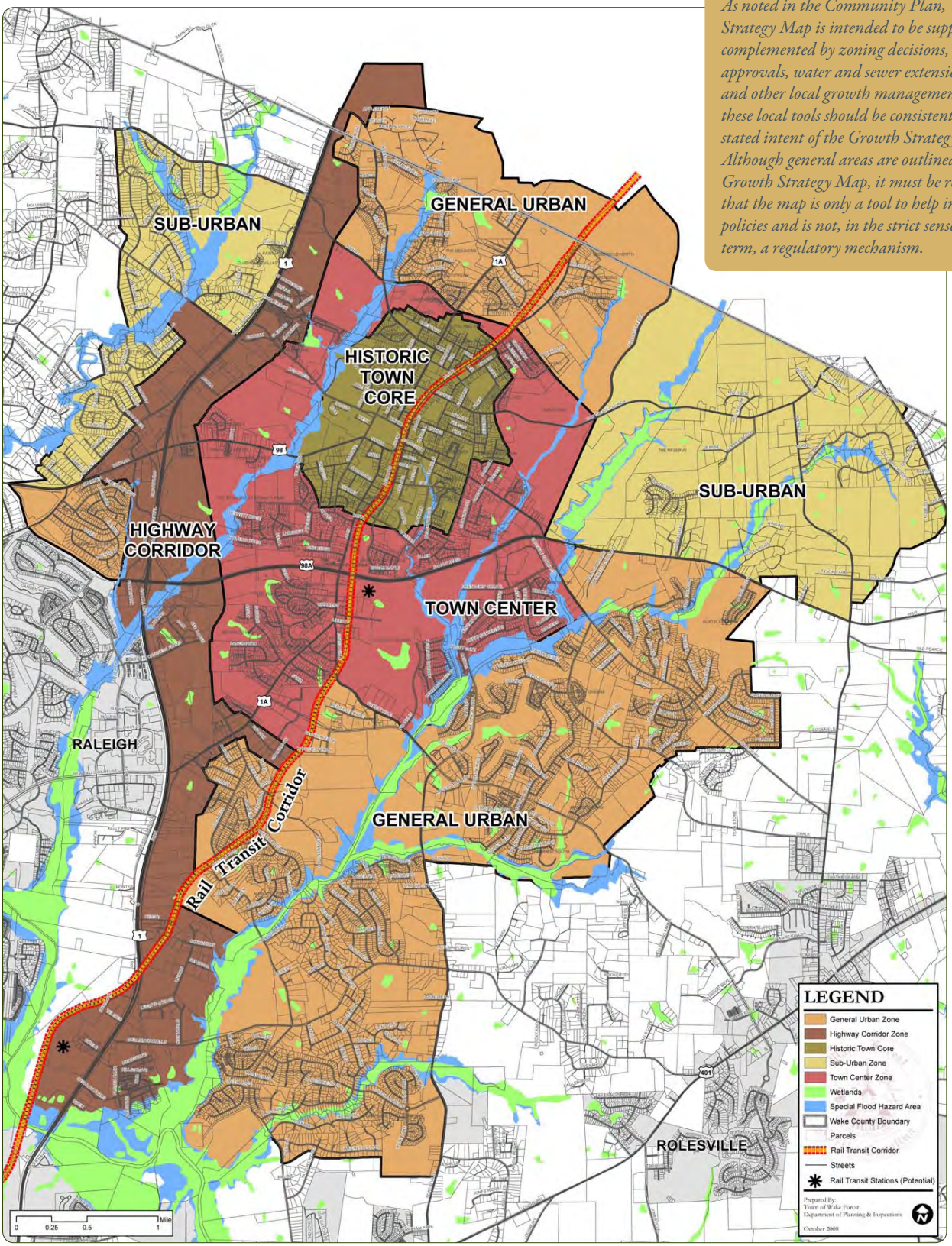
The current Zoning Ordinance was originally adopted in 1977 and has been incrementally amended numerous times through the decades. The Subdivision Ordinance was originally adopted in 1974. Because the Zoning Ordinance has been in use for more than three decades, extensive amendments have been incorporated throughout its lifetime. These amendments, sometimes small and innocuous, and other times bulky and repetitious have created a document that is replete with inconsistency and confusion.

In addition, there are a number of companion ordinances and documents that are incorporated by reference into the Zoning Ordinance that further exacerbate this challenging situation including the Erosion and Sediment Control Ordinance, the Phase 2 Stormwater Ordinance, and the Manual of Specifications, Standards & Design. The analysis in this document is intended to assess the existing ordinance language as well as the overall development process and make recommendations for improvements based on our professional evaluation and other best practice techniques adapted from similar jurisdictions.

The Town also recently completed its Community Plan in 2009. The Community Plan is a comprehensive plan that addresses 5 key areas - Town Areas, Town Transportation, Town Appearance, Growth Management, and Quality of Life. In addition, the Plan includes a Growth Strategy Map that is intended to help implement the various action items found throughout the plan. In North Carolina, plans are implemented through a variety of regulatory and capital investment measures. Comprehensive planning policies

WAKE FOREST GROWTH STRATEGIES MAP (2009)

As noted in the Community Plan, "the Growth Strategy Map is intended to be supported and complemented by zoning decisions, subdivision approvals, water and sewer extension policies, and other local growth management tools; these local tools should be consistent with the stated intent of the Growth Strategy Map. Although general areas are outlined on the Growth Strategy Map, it must be remembered that the map is only a tool to help implement policies and is not, in the strict sense of the term, a regulatory mechanism.



are not self-implementing. One of the most important of these measures are the town's land development regulations, including zoning, subdivision (platting), flood damage prevention, watershed protection, and related measures.

The recommendations contained in this report are intended to offer decision points for the town to evaluate and consider during the revision process. For some issues, this report offers specific guidance, while for others the paths are more nuanced and complex and will require further input and feedback.

There is often no one perfect coding approach for any issue. Sometimes simple changes in the existing language will suffice whereas in other cases extensive revisions will be necessary. Because the primary documents, the zoning and subdivisions ordinances, have not been substantially updated in more than three decades, extensive revisions are expected.

This report has been organized in a manner that presents our professional assessment of existing zoning and development regulations. The focus of this report is on those regulations and requirements that are within the purview of the Town of Wake Forest and specifically we focused on those development requirements that we believe require change.

Though it is understood and acknowledged that other outside agencies have a role to play in the development process as well, it is not possible to affect change in those organizations in the same manner as within the Town. Therefore, our recommendations are confined to only town policies, regulations, and processes.

1.2 THE 2025 VISION FOR THE TOWN OF WAKE FOREST

The 2009 Community Plan includes fifteen Vision Statements that clarify where the Town would like to be in 10 to 15 years (2025). This vision is worth noting in this report because the development codes of any community serve as one of the prime foundational elements in its growth.

1. **Small Town Character, Attractive Appearance**
   Wake Forest has kept its small town feeling and identity, while continuing to grow. Attractive, walkable neighborhoods, a thriving historic downtown, excellent community services, and an outstanding quality of life have made Wake Forest among the most desirable locations in the Triangle region. Streets in Wake Forest exude a welcoming, small town charm–overarching street trees, lush landscaping, understated signage, and wide, shaded sidewalks combine to create a truly inviting community character. Even road signs and traffic signals exhibit a quality design. Greenery is everywhere. Small parks and natural areas are within walking distance of most parts of town. Office and retail parking lots, once viewed as "seas of asphalt", are now tree-shaded and landscaped. Wake Forest has minimized "anywhere USA" development. Instead, buildings, old and new, honor the 100-year-plus heritage of the community. New two and three story buildings are finished in wood, brick and other traditional materials, and relate well to the street and their surroundings.

2. **Vibrant, Revitalized Downtown**
   Wake Forest has a healthy, vibrant downtown with a unique mix of restaurants, shops, offices, entertainment and housing. Downtown streets are filled with people of all ages day and night, drawn by the historic character and beauty of the area, the human scale of its buildings and public spaces and a diverse offering of special concerts, festivals and cultural events. Storefronts and sidewalks exhibit a colorful, inviting mixture of merchandise, flower-filled planters, benches and other amenities. Additional parking is provided on the interior of blocks or at perimeter parking lots, so as not to detract from the tightly woven, pedestrian character of the area. Downtown buildings, new and old, have retained and respected the modest architectural scale and design detail that is so much a part of the heritage of Wake Forest. An upgraded Farmer's Market has found a permanent home and a full service grocery store provides convenient shopping for the increasing numbers of downtown area residents. The Renaissance Plan for the heart of Wake Forest has become a reality.

3. **Well Planned and Timed Infrastructure**
   The Town has planned ahead for necessary infrastructure, including adequate roads, water, sewer, schools, open space and greenways, sidewalks, and drainage. These services must be in place prior to the occupancy of the new development they serve. Infrastructure has, in many cases, been strategically employed to encourage development where it can best be accommodated. Advanced planning has allowed future school and park sites to be located and acquired ahead of their need. Planned highway and transit

corridors have been identified to ensure their protection during the development process. Similarly, future greenway corridors have been mapped so that they may be incorporated into the design of new developments. An area-wide stormwater management plan has anticipated necessary drainage and retention facilities as development has occurred.

4. **Growth That Pays its Own Way**
Growth and development pays its own way in Wake Forest. Impact fees and infrastructure improvements, paid for as part of the development process, have been successful in offsetting the costs of additional schools, fire stations, parks and roads brought about by growth. This has lessened reliance upon existing property tax payers to finance the growth-induced expansions of these facilities. By encouraging efficient development patterns, Wake Forest has continued to deliver quality municipal services for a tax rate below regional averages. In addition, compatible commercial and light industrial development have continued to expand the town's non-residential tax base, helping to offset the costs of town services associated with new residential growth.

5. **Efficient, Multi-Modal Transportation System**
The Town of Wake Forest has worked proactively with the State DOT toward a balanced, efficient, multi-modal transportation system. Enhanced planning and technological advances in traffic management have resulted in a more efficient system of major and minor thoroughfares. US-1 and 1A have especially benefited and are better able to serve patrons of businesses along these routes as well as commuters. A new area-wide mass transit system serves Wake Forest, providing a stress free commute to and from Raleigh and the Research Triangle Park. The new transit service has been effective in helping to keep traffic counts and congestion below previously projected levels. The Town's policies on compact growth have reduced automobile dependency; compared to other communities, many residents of Wake Forest are able to walk, bike, or take the bus to most daily activities.

6. **Walkable and Bikeable Community**
Wake Forest continues to work toward becoming a very walkable and bikeable community. Mixed use developments encourage walking from home to work, shopping and transit services. New streets, as well as improvements to existing streets, are designed for multiple users (motorists, bicyclists, and pedestrians) –according to the level of traffic intended. Most streets have sidewalks on both sides; many larger streets have bike lanes. Designated crosswalks are evident throughout Wake Forest, but especially in the downtown area. In general, there is a high level of connectivity between neighborhoods and developments by a well-integrated network of streets, sidewalks, bikeways, walking trails, and greenway trails. This continuous system provides for a multitude of driving, walking, bicycling and transit alternatives. Cul de sacs are employed sparingly, in favor of fully connected neighborhood streets.

7. **Open Space and Environmental Quality**
In managing its growth, Wake Forest has worked to preserve open space and minimize adverse impacts to the region's air and water quality. The Town's walkable neighborhoods and nearby services are designed to create less traffic congestion and require shorter commutes. Streams and drainage ways passing through Wake Forest receive less storm water runoff and pollution due, in part, to policies on dedicated open space, tree preservation, landscaped parking areas, compact two and three story buildings, and vegetated buffer strips along streams and roadsides. Infill development and the adaptive reuse of vacant buildings has reduced the need for land clearing and sprawl. Solid waste levels have been substantially reduced through good participation in community-wide recycling efforts.

8. **Expanded Park and Recreation System**
As the community has grown, Wake Forest has steadily added to its system of parks and open space. Many smaller parks have been created through the Town's routine development approval process. Some larger park areas have come about through advanced planning and property acquisition by the Town. An extensive system of greenway trails, primarily adjoining area streams, is enjoyed by hikers, bicyclists, and others. These greenways also serve as natural corridors for the movement of wildlife in Wake Forest. The Reservoir has been protected and enhanced as an outstanding outdoor recreation area with walking paths, picnic areas and other low impact recreation facilities. A major new community recreation center has been completed, featuring an excellent indoor swimming pool.

9. **Neighborhood Schools and Lifelong Learning**
The Town and Wake County Schools have worked cooperatively to plan for schools well in advance of growth to avoid overcrowding and the need for mobile classrooms or constant redistricting. Traditional school buildings, whether new or rehabilitated, are located and designed to serve and be accessible to the neighborhoods around them. Rather than functioning as single purpose "factories to educate children", schools in Wake Forest serve as true neighborhood centers, providing space for community gatherings, recreational events and other functions. Increased diversity within the Town's neighborhoods has reduced the need for bussing to assure social and economic diversity in the schools. In addition, a new, large, state of the art library located at the center of the community serves as a flagship for education in Wake Forest, where an attitude of life long learning has become second nature to most residents of the town.

10. **Balanced, Compatible Commercial Development**
Town officials have navigated a careful course, balancing the need for sustained economic development against the threats to the community from over-commercialization. Small, locally owned shops and restaurants have been favored over big box retailers, chain stores, and "asphalt intensive" shopping centers. Various incentives have been employed, including a zoning and regulatory environment conducive to small business. Both small and large businesses alike have been required to take on development forms that blend easily into Wake Forest's historic, small town image and character. Vacant commercial and industrial buildings have been renovated and adapted for use as cultural facilities, retail stores, offices, innovative housing, or for small business incubators. Policies have been implemented to prevent indiscriminate abandonment and prolonged vacancies of "big boxes" left behind for "bigger boxes".

11. **Affordable Housing and Quality Neighborhoods**
Wake Forest neighborhoods display a wide variety of housing types and values, including attractive, affordable housing in many forms and locations. New and old neighborhoods alike are attractive and well maintained, having benefited from the town's shared economic prosperity, and overall quality of life. Walkable, mixed use neighborhoods are favored over automobile-dependent, cookie-cutter subdivisions and gated communities. An open system of pedestrian and bicycle friendly streets work together with a network of greenways to connect neighborhoods with the rest of the town. Most residential areas are convenient to neighborhood services, as well as public transit. Wake Forest is known for safe, secure, quiet neighborhoods in every part of the community, with well-tended yards and gardens, and small parks close at hand.

12. **Support for Arts and Culture**
Wake Forest has emerged as a destination for arts and culture in the Triangle area. Appreciation for the arts and culture begins with value placed on the unique heritage of the town, exemplified by the preservation of historic buildings and landmarks throughout the community. Public art graces many public spaces. Cultural activities include a broad selection of traditional and contemporary art forms, festivals, fairs, concerts, plays, seminars, and cross-cultural events. Young and old, as well as people from many ethnic backgrounds, are drawn to a constantly changing array of indoor and outdoor events. All of these activities are facilitated by the addition of a new performing and cultural arts center of outstanding design and utility.

13. **Better Jobs, Larger Tax Base, Local Businesses**
Wake Forest is a community dedicated to the creation and prosperity of small businesses. As a result, Wake Forest's business sector has seen steady growth and diversification. New and expanding businesses, as well as some post-industrial industry, have provided for a favorable tax base, holding property taxes down. Those who wish to make Wake Forest their permanent home can find well-paid, lifelong career opportunities without having to leave the community. While workers in services, retail trade and some types of manufacturing continue to be an important part of the local economy, other kinds of work have expanded, including health care, information services, and professional and technical services. A significant tourism base has taken root, as visitors are drawn by the preservation and enhancement of Wake Forest's historic, pedestrian-oriented, small town charm.

14. **Community Dedicated to Public Safety**
Wake Forest is a community of neighbors, business owners, police, firemen and other public safety personnel committed to working together for a safe and secure town. Highly visible police officers may be seen

on a regular beat, oftentimes on foot or bicycle, getting to know the neighborhood kids, and their parents. Fire fighters are out in the community more than ever, teaching fire safety in schools and conducting courtesy fire inspections of homes and businesses. Our citizens and our public safety officers continue to support a safe and secure community free of drugs, gangs, vandalism, violence and crime.

15. **Leadership, Communication and Involvement**
Residents of Wake Forest show a keen interest in the affairs of their town government. There is a can-do spirit driven by civic pride and revealed through broad community involvement. The Town Board and various Town committees have no shortage of interested, qualified people willing to serve. Area citizens are heavily involved in civic clubs and organizations; volunteerism is a constant source of energy as it is poured into the institutions and organizations that work to improve the community. Town Commissioners routinely seek the views of their constituents on important decisions through personal contacts as well as enhanced information sharing and technology. A renewed focus on timely, effective communication between town government and town residents has greatly enhanced decision making in Wake Forest. Intergovernmental cooperation among local governments and state government agencies has done much to improve regional planning throughout Wake County.

1.3 BASIC PRINCIPLES FOR CODE WRITING

We recommend the following principles for good technical writing as it relates to the drafting of any Development Ordinance. As the Town sets forth in comprehensively updating its Zoning and Land Development Ordinances we believe that the following should be included:

1. User-friendliness is in the eye of the beholder. Many persons will have different ideas about how the ordinance should be arranged. However, agreement is needed on the conventions for arranging the ordinance up-front, in order to avoid problems with cross-referencing later. To this end, a draft outline has been prepared as part of this document in Appendix C.

2. The ordinance should be arranged logically by topic. The following principles should be followed:
   - Similar subjects should be arranged together by article or chapter — e.g., procedures, improvement standards, nonconformities — rather than scattered throughout the ordinance, to the extent possible.
   - The more interesting and/or commonly used parts of the ordinance should be placed at the front (e.g., uses and development standards), with administrative provisions and definitions ("glossary") at rear of the Ordinance. This allows laypersons as well as administrative officials to quickly find information that is used on a frequent basis, or that reflects important Town land use policy.
   - While it is not interesting reading, technical information (e.g., application submittal requirements) is needed in order to provide effective standards and guidance for applicants and permitting officials. Technical matters should be relegated to appendices, or at least to the rear of the ordinance.

3. Provide references (and links for online versions) in a consistent manner (e.g., italics) to:
   - Any defined word in the Ordinance;
   - Other related provisions in the Ordinance or elsewhere in the Municipal Code;
   - Relevant adopted policies or interpretations outside the Ordinance; and
   - Appropriate sections of other adopted Plans.

4. Eliminate provisions that have outlived their usefulness. Standards are frequently carried forward from previous ordinances. The desire to condense or to eliminate code provisions in an attempt to make a code more readable can offend neighborhood or business constituencies that championed those provisions. However, the ordinance cannot be all things to all persons or interest groups. And, the ordinance cannot be held to a reasonable length if it attempts to address every conceivable undesirable situation. Instead, reasonable choices must be made to implement the Town's planning policies while respecting the rights of landowners, businesses and neighborhood groups. They should establish clear parameters that reflect the Town's planning policies, rather than providing a comprehensive list of forbidden situations.

5. Regulations should be prescriptive (specifying what is expected), rather than proscriptive (specifying what is prohibited), as much as possible.

6. Standards that are unnecessary, outdated, or not worth the cost of administration can be removed from the ordinance. This not only reduces volume, but it also reduces budget and staffing needs. However, it must be recognized that the Town might face complaints about areas that it chooses not to regulate.

7. Regulate from the "general" to the "specific".

8. Consolidate long, repetitive list of standards into tables. For example, older ordinances typically created long "laundry lists" of uses and the setback and height standards in each set of district regulations. Also, some readers like to compare standards across districts. The alternative is a table of "summarized" permitted uses by district and/or dimensional standards with a more complete list in an Appendix.

9. Assure that the Ordinance is consistent with the overall format of the Municipal Code, so that there are not two "versions" of the Ordinance.

10. Match fonts and styles to be consistent with the hierarchy of the Ordinance, reflecting the relative importance of each heading or provision.

11. Make chapter and section titles descriptive.

12. Provide purpose statements for each Ordinance section as needed.

13. Graphics should be used to illustrate the text language. Photo-editing technology can use local examples to illustrate how a design standard works or what a particular use looks like. Participants in this process can help by taking

pictures and emailing them to staff. While graphics add to the length of the ordinance, they can replace text in some circumstances.

14. When utilizing mathematical expressions in the document, display the actual equation versus the long, descriptive version containing only words.

15. Provide headers and footers to indicate the document title, page numbers, chapter name and number, section name and number, and the most current adoption date.

16. Provide references to dates of revisions within each chapter or section, as appropriate.

17. Use portrait format, rather than landscape. Do not mix the two, unless there is a clear benefit to keeping a table to a single page.

18. Publish the document for easy dissemination to the public using the following media in order of priority:
    - Internet/World Wide Web (.pdf or html with hyperlinks)
    - Digital Format on CD (.pdf or html with hyperlinks)
    - Print

19. Avoid jargon! Use clear language and avoid ambiguity. Some specific rules:
    - Use consistent terms ("multifamily," not "apartments," "unit," not "dwelling," etc.);
    - Use consistent punctuation throughout;
    - Remove and avoid "legalese" and use common language when possible;
    - Use the present verb tense; "shall" and "must" are mandatory, "should" and "may" are permissive;
    - "And" means all words apply, "or" may apply singularly or in combination, and "either" applies singularly but not in combination;
    - "Days" applies to "working" days, not "calendar" days;
    - Singular is preferable to plural; and
    - Be gender-neutral, using "person" or "applicant."

20. When in doubt, SIMPLIFY!

2

RECONNAISSANCE & DOCUMENT REVIEW

2.1 DOCUMENT REVIEW

As an initial step in this process, The Lawrence Group reviewed a number of key ordinances, policies, and plans that have been developed, adopted, and/or implemented by the Town of Wake Forest in the past years. It is important to note that while we reviewed all available planning and regulatory documents, for the purposes of this report we have focused only on those documents having specific relevance to the zoning and land development codes. The list of documents reviewed includes the following:

- Zoning Ordinance (Adopted 01.13.1977 as amended through 10.20.2009)
- Subdivision Ordinance (Adopted 11.1.1974 as amended through 01.16.2007)
- Wake Forest Historic District Design Guidelines (1999)
- Renaissance Plan Urban Code Handbook (Adopted 2005)
- Phase II Stormwater Ordinance (Adopted 10.15.2007 as amended through 05.13.2008)
- Town of Wake Forest Manual of Specifications, Standards & Codes
- Transportation Plan (2003)
- Renaissance Plan (2004)
- Parks and Recreation Master Plan (2005)
- Pedestrian Plan (2006)
- Bicycle Plan (2007)
- Northeast Neighborhood Plan (2007)
- Open Space & Greenway Plan (2002 & 2009 Update)
- Community Plan (2009)
- Development Services Fee Schedule
- Development Services Development Process Flow Chart

We also reviewed the US 1 Corridor Plan (1999) and the NC98 Bypass Corridor Plan (2003) but found no meaningful regulatory guidance in their implementation.

2.2 REVIEW OF ADOPTED PLANS

Good plans always include a series of specific tasks or actions that commit the organization to an implementation schedule. These action items oftentimes include policy recommendations, capital expenditures, and regulatory changes. For the

Transportation Plan (2003)

The Renaissance Plan (2004)

Parks and Recreation Master Plan (2005)

purposes of this report we have focused only on those elements which address the latter of these and have noted them in the review below.

TRANSPORTATION PLAN (2003)

The Town's Transportation Plan was adopted in January 2003. This plan provides a vision for the Town's future transportation system, and identifies strategic implementation actions for addressing transit needs, road improvements, and enhanced pedestrian and bicycle facilities.

Key Regulatory Recommendations:

- Access management and multi-modal improvements for various thoroughfares around the community
- Implement the collector street plan with noted flexibility for alignments
- General alignments and guidance for sidewalks, greenways, and bikeways
- Recommended accommodations for future transit service
- Adoption of the Thoroughfare Plan as the official map to protect corridors during the development process

RENAISSANCE PLAN FOR DOWNTOWN (2004)

The Renaissance Plan is intended to establish a clear framework for the revitalization of Downtown Wake Forest through a series of incremental, private and public development decisions. The purpose of the Renaissance Plan is twofold. First, the plan seeks to provide policy and programmatic recommendations for the revitalization of and the encouragement of reinvestment into the historic downtown. Secondly, this publicly driven revitalization plan proposes a number of realistic development opportunities specifically targeted throughout the heart of the Wake Forest community which are aimed at creating a more vibrant community to engage all who visit, work, and live in downtown area.

Key Regulatory Recommendations:

- Adopt the Renaissance Area Urban Code - The Renaissance Area Urban Code should be adopted as a section of the Zoning Ordinance. Upon adoption, the Town should initiate a complete rezoning of the area consistent with the proposed zoning districts. The Code clearly states design expectations and is intended to encourage property development activities in conjunction with the Renaissance Plan. (Adopted in 2005)
- Streamline the permitting process - The most important tool for successful implementation of the Plan is the facilitation of permits. An expedited permit process is intended to be an incentive to spend more money on important elements such as building façade rather than on a prolonged public process. It also ensures there is a predictable process to follow for all interested parties, including Town staff, the development community, and the public.

PARKS AND RECREATION MASTER PLAN (2005)

The purpose of the Parks and Recreation Master Plan Update was to review, refresh and expand the framework for Town leaders and the Parks and Recreation staff to use as they chart the course for programming, maintenance and development of the park system over the next 10 years. In addition to national planning guidelines, the plan incorporated extensive staff and community input to formulate its recommendations.

Key Regulatory Recommendations:

- Through the Town development review process, land is often identified as potential park land. Land may be acquired through developer contribution, purchase or combinations of several methods. It is recommended that the acquisition process proceed according to the following basic guidelines.
  1. Complete greenway linkages and connections.
  2. Preserve key, significant natural and cultural features.
  3. Provide recreation and/or open space that is a convenient and accessible as conditions allow.
  4. Add to existing parks.
  5. Enhance the wide range of activities provided in the park system.

PEDESTRIAN PLAN (2006)

The Town's Pedestrian Plan was adopted in October 2006. It identifies needed pedestrian infrastructure improvements and provides guidance on the design of future pedestrian corridors. The Pedestrian Plan includes a list of prioritized pedestrian corridor projects to be undertaken by the Town.

Key Regulatory Recommendations:

- Building on the Transportation Plan, sidewalks shall be required on both sides of the street along thoroughfares and collectors, on both sides of all streets in multi-family developments, and along both sides of local streets within walking distance of a major pedestrian trip attractor, such as a school, library, shopping center or similar facility. Sidewalks shall be required on one side of all other streets.
- Provide or require developers to provide pedestrian connectivity between developments.
- All roads within walking distance of schools shall have sidewalks on both sides of the road with crosswalks and pedestrian signals at signalized intersections.
- Consider the full range of design elements – including bulbouts and refuge islands – to improve pedestrian safety.
- Design streetscapes with pedestrian safety as a primary objective. Require street trees and planting buffers between the sidewalk and the street along new roadways wherever possible.
- Include pedestrian-scale lighting in streetscaping projects around Downtown and shopping centers (areas of high pedestrian activity).
- Use building and zoning codes to produce a mixture of uses with entrances and exits connected to the public sidewalk system, pedestrian scale design elements and street level activity.
- Promote parking and development policies that encourage pedestrian access to multiple destinations within an area. Provide for shared parking where possible, require interconnections between parking areas to allow for foot traffic between multiple businesses and provide for safe and convenient pedestrian access to and from parking areas.
- Encourage the inclusion of public walkways or trails in large, private developments.
- Encourage the development of pocket parks and plazas along the Pedestrian Route Network.
- Parking areas shall be designed to minimize pedestrian and motor vehicle conflicts. The parking areas shall be subordinate to the building to the greatest extent possible to provide for pedestrian interest, convenience and safety.

Pedestrian Plan (2006)

Bicycle Plan (2007)

Northeast Neighborhood Plan (2007)

- Provide or require developers to provide pedestrian connections beyond their development to link nearby trip attractors to adjacent communities.

BICYCLE PLAN (2007)

The purpose of the Town of Wake Forest Comprehensive Bicycle Plan is to improve and encourage bicycle transportation in the Town. The Plan focuses on creating a safe biking environment and providing more bicycling opportunities for more people in Wake Forest by providing a set of goals for the Town; an assessment of existing facilities and potential assets; a listing of future projects; and recommendations for safety, education and encouragement programs.

Key Regulatory Recommendations:

- Provide bicycle parking at major public and private destinations in Wake Forest.
- Establish policy to require bicycle facilities and their impacts to be included in Traffic Impact Analyses for new private development.
- Strengthen Greenway ordinance requirements.
  A. Current Parks and Recreation fees should be divided into a specific percentage for greenway construction and a specific percentage for parks construction. The Town should maintain an accounting approach which tracks the amount of money designated for greenways and the money designated for parks.
  B. Require developers to build greenways rather than to simply reserve land, and to make a payment-in-lieu separate from the Parks and Recreation fee when construction is not feasible on the developer's site.
  C. Require developers to identify existing or proposed greenways and construct connections to them, just as they would identify and construct connections to existing roads. These adjacent connections should be identified clearly on mapping submitted for site, subdivision, and zoning reviews (e.g., vicinity mapping on first sheet).
- Create more opportunities for mixed-use and compatible development types in town and encourage fast-track reviews of mixed-use developments that adhere to high design standards. This may require a higher degree of administrative review – and trust by elected officials – in staff. In turn, this recommendation implies more frequent, nonproject-specific communication with Town staff to ensure that the policy directions are calibrated with the ideas of elected officials and the public.
- Require all new public facilities and private, non-residential and multi-family developments to have bike parking and bicycle access.

NORTHEAST NEIGHBORHOOD PLAN (2007)

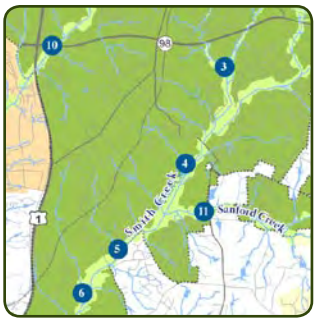
The Northeast Neighborhood Plan provides direction and guidance to the Town of Wake Forest for future development and improvements in the neighborhood. This plan provides evaluations of the existing conditions found within the neighborhood, and specific neighborhood goals and action items to address issues raised by the neighborhood. In addition, this plan addresses the neighborhood's economic development needs and suggests actions for expanding local services and jobs.

Key Regulatory Recommendations:

- Consider the need for a neighborhood overlay district to address the size, scale, and design of homes in the neighborhood to encourage long-term affordability and appropriateness within the neighborhood.

OPEN SPACE AND GREENWAY PLAN UPDATE (2009)

The Town of Wake Forest adopted its Open Space and Greenway Plan in January 2002. In the years since the plan's adoption, much has changed in Wake Forest and in Wake County as a whole. Aside from continued population growth and development in and around Wake Forest, there have been numerous plans adopted and other changes in both local and regional land use and transportation patterns. This update expands upon key recommendations from the 2002 Plan and provides the Town of Wake Forest with new ideas and tools to effectively create and maintain a comprehensive open space and greenway network. The Plan Update also incorporates new design standards for trails and trail amenities, trail operations and management guidelines, and current trail construction cost estimates.



Open Space and Greenway Plan Update (2009)

Key Regulatory Recommendations (from the 2002 Plan):

- Establish a greenway corridor and stream buffer zone for all major streams
- Encourage protection of streamside trees and vegetation
- Implement buffers along stream corridors
- Limit construction in the floodway by increasing buffers along streams
- Work to minimize impervious surfaces and to improve infiltration
- Promote use of native vegetation

COMMUNITY PLAN (2009)

The Community Plan, as the community's comprehensive plan, addresses a number of pressing issues facing the town that require considerable attention and concerted action. Among these issues are:

- Slowing the growth of traffic congestion on major streets--currently increasing at a pace well in excess of population growth
- Improving neighborhood areas hampered by poor housing and associated social problems
- Discouraging leapfrogging, single purpose subdivisions, isolated from services and jobs
- Encouraging development densities that promote walking and get away from over-reliance on the individual automobile
- Finding ways to provide for the expansion of walking and biking facilities, and inter and intra-town mass transit services.
- Encouraging downtown area revitalization and reinvestment, while protecting the historic character of development that gives the area its inherent value.
- Expanding currently fragile water supplies in the face of projected continued rapid growth in the region.
- Creating new parks, recreation and open space facilities to keep up with growth-induced demand
- Ensuring that new commercial development is supportive of the town's natural and historic resources, unique sense of place, and quality of life

A complete review of the regulatory implications of the Community Plan can be found in Appendix A.

Community Plan (2009)

TRANSPORTATION PLAN UPDATE (2010) (DRAFT)

Like the 2003 Transportation Plan, the 2010 Update provides a vision for the Town's future transportation system, and identifies strategic implementation actions for

Transportation Plan Update (2010)

addressing transit needs, road improvements, and enhanced pedestrian and bicycle facilities.

Key Regulatory Recommendations:

- Update town ordinances to clarify design guidance for sidewalk, greenways, and multi-use paths. Strengthen existing regulations to promote conditions for safe and efficient walking, cycling, and transit patronage.
- Pursue connectivity for pedestrians and cyclists with pathways in places where street connections are not feasible or acceptable. Pursue block lengths that are 600 to 800 feet (up to 2,600 feet if crossing a stream or creek).
- Review land development and redevelopment applications to identify opportunities to connect bikeways, greenways, and sidewalks with adjacent neighborhoods, parks, schools, offices, shops, and public spaces. Adhere to the town ordinances, applicable design guidelines, and adopted transportation plan system maps.
- Support connectivity throughout the street network to create an efficient multi-modal network of slow streets. Connect streets to create a hybridized grid network with connections spaced no farther than 800 feet (up to 2,600 feet if stream or creek crossings are required).
- Revise the collector street portion of the thoroughfare plan with alignment and classification changes outlined in Chapter 5 to provide guidance to development community on proposed street network.
- Continue to require developers to fund roadway improvements that are rational and proportional to the impact created by development.
- Update Subdivision Ordinance to allow reduction in trip generation for trips diverted to alternate modes of transportation, provide incentives, reduce parking requirements, strengthen connectivity, establish sidewalk maintenance policy, and implement traffic calming program.
- Review development applications for sites along Capital Boulevard and parallel frontage roads and require roadway modifications consistent with the long-range plan to convert to a freeway with continuous two-way frontage roads on both sides.

2.3 REVIEW OF EXISTING CODES AND REGULATORY DOCUMENTS

While further detail will be provided later in this report, the following is a general overview of our observations of the various existing codes and regulatory documents. As is noted in some of the commentary below there is a lot of redundancy and inconsistencies between the various documents, largely to the fragmented nature of development ordinances. At present, the development ordinances and standards span more than 600 pages (not including the 190 page Historic District Guidelines).

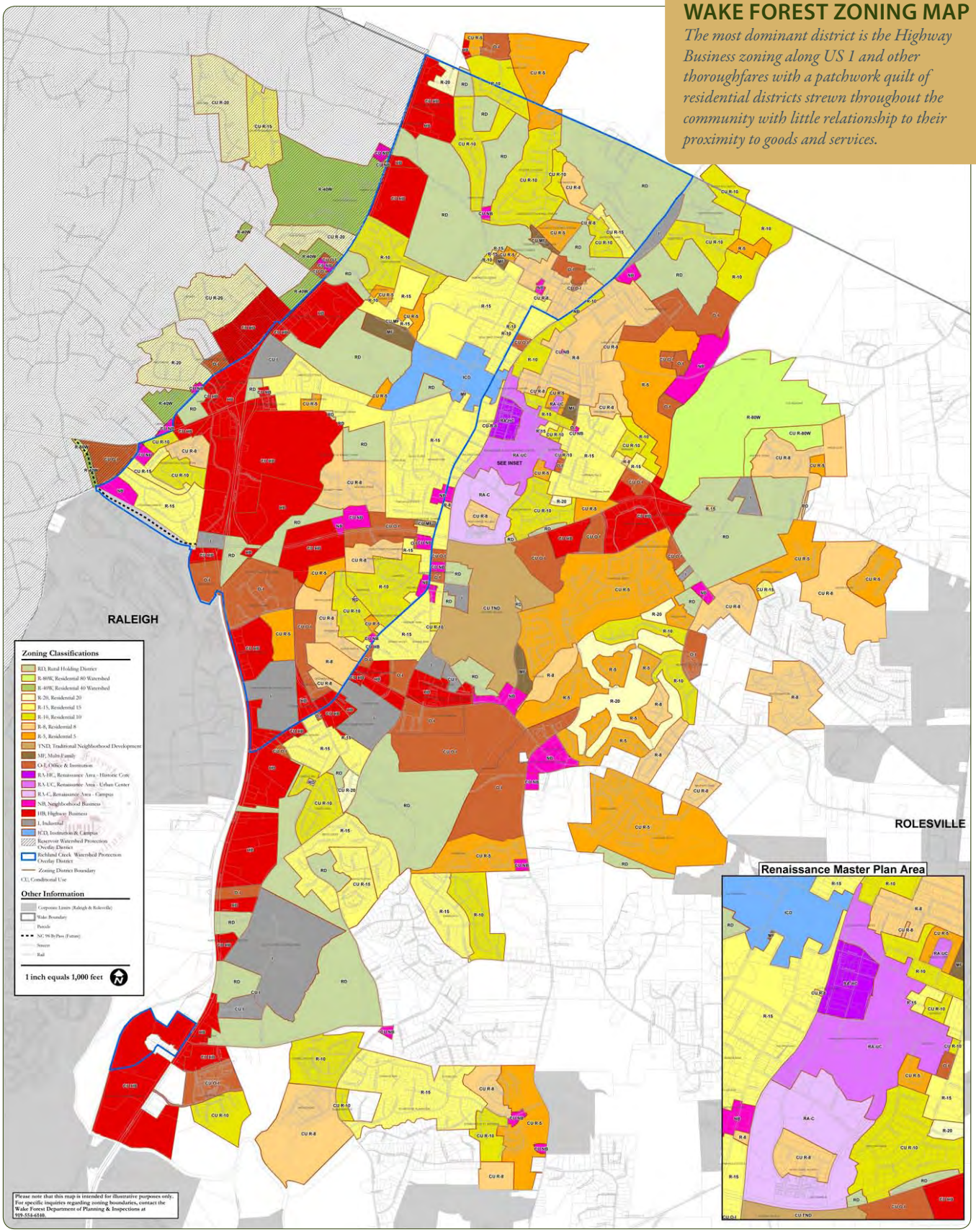
Also of note is the fact that the current enabling ordinance for the Planning Board is not located in the Zoning Ordinance but rather in the City Code, Chapter 24.

ZONING ORDINANCE

Together with the Subdivision Ordinance, the Zoning Ordinance is the foundational regulatory document that guides land development in the Town of Wake Forest. At 360 pages in length, it is the longest of the regulatory documents used by the town and is by far the most disorganized.

WAKE FOREST ZONING MAP

The most dominant district is the Highway Business zoning along US 1 and other thoroughfares with a patchwork quilt of residential districts strewn throughout the community with little relationship to their proximity to goods and services.



The ordinance consists of thirteen articles which include the following: Purpose & Applicability, Jurisdiction, Definitions, General Provisions, District Regulations, Supplementary District Regulations, Off-Street Parking and Loading, Special Uses, Enforcement, Amendments, Board of Adjustment, Effective Date, and Flood Damage Prevention.

There are presently fifteen (15) base zoning districts (including the Renaissance area districts), six (6) overlay districts, and the TND district. Signage, landscaping, lighting, building heights, and appearance standards are found in the Supplementary District Standards. Also included in the Supplementary District Standards is a rather lengthy section addressing Wireless Telecommunication Facilities (spanning 36 pages).

Standards for various Special Uses identified elsewhere are found in Article VIII-Section 12 and apply to Planned Unit Developments, Multi-Family Developments, Manufactured Home Parks, Shopping Centers, Flood Hazard Area Development, Bed and Breakfast Homes, Zero Lot Line Development, and Wireless Telecommunications facilities.

The Flood Hazard Prevention Ordinance is attached to the end of the document as Article XIII. Like the Phase II Stormwater Ordinance, it is substantially based on the model ordinance language provided by the state.

Key Strengths:

- The ordinance contains a number of sophisticated tools for managing the quality and impact of growth in the community including recent lighting and appearance standards.
- The overall number of zoning districts is manageable and appropriate for a community like Wake Forest (based on experience we typically recommend between eight and twelve base districts)

Key Weaknesses:

- The ordinance is extremely difficult to navigate as it lacks a coherent hierarchy to the information contained within the document and a cumbersome numbering system that make cross-referencing a challenging
- Definitions are found throughout the ordinance with a number of terms defined in multiple ways (e.g., Manufactured Home Park or Subdivision, Accessory Building or Use/Accessory Structure)
- Graphics and illustrations are used sparingly and are not properly captioned to explain their relevance
- Residential districts are segregated by lot size
- No use table or table of dimensional standards
- Residential setbacks are inflexible and monotonous from district to district
- Current Condition Use Permit/Conditional District are separate - consider combining in accordance with recent legislation
- Site Plan requirements are difficult to find
- Important individual sections are combined under one article making them difficult to find (e.g., lighting, signage, appearance standards)
- Most general standards are not context-sensitive (e.g., landscaping, lighting) and apply more to use than location (neighborhood center vs. highway corridor)

- Administrative and enforcement provisions are scattered throughout
- Move planting list and tree planting details to Manual of Specifications
- Wireless Telecommunications section is excessive - we question the purpose and need for such extensive regulation - regardless, the text can be dramatically simplified
- Off-street parking standards are on the high side or exceed, in some cases, the actual need by types of uses. They also do not correspond directly to the permitted use lists by district
- Too many uses require a Special Use Permit and there are few if any standards for such uses noted that require discretion
- Multi-family development standards are limited and do reflect the complexity of multi-family types available in the marketplace today
- Open space is only required for multi-family development - Should mini parks and playgrounds also be required for single family neighborhoods?
- Lack of connection between Zoning Ordinance and other ordinances/Manual of Specifications

RENAISSANCE PLAN URBAN CODE HANDBOOK

The Urban Code replaced the previous patchwork of H-CBD and CBD zoning categories that regulated the downtown area with three new districts - Historic Core (RA-HC), Urban Center (RA-UC), and Campus (RA-C). The code is a form-based code comprised of standards that regulate the public realm and those private buildings and structures that most directly impact it such as the building facade. Use, as a regulating factor, is more general in nature.

The Urban Code needed to address a wide variety of existing zoning standards so as to ensure a coherent and consistent application of its principles. As a result, it is largely a standalone zoning code though it was also codified into the existing Zoning Ordinance in Article V (District Regulations), Section 19-22 and in Article VI (Supplemental District Regulations), Section 9 (Appearance Standards). The appearance standards for the Renaissance Area also served as a basis for the other appearance standards in the code.

The strength of the form-based standards are still applicable today and can serve as a framework for other districts in the community. The appearance standards, as well, remain viable but should be either updated to eliminate any subjectivity or should be subject to a Design Review Board or Appearance Commission that can evaluate them with the appropriate level of discretion.

Key Strengths:

- Form-based code that is effective at creating walkable environments with attractive buildings
- All pertinent requirements for properties located in this area are located in one location (in the handbook) and two locations in the Zoning Ordinance

Key Weaknesses:

- Graphics and illustrations have been removed when codified in the zoning ordinance
- Some appearance standards require administration by an appointed Board using a

quasi-judicial process in accordance with recent legislation

SUBDIVISION ORDINANCE

The present Subdivision Ordinance, originally adopted in 1974, is the guiding document for the subdivision of land in Wake Forest. At 41 pages long, it is perhaps the shortest of the regulating documents used by the town. However, its brevity is misleading as much of the standards normally found embedded in such ordinances are a part of the Manual of Specifications, Standards & Codes (MSSC).

It is a standalone ordinance and maintains its own set of definitions, terminology, standards, and administrative procedures. In addition, Article IV includes a number of design standards which are either redundant with those engineering specifications found in the MSSC or are inconsistent.

Key Strengths:

- Brevity
- Easy to navigate through the document

Key Weaknesses:

- Redundant with standards found elsewhere (MSCC and Zoning)
- Inconsistent with standards found elsewhere (MSCC and Zoning)

HISTORIC DISTRICT GUIDELINES

The Historic District Guidelines, prepared in 1999, serves as a guidance document in the review of Certificates of Appropriateness by both the staff for Minor works and the Historic Preservation Commission. The standards encompass approximately 190 pages, making it second only to the Zoning Ordinance in overall length.

Focused primarily on the maintenance, repair, and rehabilitation of existing historic structures, the guidelines cover the entire breadth of exterior elements as well as moving buildings, demolition of historic structures, and construction of new structures in the Historic District.

Key Strengths:

- The scope of the guidelines are extensive and comprehensive
- The Guidelines provide clear guidance of the do's and don'ts of various elements

Key Weaknesses:

- The overall size of the document is excessive - basic reformatting using professional desktop publishing software and rotating the page layout to portrait format will improve overall accessibility, readability, and reduce the overall length (perhaps by as much as 40-50%)

PHASE II STORMWATER ORDINANCE

Using largely the State model ordinance as a base, the town adopted an ordinance to manage the quality of the surface waters throughout the community in accordance with the federally-mandated Clean Water Act-Phase II. The comprehensive standards in the ordinance apply broadly throughout the community effectively require engineered stormwater controls for all land-disturbing activities.

It is a standalone ordinance and maintains its own set of definitions, terminology, standards, and administrative procedures. Some of the requirements overlap other ordinances include the watershed and floodplain provisions of the Zoning Ordinance and various stormwater requirements found in the Manual of Specifications, Standards & Codes (MSSC). Interestingly, it also references the state's Stormwater Best Practice Manual though the Town also maintain a set of specifications for water quality retention basin design.

Key Strengths:
- It ensures compliance with the federally-mandated Clean Water Act-Phase II

Key Weaknesses:
- The ordinance is extremely redundant and inconsistent with other related ordinances/standards including the Flood Damage Prevention Ordinance and the Watershed Protection standards.
- It is a separate standalone ordinance with design standards that can dramatically impact other design features required/desired by other ordinances (e.g., walkable streets with storefronts built close to the sidewalk)
- The standards in the ordinance or in the referenced state Stormwater Best Practice Manual are not context sensitive. They require the same types of end product measurements in urban, mixed-use areas as in the greenfield, low density neighborhoods.

MANUAL OF SPECIFICATIONS, STANDARDS & CODES

The MSSC is a comprehensive source for infrastructure-related engineering details and specifications. It is intended to be used to guide both public and private infrastructure design and installation and includes both standards, and means and methods.

It includes engineering specifications and details for Water and Sewer (now under the jurisdiction of the City of Raleigh), Streets/Subdivision Design, and Storm Drainage. In addition, it also includes the Erosion and Sedimentation Control Ordinance, "proposed" Traffic Impact Analysis (TIA) guidelines, and numerous policy-based standards that are also found in some form other ordinances (Zoning, Subdivision, Phase II Stormwater).

The manual is updated and amended by the Town Board following a public hearing.

Key Strengths:
- The details are comprehensive, extensive and thoroughly researched
- The document is an excellent reference for outside consultants to use standardized specifications to ensure consistency of "look and feel" around the community

Key Weaknesses:
- The Manual is not comprehensively organized - each section is numbered separately and cannot be referenced from outside the Manual except by general reference
- It would be more appropriate for the Manual to include only engineering specifications and details. All general policies, design standards, and related ordinances should be included by reference only or as exact copies of related documents.

- A number of the facilities are "over-engineered" - specifically road designs for neighborhood streets are unnecessarily wide and lack sidewalks on both sides - also the location of street trees are not integrated into the overall section

2.4 STAKEHOLDER INTERVIEWS

On January 27th and 28th, 2010, the Lawrence Group conducted nine stakeholder group interviews with a total of more than seventy-five individuals intended to solicit general perceptions, comments, and recommendations on the current land development process in the Town of Wake Forest. While town staff was present at these interview, we do not feel that the participants' commentary was inhibited or reserved in any way. Further, we believe that the participants represented a broad cross-section of stakeholders who are affected by the zoning and development ordinances.

The stakeholder groups included representatives from the planning, engineering, and inspections staff; other senior staff members from related town departments; attorneys; state and federal stormwater officials; surveying and engineering consultants; architects and land planners; developers, builders and realtors; neighborhood leaders; Raleigh water and sewer officials; business leaders; and members of citizen boards.

The complete summary of these notes can be found in Appendix B of this report. In general, these comments can be summarized as follows:

- The requirements are not **Clear or Well Organized**
- The overall **Layout** is difficult to manage
- The **Process** is cumbersome and unpredictable for all involved (developer and public)
- Too many applications require **Special Use Permits**
- The **Permitted Uses** need clarification and updating
- **Appearance Standards** and **Design Review** need to be evaluated for clarity, efficiency and legality
- Evaluate the location and amount of **Parking**
- Clarify and simplify **Lighting** standards
- Update the **Sign** requirements to better respond to community needs while maintaining/improving overall aesthetics
- **Tree Protection** and **Landscaping** need thorough updating and should be consistent with other sections
- Comprehensively evaluate the various **Stormwater** controls including buffers, maintenance, and low-impact development standards
- Consider revised, context-sensitive standards for **Infrastructure** including sidewalks, lighting, and streets
- Seek **Connectivity** everywhere but make it practical
- Better integrate the **Manual of Specifications, Standards & Design** with the other other development ordinances
- Improve the interaction with **Outside Agencies** for plan review and permitting
- Encourage more **Administratively-Reviewed** plans
- Make the amount of **Engineering Documentation** and related **Submittal Requirements** commensurate with the finality of the approval

3

ORDINANCE UNIFICATION

3.1 WHAT IS A UDO AND HOW CAN IT HELP?

In North Carolina, there is no one standard or format for the various development ordinances that are either permitted or required for municipalities. Chapter 160A of the General Statutes authorize cities to create zoning and subdivision regulations along with a host of other related regulatory activities.

Because many of these related activities come through separate authorizations, many communities often adopt separate ordinances in response to these changes in legislation. Such is certainly the case with Wake Forest. Their Flood Damage Prevention Ordinance, Phase II Stormwater Ordinance, Subdivision Ordinance, Wireless Telecommunication Ordinance, and Erosion Control and Sedimentation Ordinance are all appended in some manner to the existing ordinances in a rather "clunky" sort of way. Little integration of the various procedures or standards has occurred and as noted previously, there are substantial inconsistencies throughout all of the ordinances including differences in terminology, definitions, procedures, and standards.

Communities throughout the state have taken different approaches to the codification of their ordinances. Many of these related ordinances are often found as separate chapters in the city's municipal code. Others have chosen the route of including them under a single cover in a more integrated manner. The latter of these approaches is often referred to as a Unified Development Ordinance or "UDO".

When used to its fullest extent, a UDO is a complete integration of all of the related development ordinances of the community. Individual topic area standards might be segregated by chapters, but their process and procedures, terminology, and definitions are otherwise standardized. Cross referencing is common in a UDO as a means to further remind the user of the other related regulations and as a means to reduce redundancies.

In general, UDOs include all of those regulations that are under local control by the community and are authorized under the community's general zoning and land development authority. Building codes, fire codes, minimum housing codes, construction details and specifications, and application forms and fee are typically left out of a standard UDO.

Because of the aforementioned benefits of a unified development ordinance approach we believe that this is worth considering when seeking to update the current ordinances. If for no other reason, a well-written UDO should create integrated regulations that have a comprehensive vision of the community's build-out. Far too often, individual ordinances are silos of specialization and create unintended consequences when overlaid on one other. Such is the case with many of the "model ordinances" that Wake Forest has adopted through the years. They were written for a generic community, often to implement broad national or statewide policies. As a result, it can be very challenging to calibrate them in a vacuum without also considering their broader ramifications on the local geography, culture, and built-environment.

Action Item: Use a Unified Development Ordinance approach in the comprehensive update of the town's development ordinances to include the following in one concise and comprehensive document: Zoning, Subdivision, Phase II Stormwater, Erosion and Sediment Control, Flood Damage Prevention and general policy standards from the Manual of Specifications, Standards, and Design.

3.2 PAGE LAYOUT AND OVERALL FORMAT

As noted previously, the current development ordinances of the town span more than 600 pages and is typeset predominately using a12-point Times New Roman font and includes a numbering system that is awkward at best.

The Table of Contents of the Zoning Ordinance appears disorganized as their is no apparent hierarchy in the document. It moves from administration to standards and then back to administration. Important and often-used information (such as building use or setbacks) is difficult to find and there is no easy way in which to locate key information.

The document also suffers from the following deficiencies:

- Lack of graphics and tables that consolidate regulations and ideas
- Non-existent or non-specific references
- Redundant information
- Definitions of similar terms in slight differently manners depending on the section
- Inconsistent numbering system within and across ordinances
- Listed items that should be ordinally codified

The overall girth of the documents, specifically the zoning ordinance is both formidable and unnecessary. Using the basic principles outlined in Section 1.3, the document can be greatly streamlined. In fact simply dropping the font size from Times New Roman - 12 point to 11 point (generally accepted business-friendly type size) would likely condense the document by more than 15%. And, given the high value that the community places on design, the document is nearly devoid of any graphics or photos that illustrate preferred development scenarios.

User-friendliness is often perceived to be a function of the document's length. Many persons believe that a shorter ordinance is more user-friendly. This may make the ordinance quicker to review, but not necessarily easier to use during the development

review process. Ordinance length should not eliminate the details needed to answer the day-to-day questions that arise in administration and enforcement of the ordinance. The ordinance is a legal document. It is the town's legal authority to approve, deny, or attach conditions to development. Provisions that are omitted in an attempt to curtail ordinance length are not enforceable. The town should attempt to resolve issues of readability by applying logical organization and good technical writing principles, rather than by trimming administrative detail that is needed to properly apply the ordinance.

Lastly, the "visual readability" of the document must be pleasing to the user. A monotonous text layout immediately discourages the user's desire to employ the ordinance. Moreover, poor organization of a document may impede on the readability and enforcement of the document.

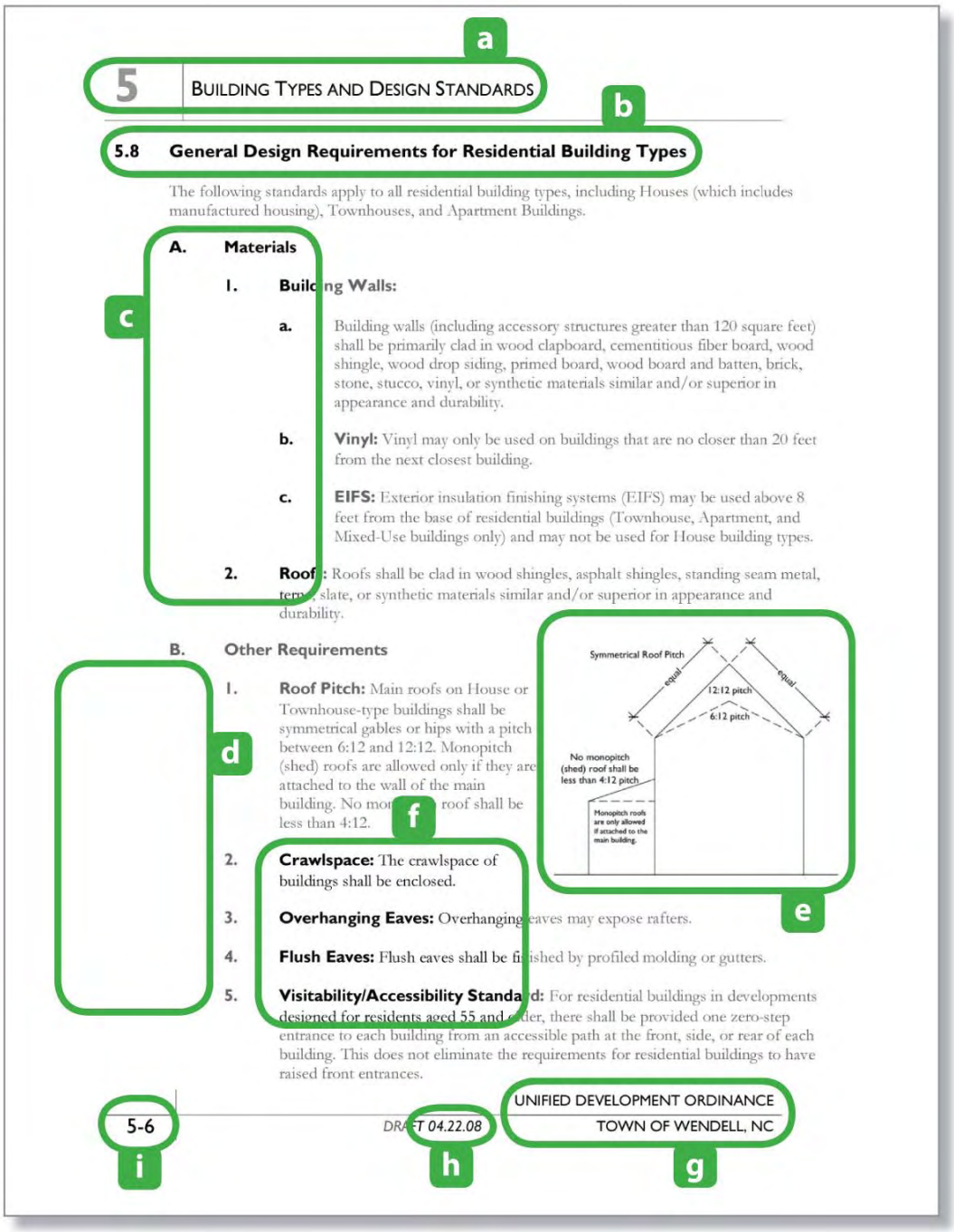
To remedy this there are two basic decisions that need to be made. First, which type of desktop publishing software will used for the document? And second, what will be the basic layout (look and feel of the document) that will serve as the template for the entire document. There are two predominate software packages that could be used for this project. A brief description and comparison of each is below.

Table 1. Comparison of Desktop Publishing Software

Microsoft Word	Word is the ubiquitous word processing package that comes with Microsoft Office and is present on more than 90% of all windows-based PCs. It is relatively inexpensive and easy to learn with a number of key features that lend themselves well to publishing legal documents. (office.microsoft.com)	
	Advantages • Easy to learn and use • Backward and forward compatible • Includes some basic layout tools that can be adapted for graphics layout • Numbering and outlining can be set up as a template • Easy conversion to web-based documents • Index and cross-reference generation from within each file • Automatic table of contents • Easy table creation • Compatible with other word processing programs via .rtf format	**Disadvantages** • Page layout templates are limited to header and footers • Layout of graphics is cumbersome and inconsistent • Requires entire document to be in a single file for searching and indexing • Highly problematic bullets and numbering function across complex documents
Adobe InDesign	InDesign, now in its 5th major version (CS4), is the industry leading desktop publishing program for high end graphic applications. It is tightly integrated with other common graphics programs including Photoshop and Illustrator. It can be purchased online for $300 - $500. (www.adobe.com/products/indesign)	
	• Full of professional layout features • Sophisticated layout templates • Page flow and indexing across multiple files • Easy conversion to web-based documents • Support for multi-leveled lists • Can be used for many other graphic documents other than just the code • Automatic index generation • Table of contents for file or book of related files • Easy table creation and flexible layout adjustments	• Moderate cost • Learning curve for new users • Some advanced features • Not backward or forward compatible but can use a conversion file (.inx) to import/export

▼ TYPICAL FORMAT FOR A "READABLE" CODE

- **a** Prominent chapter title
- **b** Prominent section title
- **c** Consistent numbering and indentation
- **d** White space for readability
- **e** Graphics and illustrations
- **f** Bold regulation description for ease in locating
- **g** Document title
- **h** Revision or adoption date
- **i** Page number



a

5 BUILDING TYPES AND DESIGN STANDARDS

b

5.8 General Design Requirements for Residential Building Types

The following standards apply to all residential building types, including Houses (which includes manufactured housing), Townhouses, and Apartment Buildings.

c

A. Materials

1. Building Walls:

a. Building walls (including accessory structures greater than 120 square feet) shall be primarily clad in wood clapboard, cementitious fiber board, wood shingle, wood drop siding, primed board, wood board and batten, brick, stone, stucco, vinyl, or synthetic materials similar and/or superior in appearance and durability.

b. Vinyl: Vinyl may only be used on buildings that are no closer than 20 feet from the next closest building.

c. EIFS: Exterior insulation finishing systems (EIFS) may be used above 8 feet from the base of residential buildings (Townhouse, Apartment, and Mixed-Use buildings only) and may not be used for House building types.

2. Roof: Roofs shall be clad in wood shingles, asphalt shingles, standing seam metal, terra, slate, or synthetic materials similar and/or superior in appearance and durability.

B. Other Requirements

d

1. Roof Pitch: Main roofs on House or Townhouse-type buildings shall be symmetrical gables or hips with a pitch between 6:12 and 12:12. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. No mon roof shall be less than 4:12.

f

2. Crawlspace: The crawlspace of buildings shall be enclosed.

3. Overhanging Eaves: Overhanging eaves may expose rafters.

4. Flush Eaves: Flush eaves shall be finished by profiled molding or gutters.

5. Visitability/Accessibility Standard: For residential buildings in developments designed for residents aged 55 and older, there shall be provided one zero-step entrance to each building from an accessible path at the front, side, or rear of each building. This does not eliminate the requirements for residential buildings to have raised front entrances.

e

5-6 DRAFT 04.22.08 UNIFIED DEVELOPMENT ORDINANCE TOWN OF WENDELL, NC

i h g

The graphic on this page represents the use of contemporary page layout and design elements to improve readability and usability. The document shown was prepared using Microsoft Word. Other more sophisticated page layout programs such as Adobe InDesign can also radically improve document layout, text flow, graphic placement, and navigation for easy publishing to the web.

Action Item: Choose software for document publishing.

Action Item: Create a standard template for the document that utilizes the best publishing practices, is easy to navigate, and incorporates text, tables and graphics by incorporating the recommendations from Section 1.3 into the preparation of the document. (See previous page for a sample template)

3.3 DOCUMENT ORGANIZATION

One of the keys to a successful development ordinance is its ability to convey information in a manner that is logical and easy to find. Layout is an important element. More important still is a logical hierarchy to the document that provides the necessary order and prioritization. Ideally, this hierarchy includes a clustering of similar information so that the end-user can easily find all information related to a specific topic area. In some regards, this suggests an ordering by design/development discipline (e.g., signage, site/civil engineering, building design).

3.3.1 | Numbering System

The current numbering system is inconsistent within documents as well as across all of the development ordinances. In the Zoning Ordinance specifically, the system is particularly cumbersome to properly reference (Article-Section/Part-Subsection-Subsection-List). We recommend using the Chapter-Section-Subsection-List Number format. We also encourage that this numbering system be applied so that it appears in front of each Subsection as the complete reference number to better help users reference information. In other words, the Subsection number should include the Chapter and Section numbers as well. (e.g., 4.5.3)

Action Item: Change numbering system to Chapter-Section-Subsection-List Number format. (e.g., 6.6.3.A)

3.3.2 | Table of Contents - What Goes Where

As mentioned, the structure of the document should follow a logical hierarchy and prioritization. Important and often used sections such as district uses and dimensions, design standards, and application process should be prominently located at the beginning of the document and easy to find. More mundane sections such as definitions, enforcement, and administration can be placed toward the end of the document. The annotated outline in Appendix A is a more substantial summary of the proposed table of contents. The list below is a summary by major section.

1.0 Purpose and Applicability
2.0 District Provisions (Includes Use and Dimensional Standards)
3.0 Supplemental Use Standards (For Uses Permitted by Right and SUPs)
4.0 General Provisions for All Development
5.0 Building Design Standards
6.0 Open Space
7.0 Tree Protection & Landscaping
8.0 Parking & Loading
9.0 Lighting

10.0 Signs
11.0 Site and Subdivision Infrastructure (Including Streets and Connectivity)
12.0 Stormwater and Water Quality (Erosion Control, Phase II, Watershed Protection, and Flood Damage)
13.0 Non-Conformities
14.0 Administrative Agencies
15.0 Administration and Permit Procedures
16.0 Improvement Guarantees, Violations, and Penalties
17.0 Definitions

Action Item: Re-organize the Zoning Ordinance and incorporate other key ordinances with the hierarchy and prioritization noted above.

Action Item: Centralize and consolidate all definitions into one location.

3.4 ONLINE INTERACTIVITY

Throughout the stakeholder interviews there was frequent reference to improving the communication between the town and the public using web-based tools and interfaces. Such information could include basic Frequently Asked Questions (FAQs) about typical development issues (setbacks, signage, process) as well as hyperlinked versions of all relevant ordinances, policies, guidelines, and specifications.

A more robust system would also allow applicants to be able to track their permit approvals through the land development and building permit system. At present, the town's relatively new permitting system is not capable of allowing online access to permit review progress so additional modules or software would need to be purchased.

Additionally, members of the public have requested some interactivity with the Wake County iMaps online portal, particularly to find out about basic zoning information on a parcel-by-parcel basis. Other such linked information could include information about pending zoning or development applications.

Action Item: Create a phased strategy to improve online information for the entire development process.

4

PROCESS & ADMINISTRATION

Of all of the issues and concerns expressed during the stakeholder interviews, none received as much priority as did the present path to receive a permit. With few exceptions, this frustration is centered around those processes that require some form of a public process. To summarize, nearly all involved in the review process – applicants, designers, town staff, citizen board members, and members of the public – consider the current process unpredictable, expensive, time-consuming, and in some cases, unnecessary.

Yet, with all its faults, the present situation in Wake Forest is not too dissimilar from other small, high-growth communities. In these communities, growth and development is THE issue that elects local government officials. And, it is not uncommon to see significant governing board turnover during the period of a community's highest growth.

With so many development decisions passing through the elected board, there is always a temptation (perceived or real) of making politically-motived decisions on otherwise administrative or narrowly-focused matters. This is not to suggest any previous impropriety, only that the precedent in other communities has often led down that path. The onus of ethical, responsible, and prudent behavior is therefore at a much higher level for each decision.

The further challenge lies when a community has invested in a complex and comprehensive set of ordinances and a technically proficient staff yet still wants to provide opportunities for public input (generally in the form of dissent) and board approvals. Ideally, a community should have a clear set of ordinances and a comprehensive plan that guides changes to the regulatory maps (zoning and thoroughfare maps). Except for those certain uses which have known community impacts that require site-specific calibration, and changes in policy (rezoning), public input and process should be limited by and large to administrative reviews or otherwise narrowly constrained discussions (quasi-judicial reviews).

Predictability is the key. Poorly written ordinances encourage confusion and paranoia about what might happen in one's backyard. Poorly managed processes exacerbate this situation by providing the illusion of ultimate power to influence every aspect of a

project by the reviewing authorities and/or the public when only a narrow aspect of the application can be legally be considered.

Not every application will be perfect, but perfection is a subjective evaluation measure and should generally be avoided as it would be hard to legislate and even harder to defend in court.

4.1 ROLES & RESPONSIBILITIES

At present there are six permitting agencies/boards/commissions for the Town of Wake Forest. These include the following:

- Board of Commissioners (Elected, 5 members and Mayor)
- Planning Board (Appointed, 6 members, 5 town residents, 1 ETJ resident)
- Board of Adjustment (Appointed, 5 members, 4 town residents, 1 ETJ resident)
- Historic Preservation Commission (Appointed, 9 members, minimum of 7 town residents, minimum of 4 are also residents of the historic district)
- Town Planning Department (town staff)
- Town Engineering (town staff)

These agencies/boards/commissions administer a myriad of various permits and processes. The table below is a summary of the current development permits available/necessary in the Town of Wake Forest. As is evident, there is little logic or consistency about the permitting process and many processes are either poorly defined or unclear in the current codes.

Table 2. Current Development Application Roles & Responsibilities

Type of Development Permit (Ordinance Reference)	Reviewer	Decision-Maker	Process Type (Administrative, Quasi-Judicial, Legislative)
Building Permit	Building Inspector	Building Inspector	Administrative
Certificate of Occupancy	Building Inspector	Building Inspector	Administrative
Development Permit (IX.2)	Staff	Staff	Administrative
Temporary Use Permit (IX.2.A)	Staff	Staff	Administrative
Certificate of Compliance (IX.3)	Staff	Staff	Administrative
Site Plans (Major) (IV.13)	Staff/Planning Board	Town Board	Quasi-Judicial?
Designation of Historic Landmarks/ Districts (V.3.C-D)	Historic Preservation	Town Board	Legislative
Certificate of Appropriateness (V.3.E)	Staff	Historic Preservation	Quasi-Judicial?
Certificate of Appropriateness-Minor Works (V.3.E.5)	Staff	Staff	Administrative
Conditional Use Permit/Conditional Use District (CUP/CUD) (V.2 & X)	Planning Board	Town Board	Legislative
Conditional Use Permit Final Plans (V.2)	Planning Board	Town Board	Quasi-Judicial?

Type of Development Permit (Ordinance Reference)	Reviewer	Decision-Maker	Process Type (Administrative, Quasi-Judicial, Legislative)
Special Use Permit (VIII)	Planning Board	Town Board	Quasi-Judicial
Planned Unit Development (VIII.12.1)	Planning Board	Town Board	Quasi-Judicial
Variance (XI.B)	Staff	Board of Adjustment	Quasi-Judicial
Administrative Appeal (XI.A)	Staff	Board of Adjustment	Quasi-Judicial
TND Master Plan (Sub III.C.1)	Planning Board	Town Board	Legislative?
Subdivision Master Plan (Sub III.C.1)	Planning Board	Town Board	Legislative?
Subdivision Construction Plat (Sub III.C.2)	Staff	Staff	Administrative
Final Plat (Sub III.B or III.C.3)	Staff	Staff	Administrative
Subdivision Variance (Sub I.H)	Planning Board	Town Board	Quasi-Judicial
Stormwater Permit (SW 1-202)	Staff	Staff	Administrative
Stormwater Variance (1-306)	?	?	Quasi-Judicial?
Stormwater Appeal (1-205)	Staff	Town Board	Quasi-Judicial?
Floodplain Development Permit (XIII.B)	Staff	Staff	Administrative
Floodplain Development Variance (XIII.B)	Planning Board	Town Board	Quasi-Judicial
Erosion and Sedimentation Control Plan (Spec Section 7)	Staff	Staff	Administrative
Zoning Vested Rights Approval (IV.23)	?	Town Board	Legislative
Map Amendments (X)	Planning Board	Town Board	Legislative
Text Amendments (X)	Planning Staff	Town Board	Legislative

4.1.1 | Administrator Nomenclature

There is a variety of references to specific position titles or departments throughout the existing ordinances that include "planning staff," "planning department," "zoning enforcement officer," "planning and zoning staff," "floodplain administrator," "stormwater administrator," "subdivision administrator," "engineering department," and "town engineer."

We recommend using a standard generic title across the entire ordinance such as "Administrator." The Administrator can be set as the Town Manager or his/her designee as the Town Manager is a title given by the Town Charter. This permits the fluid assignment and reassignment of Administrator responsibilities on an as-needed basis and is not affected by inter-organizational changes.

> **Action Item:** Standardize administrator responsibilities and nomenclature throughout the ordinance.

4.1.2 | Administrative, Quasi-Judicial or Legislative Review

The allocation of responsibilities amongst the various boards and commissions is fragmented and inconsistent. As noted previously, the Board of Commissioners is the decision-maker in an overwhelming number of development applications. They are vested with both legislative and quasi-judicial decisions. In many cases, the decision making process may by ordinance require findings of fact suggesting a more rigorous process, but it is carried out in a more loose, legislative fashion.

Senate Bill 44, adopted by the General Assembly in their 2009 session may help to provide some clarity on these issues. First and foremost, it established that site plan and subdivision processes that are reviewed in a discretionary manner by appointed or elected boards are declared to be quasi-judicial processes de facto. This new legislation goes on to further define all procedures that involve site plans are quasi-judicial in nature if "the ordinance authorizes a decision-making board to approve or deny the site plan based not only upon whether the application complies with specific requirements set forth in the ordinance, but also whether the application complies with one or more generally stated standards requiring a discretionary decision on the findings of fact to be made by the decision-making board." While it is not clear how this applies to design review processes such as architectural reviews by a Historic Preservation Commission, there appears to be enough indication that these applications are site plans by logical extension and therefore subject to the same quasi-judicial process.

By definition, this would likely move all of the following development applications into a quasi-judicial process, should there continue to be a need to process them beyond the staff level:

- Site Plans
- Certificates of Appropriateness
- Conditional Use Permit Final Plans
- TND Master Plans
- Subdivision Master Plan

As a result, the terminating boards for each of these processes will have to formalize their procedures for the acceptance and review of evidence. In some cases, the imposition of this formal process may be unwarranted by the application and it could be pushed back to a staff-level administrative decision.

> **Action Item:** Review all current administrative, quasi-judicial, and legislative processes and make decisions about the most appropriate path for each development application.

4.1.3 | Appeals and Variances

Administrative appeals and standard variances currently are processed by the Board of Adjustment while variances and appeals to the Subdivision Ordinance, Stormwater Ordinance and Floodplain section of the Zoning Ordinance go through the Planning Board for review and the Board of Commissioners for final decision.

Because of the quasi-judicial nature of appeals and variances, having an intermediary board make a recommendation is awkward. Further, having two boards vested with

similar responsibilities appears redundant, particularly if one is comprised of elected officials.

Of course, it is important to note that not all variances are truly variances in the strict definition of the term. A variance, by its nature denotes some form of hardship not established by the applicant. For existing development or small individual lot new development the instance of a variance is much more common than that for a larger new development. As a result the hardship test for a 50 acre tract subdivision, for example, is less likely to be a viable request. Instead of calling it a variance, thereby drawing in specific legal references, we believe that the use of a special exception is more appropriate.

In essence, a special exception is a waiver of certain requirements within new development. In some communities, the ordinances have created opportunities for this type of flexibility through either a Conditional District process (similar to the current Conditional Use Permit/Conditional Use District process in Wake Forest) or through a separate "Special Exception" process. Wake Forest might determine that there are a number of smaller-scale decisions that can be decided by the Planning Board rather than making every application run the Board of Commissioners' gauntlet. Otherwise, it could permit the Conditional District process to provide the necessary flexibility to certain defined standards.

Action Item: Establish the Board of Adjustment as the board for reviewing all administrative appeals and variances.

Action Item: Use a Conditional District or Special Exception process to allow for ordinance flexibility new developments instead of the more rigorous variance process.

4.1.4 | Planning Board/Board of Adjustment

The Planning Board serves to provide advice to the Board of Commissioners on a wide variety of planning matters. While they have amongst their ranks a number of professionals in the planning and development field, they are given no decision-making authority on any matter. Decisions are rendered by every other board or agency in the town except the Planning Board. This is not intended to suggest that the Planning Board is somehow slighted, only to acknowledge how its expertise is perhaps not use effectively.

In Wake Forest, the Board of Adjustment appears to be the least utilized board in the development process. Yet, they are responsible for reviewing variances and appeals of the decisions of the planning staff. Each of the current functions of the Board of Adjustment are handled in a quasi-judicial manner, requiring the formality of findings of facts, swearing in of witnesses, and factual testimony.

Given the low frequency of meetings, the level of training required for each of the members is rather high given the complex issues they are asked to address. A number of communities have moved to a consolidated Planning Board/Board of Adjustment as the ordinances incorporate more design-based elements and are more integrated. Mechanically, they exist as separate boards with identical membership.

In the suggested process table in Table 3, there are a number of processes which are recommended to be placed into the decision-making purview of the Planning Board. As a general rule, we recommend that all quasi-judicial matters be delegated to the Planning Board/Board of Adjustment including Special Exceptions, Special Use Permits (there should be much fewer cases in a new UDO), Variances, and Administrative Appeals. In addition, if a discretionary review of site and subdivision plans is still deemed necessary, the Planning Board would be the logical terminating board for such decisions.

Again, as noted previously, this is not to suggest that the Board of Commissioners is not qualified to make these decisions. Rather, because most of the decisions under a newer, cleaner, clearer unified development ordinance should be easier to interpret and have less inherent discretion, the decisions should be of a more technical nature. In this regard, the assumption that the Board of Commissioners, as elected representatives of the people, must render judgment on all discretionary decisions after taking extensive public comment should no longer be necessary. This would allow them to focus on charting the strategic vision for the community with the understanding that the technical administration is "downloaded" to their appointed boards and commissions.

Action Item: Combine the Board of Adjustment with the Planning Board.

Action Item: Grant the Planning Board with decision making authority over all quasi-judicial decisions and certain other non-legislative applications.

4.2 STREAMLINE THE PROCESS

The previous section noted the myriad of development processes maintained by the town. Further, the number of development application decisions that are required of the Board of Commissioners ensures only that the development process will continue to be expensive, confusing, and unpredictable to all involved. While we will speak to specific processes later in this chapter, the following is a comprehensive chart that outlines our recommendations for development permit for a new unified development ordinance.

Table 3. Suggested Development Application Roles & Responsibilities

Type of Development Permit (Ordinance Reference)	Reviewer	Decision-Maker	Process Type (Administrative, Quasi-Judicial, Legislative)
Building Permit	Building Inspector	Building Inspector	Administrative
Certificate of Occupancy	Building Inspector	Building Inspector	Administrative
Development Permit	Staff	Staff	Administrative
Temporary Use Permit	Staff	Staff	Administrative
Certificate of Compliance	Staff	Staff	Administrative
Site Plans	Staff	Staff	Administrative
Designation of Historic Landmarks/ Districts	Historic Preservation	Town Board	Legislative

Type of Development Permit (Ordinance Reference)	Reviewer	Decision-Maker	Process Type (Administrative, Quasi-Judicial, Legislative)
Certificate of Appropriateness	Staff	Historic Preservation	Quasi-Judicial
Certificate of Appropriateness-Minor Works	Staff	Staff	Administrative
Special Exceptions	Staff	Planning Board/BOA	Quasi-Judicial
Conditional Districts	Planning Board	Town Board	Legislative
Special Use Permit	Staff	Planning Board/BOA	Quasi-Judicial
Subdivision Master Plans	Staff	Staff or Planning Board/BOA	Administrative or Quasi-Judicial
Subdivision Construction Plats	Staff	Staff	Administrative
Subdivision Final Plats	Staff	Staff	Administrative
Floodplain Development Permit	Staff	Staff	Administrative
Erosion and Sedimentation Control Plan	Staff	Staff	Administrative
Variance (All)	Staff	Planning Board/BOA	Quasi-Judicial
Administrative Appeal (All)		Planning Board/BOA	Quasi-Judicial
Zoning Vested Rights Approval	Planning Board?	Town Board	Legislative
Map Amendments (X)	Planning Board	Town Board	Legislative
Text Amendments (X)	Planning Staff	Town Board	Legislative

Action Item: Simplify and reformulate the development process as noted in Table 3.

4.3 SPECIAL USE PERMITS

A Special Use Permit (SUP) is defined by state law as those classes of cases or situations where the normal activity is such that reasonable and appropriate conditions may be imposed to mitigate any potential impacts. A number of stakeholder noted that it seems as though every application requires a Special Use Permit. There are in fact a bevy of uses that are classified as Special Uses in each zoning district, a list that in fact out numbers the list of permitted uses. The list of special uses is so pervasive that, for example, multi-family development in the Multi-Family (MF) District and a shopping center of any size in the Highway Business (HB) district are permitted subject to a Special Use Permit.

In addition, the following uses requiring a site plan effectively go through the same process as a special use permit:

- Any planned unit development
- Any multi-family development
- Any business park
- Any shopping center
- Any industrial park
- Any hospital

- Any rest home
- Any development deemed by the Board of Commissioners to be of sufficient size to require development plan approval.
- Any development with a building height exceeding 35 feet.
- Any development in Renaissance Area Districts.

Standards for certain Special Uses are found in Article VIII, many of which are very specific. Ideally for a special use standard, there should be some performance-based goals that the application must meet in order to secure a permit. These goals can then provide some flexibility or "wiggle-room" and allow the approving Board the ability to truly mitigate impacts. Where precise, objective, and quantitative standards can be identified, these applications should be processed administratively.

It is safe to say that in our twenty years of working with development ordinances that we have only come across one other jurisdiction that had such an extensive list of applications requiring approval by the elected officials. This tells that, either implicitly or explicitly, that there is little confidence in the ability of the current ordinance to regulate even the most basic uses. As a primary goal of a comprehensive update, the town should strive to create as streamlined and predictable a process as possible.

Action Item: Minimize the number of uses requiring a Special Use Permit to only those with specific site or community impacts that cannot be contemplated by the ordinance.

Action Item: Create performance-based standards that serve as discretionary guideposts for individual Special Use Permit applications.

Action Item: Permit certain uses with a specific set of known impacts subject to additional mitigating conditions (e.g., extra screening/buffering) that can be implemented administratively.

4.4 CONDITIONAL DISTRICTS

By contrast to the rigid, quasi-judicial Special Use Permit process, the General Statutes also permit the use of a Conditional Districts process. Conditional Districts are a legislative rezoning process that permits a site-specific plan and any other voluntary conditions to be submitted with a rezoning application. Application for both the rezoning and the site plan run concurrently and can be adopted with one motion by the legislative body. Wake Forest presently uses a two step process incorporating both a Conditional Use District and a Conditional Use Permit into a legislative rezoning process.

The Conditional District process, upheld first by the state courts, and then codified into state law, is perhaps one of the most flexible zoning tools available to North Carolina local governments. By marrying a site plan and/or other development-related details to a legislative process, an open conversation can occur not only on the merits of the application but also on the impacts to the greater community. Neither the applicant, nor the governing body is bound by testimony and findings-of-fact to rule on a narrow

interpretation of the ordinance. Now, with this tool, the neighbors are given some sense of predictability by showing a picture of the proposal rather than just simply rezoning the parcel and relying upon the table of uses to guide any future development decisions.

In Wake Forest, though, the level of detail submitted with each Conditional Use Permit application is very low, necessitating an additional and subsequent trip back to the Board of Commissioners to review a detailed site plan. This gives the neighbors little sense of completion and predictability if there will be a another, more detailed, process that will follow at some point in the future. We will discuss submittal requirements further in Section 4.6 below. However, it is worth noting that there is a middle ground that will help to better utilize this tool.

In general, applicants can certainly provide data during the rezoning process that will include the basic street and lot layout on the site, approximate location and size of buildings (except single-family homes), a conceptual landscaping plan (with an emphasis on perimeter landscaping - tree save areas and buffers), and perhaps a conceptual elevation, perspective drawing, or similar illustrative of the overall site. In general, the focus is on demonstrating that the proposed uses (and by extension the proposed building types) will not have a significant impact on the community or its neighbors than are not properly mitigated. Once these conditions are illustrated and established the implementation of the rest of the plan should be able to follow the other standards of the ordinance.

As a final note, we see nothing wrong with having four levels of approval hierarchy – Administrative Permits, Special Exceptions, Special Use Permits, and Conditional Districts – where the Conditional District can be designated for use by certain development types of community or regional significance (e.g., TND, PUD, and Regional Shopping Centers). In this manner, they can be processed using the more flexible legislative process.

> **Action Item:** Expand and clarify the use of the Conditional District in lieu of certain Special Use Permits and other applications having community or regional significance.

4.5 DESIGN REVIEW

The review of building elevations is currently handled by two different authorities in the town of Wake Forest. For those applications that are located within the Historic District, all such design review applications are subject to the issuance of a Certificate of Appropriateness issued by the Historic Preservation Commission. For all other applications located outside of the Historic District, the authority to review compliance with the current appearance standards in Article VI, Section 9 is vested with the town staff. The latter of these review types is a curiosity in a town that otherwise requires a high percentage of development applications to be processed through the Board of Commissioners.

With an already streamlined process in place that appears to work well with the current staff administering it, why should the town consider imposing a more laborious process. There are in fact two very simple reasons – expertise and discretion.

The first relates specifically the qualifications of the staff administering the appearance standards at present. This person is well regarded by the development community based on our stakeholder interviews and appears to have adequate knowledge of design techniques and standards. Yet this staff person is also tasked with other duties and responsibilities as well and the demands of design review are far from a full-time position. As a result, while there is currently adequate staffing to provide design review, this might not always be the case. Some communities that face a staff turnover have chosen to outsource this function to a third-party architecture or urban design firm that can provide on-call, as needed advice. But, there is a larger challenge at hand.

Specifically, the question of discretion must be part of the larger conversation in design review. Few of the current standards are what we would consider to be quantitative in nature. This is certainly not uncommon when it comes to design standards. However, what remains are standards that require a great deal of discretion and interpretation on a case-by-case basis. Examples of current qualitative standards that require discretion include:

- "Roof lines shall be varied to reduce the scale of structures and add visual interest."
- "All facades clearly visible from public streets or adjoining properties shall contribute to the pleasing scale of features of the building and feature characteristics similar to the front facade."
- "Building additions and facade renovations shall be designed to reflect existing buildings in scale, materials, window treatment, and color. A change in scale may require a transitional design element between the new development and existing buildings."

There are two methods to address this issue of discretion. The first is simply to eliminate all qualitative standards from the ordinance, thereby ensuring, fair and consistent interpretation and administration of those section. Many form-based standards enacted in the last decade have desired to achieve a similar goal all with the hope of still permitting design flexibility and avoiding the "draw by numbers" approach. There have been some success including recently adopted codes in Germantown, TN and nearby Knightdale, NC (with some exceptions). The question that remains though is how best to process exceptions to those quantitative standards which inevitably arise and often require architectural design expertise to evaluate.

The second approach is the establishment of a board or commission that is vested with reviewing such application. The courts have longed asserted that discretion is better suited to the realm of an appointed board rather than with an administrator. Like the Certificate of Appropriateness process, there could be "minor works" that could be approved by the administrator. Other applications would be processed by this Board, permitting a reasonable level of discretion, within the bounds of specific standards.

In the Town of Davidson (population 9,100), the Design Review Board is generally responsible for the vertical environment (buildings) while the horizontal environment (subdivision plans and site plans) are the purview of the Planning Board and the staff. This segmentation allows for the appropriate design disciplines to be represented on each board (architects and urban designers on the Design Review Board and landscape architects and engineers on the Planning Board). This has been a successful

arrangement for approximately ten years, though the Design Review Board is considering requesting an expanded role that also allows them to consider site plan elements that were previously the purview of the staff.

And because the skill necessary for a Design Review Board might be redundant with those the Historic Preservation Commission (there are only so many competent architects in town willing to serve on such a board), there might be value in consolidating all design review functions into a single board.

It is important to note that such discretionary design review is likely subject to the same legal standards recently enacted for site plans, necessitating a quasi-judicial review procedure. Simple findings of fact combined with basic building design principles will likely be sufficient while providing the level of flexibility necessary.

> **Action Item:** Establish a Design Review Board/Commission to handle discretionary review of building appearance standards or design all or a sub-committee of the Planning Board to provide such functions.

> **Action Item:** Consolidate the design review functions of the Historic Preservation Commission into the Design Review Board to capitalize on their expertise.

4.6 PLAN SUBMITTAL REQUIREMENTS

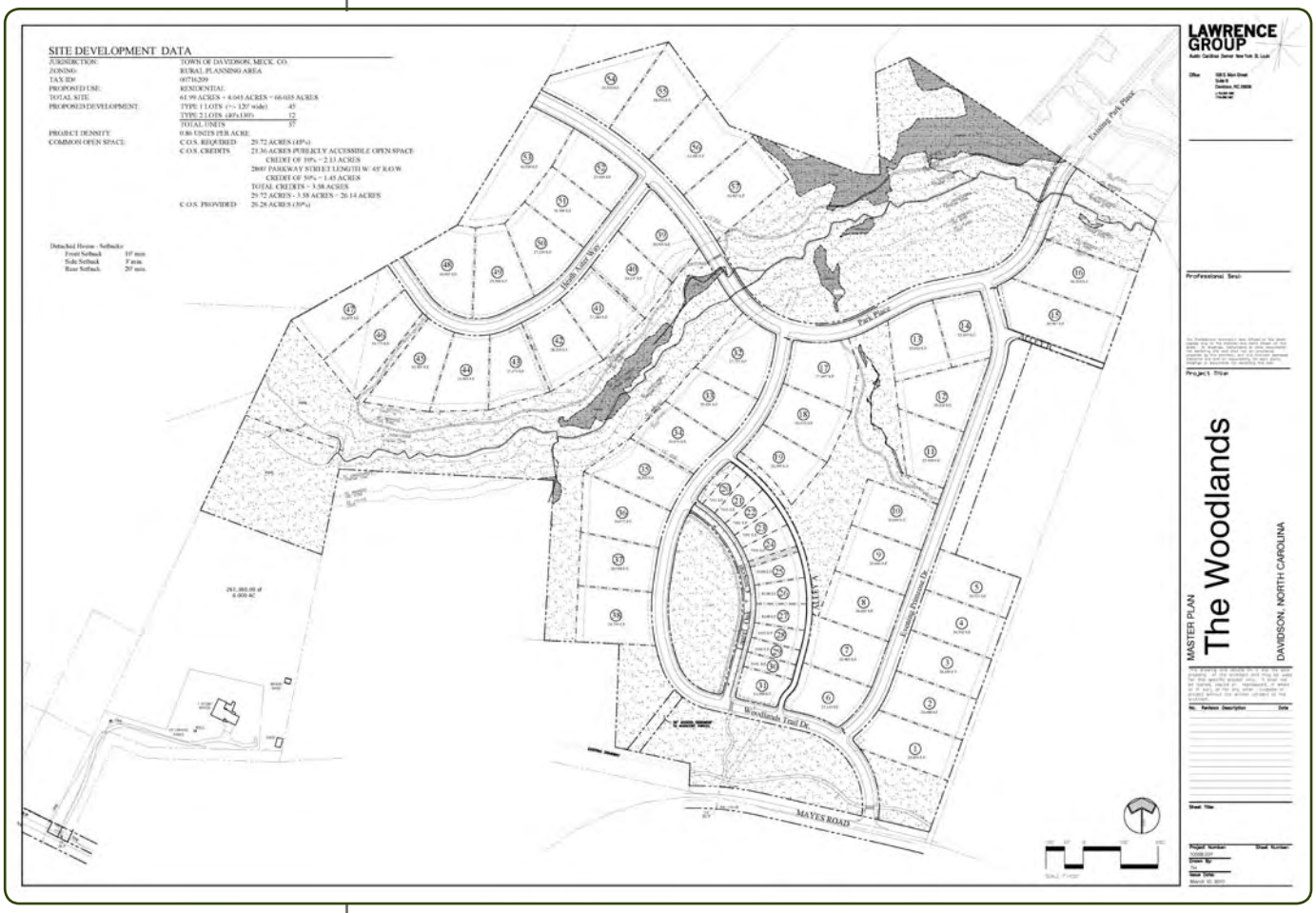
Stakeholders also noted that current permitting requirements for architectural and engineering submissions required an extensive set of drawings before certain boards/commissions would approve their applications. As a result, the applicants are spending an excessive amount of money on "highly engineered conceptual plans" before any sense of an approval. Or, perhaps worse, it may be approved but with a number of changes that necessitate significant additional engineering expenditures prior to the start of "final design."

Based on our review of previously submitted applications, minutes of reviewing boards, and stakeholder comments, the current submission requirements are excessive. Far too often, applicants are expected to submit a near complete set of construction drawings with all architectural and engineering elements finalized. Most of the current requirements require a set of documents that include both "horizontal" and "vertical" infrastructure design. That is, they require both the general layout of streets and lots, but also the specific alignment of sub-surface utilities and site drainage. In general, this is unnecessary as the reviewing board is often only evaluating certain elements of the application. With the additional information however, they tend to get involved in additional review that is both unnecessary and outside of their purview, such as those element that involve engineering details which are otherwise handled through administrative review by the town's engineering staff using the Manual of Specifications, Standards & Design.

It is our opinion with experience as planning administrators, project designers, as well as chairman on local development review boards and commissions that a Schematic Design set or, at most, a Design Development set (both common pre-construction documents phases in the design industry) are perfectly sufficient. In essence, this submission package is inclusive of only the "horizontal" design elements of a

development along with some demonstrated consideration given to ensure that the site will be engineered in close approximation to what is presented. Generally speaking, this also means that the use of geographic data available from either the town or the county that includes topographic detail and aerial photography are sufficient base detail particularly if corroborated with a site visit by a staff member.

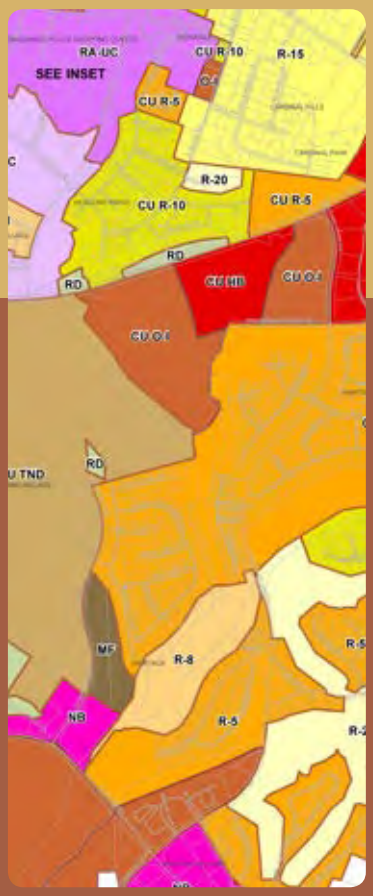
Action Item: Reduce architectural and engineering submittal requirements to only the level of detail necessary to render a decision at the appropriate phase and detail required by the ordinance. Vertical infrastructure (e.g., utilities, drainage) should always be reviewed and approved by administrative staff.



The plan above, an open space subdivision from Davidson, NC illustrates the appropriate level of detail necessary for "pre-engineering" plan review with boards and commissions. Only the horizontal layout and site data are needed for relevant review of most off-site impacts and adjacent-property owner or community-wide concerns.

5

DISTRICTS & USES



Zoning in North Carolina involves the division of land uses and dimensional standards by district. Because most zoning ordinances have their origin in a model ordinance promulgated by the NC Division of Community Assistance or the US Department of Housing and Urban Development (or its predecessor agencies) there are always a number of similarities between the construction of districts and their hierarchy.

Wake Forest is divided into five basic districts - Residential, Business, Office/ Institutional, Industrial, and the Mixed-Use Renaissance Area. Within these broad categories there are a number of subcategories, particularly within the residential category.

Existing Base Districts

RD	Rural Holding District *(40,000 sq ft lots)*
R-80W	Low Density Watershed Area Residential District *(80,000 sq ft lots)*
R-40W	Low Density Watershed Area Residential District *(40,000 sq ft lots)*
R20	Low Density Residential District *(20,000 sq ft lots)*
R15	Medium Density Residential District *(15,000 sq ft lots)*
R10	Medium Density Residential District *(10,000 sq ft lots)*
MF	Multi-Family District
R8	Mixed Residential District *(8,000 sq ft lots)*
R5	Mixed Residential District *(5,000 sq ft lots)*
RA-HC	Renaissance Area-Historic Core
RA-UC	Renaissance Area-Urban Core
RA-C	Renaissance Area-Campus
NB	Neighborhood Business District
HB	Highway Business District
I	Industrial District
O&I	Office & Institutional District
ICD	Institutional Campus Development District
TND	Traditional Neighborhood District

Article V of the Zoning Ordinance establishes the specific categories and requirements by district. Each district is created with a unique set of uses and a corresponding Conditional Use District. In general each district includes the following standard provisions:

- Permitted Uses
- Special Uses
- Dimensional Requirements
- Supplementary District Regulations (often with a general reference to Article IV)
- Off-Street Parking (referencing Article VII)

Also included in Article V are a number of Overlay Districts. Overlay Districts are defined by statute as districts in which additional requirements are imposed on certain properties within one or more underlying general or special use districts (NCGS § 153A-342). Some overlay districts do not change the use and dimensional regulations of the general districts, but instead impose additional requirements. Others change more general district requirements, either by not allowing some uses that are otherwise permitted, or allowing additional density if certain standards are compiled with. Wake Forest currently has four overlay districts.

Existing Overlay Districts

HLD	Historic Landmarks Overlay District
FLWD	Falls Lake Watershed Protection Overlay District
RCWD	Richland Creek Watershed Protection Overlay District
SHOD	Special Highway Overlay District

At present, both the Residential districts and the Business districts are exclusive use zones. That is, they do not permit mixed-use in any form. Residential uses are not currently permitted in the neighborhood Business or Highway Business district, and only a few residential districts permit any commercial activity (but only by Special Use Permit). Interestingly, all uses in the Industrial District are permitted only by Special Use Permit.

The Renaissance Area Districts are the community's only truly mixed-use areas, permitting a wide variety of uses within each of the three sub-categories.

5.1 PERMITTED USES

The current use provisions are located within each district. While the terminology is similar from district to district, there are a great number of uses that are undefined (e.g., Rest Homes, Homes for Children), making interpretation challenging at best. Home occupations, as an exception to this are defined within each district, rather than in the definition section. Only in the Renaissance Area districts are uses categorized and defined in a logical fashion.

In some ways the simplicity of the current use allocations is alluring. Why create a long table when a short one will suffice? The reality is that we suspect that the town has overcome the weakness of this lack of definition and hierarchy through the cumbersome site plan or special use permit processes.

5.1.1 | Use Table

There are three basic approaches to coding uses in a zoning ordinance - NAICS, LBCS, and a Locally-Customized Table.

The NAICS is a comprehensive industry classification system that replaces that Standard Industrial Classification (SIC) system. It is thorough, but the classifications do not always make sense for zoning purposes (e.g. tattoo parlors are in the same industry classification as personal services). According to the US Census Bureau, "the North American Industry Classification System (NAICS) was developed under the direction and guidance of the Office of Management and Budget (OMB) as the standard for use by Federal statistical agencies in classifying business establishments for the collection, tabulation, presentation, and analysis of statistical data describing the U.S. economy. Use of the standard provides uniformity and comparability in the presentation of these statistical data. NAICS is based on a production-oriented concept, meaning that it groups establishments into industries according to similarity in the processes used to produce goods or services. NAICS replaced the Standard Industrial Classification (SIC) system in 1997." (http://www.census.gov/eos/www/naics/faqs/faqs.html#q1 accessed 7.7.09)

The LBCS consists of five classification systems described as: Activity, Function, Structure, Site, and Ownership. The Function classification works as an industry classification, although at a much less detailed scale than NAICS. The Structure classification is best for design-based codes in communities or situations where the concern is more about the form and massing of buildings, rather than how they are used. In practice, most communities we have worked in prefer a combination of the Function and Structure classifications. The Activity, Site, and Ownership classifications tend to be more adaptable to mapping than to zoning regulation. Most states prohibit regulation of forms of ownership through zoning, eliminating this classification for zoning.

Table 4. Land-Based Classification Standards (LBCS) Descriptions

Activity	An observable characteristic of land based on actual use.	Activity refers to the actual use of land based on its observable characteristics. It describes what actually takes place in physical or observable terms (e.g., farming, shopping, manufacturing, vehicular movement, etc.). An office activity, for example, refers only to the physical activity on the premises, which could apply equally to a law firm, a nonprofit institution, a court house, a corporate office, or any other office use. Similarly, residential uses in single-family dwellings, multifamily structures, manufactured houses, or any other type of building, would all be classified as residential activity.
Function	The economic use or type of establishment using the land.	Function refers to the economic function or type of establishment using the land. Every land-use can be characterized by the type of establishment it serves. Land use terms, such as agricultural, commercial, industrial, relate to establishments. The type of economic function served by the land-use gets classified in this dimension; it is independent of actual activity on the land. Establishments can have a variety of activities on their premises, yet serve a single function. For example, two parcels are said to be in the same functional category if they serve the same establishment, even if one is an office building and the other is a factory.

Structure	Type of structure or building type on the land.	Structure refers to the type of structure or building on the land. Land-use terms embody a structural or building characteristic, which indicates the utility of the space (in a building) or land (when there is no building). Land-use terms, such as single-family house, office building, warehouse, hospital building, or highway, also describe structural characteristic. Although many activities and functions are closely associated with certain structures, it is not always so. Many buildings are often adapted for uses other than its original use. For instance, a single-family residential structure may be used as an office.
Site	The overall physical site development character of the land.	Site development character refers to the overall physical development character of the land. It describes "what is on the land" in general physical terms. For most land uses, it is simply expressed in terms of whether the site is developed or not. But not all sites without observable development can be treated as undeveloped. Land uses, such as parks and open spaces, which often have a complex mix of activities, functions, and structures on them, need categories independent of other dimensions. This dimension uses categories that describe the overall site development characteristics.
Ownership	Legal and quasi-legal ownership constraints of the land.	Ownership refers to the relationship between the use and its land rights. Since the function of most land uses is either public or private and not both, distinguishing ownership characteristics seems obvious. However, relying solely on the functional character may obscure such uses as private parks, public theaters, private stadiums, private prisons, and mixed public and private ownership. Moreover, easements and similar legal devices also limit or constrain land-use activities and functions. This dimension allows classifying such ownership characteristics more accurately.

As a third option, many communities opt to use a table of uses that is more locally developed, but requires a full definition for each and the ability to determine how new uses not currently contemplated might be incorporated.

Table 5. Table of Use Alternatives

Regulatory Alternative	Advantages	Disadvantages
Consolidate uses into a matrix	Abbreviates text, and reader may compare uses among districts	Scatters district regulations
Use NAICS/LBCS to expand uses	Improves thoroughness, and allows Town to tailor districts more effectively to different situations	Complicates the ordinance - Current use of NAICS is already too long
Use LBCS structure classification to replace use classification	Allows zoning to focus on building form rather than uses, consistent with the mandate of the Town Plan	Not likely to be acceptable to some neighborhood groups due to change
Use LBCS structure to supplement use classification	Preserves ability to regulate building form, while providing control over uses	More complicated than regulating by building type alone

Regulatory Alternative	Advantages	Disadvantages
Expand list of uses permitted by special exception	Promotes mixed use by permitting wider range of uses, while preserving discretionary control	Lengthens the ordinance. Some mixing of uses consistent with plan policies could be discouraged by discretionary review or thwarted by political opposition.
Expand list of uses permitted by right in each district, but subject to criteria prescribed in the ordinance	Preserves control over potential adverse impacts through the use of standards, while permitting streamlined permitting.	Eliminates case-by-case review at public hearings.

A design-based code could use a reference to building form, rather than simply uses, in each zoning district. This focuses more on how buildings are designed in each district, rather than on the type of business occupying the building. Examples of this approach include the *Knightdale, NC Unified Development Ordinance* and the *Salisbury, NC Land Development Standards.* These codes place priority on the building type and form but still include references to uses, albeit in a smaller, more aggregated list.

Most jurisdictions presented with these options use a combined use list, with most uses permitted by right and sparing use of special exceptions. Special exceptions would be restricted to uses with identifiable adverse impacts.

> **Action Item:** Simplify the use table by condensing use classifications and/or converting to a new classification system - LBCS is recommended with some local amendments.

5.1.2 | Adult Establishments

In accordance with NCGS 160A-181.1 "A city or county may regulate sexually oriented businesses through zoning regulations, licensing requirements, or other appropriate local ordinances. The city or county may require a fee for the initial license and any annual renewal. Such local regulations may include, but are not limited to:

(1) Restrictions on location of sexually oriented businesses, such as limitation to specified zoning districts and minimum separation from sensitive land uses and other sexually oriented businesses;

(2) Regulations on operation of sexually oriented businesses, such as limits on hours of operation, open booth requirements, limitations on exterior advertising and noise, age of patrons and employees, required separation of patrons and performers, clothing restrictions for masseuses, and clothing restrictions for servers of alcoholic beverages;

(3) Clothing restrictions for entertainers; and

(4) Registration and disclosure requirements for owners and employees with a criminal record other than minor traffic offenses, and restrictions on ownership by or employment of a person with a criminal record that includes offenses

reasonably related to the legal operation of sexually oriented businesses."

At present, the Town currently has no standards for permitting Adult Establishments anywhere in their jurisdiction. This is in direct violation of statutory and case law and should be corrected immediately to avoid an unfortunate legal situation in a town that is home to a baptist seminary. In order to avoid a charge of prior restraint of trade, it is generally advised that each community permit such uses in at least one zoning district by-right (e.g., industrial or highway business areas) and others subject to the issuance of a Special Use Permit. It has been suggested in some case law that a minimum of 5% of the available land area be permitted to accommodate such uses, though it isn't simply about raw land area. There is a reasonableness test (e.g., not in floodplains) that should be applied as well that may render a smaller, but more practical percentage. In short, they cannot be "zoned out."

Action Item: Identify reasonable "by-right" locations for Adult Establishments based on case law and enact supplemental use standards to mitigate their negative impacts.

5.1.3 | Supplemental Use Standards

Much of the consternation about the current development process could be cured with a simple set of clear rules and expectations. Such is the task of the preparation of a new unified development ordinance. Yet, at the smallest level in the ordinance, the ability to clearly articulate additional expectations for certain uses with known extra-ordinary impacts would dramatically simplify the development process.

The use of supplemental standards for certain uses is commonplace amongst zoning ordinances. The current ordinance includes some of these types of standards strewn throughout. Supplemental standards for home occupations and business/professional offices in certain residential districts are found in the district provisions while a long list of standards for certain (but not all) Special Uses are found in Article VIII.

If written properly, these mitigating provisions can easily be administered at the staff level, thereby removing the unnecessary step of a Special Use Permit process.

Action Item: Identify reasonable supplemental use standards for those uses that have known negative impacts.

5.2 ARRANGEMENT OF USES

The compactness and general arrangement of uses contributes to long-term sustainability through the ability to service daily activities without the use of a car. In addition, centers of activity that are surrounded by higher densities are more likely to be successful by capturing a greater number of local trips through convenience. This leads to a reduction in overall car trips and all the negative aspects of that mode of transportation. As noted extensively in the 2009 Community Plan, mixed-use development is an essential key to creating a viable destination for pedestrian activity.

A 2003 study[1] conducted by HDR Inc. in Celebration, FL, a large planned development with a commercial core, found that there were 27% less external trips and 31% fewer internal automobile trips than other similar neighborhoods.

Buildings that are vertically mixed in use also provide a more compact building form that consumes less land both by stacking compatible uses and by sharing parking spaces. Similarly separated uses require their own individual sets of infrastructure while also spreading out the transportation network to service those areas. Vertically mixed-use buildings also provide a variety of housing opportunities ranging from high-value condominiums to affordable units for the area's workforce.

Multi-use developments arrange the various buildings such that while the uses are still segregated, they still provide some efficiency through shared parking and pedestrian-accessibility. These centers often work well within the context of neighborhoods where vertical mixed-uses are challenging to make economically viable.

WHAT IS MIXED-USE?

- Three or more significant revenue-producing, mutually supporting uses clustered together in order to maximize development potential and buildable land area.
- A relatively close-knit and intensive land-use pattern that physically and functionally integrates varied uses and non-motorized mobility.
- Development in conformance with a coherent plan, which frequently stipulates the type and scale of uses, permitted densities, and related items.
- A vertical mixing of project components within one building, a series of buildings, or throughout an urban landscape, such as a city block.
- Careful positioning of key civic features around central public spaces (for example, a fountain, street, park, plaza, atrium, galleria, or shopping center).
- Interconnection of uses through pedestrian-friendly pathways (including sidewalks, along streets, interior walkways, enclosed corridors and concourses, retail plazas, etc.)
- The sharing of facilities by compatible uses (i.e. parking used for office space during the day accommodates residential needs after the workday ends).

-Urban Land Institute, 2003

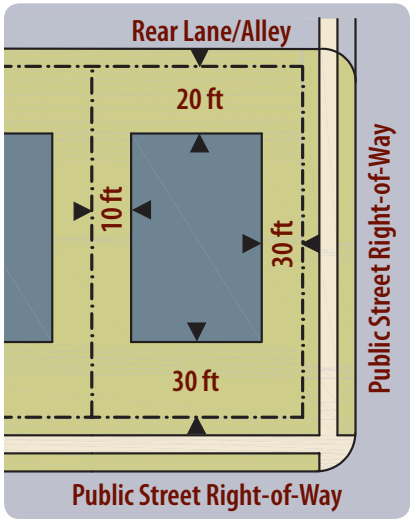
Illustrations of mixed-use (clockwise from left): Birkdale Village mixed-use building in Huntersville, NC; Southern Village general store in Chapel Hill, NC; Downtown Greenville, SC; Vermillion live-work units in Huntersville, NC

1 http://www.hdrinc.com/Assets/documents/Publications/Transportline/September2004/Celebration-TrafficStudy.pdf

5.2.1 | Residential Setbacks

The current minimum setbacks seem to be applied with little logic and are based more on historic precedent that current practice. For example the current setbacks for R-10 are as follows:

Minimum Lot Width: 60 feet
Minimum Front Setback: 30 feet
Minimum Side Setback: 10 feet
Minimum Rear Setback: 20 feet



Developers who seek to create more walkable, intimate streets with short setbacks actually have no choice but to make the fronting streets private as there is no flexibility to lessen the setbacks otherwise.

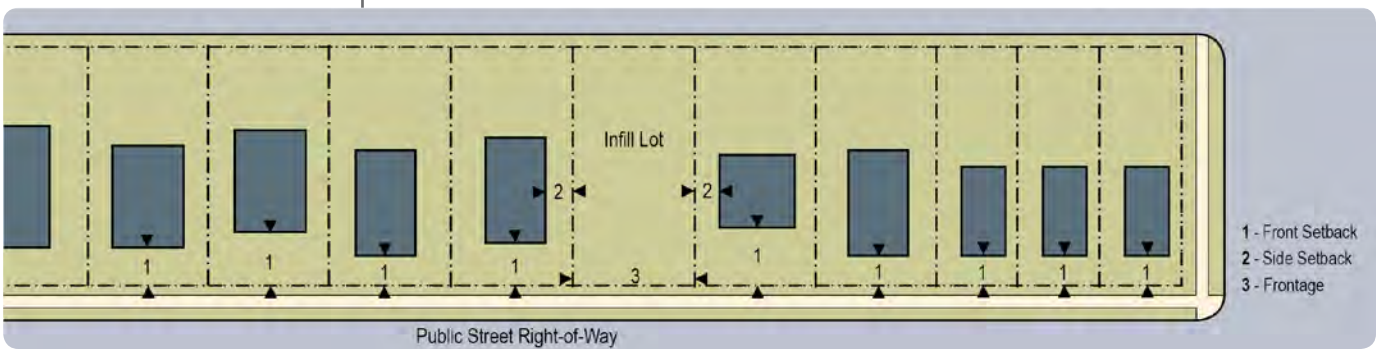
This limited approach to setbacks, in general, provides little flexibility when it comes to building layouts. The front yard setbacks range from 20 feet to 30 feet for all of the residential districts in the Town. In fact, deep front yard setbacks and shallow rear yards all but ensure the complete grading of an individual lot, particularly if they are smaller than 1/4 acre in size. When the required street yard/planting strip and sidewalk are added, the front yard setback is effectively 40 feet from the curb.

Ironically, the front yard is the least used portion of a typical single family lot. When was the last time you hosted a picnic in your front yard? In contrast, the rear yard in R10 is only required to be 20 feet deep (about the depth of one parked car), which provides little usable private open space or opportunity for tree preservation.

The current deep front setbacks, while necessary to protect a house from noise and vibrations if located on major roads, is not necessary in most neighborhoods. Deep setbacks also tend to be less attractive for pedestrians since they remove the feeling of enclosure and proximity to human activity that people desire for interest and sense of security.

By permitting a reduction in front setbacks, such as 10 to 15 feet instead of 20 to 30

Example of creating flexible setback standards for infill lots from the Town of Waynesville Land Development Standards (2010)



feet, house lots can increase the private, useable space of the rear yard as well as the building envelope by up to 100%. Houses closer to the street also enable people walking along the street to interact easily with people in the semi-public spaces of front porches and front yards.

Well detailed, detached, single-family homes like these can be built at densities of 8 to 12 dwelling units per acre on lots of 50 feet wide or less. Note the reduced setbacks, which make for an attractive pedestrian realm. Garage access is provided via an alley.

In addition, the rigid standards of the current ordinance do not permit any flexibility for infill lots in older neighborhoods such as in the Northeast Neighborhood. One of the more popular techniques is to average the front setbacks within 200-400 feet of the lot on the same side of the street. Side setbacks for infill lots should be based on the side setbacks of their neighbor's yard.

Action Item: Reduce front and side setbacks in all districts, particularly in those that are medium-high density in character.

Action Item: Adopt flexibility in determining setbacks for infill lots.

5.2.2 | Non-Residential Setbacks

The current minimum setbacks for most commercial districts are 20-30 feet. In general, this area is reserved for sidewalks and landscaping only. While parking is generally not permitted in this zone, it may still be placed between the building and the street, provided it meets this setback.

Because this is a setback and not a build-to line, buildings are often much further back to accommodate the parking field of the building. Build-to lines are dimensional standards that some communities are using to create a street edge using buildings that are placed near the public realm of the street and sidewalk.

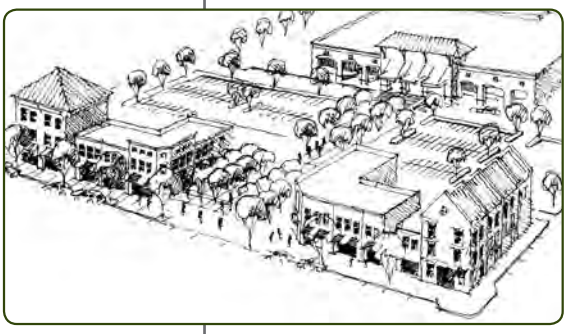


Illustration of a big box store with liner buildings along the frontage to create a walkable streetscape. A built example of this image is shown in the photo below.

While this type of approach is not necessarily appropriate in all conditions, particularly where street geometrics (and the NC DOT) prevent on-street parking, some consideration should be given to lower order streets or for truly neighborhood oriented mixed-use areas. By bringing the building to the street, the overall character of the area becomes more pedestrian-friendly.

To be clear, we do not advocate the placement of buildings along the street edge where the fronting thoroughfare is still designed as a high-speed, high volume, auto-oriented thoroughfare. There are numerous cases from around the country where communities are retrofitting their suburban arterials and major thoroughfares. Until there is a concerted plan in Wake Forest to do the same to say, South Main Street, it may be unrealistic to expect buildings to respond to a suburban road with an urban setback.

Image Source: Aerial Dimensions reproduced courtesy of the Town of Huntersville, NC

However, where the possibility exists to alter or retrofit the roadway in the near future, we would strongly encourage the town to consider requiring a urban, pedestrian-friendly, arrangement. Also, even

Big box stores can be integrated into a street grid like this Harris Teeter grocery store in Huntersville, NC (also shown on previous page) with on-street parking along its frontage.

though certain larger stores may be impractical to bring to the street, the creative use of mixed-use liner buildings in outparcels can easily overcome the negative aesthetic of having parking lots along the street edge.

Action Item: Consider an overall reduction in setbacks for non-residential buildings and build-to lines in areas that are appropriate for walkable urbanism.

Action Item: Encourage the use of outparcels to be designed to compliment the public realm.

5.3 RESIDENTIAL DISTRICTS

The town of Wake Forest currently uses 8 predominately residential base districts which includes the Rural Holding Zone and two Watershed area districts. Districts are segregated largely by lot size only, which is effectively the only distinguishing characteristic between many of the neighborhoods. Building setbacks (front and side) are nearly identical across all districts. Multi-family development is allowed only subject to the issuance of an SUP where permitted, including the Multi-Family (MF) District.

This poses a challenge to Wake Forest going forward because the current arrangement that places so much emphasis on single-family homes on detached lots is not reflective of the changing demographics in North Carolina and around the country. Household sizes are shrinking, homeownership rates are dropping, the number of non-traditional households (two parent with children) continues to decrease, and the number of minorities (non-white households) of all kinds are increasing.

The current predominately residential districts are as follows:

RD	Rural Holding District
R-80W	Low Density Watershed Area Residential District
R-40W	Low Density Watershed Area Residential District
R-20	Low Density Residential District
R-15	Medium Density Residential District
R-10	Medium Density Residential District
MF	Multi-Family District
R-8	Mixed Residential District
R-5	Mixed Residential District

Given the similarities between various districts, there are a number of potential combinations that could be made. The following are suggestions to help streamline the ordinance and better suit the current demographic trends. In general, we believe that there is only a need to use 2-3 primarily residential districts for a community the size of Wake Forest. Ideally, the remainder of the area should be allocated for mixed-use development.

Action Item: Combine similar districts to eliminate redundancy (R-20 & R-15; R-10 & MF & R8)

5.3.1 | Lot Size vs. Density

The current practice of zoning residential development in Wake Forest regulates new development on the basis of lot size exclusively. For example, in the R10 district, the minimum lot size for a single family dwelling is 10,000 square feet, for a gross density of 4.4 units per acre and a likely effective net density yield of approximately 3.5 units per acre (assuming a 20% reduction for infrastructure and rights-of-way).

The use of prescribed density via lot sizes functions as an impediment to creativity and the appropriate urban form. First, it limits creativity in neighborhood design and creates "cookie cutter" subdivisions based on the minimum lot size. Second, it limits the ability to preserve open space by encouraging platting of every possible portion of a site.

A more flexible tool is the application of maximum permitted density and the elimination of minimum lot size. This still achieves the same goal of providing low density development, but permits variety in lot sizes based on market conditions, house types, and topographic conditions. Base densities can aid in neighborhood design by permitting (but not necessarily requiring) a variety of lot sizes within close proximity while regulating the actual number of units that impact surrounding infrastructure. Using density-based requirements allows the developers to mix housing types as well as lot sizes to achieve maximum densities.

Density-based requirements will also help to clarify the current zoning standards for multifamily development which uses only some crude lot area additions which results in lower-density development that should be expected with multi-family development. Detached single-family homes can actually be developed to a density of 12-16 units per acre before a fire rated wall, such as those used in townhomes, is required.

The houses above in Wake Forest are all approximately the same size and have very similar lot characteristics (setbacks, width, etc.) yet are located in different zoning districts. Can you tell the difference? (answers from top to bottom - R-15, R-8, and R-5)

Reducing required minimum lot size, lot width, and setback dimensions will encourage development of townhouse, multi-family, and small lot single family dwellings on infill lots in or near downtown and identified mixed-use nodes in the Town Plan. This will place higher density areas within walking distance to needed amenities and services. And it will help Wake Forest and its developers better respond to the change demographics of the community.

The table below illustrates a potential conversion of the existing lot-sized based districts to a more flexible density-based structure.

Table 6. Conversion of District Lot Sizes to Density

District	Current Minimum Lot Size	Gross Density	Recommended Density
RD	40,000 sq ft	1.1 units/acre	1 unit/acre
R-80W	80,000 sq ft	.55 units/acre	1 unit/2 acres
R-40W	40,000 sq ft	1.1 units/acre	1 unit/acre
R20	20,000 sq ft	2.2 units/acre	2 units/acre
R15	15,000 sq ft	2.9 units/acre	3 units/acre
R10	10,000 sq ft	4.4 units/acre	6 units/acre
MF	10,000 sq ft/varies	4.4 units/acre	6 units/acre
R8	8,000 sq ft	5.5 units/acre	6 units/acre
R5	5,000 sq ft	8.7 units/acre	9-10 units/acre

Action Item: Convert current lot size-based districts to density-based districts.

Accessory dwelling units like this one in Davidson, NC provide a valuable form of affordable housing in small increments.

5.3.2 | Accessory Dwelling Units

Accessory dwelling units can serve a vital community functions through the provision of much needed affordable housing dispersed in small quantities throughout neighborhoods.

The present ordinance refers to "accessory dwelling units" as both accessory apartments (in all residential districts) and "accessory living unit" in the Neighborhood Business district. There are no current standards (or a definition for that matter) of the accessory dwelling units. Accessory living units are permitted only "for caretaker or watchman, not to be permitted on the ground floor."

Accessory dwelling units are commonly defined by other ordinances as "a dwelling unit either detached or attached, such as a garage apartment or cottage, that provide short or long-term independent living arrangements for the occupant." Such units can be attached to the main house as a room with a door directly to the outside or they can be in a separate building. The important element is to ensure that it is truly a smaller, secondary unit to the principal structure. The tenant is less important. It might be a family member or simply a student. Any regulation of such would be a challenge at best and serves no real purpose.

Action Item: Clarify standards for accessory dwelling units to ensure that they are easy to implement in every neighborhood.

5.3.3 | Home Occupations

The current standard for home occupations in each district is as follows:

"Home occupations, such as dressmaking, catering, baking, art studios, hairdressing, laundering, cooking, designing, accounting and the practice of law, medicine, and dentistry, shall be permitted as accessory uses in residences or only by residents of the premises, that no more than twenty-five percent (25%) of the gross floor area of the

residence shall be used for such occupation, that no display of products shall be visible from the street, and no objectionable effects shall be produced or created."

The language in the current standard is unclear. Are additional employees permitted? Can clients park in the driveway? What is considered to be objectionable? Can an accessory structure be used for a home occupation?

Home occupations are the building blocks of entrepreneurs and should be encouraged to the greatest extent possible. The town should consider revising the current rules to permit a greater array of home occupations but have proper controls in places to ensure that the character of the home still remains residential.

Action Item: Revise and expand the opportunities for home occupations while still ensuring residential character.

5.4 COMMERCIAL & MIXED-USE DISTRICTS

The current structure of commercial and mixed-use districts in the present ordinances are simple and concise. Oftentimes, we work in communities where there is a gradation of commercial districts that are longer than their residential classifications (which is not a laudable trait either). The current commercial and mixed-use districts include:

RA-HC	Renaissance Area-Historic Core
RA-UC	Renaissance Area-Urban Core
RA-C	Renaissance Area-Campus
NB	Neighborhood Business District
HB	Highway Business District
I	Industrial District
O&I	Office & Institutional District
ICD	Institutional Campus Development District

The Renaissance Area districts are truly mixed-use districts that are permissive of a wide variety of activities in close proximity and within the same buildings. The dimensional detailing – front setbacks, building heights, and encroachments – are keyed to create walkable street frontages.

In contrast, the town's largest commercial district by land area is the Highway Business (HB). This district sprawls along the town's major thoroughfares including US 1/ Capitol Boulevard, Rogers Road, South Main Street, and the NC 98 bypass. As is noted in the description of the district in the Zoning Ordinance "the regulations for this district are intended to require ample parking, controlled traffic movement and suitable landscaping as well as to prevent strip commercial development."

While we concur that the district has been successful in accomplishing the first two goals (which are actually at odds with one another), we would suggest that the third has been a failure. We cannot blame the district regulations, per se, for this failure to prevent strip development. Rather, it is a much larger issue of marrying pedestrian-scaled streets with private development and focusing such regional-scale development into nodes than along corridors. In addition, residential uses are not currently permitted in the

district, making it a de facto automobile dependent district.

Like the HB district, the Neighborhood Business (NB) district does not permit residential uses even though it is intended to "cater to the everyday needs of nearby residential neighborhoods, stressing accessibility by automobiles, bicycles, and pedestrians." Accessory living units for caretakers or watchmen (presumably in mini-storage buildings or as part of hotels) are permitted.

The Office and Institutional (O&I) district, by contrast, does in fact permit residential uses up to 10 units per acre, with the exception of single-family homes and duplexes. Permitting only higher-density building types in a medium to low density arrangement is an odd twist as most townhome arrangements in walkable, urban forms typically range from 8-16 units per acre. All uses require a site plan that must be reviewed by the Planning Board and approved by the Board of Commissioners.

5.4.1 | Mixed-Use Districts

The exclusion of residential uses from commercial districts is unnecessary and contributes to auto-dependency. It is not enough for commercial districts to be near residential districts. Unless people are within 1/4 mile, they are far more likely to get in their car instead of walk or bike. Permitting residential uses in the large Highway Business district could also help to serve as a better transition to adjacent neighborhoods. Like the Renaissance Area and O&I districts, the town should permit a wide array of residential building types in current commercial-only districts.

> **Action Item:** Convert all of the existing Commercial districts to mixed-use districts and permit residential development in each based on the expected level of urbanism.

5.4.2 | Big Box and Regional Commercial Development

Because the community straddles US 1/Capitol Boulevard and has attracted a large volume of new suburban residential development (along with Raleigh to the west and south), it is not surprising that regional retail would be attracted to the community. In addition, some new road infrastructure improvements have been favorable to improving access and visibility to big box-type development. These retailers provide a lucrative amount of sales tax dollars to the local community, making them economically, very attractive. The proliferation of abandoned retail stores across the county during this recent recession has made many communities pause in considering the addition of new retail buildings when existing ones are vacant.

The issues that generally arise when communities are considering new big box stores include:

- Traffic generation
- Aesthetic issues (architectural design, landscaping, etc.)
- Operational issues (hours, deliveries, trash containment)
- Environmental Issue (excessive parking areas, stormwater impacts)
- Re-Use & Abandonment

Many communities are grappling with these issues. The Municipal Research and Services Center of Washington (Seattle area) maintains an excellent site that serves as a great resources to addressing most issues related to big box stores (www.mrsc.org/Subjects/Planning/BigBoxRetail.aspx). For example, Forsyth County, GA (Savannah area) requires that a plan be in place for a big box building to be re-used or removed after 24 months of vacancy. In addition they preclude any restrictive covenants on a big box that prohibited the marketing, leasing or sale of the building to any competitors of the previous tenant.

The Super Target above in Wake Forest is one of the recent big box stores to enter the market. At present there are few guidelines to manage these projects and their community-wide impacts (both positive and negative).

Action Item: Adopt clear standards for big box/regional retailers that address the common concerns of traffic, aesthetics, operations, environmental impacts, and re-use/abandonment.

5.4.3 | Industrial Development

The current Industrial district has no permitted uses by right, with development only being permitted subject to the issuance of a Special Use Permit reviewed by the Planning Board and issued by the Board of Commissioners.

When considering industrial development, the most important element, in our opinion, is the perimeter of the site. What happens internally is far less important for the greater community's consideration unless noxious fumes or excessive noise are expected. In absence of these (which can easily be mitigated by an easily implemented using a clear set of standards), most industrial development can make a very good neighbor.

In addition, prolonged public processes for most manufacturing and industrial-type uses in existing business/industrial development make the town less competitive for new jobs and investment. For developments that are larger in scope, the use of a Heavy Manufacturing/Industrial district as a Conditional District might be an appropriate mechanism.

One word of caution regarding Industrial district that can be gleaned from many communities including the city of Raleigh is that this district should, in general, be the only one that is not fully mixed-use. This is because, large multi-family developments and regional retailers will often look for industrial-zoned land because it has the least regulation. The net result is the loss of good properties for economic development simply because of a lack of permissiveness of in other areas of such development.

Action Item: Consider adding a Heavy Industrial district classification .

Action Item: The town should consider establishing some form of review for the initial development application, but permit all subsequent users/buildings to be permitted by right.

Action Item: Focus the table of uses for Industrial districts only on industrial, manufacturing, flex-office, and similar compatible uses .

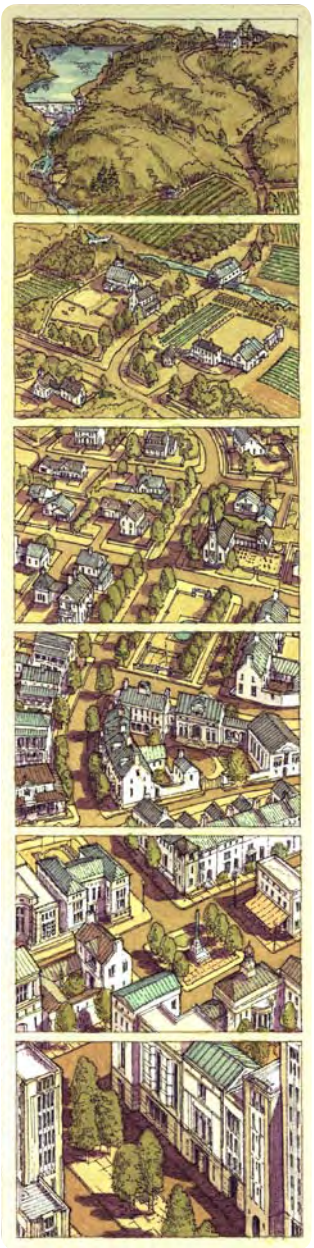


Image by Jane Wassell provided by Duany Plater-Zyberk

The transect is a scaleable organizing tool that establishes a proper balance between urban and rural development.

5.5 A NEW PARADIGM FOR DISTRICT CLASSIFICATION

Throughout this report will be references to context sensitive design and urbanism. The implementation of a common organizing element for the entire ordinance will help to give logic and context to all of the subsequent regulations.

5.5.1 | The Transect as an Organizing Tool

The basis of ensuring a logical gradation of urbanism in a community is the incorporation of the Rural-Urban Transect into all aspects of design and development decisions. The Transect concept of context-based land development is based on precepts of human settlements that are hundreds and in some cases thousands of years old, but have a basis in the historic framework of Wake Forest. The Transect is a method of, first, classifying the natural and built environments as a continuum of six conditions, ranging from the most natural to the most urbanized; and, second, detailing the specific development and design details for each condition.

The conversion of an arcane zoning classification that is based on a separation of uses to a more sustainable mixed-use pattern can best be accomplished by using the Transect to order all of the regulations. Each Transect category has detailed provisions for design of neighborhoods, density, height, street design, the design of parks, the mix of uses, building design, parking, and other aspects of the human environment.

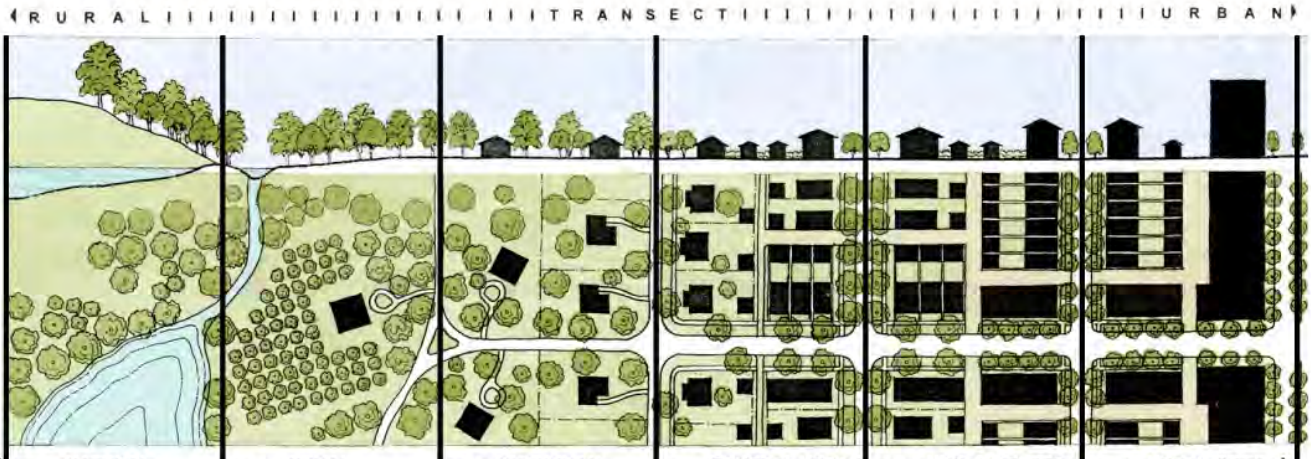
The graphic on the next page shows the defining features of development along the Transect spectrum. For example, a rural street typically has no curbs or sidewalks and its buildings are typically farmhouses or barns. An urban street, depending on the intensity of urbanism, may have curbs and gutters, regularly placed street trees, sidewalks, and building forms that include common walls, flat roofs, and cornices. Streetscape standards that may be appropriate for downtown Wake Forest may not be appropriate for development at the town's edge or in the rural fringe and vice versa.

The Transect is ordered as follows:

T1 & T2: Natural & Rural Zones
The Transect begins with two zones that are rural in character: the Natural Zone (or T-1), which is made up of lands protected in perpetuity as natural, recreational or agricultural areas; and the Rural Zone (T-2), which includes areas of high agricultural, scenic, or environmental value that should be protected.

T3: Suburban Zone
The transition zone between countryside and town is called the Suburban Zone (T-3). The T-3 area consists primarily of single family homes. Although the T-3 area is primarily a residential zone, it may have other development types, such as schools and other civic uses.

T4: General Urban Zone
T-4 development is primarily residential, but more urban in character, having a higher density with a mix of housing types and a greater mix of uses, including neighborhood-serving commercial uses.



T1 NATURAL ZONE	T2 RURAL ZONE	T3 SUBURBAN ZONE	T4 GENERAL URBAN ZONE	T5 URBAN CENTER ZONE	T6 URBAN CORE ZONE
National Forests Surface Waterbodies Protected Wetlands Protected Habitat Riparian Corridors Purchased Open Space Conservation Easements Transportation Corridors	Floodplain Aquifer Recharge Areas Steep Slopes Open Space to be Acquired Corridors to be Acquired Buffers to be Acquired Legacy Woodland Legacy Farmland Legacy Viewsheds	Medium Slopes Woodlands	Dry Rolling Land		

NATURAL HABITAT

Diagram and Chart adapted from images by Duany Plater-Zyberk

Less Density	More Density	PRIVATE
Primarily Residential	Primarily Mixed-Use	PRIVATE
Smaller Buildings	Larger Buildings	PRIVATE
More Greenspace	More Hardscape	PRIVATE
Detached Buildings	Attached Buildings	PRIVATE
Rotated Frontages	Aligned Frontages	PRIVATE
Yards & Porches	Stoops & Shopfronts	PRIVATE
Deep Setbacks	Shallow Setbacks	PRIVATE
Articulated Massing	Simple Massing	PRIVATE
Wooden Buildings	Masonry Buildings	PRIVATE
Generally Pitched Roofs	Generally Flat Roofs	PRIVATE
Small Yard Signs	Building Mounted Signage	PRIVATE
Livestock	Domestic Animals	PRIVATE
Roads & Lanes	Streets & Alleys	PUBLIC
Narrow Paths	Wide Sidewalks	PUBLIC
High L.O.S. Standards	Low L.O.S. Standards	PUBLIC
Opportunistic Parking	Dedicated Parking	PUBLIC
Larger Curb Radii	Smaller Curb Radii	PUBLIC
Open Swales	Raised Curbs	PUBLIC
Starlight	Street Lighting	PUBLIC
Mixed Tree Clusters	Aligned Street Trees	PUBLIC
Local Gathering Places	Regional Institutions	CIVIC
Parks & Greens	Plazas & Squares	CIVIC

HUMAN HABITAT

T5: Urban Center Zone
At the more urban end of the spectrum is the Urban Center Zone, or T-5. This can be a small neighborhood center or a larger Village/Town center, the latter serving more than one neighborhood.

T6: Urban Core Zone
The Urban Core or Downtown (T-6) serves not only adjacent neighborhoods, but the entire town and the region. It is typically the central business district where the greatest mix of uses occurs.

Special Districts
The Special Districts make allowance for specialized activities and development types, such as big box retail, institutional campuses, and industrial zones.

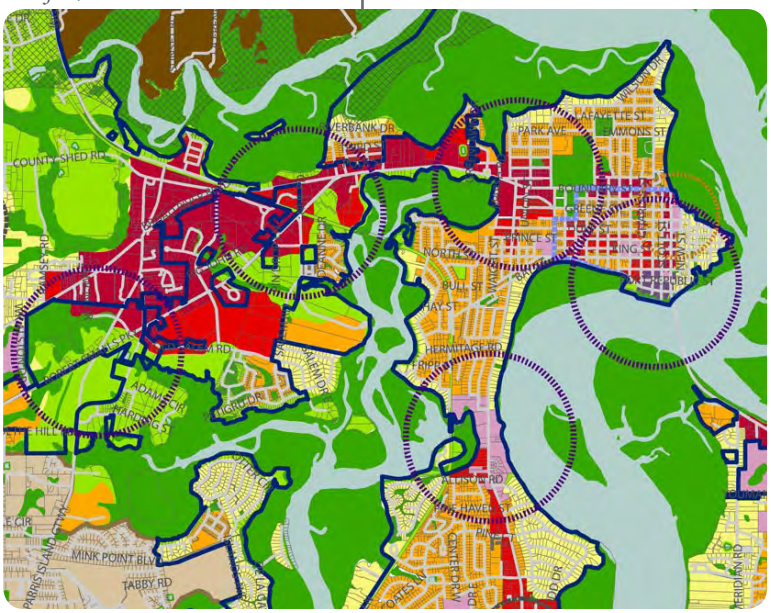
Action Item: Implement the Rural-Urban Transect as the fundamental organizing tool for the new ordinance.

5.5.2 | Detail the Growth Strategies Map

Ideally, such a conversion from standard single purpose districts to a more robust mixed-use system will have occurred following a detailed land-use planning exercise that categorizes each block accordingly to its current or expected level of urbanism. That is, the map should show preferred locations of neighborhoods, neighborhood centers, village or town centers, as well as areas for regional mixed-use development.

The current community plan is an important first-step towards creating a framework for sustainable, mixed-use development. The action items from the Community Plan call for a wide variety of mixed-use throughout the community. The next step is to create a map that would convert the 2009 Growth Strategies Map (shown on page 2) into a further detail diagram that would indicate key centers or focal points for commercial, recreational, and civic activity on a block level. This map would then form the basis for new or revised zoning classifications.

The image below is an example of a land-use plan calibrated to transect-based classifications from Beaufort, SC.



Action Item: Create a land use framework map that further details the 2009 Growth Strategies Map.

5.5.3 | Establish New Mixed-Use Based Zoning Classifications

With the creation of such a comprehensive ordinance and some dramatic changes expected to the district provisions, the town should consider renaming and combining a number of the districts. In general, the emphasis should be on creating more mixed-use districts that include a wide variety of uses but share a common building type or architectural vocabulary.

Obviously there are a number of existing conditions that are not expected to be retrofitted or changes in the next couple of decades such as some of the recently development suburban neighborhoods. In general, there should be an emphasis on avoiding the creation of non-conformities and focusing on providing additional flexibility for the redevelopment of existing sites.

The following table shows how the existing districts can be seamlessly converted to a new transect-based classification system (or a similar hybrid system) to promote mixed-use and walkability, while preserving the integrity of the recently built environment.

The zoning districts for the Town of Wendell have been ordered along the Rural-Urban Transect, providing for appropriate development standards along the continuum (rather than a one-size-fits all approach) as well as a simplified tool for users of this ordinance to facilitate appropriate forms of development.

Table 7. District Conversion

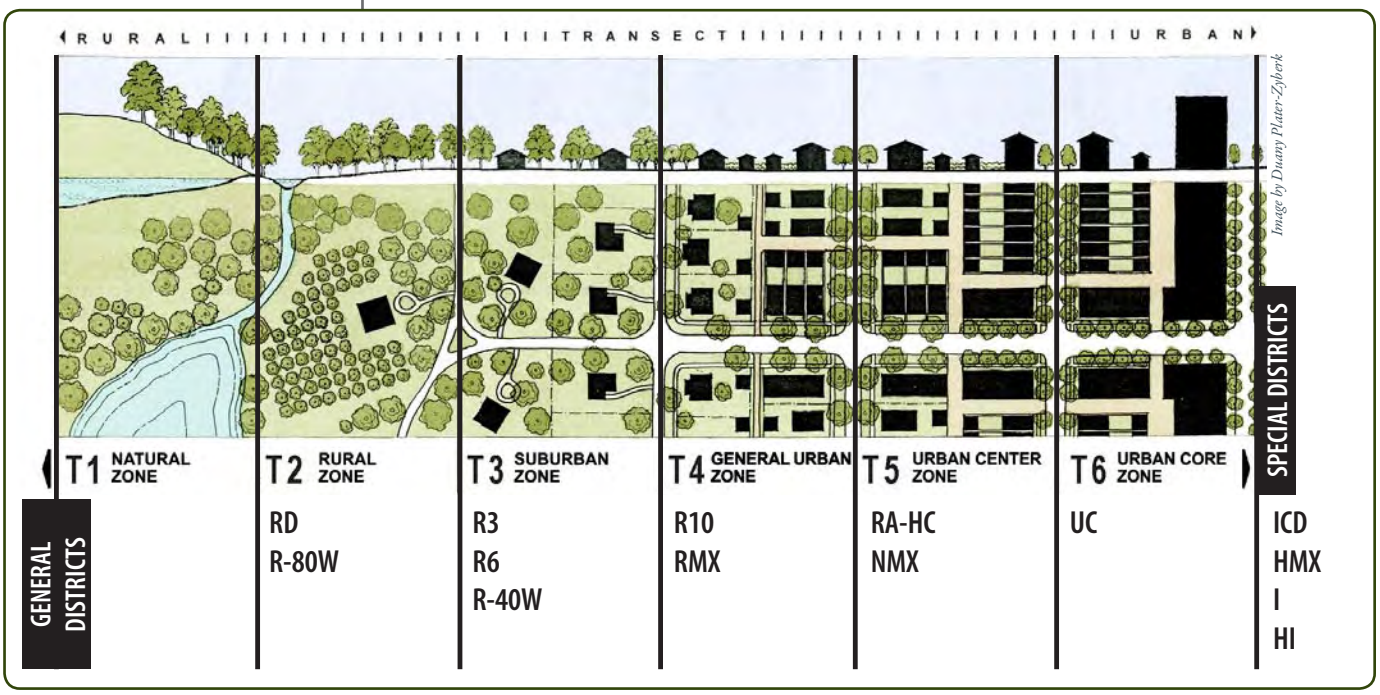
Current District	Recommended District	Description/Commentary
RD	Rural Holding District (RD): 1 Unit/5 Acres	Consider dramatically reducing the permitted density to keep it truly rural until development is pending. Could also consider rezoning for the anticipated development type as most of these areas are surrounded by other development currently
R20	General Residential-Low Density (R3)	2 units/acre
R15	General Residential-Low Density (R3)	3 units/acre
R10	General Residential-Medium Density (R6)	6 units/acre - Mixed residential permitted in new development
MF	General Residential-Medium Density (R6)	6 units/acre - Mixed residential permitted in new development
R8	General Residential-Medium Density (R6)	6 units/acre - Mixed residential permitted in new development
R5	Urban Residential (R10)	10 units/acre - All residential uses permitted by right
O-I	Residential Mixed-Use (RMX)	Residential scaled limited office/retail and higher density residential

Current District	Recommended District	Description/Commentary
NB	Neighborhood Mixed-Use (NMX)	Expanded permitted uses by right. All residential uses also permitted by right.
RA-C	Neighborhood Mixed-Use (NMX)	Expanded permitted uses by right. All residential uses also permitted by right.
RA-HC	Renaissance Area Historic Core (RA-HC)	No change
RA-UC	Urban Center (UC)	Expand for use in other areas
ICD	Institutional Campus Development (ICD)	All buildings/uses internal to campus permitted by right. All perimeter uses within 200 feet of exterior may require additional permitting.
HB	Highway Mixed-Use (HMX)	Expanded permitted uses by right except Regional Centers. All residential uses also permitted by right.
I	Industrial (I)	Most permitted uses permitted by right. Residential excluded. Heavy Industrial may require SUP.
HI	Heavy Industrial (HI)	Conditional District only or SUP.
R-80W	Watershed Overlay 2	Establish as an overlay: 1 Unit/2 Acres
R-40W	Watershed Overlay 1	Establish as an overlay: 1 Unit/Acre

Action Item: Implement a new zoning classification system that incorporates greater elements of mixed-use and sustainable design.

Action Item: Consider calibrating the ordinance using a transect-based zoning classification system.

The diagram below illustrates the gradation of urbanism that can be achieved with some simple calibration of the existing districts.

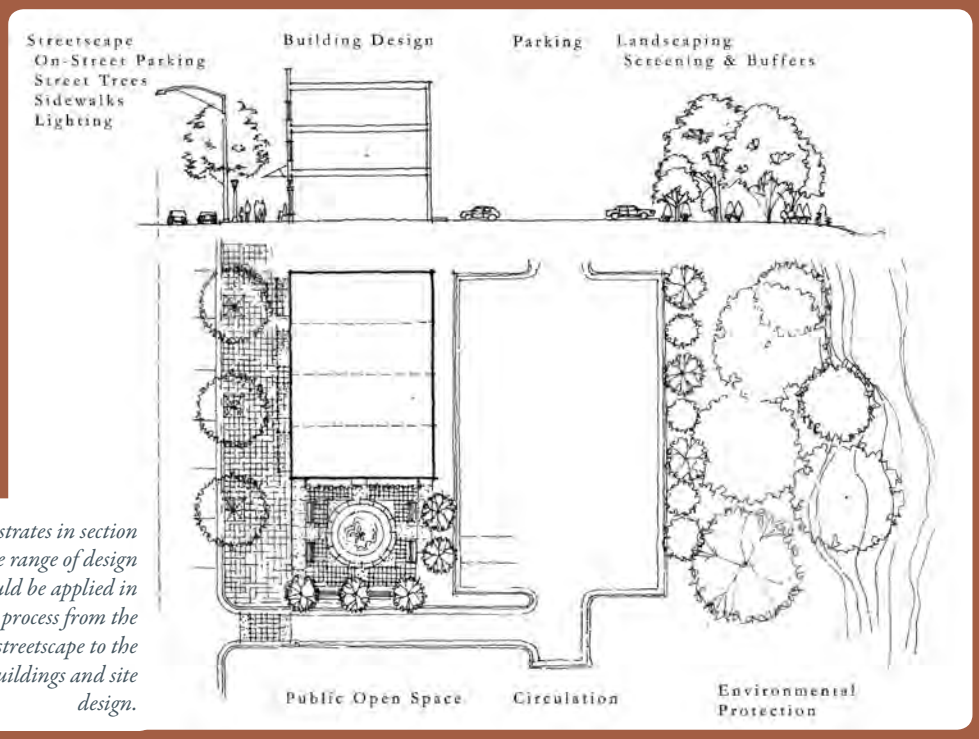


6

BUILDING & SITE DESIGN STANDARDS

Urban design is about the arrangement of buildings, site, streets, and public spaces to create places for people. Right now, there is a clear challenge to read through the development ordinances and wonder just where the people are. Signs, check. Trees, check. Building setbacks, check. But, nary a mention about placemaking - the art of settling the land that allows people to engage in various forms of social engagement – from saying hello to a passerby to having a meal on a sidewalk café.

Wake Forest's zoning ordinance is not unlike most other communities where, in spite of the laudable purpose and intent statements to protect the public, the bulk of the regulations are on those elements that are much more concerned with private decisions. The use behind the front door and the minimum number of parking spaces required to serve that use are private decisions that have little tangible impact on the public realm. A new ordinance must pay particular attention to these elements as a comprehensive



This graphic illustrates in section and plan view the range of design standards that should be applied in the development process from the public realm of the streetscape to the private realm of buildings and site design.

and integrated approach to land use control.

The elements in this section are comprised of most of what the community's sees and interacts with. It is these regulations that largely construct the places for people and therefore much be thoroughly considered as inter-related with all of the other requirements.

6.1 APPEARANCE STANDARDS

The town has maintained a rigorous set of appearance standards for a number of years. Beginning with the Historic District Guidelines, prepared in 1999, and also inclusive of the Renaissance Area Urban Code and the appearance standards found in Article VI, Section 9. The common issue with most appearance standards is the degree of subjectivity that is inherent in their administration. After all, the design of buildings, is both art and science and is a reflection of the design skills of the architect, the craftsmanship of the builder, and the economics of the project.

6.1.1 | Codify Objective Standards to the Extent Possible

Many of the present standards are written in a loose, subjective manner. The purpose of which, we believe, is to permit some degree of flexibility while adhering to a set of principles. But as we noted in Section 4.5 of this report, such a discretionary review cannot occur as a purely administrative function. However, even with the creation of an appropriate board to review design-related issues, there still should be some constraints by which such a board can make consistent decisions. Without clear guidance, design review boards can devolve into "taste police" and reflect the narrow opinions of the board members and not the greater needs of the community.

To the extent that it is possible, all loose language should be eliminated from the current requirements. Statements such as "...buildings should contribute to the pleasing scale of features..." and "color...should be harmonious with surrounding development and shall visually reflect the traditional concept of the town..." should be avoided.

Also, it is important to establish not only clear requirements, but that each requirement should be tied to specific intents/purposes. For appearance standards, there are two principle purposes that should be explicitly stated. The first is that the building should not negatively impact pedestrian activity. Blank walls, inappropriate materials, and covered up windows have been shown to reduce pedestrian activity because they do not entertain the passerby or they present a sense of an unsafe or uncomfortable environment.

The second applies more to the general aesthetic of the community. The permanence of materials, quality of design, avoiding "thinness" in building elements so as to look cheap, and specific stylistic details contribute to the overall community aesthetic. Care should be taken not to specify architectural styles, except as may be appropriate to the historic character of certain parts of the town. In a community the size of Wake Forest, there can be multiple centers each with their own architectural character and aesthetic.

The Town of Waynesville, NC has established seven key principles for building designs to ensure compatibility. They are described as: street frontage, rhythm of development along the street, building orientation, front setback patterns, landscaping and trees,

architectural features, and preservation of views. Each of this principles is illustrated and further detailed in a brief narrative that describes what the town desires. Along with more detailed and more objective standards, these subjective and discretionary principles serve as the guidance for development applications that require discretionary design review.

Action Item: Clarify all appearance standards with objective requirements to the extent possible.

Action Item: Include specific purpose/intent statement to provide adequate guidance during discretionary review.

Action Item: Clarify appearance standards so that they only address building design issues and move other site-related issues to other sections.

6.1.1 | Building Types

At present, the standards are written to apply to all non-residential development generally, and to those developments that fall in the Town Center, Renaissance, Highway Corridor, and Gateway Areas. Clarification should be made as to the applicability of the various standards, perhaps through a matrix. In general, most communities apply design standards either by district or by building type. Either one is acceptable, but the town will need to clarify its approach. In addition, it would be helpful to better order the existing regulations so that they are clear and not redundant from other requirements.

The most effective form-based codes are those which tie the details of the public realm directly to the fronting buildings. To do so means that the regulation of architecture appearance based on use or location is impractical if the goal is to encourage walkable, mixed-use environments. By establishing a set of typical building types (e.g., civic, house, townhouse, apartment, mixed-use, commercial, and industrial) the town can allow certain elements of mixed-use in closer proximity to existing neighborhoods. Very simply, by coding to permit limited types of mixed-use development in residential building types, there is a better interface of the two and far less opposition. This is in essence what the requirements of office and professional uses in the R-5 district (subject of course to a Special Use Permit) attempt to achieve.

Action Item: Clarify the applicability of appearance standards either by district or by building-type.

6.1.2 | Residential

At present, residential development design is regulated only in the Renaissance Planning area. We are firm believers that the level of regulation should increase when buildings move closer together. Large-lot single-family homes need virtually no regulation, but as buildings move closer to each other and to the public realm, there are certain details that must be adhered to. Specifically, elements that negatively impact the pedestrian environment like large blank walls (garage-scapes) and driveways that consume front lawn areas should be avoided.

By incorporating key residential design features including a steeply pitched roof, front porch, and siding, this new orthodontist's office in the Village of Baxter in Fort Mill, SC is very compatible to its residential neighbors.

Action Item: Expand the Renaissance Area residential design standards to all moderate to high density residential development.

6.1.3 | Commercial/Mixed-Use Standards

The predominate volume of appearance standards are focused on non-residential development. Included in these standards are both building (e.g., materials and lighting) and site-related (e.g., parking lots and trash containment areas) requirements. Some standards are quite specific such as those that specify color and accent light strips while other standards are very broad in scope (e.g., rooflines). There should either be a consistency in both scope and breadth of standard or a sense of prioritization.

Additionally, the standards are written largely for small to medium-sized buildings. There do not appear to be adequate standards to address large-scale or big-box stores.

Action Item: Improve and prioritize existing appearance standards for commercial/mixed-use structures.

Action Item: Create new standards that are specific to regulating large-scale or big-box stores and shopping centers.

6.1.4 | Industrial Standards

Of all of the comments about appearance standards, the one that we heard repeatedly was the requirement for "4-sided" architectural review. At present, it appears that the town is requiring that all sides of a building have the same high level of detail and materials that are required on the front facade. For planned industrial parks, we believe that this standard is excessive and might make the town less competitive for small, back office and incubator-type buildings. In general we recommend that the focus of industrial design standards should be on the front facades as well as along the streetscape. As many of these buildings are pre-fabricated metal buildings, requiring additional brick veneer on all sides is excessive, in our opinion. For these types of planned developments the exterior/perimeter landscaping should be sufficient to screen the rear of these buildings. If there is still a desire for addition wrapping of the exterior veneer beyond the front elevation we would recommend this only for wall visible from the public street or perhaps half of the depth of the building.

Action Item: Reduce the current design requirements for industrial buildings for walls not visible from the public street.

6.2 PARKING

The impact of parking areas on the built environment are well-documented. Increased flooding, surface water pollution, increased heat island effect, and degraded aesthetics have all been attributed to parking areas. Wake Forest's current minimum parking requirement are not excessive, though they are certainly not the lowest that we have seen either. There is some good language about providing flexibility in counting off-site spaces towards the minimum requirements as well as detailed bicycle parking standards (perhaps too much, though).

6.2.1 | Off-Street Parking

The current 7 pages of minimum parking requirements are ordered by use classifications that bears little resemblance to the permitted uses noted in each district. There is also little guidance for the provision of shared parking standards between various similar or mixed-uses. Article VII, Section 1, Subsection D.7 grants some authority for exceptions but does not clarify when and how this is to occur.

We recommend that a matrix utilizing more comprehensive use types be incorporated into the UDO. In addition some of the current requirements are based on employee count, which is a variable number. For ease of administration, it would be better to base the parking requirements solely on square footage and use.

In addition, Wake Forest's minimum parking standards are overly broad and do not take into consideration the different parking demands of various land use contexts (e.g., suburban versus downtown) or different types of users (housing and services for seniors, for example, typically requires much less parking). We usually recommend that jurisdictions set their minimum parking requirements below the estimated peak demand and let developers determine what the appropriate amount of parking is for their development based on market needs.

Table 8. Minimum Parking Requirements Coordinated to a Use Table (Waynesville, NC)

Use Category	Minimum Required Auto Spaces	Bicycle Parking Spaces
Residential		
Dwelling-Single Family & Two Family	One (Two?) per unit	No requirement
Dwelling-Townhome & Multifamily	1.5 per unit	1 per 20 auto spaces
Dwelling-Accessory	One space per unit	No requirement
Housing Service for the Elderly/Infirm	One per 2 units	1 per 20 auto spaces
Live-Work Units	One per 600 sf	1 per 20 auto spaces
All Other Residential Uses	No requirement	No requirement
Lodging		
All Lodging Uses	One per room	1 per 50 auto spaces
Office/Service		
Child/Adult Day Care Centers (More than 8 persons)	One space per employee	1 per 20 auto spaces
Medical Services	One per Examination Room	1 per 20 auto spaces
All Other Office/Service Uses	One per 600 sf	1 per 20 auto spaces
Commercial		
Restaurant	One per eight (8) seats	1 per 20 auto spaces
All Other Commercial Uses (Less than 20,000 sf)	One per 600 sf	1 per 20 auto spaces
All Other Commercial Uses (Greater than 20,000 sf)	One per 600 sf	1 per 20 auto spaces
Entertainment/Recreation		

Use Category	Minimum Required Auto Spaces	Bicycle Parking Spaces
Amusements (Indoor)	No requirement	1 per 20 auto spaces
Amusements (Outdoor)	No requirement	1 per 20 auto spaces
Recreational Facility (Indoor)	No requirement	1 per 20 auto spaces
Theater (Indoor & Outdoor)	One (1) per eight (8) seats	1 per 20 auto spaces
All Other Entertainment/Recreation Indoor Uses	No requirement	1 per 20 auto spaces
All Other Entertainment/Recreation Outdoor Uses	No requirement	1 per 20 auto spaces
Civic/Institutional		
Correctional Institution	One (1) for every three (3) employees on shift of greatest employment	No requirement
Religious Institution (Town Centers & Regional Mixed-use Districts)	No requirement	1 per 20 auto spaces
Religious Institution (All Other Districts)	One per 8 seats in the main assembly hall	1 per 20 auto spaces
All Other Civic/Institutional Uses	No requirement	1 per 20 auto spaces
Manufacturing/Wholesale/Storage		
Mini-Warehouses	No requirement	No requirement
All Other Manufacturing/Wholesale/Storage Uses	No requirement	1 per 50 auto spaces
Agricultural		
All Agricultural Uses	No requirement	No requirement
Infrastructure		
All Infrastructure Uses	No requirement	No requirement

Action Item: Reduce the current parking requirements to below industry norms and allow each development to determine their specific needs above that level.

Action Item: Coordinate the parking requirements with the use table.

Action Item: Consider parking area reductions in pedestrian-friendly areas such as the Renaissance area and other neighborhood centers.

6.2.2 | Maximum Parking

At the same time, the Town should provide maximum ratios to limit the overbuilding of parking areas. Some communities have set absolute thresholds and have forbidden the construction of parking areas beyond those levels. Others have taken a more flexible approach and permitted excess parking areas that are constructed as pervious-only areas so as not to have any impact on the other stormwater requirements for the site (and necessitate a larger detention/retention structure). For example, the town could set a maximum threshold of twice the minimum requirements. Any spaces beyond that

would have to be constructed using 100% pervious surfaces such as pervious concrete or structural lawn systems.

Action Item: Consider maximum parking standards to limit excessive parking lots.

6.2.3 | Interconnected Parking Lots

Based on a windshield survey of the area, we noticed an obvious absence of interconnected parking lots. Interconnecting parking lots is the easiest way to improve the efficiency of a transportation corridor and should be essential to every site plan condition with favorable topographic conditions.

Action Item: Revise the connectivity standards to require that adjacent parking areas be interconnected where topography permits.

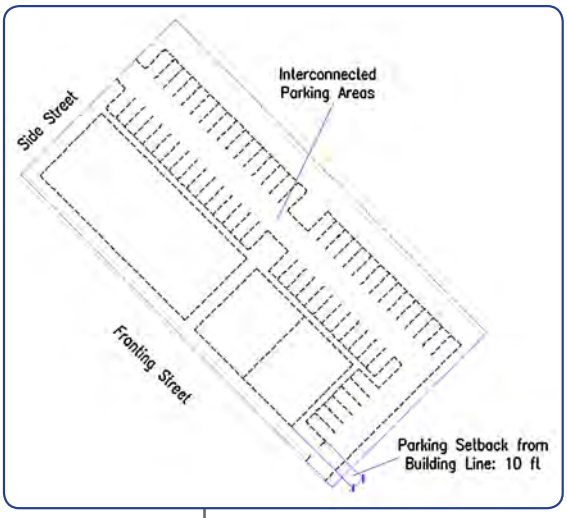


Diagram showing interconnected parking lots from Belmont, NC

6.3 NEIGHBORHOOD INFILL DEVELOPMENT

One of the very first recommendations of the town's Community Plan is to encourage infill that is "architecturally compatible with existing structures." Neighborhood infill can often be contentious, particularly in close-in neighborhoods that are valuable more for their proximity to activity centers than the existing housing stock. There are fears of existing residents being priced out of their homes through the increase of property values (and subsequent increase in taxes), concerns about infill that is overscaled to the neighborhood (particularly when the current development is modest or low-scaled such as the mid-century modern ranch house), concerns about increased traffic after construction and increased noise, dust and traffic during construction.

6.3.1 | Setbacks and Street Frontage Patterns

There are many approaches and resources for managing this element, but perhaps the best illustrated, most comprehensive resource is the Portland Infill Design Toolkit (www.portlandonline.com/bps/index.cfm?c=49254&). "Compatibility, as treated in the Toolkit, is not about replicating existing scale or reproducing the architectural styles of nearby buildings. Rather, the focus is on highlighting how higher-density infill development can be designed to respond to more basic neighborhood patterns, whose continuation allows change to be accommodated while preserving cherished aspects of neighborhood character."

The Portland Toolbox defines seven important features necessary to ensure compatibility including:

- Street frontage characteristics
- Rhythm of development along the street
- Building orientation

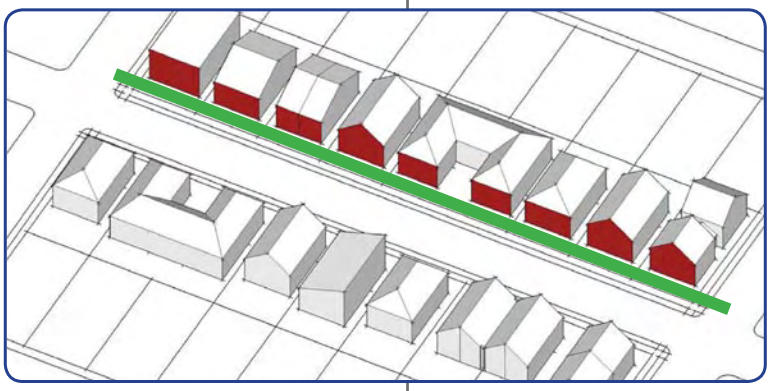


Image Source: Portland Infill Design Toolkit

The diagram above from the Portland Infill Design Toolkit illustrates consistent building patterns and front setbacks.

The images above from multi-family developments in Wake Forest illustrate the negative dominance of the garage and driveway on the streetscape.

- Front setback patterns
- Landscaping and trees
- Backyard patterns and topography
- Architectural features

As was noted in Section 5.2.1 of this report, the creation of flexibility with the measurement of front setbacks will greatly improve the ability of older areas to find compatible redevelopment patterns.

Action Item: Consider the use of other patterns such as building orientation, landscaping and architectural features to improve infill compatibility.

6.3.2 | Parking Areas and Garage Doors

In most communities, the largest impediment to quality infill is the location of the garage door and the presence of parked cars. Normally an aesthetically distasteful feature on small lot infill homes, Wake Forest's code already excludes garage doors on the frontage of residential structures in the Renaissance Area.

Because of the negative space that is created when garages and driveways dominate the frontage of higher density residential development on an otherwise pedestrian-friendly streetscape, we strongly recommend that the town consider a complete ban on garage doors facing the street frontage for, at a minimum, multi-family homes and even for detached homes on small lots. The town could also consider a more prescriptive requirement for all front-facing garage doors such as was adopted for the City of Belmont, NC:

> "Garages with front loading bays (if permitted) shall be recessed from the front facade of the house a minimum of one (1) foot and visually designed to form a secondary building volume. At no time shall the width of an attached garage door exceed 40% of the total front building facade."

Marianne Cusato, author of **Get Your House Right**[1], recommends that a recessed garage be set back a minimum of 6 feet with a preferred setback of at least 18 feet to allow a parked car to be in front of the garage without stepping out in front of the house.

In addition, it also important to manage the number of parked cars in a front yard condition. Even though there may not be a garage, it is not uncommon to find parking pads that dominate the front yard, if not consume it, on a small lot. The town should consider a maximum permitted driveway/parking area width in the front yard of ten to twelve feet for narrow lots (50 feet in width or less) or a complete prohibition of vehicular parking in the front yard for attached homes and multi-family buildings.

Action Item: Consider a prohibition on front-facing garage doors for multi-family buildings and small lot development (less than 50 feet width) but permit exceptions

1 Cusato, Marianne and Ben Penreath. **Get Your House Right-Architectural Elements to Use and & Avoid**. New York: Sterling Publishing Company, 2007.

such as for site topography.

Action Item: Restrict vehicular parking in the front yard for narrow lot detached homes and multi-family structures.

6.4 TREE PROTECTION & LANDSCAPING

The Town of Wake Forest has been very proactive in protecting trees in some areas of the community, particularly the residential zones. In the commercial areas, the requirements of mass grading to create a flat construction sites seem to have taken precedence. The few tree protection areas in the commercial areas tend to be in the front yards or along the frontages.

This is not beneficial for a number of reasons. First, isolating a small stand of trees limits its potential benefit as a part of a larger ecosystem and habitat for woodland creatures. And second, the preservation of such trees are often opportunistic and not part of a larger urban design plan.

Buffers and tree protection areas should not be used to overcome what is assumed to be bad architecture. By setting some basic design standards for building design in the code, the community can be reasonably assured that the urban form will return as much or more value than a simple, isolated stand of trees, which are, more often than not, pines, not oaks. If planned correctly, the town can continue to replenish its hardwood canopy through the thoughtful planting of trees that complement the public realm.

6.4.1 | Tree Protection, Landscaping and Walkable Urbanism

This expansive front yard is by its very nature contrary to a good urban environment. Retail, in order to be successful, needs visibility regardless if it is auto-oriented or pedestrian-oriented. And if the desire is to create a viable pedestrian experience, studies have proven time and time again that a continuous line of active facades and storefronts will encourage pedestrian activity more effectively than any other urban design technique.

The current requirements seem to require both a 30 foot landscaping zone (in the setback standards) as well as a 50 foot vegetation protection area (in Article VI, Section 6.M regarding Tree Clearing Permits). Further, this section also imposes an extended de facto buffer around every development site of at least 25 feet. As this section notes that the stricter of any related requirements apply, this clearly trumps all other standards.

This is not to suggest that all of the tree buffers along roads are inappropriate. Only in areas where there is an expressed desire to create walkable centers of activity is there a need to rethink this approach. This approach should also go hand-in-hand with a re-configuration of the roadway itself. Thoroughfares designed for high speeds are not good pedestrian environments either.

It is important that in any case, tree protection be weighed against the desire to create walkable urban neighborhoods and mixed-use areas. More often than not, the grading necessary to create walkable places can pose challenges to the preservation of existing trees. In this case, there should be a clear prioritization for the formal replanting of trees.

Action Item: Consider implementing a more comprehensive tree protection

standard that is keyed to the context/zoning district.

6.4.2 | Tree Protection and Other Environmental Protection Requirements

At present, the tree protection requirements are independent from and not coordinated with the other environmental protection standards of the development ordinances. Specifically, the Floodplain Protection Ordinance, the Watershed Protection Ordinance, and the Phase II Post-Construction Stormwater Ordinance all have land protection areas that could be better coordinated with the current tree protection standards so that there can be overlapping compliance rather than additional compliance.

And, where possible, the protection zones should be placed in common areas or dedicated to the town to minimize potential encroachments and ensure their long-term protection. We recorded a number of concerns from homeowners associations through our interview that noted the challenge in enforcing stream buffers and tree protection zones in backyards of properties. This is a common concern throughout the country. As a result we strongly recommend that such protection zones be placed in easily accessible parks or common areas first and reserve those inaccessible backyard areas if there is no practical alternative.

Action Item: Coordinate all environmental protection standards to ensure adequate, yet practical and flexible landscape protection.

Action Item: Ensure that all protection zones are placed in separately platted common areas or dedicated to the town as part of their parks and greenway system (as appropriate).

6.4.3 | Buffers

The bufferyard requirements in the zoning ordinance (Article VI, Section 6.G) are fairly rigorous in that they assume that virtually no land use is compatible with another. For example, even an 8,000 square foot lot with a single family home is required to provide a 20 foot buffer to the adjacent 15,000 square foot lot with its single family home. As noted earlier in this report, these two lots could support identical homes. Further, there is no clear way to manage such a small buffer zone in the backyard (as noted above) that would preclude the homeowner from doing some "selective clearing" on the weekend.

While these requirements do provide beneficial greening to new development, they also increase the distances between land uses and restrict the ability to create compact, mixed-use centers of activity. Both of these impacts negatively affect pedestrian access to goods and services because they have to travel further to get to destinations that are so severely separated by buffers and setbacks.

Buffers do have their place, especially when it comes to separating heavy industrial, highway commercial sites and other potentially noxious uses from residential development. However, a buffer requirement is a blunt instrument and a suburban standard, applied too heavily and broadly in too many contexts. For example, all multi-family and office development is required to be screened from existing single-family development. However, Wake Forest and many other communities have good examples

of existing office, institutional, and compatibly-scaled multi-family development that functions very well without buffering. Context-based building and site design standards are a much more precise and appropriate way to deal with land use compatibility, We strongly encourage the town to limit the applicability of the buffer standards. Instead, if tree preservation, reduced stormwater runoff, and more attractive streetscapes are desired, we urge the town to devote more emphasis to: detailed tree preservation standards; effective low impact design requirements to reduce stormwater impacts; and building, site, and streetscape design standards that enable relatively seamless transitions between land uses through building orientation, bulk, scale, and type.

Action Item: Consider elimination of certain bufferyards, particularly between residential uses.

6.5 OPEN SPACE & PARKS

Parks play a vital role to many different people, young and old, active and inactive. Properly designed and maintained parks have also been shown to add significant value to a neighborhood. "The real estate market consistently demonstrates that many people are willing to pay a larger amount for a property located close to parks and open space areas than for a home that does not offer this amenity. The higher value of these residences means that their owners pay higher property taxes. In effect, this represents a "capitalization" of park land into increased property values of proximate land owners."

According to the Urban Land Institute, "design has an enormous impact on how users experience a park. Good, responsible design yields a beautiful, green, safe, clean park that will exert a strong positive influence on the community. The design of the park should be integrated with surrounding uses and should be accessible and appealing for users with a wide range of ages, backgrounds, interests, and abilities. Features such as lighting, seating (both movable and fixed), restrooms, and food and beverage sales all contribute to the comfort and appeal of a park. Aesthetic considerations should not stop at the park's boundaries: the perimeter of the park and the adjacent sidewalks are gateways, and are also an important part of users' experience.

It is critical for park design to remain current and to accommodate diverse users. Design options should respond to changes in community needs and in recreation trends. For example, adaptations in park design can address changes in fitness trends or in the demand for facilities such as dog runs or skate parks."

6.5.1 | Adopt Standards for Neighborhood Parks

The Community Plan specifically recommends that "mini-parks should continued to be supported in existing and proposed neighborhoods," yet at present, there are no open space standards for neighborhoods.

This is likely due to the fact that Wake Forest already levies an impact fee for parks on each new household equal to approximately $1000 per single family home. The problem is that the fees go to construct large community parks and are not adequate at providing neighborhood parks and playgrounds. And because the impact fees can only be used for capital facilities and not for operations and maintenance, the financial structure is established to focus on a few larger, centralized parks, than with many scattered and diverse smaller parks.

The diagram above from the Portland Infill Design Toolkit illustrates consistent building patterns and front setbacks.

The Town of Knightdale, NC, recently updated their Unified Development Ordinance. In it, they have included park dedication standards that are tied to both the density of the development and the estimated number of bedrooms. The result has been a series of parks and recreational open spaces that are scaled to the development and located in close proximity to the homes.

Action Item: Consider reducing the open space impact fee in favor of requiring public space with each increment of development and/or permit a payment-in-lieu option.

Action Item: Adopt public space dedication and improvement standards that will in the long-term provide a range of open space types based on context in all new development.

6.6 WIRELESS TELECOMMUNICATIONS FACILITIES

The standards for wireless telecommunications facilities sprawl across thirty-six pages in Article VI, Section 11. Like many of the various land development standards added in recent years, they were narrowly written (likely by specialists in that discipline) to focus exclusive attention on their specific issue (e.g., stormwater, floodplain protection). As a result, the amendments include vast amounts of excessive language, redundant administration rules, and contradictory regulations.

Such is the case for the wireless telecommunications facilities rules. We fundamentally question the need for such vast technical regulation of an industry that must also conform to state electrical and structural codes as well as Federal Communications Commission (FCC) regulations. In our experience where there is this type of "gold plated ordinance" and others where the ordinances are much more streamlined, we have seen no physical difference. The most recent ordinance in Belmont, NC, for example, updated approximately 8 years ago has been more than sufficient to address the needs of their community.

That being said, we would first recommend that the section be dramatically streamlined to be easier to administer and interpret. At a minimum we recommend consolidating the definitions along with the others in the UDO into one chapter, refer standard administration sections (e.g., Special Use Permit) rather than restate it differently in this section, and remove references to fines and fee which are covered elsewhere. Also, we would recommend removing all non-essential or redundant language. The permit documentation alone can be made to be much more concise and consistent with other site plan applications.

In short, we see no reason why this section should not be less than ten pages in length.

Action Item: Radically streamline the standards for wireless telecommunications facilities.

6.7 SIGNS

The sign standards are located in Article VI, Section 4 in the Zoning Ordinance. In general the current standards appear to be reasonable and well-accepted by the community. In addition, the signage standards are keyed to the districts not to uses, making them context sensitive. We would be remiss in any similar report by not addressing the deficiencies of the sign regulations, but aside from some improvements in the illustrations and text brevity, the regulations appear to be in proper order.

Action Item: Update sign illustrations.

6.8 NON CONFORMITIES

As the community is still growing, there will be a need to manage both older buildings and site built under previous codes (or none for that matter) and recent development. Because the recession has led to tens of thousands of store closings across the country (including thousands of car dealerships) there is a challenge for communities to find the best way to ensure economic vitality in these older areas and prevent further decline.

To expect full compliance with all new requirements may be financially unrealistic for a start-up tenant in a small building. However, there may be some prioritized improvements that can be accomplished. At present, the management of non-conformities is strewn through the ordinance and are inconsistent in their application as well as their presence. As part of the full re-write, the town should focus on ensuring that non-conformities are managed fairly and that their continuation is limited to the extent practical.

There are three basic recommendations regarding managing non-conforming existing buildings:

- Prioritize compliance
- Seek to apply different expectations of compliance in different districts
- Reduce certain standards to encourage redevelopment

6.8.1 | Prioritize Compliance on Public Realm Elements

First, the town should provide a table that evaluates the relative priorities of bringing certain structures into compliance. Signs, for example, could be the first element to be brought into compliance, followed perhaps, by shade trees for the parking lot. In general, the elements of compliance should focus on the public realm elements first (e.g., freestanding signs, landscaping, sidewalks) and the private realm elements last (e.g., building design, use).

Action Item: Create a redevelopment compliance table that prioritizes compliance on public realm elements.

6.8.2 | Prioritize Compliance Based on Location/District

The second recommendation is to consider that full compliance in some districts is much more important than in others. Specifically, those areas that are intended to be pedestrian-friendly and mixed-use should have the highest focus for compliance. Other

areas, such as those that are currently industrial, should have lower expectations.

Action Item: Reduce non-conformity compliance for areas that are not considered pedestrian-friendly, mixed-use zones.

6.8.3 | Reduce Certain Standards to Encourage Redevelopment

At present, the current stormwater management regulations in 1-105 of the Phase II Stormwater Ordinance require that all redevelopment sites that disturb more than an acre of land are subject to the full requirements of the ordinance. In general, this discourages redevelopment by increasing site costs and reducing developable area.

When evaluating redevelopment, it is our opinion that economic and social elements should be prioritized over environmental ones. This is to say that it is better for an under-utilized parking lot be converted to an urban, mixed-use structure with street frontage rather than replanted with trees or made more pervious with expensive rain gardens. In this manner, it contributes much more greatly to the town's tax base and improves the overall public realm. As the site likely contained a high amount of impervious surface previously, it had, in essence, already paved over its environmental issues and the overall ecosystem had long since been affected. A 20% reduction in that site's impervious surface will have little impact on the downstream's water quality, but could have much bigger rewards economically or aesthetically.

Action Item: Eliminate redevelopment standards from stormwater management compliance or create a matrix that applies it based on lot size and location.

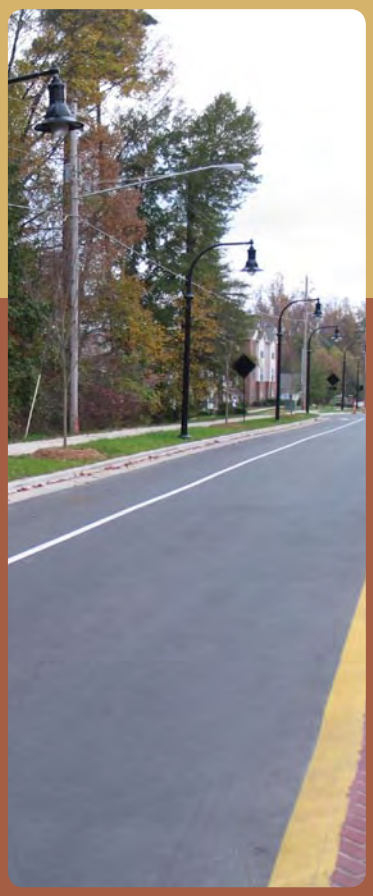
Compliance matrices like this one from Salisbury, NC help to prioritize the retrofitting of non-conformities.

✓ - Compliance with all applicable standards required
✓+ - Compliance with all applicable standards required for only expanded building/parking areas

	b Transportation	c Streetscape	d Signage	e.5 Parking Area Landscaping	e.6 Cross-Access Required	e.7 Bicycle Parking	f Pedestrian Network	g Building Design	h Site Lighting	i Utilities	j Outside Display & Storage
Parking Area Expansion											
Minor: 25% or less increase or 5-20 Spaces			✓	✓+		✓			✓+	✓	✓
Major: 26% or greater increase or 21+ Spaces		✓	✓	✓	✓	✓	✓		✓	✓	✓
Existing Development: *Existing habitable buildings on a parcel*											
Renovation/Reconstruction Due to Disaster (Fire, Flood, etc)	*May rebuild exactly as previously in place. Modifications will be subject to the applicability noted below.*										
Reoccupation after Extended Vacancy (180 Days or Greater)			✓			✓				✓	✓
Exterior Renovation without Expansion											✓
Minor Expansion: ≤25% of total floor area			✓			✓		✓+		✓	✓
Partial Expansion: 25%< >50% of total floor area			✓	✓		✓	✓	✓+		✓	✓
Major Expansion: >50% of total floor area	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
New Construction: *Development of new building on a previously developed portion of the site such as a parking area, on a previously undeveloped site, or on a site that no longer contains any habitable structures.*											
New Construction on Undeveloped Site (Including Outparcels)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

7

STREETS & INFRASTRUCTURE



The building block for most American communities are its streets and public spaces. Most often referred to collectively as "infrastructure," these elements are comprised of both natural and physical structures. It is a mistake to simply consider these features as simply reserved for the engineering of stormwater drainage or truck turning radii. These places, along with the parks and plazas, establish the character of their respective neighborhood, district, or corridor and fundamentally define the public realm.

At present, the hot topic in the community is stormwater management. With the recent federal and state directives to improve water quality now impacting smaller communities through the National Pollutant Discharge Elimination System (NPDES) and the Neuse River Buffer rules there has been a rush to implement regulations to fulfill these respective directives. For good or bad, these requirements are having significant and far-reaching impacts on the built environment.

The same is true for streets. Current standards such as those promulgated by NCDOT have engineered these into car-only corridors. As the largest public investment of any community, this infrastructure should strive to serve all roadway users—including pedestrians, cyclists, and motorists—as well as property owners who front on the street.

The statistics speak loudly. Pedestrians comprise one in every ten deaths by automobile[1]. The Raleigh-Cary Urban area is considered one of the ten most dangerous urban areas for walking in the US based on injuries and deaths[2]. Twenty-nine (29%) of North Carolinians are considered obese[3] and the rates for childhood obesity are on the rise[4]. Cardio-vascular and pulmonary diseases are two of the leading causes of death in the United States[5]. The common denominator of all of these issues is that a statistically significant percentage can be prevented from basic exercise - walking, running, or bicycling – but are unable to do so because of the lack of any such facilities.

Approximately one in four trips from the home are made to destinations that are less

1 *http://t4america.org/docs/dangerousbydesign/dangerous_by_design.pdf*
2 *http://t4america.org/docs/dangerousbydesign/dangerous_by_design.pdf*
3 *http://www.cdc.gov/obesity/data/trends.html*
4 *http://www.cdc.gov/obesity/childhood/prevalence.html*
5 *http://www.cdc.gov/nchs/FASTATS/lcod.htm*

The streetscape shown in the top image was constructed as a private street to accommodate shallow setbacks. However, the resultant street section diminished the impact of the public space with rolled curb that permits cars to park on the sidewalk as shown above. A better approach is the second image showing how a intimate street can be properly detailed with shallow setbacks, usable sidewalks, a tree planting strip, and on-street parking.

than one mile away but nearly 80% of these are made by automobile. In addition, the ability of someone to avoid a car trip because they can walk or have a non-motorized alternative can yield significant energy saving along with a commensurate reduction in air polluting emissions. This is underscored by the fact that the average Vehicle Miles Traveled (VMT) in the Raleigh MSA is 32 miles per day, nearly 29% higher than the current national average of 24.9. When accounting for fuel and maintenance, each VMT cost about $0.50 per mile. When this difference is then multiplied across the entire region of both current and future population, the numbers of wasted capital, not to mention the time lost in a vehicle, are staggering.

When these two issues are combined, they form the most convincing argument for improving bicycle and pedestrian facilities and networks throughout the community and the region. Given the immediacy of the issues presented, this is perhaps the most important and most fundamental challenges that all communities will face.

7.1 STREETS

Street design is detailed in the Subdivision Ordinance (Article IV) as well as in the Manual of Specifications, Standards, and Design (MSSD). These specifications cover street classification, horizontal and vertical alignment, drainage, sidewalks, driveways, and pavement. As a general rule, these standards follow conventional engineering principles and are not context-sensitive except with respect with to the fronting lot size (which is a poor standard to use, in our opinion, as this precludes the opportunity for redevelopment at higher densities in future).

The City of Charlotte, NC was recently recognized by the EPA for its Urban Street Design Guidelines Handbook. The USDG is a model exemplar of best practices for creating "complete" streets that provide capacity and mobility for motorists, while also being safer and more comfortable for pedestrians, cyclists, and neighborhood residents.

The Town can also look to the recently released "Designing Walkable, Urban Thoroughfares: A Context-Sensitive Approach" promulgated by the Institute for Traffic Engineers (ITE) and the Congress for the New Urbanism.

7.1.1 | Pavement Width and Overall Section

The general standards for streets are found in Article IV, Section C of the Subdivision Ordinance as well as in the Section 2 (Street/Subdivision Design) of the MSSD. To begin with, the standards found in these two documents are both redundant and inconsistent. The typical residential street is required to have a minimum of 27 feet of overall pavement width (back of curb to back of curb) in the Subdivision Ordinance and 25 feet of overall pavement width (back of curb to back of curb) in the MSSD.

Beyond the inconsistency is a need to discuss whether these sections are appropriate for building walkable neighborhoods and streets. While the minimum pavement widths are not the most extreme we have seen, we would challenge the town to consider some narrower street sections for certain conditions. Reduced pavement widths are

natural traffic calming devices as well as reduced impervious surfaces to mitigate stormwater impacts.

The typical neighborhood streetscape from Waynesville, NC illustrates the essential components of the right-of-way including sidewalks, planting strips, curbs, on-street parking, and travel ways.

For typical subdivision streets with larger lots, the current street section is probably adequate. However, in the design of more compact, walkable neighborhoods, there should be a much broader range of street types that begin with basic travel lane widths and add components based on the expected usage. In some conditions, a "yield-flow" (a width that allows on-street parking but allows two moving cars to pass if one yields to the another) may be appropriate. In other conditions, formal on-street parking is expected and should therefore have the minimum width necessary to accommodate it (typically 34-36 feet in width as measured from the face of curb).

In addition there needs to be guidance as to the expectations for additional pavement width if on-street parking is to be provided. In some cases, such parking is informal (typically on one-side only) whereas as noted above it might be striped for regular usage.

And finally, there no street sections that accommodate a mixed-use environment. Streets are classified by the conventional hierarchy that is predicated on traffic volumes, not fronting conditions. As guidance for these types of changes, the town can look to the recently adopted Traditional Neighborhood Development (TND) plan for Holding Village. It presents a number of street sections to accommodate low-speed, mixed-use environments that could serve as excellent precedents for revisions to these standards.

Action Item: Adopt a broader range of walkable street sections particularly for neighborhoods and mixed-use areas.

Action Item: Create a "kit of parts" for right of way components to include sidewalks, planting strips, street trees, lighting, curbs and drainage, on-street parking, and travel ways.

7.1.2 | Sidewalks

Like the more general discussion above about the entire street section, there must some focus on improving the specific element of the sidewalk. The width and presence of a sidewalk is an important determinant in providing a healthy, walkable environment.

At present, the town requires sidewalks on one side only of all streets with fronting lots that are 10,000 square feet or less. Sidewalks on both sides of the street are required for "multi-family groups" only. As noted previously, establishing context by lot size is a crude measure. What if the street is expected to function as a collector street and carry more traffic? What about higher density detached housing?

Sidewalks on both sides of the street enable the most vulnerable of our society to safely travel

To require people to cross a street, particularly children or the disabled, in order to safely travel is discouraging to pedestrian activity. The ideal location for all pedestrians to cross the street are at designated mid-block crossings or intersections. Though it adds cost to the development as well as increased impervious surface, the benefits of an extensive pedestrian network in encouraging non-motorized transportation

and increasing recreation (and thereby reducing obesity) more than justifies their installation.

Action Item: Require sidewalks on both sides of every street except for very low density (e.g., 1 units/acre) housing-only neighborhoods. Consider sidewalk on one-side only of streets with densities approximately 2 units/acre.

Action Item: Require wider sidewalks in mixed-use and commercial areas to accommodate higher pedestrian volumes as well as mixed usages (e.g., outdoor seating, pedestrians, bicyclists).

7.1.3 | Complete Streets

The Community Plan as well as the 2010 update to the Transportation Plan are replete with references to creating Complete Streets (www.completestreets.org) throughout the community. Complete Streets are transportation corridors that seek to provide appropriate levels of connectivity for various modes of transportation beyond just the automobile based on the corridor's context. This is not to suggest that bike lanes, for example, should be on every street. Rather, that there is a appropriate context to the application of various design techniques.

Action Item: Implement a 'Complete Streets' policy that addresses new streets constructed in new development as well as public improvements and new capital projects.

7.1.4 | Context-Sensitive Street Design

Very simply, context sensitive design means that standards should have different design details based on the area that they are located in. Is this a highly-pedestrian-oriented downtown or a rural road? Is the focus on creating a great human environment or are the natural conditions favored. There should not a one-size-fits all approach to street design but rather a kit of parts that allows the appropriate assemblage of right-of-way details based on the planned and expected future conditions. All of the following conditions should be subject to context-calibration:

- Pavement width
- Presence and formality of on-street parking
- Presence of formal or informal bicycle facilities
- Curbs or open drainage
- Formal tree spacing or naturalistic plantings
- Width and detail of sidewalks (multi-use path on one side only or sidewalk on both sides)
- Lighting

Action Item: Consistent with 7.1.1 above, create a "kit of parts" for right-of-way assemblage that is keyed to the appropriate context.

7.2 CONNECTIVITY

Improving connectivity and limiting cul-de-sacs results in improved mobility for motorists, pedestrians, and cyclists; decreased response time for emergency services and delivery costs for services such as garbage collection through improved routing options; and, improved water pressure and maintenance from the ability to loop lines through a development rather than have to rely on less efficient dead-end pipe runs.

Traffic studies have shown that highly connected street networks provide much greater traffic capacity and mobility for a community at less cost. A high degree of connectivity should occur not only at the level of thoroughfares, but also on collector, local and other secondary roads. Such connectivity vastly improves a street network's performance. The street pattern should not force short trips of one or two miles onto arterials; it should be possible to make trips of this length by using collector or other secondary streets, which are also more favorable to pedestrians and cyclists. With a highly-connected street network, cross-town trips should be possible using fairly direct secondary roads.

The current standards provide only a limited amount of connectivity guidance as the maximum block length is 1000 ft and cul-de-sacs are permitted to be up to 800-1000 feet in length

7.2.1 | Block and Cul-de-sac Street Lengths

The current subdivision regulation permit the maximum length of a cul-de-sac to be 800 feet while the MSSD permits a maximum length of 1000 feet (nearly a quarter-mile). Both of these dimensions are excessive and should be limited. Block lengths of this extreme length encourage speeding and virtually eliminate pedestrian connectivity. In addition, the minimum block length is 400 feet and the maximum block length is 1000 feet, effectively requiring a sprawling, disconnected pattern.

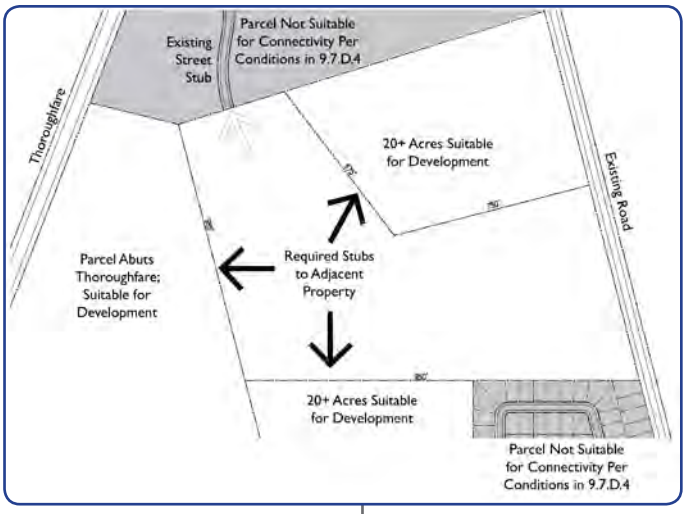
The State of Virginia recently amended their subdivision streets manual to eliminate cul-de-sacs (with a few exceptions) and require at least two entrances into every subdivision. There is no reason why the Town of Wake Forest cannot do the same. For all of the reasons mentioned above, two entrances for most neighborhoods is the bare minimum necessary to ensure safety and convenience for its residents.

The Planning Board, in accordance with the Subdivision Ordinance has broad jurisdiction over the

> **Action Item:** Establish a maximum block length of 500 to 800 feet (depending on the density of development and/or the zoning district) and eliminate the minimum block length.
>
> **Action Item:** Require pedestrian/bicycle connections through blocks longer than 800 feet, between neighborhoods, and across streams.

7.2.2 | Stub Streets

The Town should also consider requiring stub streets to adjacent undeveloped land to provide for greater connectivity options through new development. We recommend that stubs be provided based on the maximum block length except where environmental or land use constraints would require less frequent connections. In the case of stream crossings, we recommend that pedestrian/bicycle connections be provided where street crossings are not feasible.



A graphic from the Town of Wendell, NC UDO depicting the standards for street stubs to adjacent properties.

The City of Salisbury, NC requires a stub to every adjacent property and more than one if a shared property boundary exceeds 1200 feet in length with a priority given to connections to adjacent parcels greater than 20 acres and parcels that have access to collector streets or thoroughfares.

Action Item: Require at least two connections for each new neighborhood. More may be necessary for larger neighborhoods.

Action Item: Require stubs to adjacent property.

Action Item: Require a sign at the end of all stub streets that notifies the public of the eventual connection of the stub to a future street.

7.3 GREENWAYS

The Town of Wake Forest has been aggressively implementing greenways throughout its community for many years. The first official greenway plan was adopted in 2002, though greenways have been part of the public dialogue in Wake County for many years preceding this document. Since that time a number of key greeenways have been constructed throughout Wake Forest.

Upon review of the current zoning, subdivision, and MSSD standards it is unclear how greenways are constructed in the community expect as conditions to Special Use Permit applications. It is likely that the town is unwilling to make this a requirement so as to avoid running afoul of the perceived ban imposed by the current Recreation Facility Fee on all other forms of exactions or dedications of open spaces.

As a result, the burden for the construction of all parks and greenways appears to be solely borne by the town using a combination of facility fees and general fund dollars. This process is cumbersome and expensive. Like reconsidering the open space dedication as a whole, we also recommend that the town consider requiring the construction and dedication or all greenway segments that are planned within new neighborhoods.

The Town of Mint Hill, NC requires the construction of greenways as part of their open space network. Greenways constructed as part of the development process are credited at a rate equal to the length of the corridor times 16 feet in width.

Action Item: Require the construction of all greenway segments that are within new neighborhoods and new commercial development projects (and major expansions) where practical and feasible.

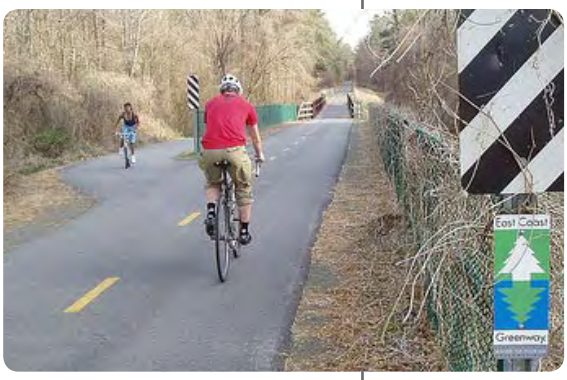


Image Source: Alta Planning + Design

Greenways are popular public facilities that combine valuable transportation and recreation functions.

7.4 STORMWATER

The effect of development and human activity on the quality of rivers, streams, and lakes around Wake Forest and in particular in the Neuse River basin is well documented. Pollution and the potential for pollution is a serious threat to all water resources in the region and is an issue of specific importance to urbanized areas like Raleigh.

The protection of surface waters can yield enormous long-term benefits for the entire community provided the program is practical and context-sensitive

One of the largest contributors to water pollution is non-point source pollution. Non-point source pollution is the process of storm water runoff carrying pollutant particles from a variety of locations including construction sites, parking lots and rooftops into streams, rivers and lakes. Factors that affect storm water runoff and non-point source pollution are generally development-related. With an increase in development, there is an increase in the amount of impervious surface area - those areas such as pavement or roofing which do not allow for filtration of storm water. These impervious surfaces cause storm water to drain more directly into streams and rivers allowing unfiltered storm water which would have been filtered out through the natural landscape, to be transported into water resources thus increasing overall levels of pollution.

The State of North Carolina adopted a comprehensive strategy for the control of total nitrogen in stormwater runoff for new developments when it adopted the Neuse River Basin Nutrient Management Strategy. The goal of the strategy is to achieve a 30 percent nitrogen reduction from each controllable and quantifiable source of nitrogen in the basin. These sources are: wastewater treatment, urban stormwater, agriculture and nutrient application. The Neuse strategy also includes a rule to protect riparian buffers in order to maintain their existing nitrogen removal capabilities as well as the control of peak runoff to pre-development rates for the purpose of protecting streams and the nutrient reduction functions of riparian buffers from accelerated erosion.

Stormwater and water quality are regulated by both the Federal government through the Clean Water Act and the NC Department of Natural Resources-Division of Water Quality through the enforcement of the Neuse River buffer standards.

7.4.1 | Context-Sensitive Stormwater Design

The guidance that is being provided by both agencies, at least through their model ordinances and design guidelines is a one-size, fits-all approach that casts a broad brush across the community regardless of the context or of the other priorities, particularly those that attempt to create great urban spaces for people. As a result, the adopted ordinance and design guidelines mimic this uniform approach. No consideration is given to redevelopment areas or areas that area designated as centers of activity.

The application of a universal standard may be counter-productive to the other priorities of the Community Plan. For example, in areas that the town wants to direct and encourage growth and development, such as downtown and in identified mixed-use centers, different standards for impervious surface ratios, total suspended solid (TSS) and nutrient removal, and similar factors may be appropriate. Therefore BMP requirements, like all requirements, should be modified to fit the various development contexts in the town's jurisdiction. This applies to nitrogen reduction mandated in

2000 in the Neuse River Basin, which often requires a highly engineered solution. As is readily admitted in the state design manual using national and regional studies, "most BMPs are capable of removing only 20 to 40 percent of total nitrogen on a consistent basis. All BMPs require regular maintenance and some have varying performance depending on soil type and the season."

Action Item: Modify the stormwater standards to apply a palette of context sensitive standards.

7.4.2 | Redevelopment

Section 1-104, 1-105, and 1-301 require that redevelopment sites greater than 1 acre in size are subject to the full provisions of the post-development stormwater standards. This single standard alone is sufficient enough to discourage redevelopment of small to medium-sized commercial sites all around Wake Forest given the costs of retrofitting parking areas with bio-retention areas.

The stark truth is that for existing developed sites, all environmental problems have largely been "paved over". As noted, the cost to retrofit existing developed sites with bio-retention areas such as rain gardens and other best management practices (BMPSs) are much more expensive than the installation of such in new development. Therefore, any improvement to these sites will benefit the community. But, more importantly, the economic revitalization of these sites may outweigh their need to be environmentally remediated.

Action Item: Exempt all or a portion of existing development from post-development stormwater standards.

7.4.3 | Consider a Universal Program, With Modifications

At present the watershed ordinance, floodplain protection ordinance, sedimentation and erosion control, and the post-development stormwater control are all separate ordinances in the Town of Wake Forest. This is redundant, cumbersome, and in many cases, the source of many conflicting standards.

The state has crafted a universal ordinance that is intended to cover all of these key areas within one neat and tidy package. Unfortunately, such an approach furthers the one-sized, fits-all problems noted previously. The ideal arrangement is the creating of a single set of standards that fulfill all of the various goals in a consistent, yet context-appropriate manner.

Changes to these existing standards will no doubt require approval from the NC Department of Natural Resources-Division of Water Quality. The town should partner with the City of Raleigh, who is also going through a similar comprehensive code update, to create a universal program that is context-sensitive. In doing so, the administration and enforcement of these requirements may possibly be streamlined, or at a minimum, consistent across community borders.

Action Item: Work with Raleigh and the State to create a context-sensitive, universal stormwater management program.

7.5 MANUAL OF SPECIFICATIONS, STANDARDS & DESIGN (MSSD)

For a community the size of Wake Forest, it has a robust and sophisticated engineering manual that guides the installation of public infrastructure. Separate from the current development ordinances, it often replicates existing standards as well as supplements them with specific design and construction details to ensure a consistent set of standards.

Unfortunately, the current manual is difficult to properly reference and is riddled with inconsistencies. Many of these inconsistencies such as though found between the Subdivision Ordinance references to vertical curves and horizontal curve radii, have been noted throughout this report. In addition to the difference in many standards between the many documents, there is also a difference in the basic nomenclature, such as those used to define the various street types.

At present, the MSSD includes standards for the following major topic areas:

- Streets/Subdivision Design
- Stormwater Management and Design
- Erosion and Sediment Control
- Water and Sewer (Now void since the transfer of the system to Raleigh)

7.5.1 | Design and Construction Details Only

As a general rule we recommend that all policies and ordinance provisions be placed in the UDO and design and construction details be collated in the MSSD. To mix the two even if the intent is simply to ensure the conveyance of appropriate information, is to find oneself in exactly the place that the current MSSD is - rife with redundancy and inconsistencies with the other development ordinances.

For example, the basic street types and components of the right-of-way should be included in the UDO but the construction details such as the pavement depth and curb details be located in the MSSD. The same is true for stormwater policies which are best left to the UDO while pipe sizes and storm frequency charts are details appropriate for the MSSD.

> **Action Item:** Remove all policy and ordinance language from the MSSD and include only design and construction details and specifications.

7.5.2 | Numbering System

The current numbering system is fragmented and difficult to navigate both within each section as well as reference any internal sections from outside the document. Because the MSSD should simply be a specifications manual, not a policies and procedures guide, the numbering system should be a little different than the other UDO sections. We recommend using the Section-Subsection-List Number format. Like the UDO, we also encourage that this numbering system be applied so that it appears in front of each Subsection as the complete reference number to better help users reference information. In other words, the Subsection number should include the Section numbers as well. (e.g., 4.5.3)

The same should hold true for all sequencing associated with the CAD details. They

should be appropriately enumerated consistent with the text in the rest of the MSSD.

Action Item: Change numbering system to Section-Subsection-List Number format. (e.g., 6.6.3.A)

7.5.3 | Publishing the MSSD to the Web

The Town has posted a plethora of planning-related information to the web so that both citizens and potential clients/customers can readily access basic information. This information includes both plans and ordinances, with one important exception - the MSSD. For whatever reason, the current MSSD and the related CAD details are not available online. This should change as soon as possible.

Action Item: Post the MSSD and related CAD files to the town's web site.

A

COMMUNITY PLAN CODE ANALYSIS

Item #	Type	Action Item	Commentary
Neighborhoods: Older Neighborhoods			
ON-4	Policy	New infill development should be architecturally compatible with existing structures, site layout and the streetscape within its vicinity. Efforts by neighborhood associations to establish their own standards for development compatibility should be encouraged. Performance based standards (checklist) rather than discretionary review (opinion) should be employed whenever possible.	Infill compatibility standards in building design, setbacks, and frontage. Individual neighborhood standards can be complex to administer but are also very specific if done well.
ON-6	Policy	Pedestrian-oriented, designed and scaled stores and services providing basic necessities to residents of the town's older neighborhoods should be encouraged.	Standards for small footprint stores with residential-type features (pitched roof, etc) on prominent corners in or near neighborhoods
ON-7	Policy	Redevelopment and infill projects in older neighborhoods should facilitate mass transit services through recognition of planned transit routes, development mix and density, and accommodation for future transit stop locations.	Encourage higher density within 1/4 - 1/2 mile of planned station areas. Care must be taken to ease transition to existing suburban residential areas. Small area plans can be very helpful.
ON-G	Action	Examine current development regulations with an eye toward relaxing standards for existing small businesses when they want to improve. Eliminate onerous requirements or provide incentives to offset them.	Evaluate non-conforming provisions and establish threshold that encourage small improvements/expansions
ON-J	Action	Encourage redevelopment and infill projects in older neighborhoods to take future public transit corridors and routes into consideration during their planning.	Permit higher density in certain locations within 1/4 - 1/2 mile of planned station areas
Neighborhoods: Newer Neighborhoods			
NN-1	Policy	Architecturally compatible accessory housing should be encouraged on developed lots within existing neighborhood areas, especially for the elderly.	Revise update standards as necessary

Item #	Type	Action Item	Commentary
NN-3	Policy	Architecturally compatible, residentially scaled office and institutional development may be permitted along major streets forming a boundary of a neighborhood planning area. Pre-existing residential properties may be converted when, in the judgment of the board, such homes have become unsuitable for residential occupancy. Whenever possible, the exterior residential appearance of the existing structure shall be retained while the interior may be remodeled.	Establish design standards for residential-scale mixed-use (i.e. pitched roofs, porches, lap siding)
NN-4	Policy	Existing, less intensive development (i.e. residential or office uses) located at the intersection of two or more major streets may be allowed to undergo an orderly transition to appropriate commercial use, provided that residential use is no longer viable and that careful site design will allow for compatibility with adjoining areas.	Residential-scale mixed-use design standards
Neighborhoods: Future Neighborhoods			
FN-1	Policy	To minimize sprawl and land consumption, and to promote a walkable community, most new neighborhoods should be compact in form.	Permit/encourage smaller lot sizes with a variety of lotting patterns and building types
FN-2	Policy	New neighborhood streets should be no wider than necessary to serve their intended purpose.	Permit narrow street standards
FN-4	Policy	New neighborhoods should include one or more neighborhood centers or focal points in each neighborhood planning area.	Require that each neighborhood should have a focal point - park, community center, small retail
FN-5	Policy	Neighborhood serving businesses should be encouraged in new neighborhood designs.	Need to permit more mixed-use by-right in new neighborhoods
FN-6	Policy	Amenity centers (e.g. club house, tennis courts, pool) in new developments should be placed in a central location for convenient, pedestrian access by neighborhood residents. Placing such centers at the perimeter or entrance to the neighborhood for marketing or buffering purposes is to be discouraged.	Use locational standards for neighborhood amenities - suggest that no home is more than a 5 minute walk from such facilities
FN-7	Policy	As new neighborhoods are developed, a mixture of housing types/sizes/prices should be encouraged within the bounds of each neighborhood planning area.	Permit/encourage smaller lot sizes with a variety of lotting patterns and building types
FN-8	Policy	Higher density housing projects, such as apartment complexes and condominium developments, should be located adjoining places of work, shopping and public transit. Access to such higher density housing should not be through a lower density housing area. Higher density housing may often act as a transitional use between offices or shops and lower density housing.	Locational standards for higher density projects - may also need refinement in district provisions and detail from small area plans

Item #	Type	Action Item	Commentary
FN-9	Policy	To enable walking and biking, as well as a beneficial network of local streets, new neighborhoods should be connected to other neighborhoods and, where appropriate, shopping and work areas. Careful street layout and design review should be employed to deny opportunities for cut through traffic. Gated communities should not be permitted in Wake Forest as they impede travel and limit connections between areas.	Need clear street connectivity standards and guidance for a network of slow-speed streets that are neighborhood-friendly (naturally traffic-calmed)
FN-10	Policy	Street designs in new neighborhoods should give equal priority to the pedestrian and the automobile.	Improved sidewalk standards along all street types
FN-11	Policy	New neighborhoods should recognize bike routes and greenways at the time of development.	Context-sensitive bicycle standards
FN-B	Action	Follow through on the creation of a new zoning district tentatively identified as "Village Commercial". Consult with one or more prospective developers to make the details work for both the developer and the community.	New walkable, neighborhood-friendly mixed-use district
FN-C	Action	Adopt a new provision in the town zoning ordinance concerning amenities centers (e.g. club house, tennis courts, pool). Include among the provisions a requirement that amenities centers be centrally located so as to maximize opportunities for access on foot or bicycle.	See note for FN-6
FN-D	Action	Establish or enhance location and design standards for multi-family housing (apartment complexes, townhouses and condominium developments) within the town zoning ordinance in accordance with the policies of this plan.	See note for FN-8
FN-E	Action	Hold strongly to the current town requirement for street stubouts for street connections to future neighborhoods and access to local shopping and services. Continue to prohibit gated communities.	Self-explanatory
FN-F	Action	Require traffic calming design features on new neighborhood streets. Amend town standards as necessary to implement a "complete streets" policy serving automobiles, bicyclists and pedestrians equally.	Self-explanatory
FN-G	Action	Acknowledge, protect and improve open space, greenways, and bikeway corridors when reviewing and approving proposed developments.	Implement adopted plans into site and subdivision requirements
Commercial Areas: Existing Commerical Areas			
EC-1	Policy	The Town should encourage appropriate landscaping and reconfiguration of large, existing unlandscaped parking areas. Landscaped pedestrian walkways from car to store or across a parking area should also be encouraged. Efforts to reduce excessive numbers of parking spaces should generally be supported.	Increase parking lot landscaping and reduce minimum parking standards

Item #	Type	Action Item	Commentary
EC-3	Policy	The Town should encourage the consolidation of commercial driveways onto major streets and the connection of adjacent parking lots.	Improved access management for town-owned and state streets
EC-4	Policy	The Town should encourage businesses to replace existing, non-conforming signage with more attractive, conforming signage. When buildings are renovated or replaced, franchise style buildings that serve as self-advertising billboards for the business within should be discontinued.	Enhance non-conforming signage provisions
EC-5	Policy	New infill development across the front street face of existing, over-designed parking lots should be encouraged.	Reduce parking standards to permit new development (grayfield redevelopment)
EC-6	Policy	Town policies and ordinances shall continue to prohibit billboards within the planning jurisdiction of Wake Forest.	Self-explanatory
EC-7	Policy	Bicycle and pedestrian access to existing commercial areas should be encouraged.	Require bicycle access through site and subdivision standards
EC-A	Action	Prepare a design guidelines booklet illustrating how existing commercial properties can upgrade their appearance, function and customer base by: 1) improving largely barren parking lots with planting islands and median dividers, shade trees and pedestrian walkways. 2) installing "convenience clusters" for pedestrians, bicyclists and existing or future transit riders. 3) consolidating existing multiple driveway cuts onto major streets and providing connections between parking lots of adjoining businesses. 4) replacing old, commercial strip-style, pole-mounted signage with attractive monument style signage and landscaping. 5) establishing new infill development along the street edge of existing, over-designed and under-utilized parking lots.	User-friendly guidebook that summarizes new provisions for commercial redevelopment - separate from UDO
Commercial Areas: Future Small Scale, Neighborhood Business			
SSB-1	Policy	Small scale, pedestrian-oriented shopping and work places should be encouraged in the design of new neighborhoods.	See note for FN-5
SSB-2	Policy	Neighborhood serving businesses should be located near the center of a neighborhood planning area rather than along a major thoroughfare.	Disagree. Unless commercial areas are in higher-traffic areas they will die and end up blighting the neighborhood.
SSB-3	Policy	Neighborhood serving businesses should be designed at a residential scale and character.	Self-explanatory

Item #	Type	Action Item	Commentary
SSB-5	Policy	Neighborhood serving businesses shall employ on-street parking in coordination with a limited amount of off-street parking.	Need complimentary street sections and parking standards that permit the use of on-street parking to count towards minimum
SSB-6	Policy	Neighborhood serving businesses should be allowed to have only residential scale signage and lighting.	Self-explanatory
SSB-7	Policy	Neighborhood serving businesses (e.g. a neighborhood general store) should be encouraged as an upfront, vertical infrastructure cost of new development.	Will be hard to regulate particularly with smaller neighborhoods
SSB-8	Policy	Neighborhood serving businesses may be located near public amenities, when opportunity allows.	Permit neighborhood-oriented mixed-use
SSB-9	Policy	Living quarters shall be encouraged over small retail shops and/or offices.	Permit mixed-use development and include standards
SSB-A	Action	Prepare a design guidelines booklet illustrating how small-scale neighborhood businesses can: 1) be incorporated into the design of new neighborhoods. 2) be best located near the center of a neighborhood planning area. 3) be designed at a residential scale and character. 4) be coordinated with bikeways and, where appropriate, future transit stops. 5) employ mostly on-street, rather than off-street, parking. 6) employ residential scale signage and lighting. 7) be pedestrian-oriented and transit-sensitive. 8) be integrated into the amenities center of some neighborhoods, or 9) be located near a public park, elementary school, community center or other public amenity. 10) have living quarters integrated into the same building as the neighborhood business.	User-friendly guidebook that summarizes new provisions for neighborhood businesses - Separate from UDO
Commercial Areas: Future Large Scale Commercial Areas			
LSC-1	Policy	Large-scale commercial developments should be encouraged, where appropriate, to contain a diverse mixture of retail, office, restaurant and service uses.	Permit (require?) mixed-use development large commercial development
LSC-2	Policy	Large-scale commercial uses should be located on the corners of neighborhood planning areas, that is, at the intersection of two or more major streets.	Include locational standards for the location of regional- or community-serving commercial development
LSC-3	Policy	Planned mixed-use developments which allow for a compatible mixture of residential and non-residential uses with a pedestrian scale and design should be encouraged. Further, new businesses may be located adjoining (and therefore convenient to) an existing residential area, when such businesses can be shown to satisfy design considerations similar to a newly planned, pedestrian-scaled, mixed-use development.	Self-explanatory - will need specific neighborhood-scaled mixed-use design standards

Item #	Type	Action Item	Commentary
LSC-4	Policy	In planning for a new large scale development, large-scale uses should be buffered from adjacent residential areas by smaller scale buildings or by buffer strips. Regardless of the type of buffer, such uses should be accessible from the neighborhood.	Improved transition standards to include use of both landscaping and building design treatments
LSC-5	Policy	Except for limited access highways, new commercial buildings should pull up to the street; parking should be placed to the rear or side of the structure.	Establish maximum setbacks along certain street-types and prohibit parking in the front yard in certain contexts
LSC-6	Policy	When appropriate, the use of all around architecture should be required. That is, in some instances, it may be necessary to avoid designating a noticeable "service side" to a building, such as when a building abuts a residential or streetscape exposure, or other public space.	Consider design standards on all building sides viewed from a public street or public space
LSC-7	Policy	New large-scale commercial development should plan ahead for future public transit stops and convenience clusters. Such clusters should have pedestrian connections. Commercial areas should be pedestrian-scaled first, while also accommodating the automobile.	Require the reservation of areas for transit-shelters. Incorporate design standards that require pedestrian-friendly design
LSC-8	Policy	New large-scale commercial development should have limited driveway access to major thoroughfares and should connect all adjacent parking lots.	Improved access management standards
LSC-A	Action	Prepare a design guidelines booklet illustrating how large scale commercial developments can: 1) provide for a mixture of compatible land uses. 2) be best located at the intersection of two or more major streets. 3) employ smaller buildings and offices at the perimeter of large scale commercial development as a transitional land use buffer adjacent to residential areas. 4) provide for pedestrian and bicycle access to the commercial area, even if automobile access from the adjoining residential area is denied. 5) pull their principle buildings up to the street, with parking placed to the rear, side or an interior parking "courtyard" of the development. 6) employ all around architecture, thereby presenting an attractive appearance not only to major street frontages, but also to the interior of the neighborhood planning area. 7) be pedestrian-oriented and transit-sensitive.	User-friendly guidebook that summarizes new provisions for commercial development - separate from UDO
LSC-B	Action	Require that any new large scale commercial development interconnect internal parking and provide for driveway connections to adjoining commercial properties.	Self-explanatory

Item #	Type	Action Item	Commentary
LSC-C	Action	Establish a supplementary district regulation addressing the particular design issues related to auto dealerships, large equipment sales and other businesses primarily dependent upon expansive outdoor sales lots.	Create district or specific standards for auto-dealerships and other open-lot sales (manufactured homes, boats, heavy equipment)
LSC-D	Action	Establish a supplementary district regulation addressing big box retail stores, their design and reuse or abandonment. Do not allow the owners of these buildings to keep them vacant and unavailable for occupancy.	Self-explanatory
Business & Industrial Areas: First Generation Business and Industrial Areas			
FGI-2	Policy	If the DEMOLITION OF AN OLD INDUSTRIAL BUILDING or complex becomes necessary, any new structure(s) and site redevelopment should be compatible with the neighborhood context; such redevelopment should serve to improve the quality, character and livability of the surrounding area.	Neighborhood mixed-use design standards
Business & Industrial Areas: Second Generation Business and Industrial Areas			
SGI-1	Policy	The Town of Wake Forest should encourage and support the REHABILITATION, IMPROVEMENT, AND RE-OCCUPANCY OF VIABLE BUSINESS AND INDUSTRIAL PROPERTIES that have become vacant. Re-occupancy may be by another suitable industrial operation or by adaptively reusing the site or structure for non-industrial purposes.	Incorporate flexible non-conforming standards
Business & Industrial Areas: Third Generation Business and Industrial Areas			
TGI-1	Policy	The Town should periodically examine its zoning ordinance and other development regulations as to the appropriate STANDARDS AND LOCATIONS FOR MANUFACTURING, WAREHOUSE AND DISTRIBUTION opportunities within the Town's planning jurisdiction.	Zoning Map issue
TGI-3	Policy	Newly developed industrial sites adjoining residentially zoned or developed areas should provide and maintain for adequate SCREENING AND BUFFERING between the uses. New residential development moving into an area adjoining industrially zoned or developed areas should have the burden of providing for its own screening and buffering.	Clarify and improve screening and buffering standards

Item #	Type	Action Item	Commentary
TGI-4	Policy	Industrial and warehouse SITES LOCATED WITHIN VIEW OF A PUBLIC RIGHT OF WAY OR NEARBY PROPERTY in Wake Forest should provide for landscaping that enhances the property and is consistent with a quality image, thereby further improving opportunities for quality economic development in the community. This policy includes SELF-STORAGE WAREHOUSING sites.	Improve landscaping standards for industrial sites
TGI-A	Action	Reexamine the zoning map and development regulations as to the appropriate locations and standards for warehouse and distribution uses within the town's planning jurisdiction.	Self-explanatory
TGI-B	Action	Establish measurable, quantitative performance standards for acceptable levels of environmental impact relative to new industrial operations. Consider, for example, air quality, water quality, lighting spillover, noise, odor, and truck traffic, among others.	Self-explanatory
TGI-C	Action	Examine landscape and buffering standards for industry and warehousing, (to include self-storage warehousing), particularly as to the improved appearance of such uses when adjoining a public right of way.	Self-explanatory - also include improve street tree landscaping standards as a way to unify frontages
Downtown Wake Forest			
D-1	Policy	The Town should encourage a COMPATIBLE, DIVERSE MIXTURE of retail, office, institutional, residential, dining, services, entertainment, and public open space in the downtown area.	Permit (require?) mixed use development throughout the downtown area
D-3	Policy	PEDESTRIAN ORIENTED STREETSCAPE IMPROVEMENTS including, but not limited to, wider sidewalks, street trees, decorative street lights, street furniture, and landscaping should be continually expanded consistent with the historic, pedestrian character of the downtown and to stimulate continued economic development.	Establish standards for all streets in downtown that can be implemented incrementally through the site/subdivision process or as part of a CIP
D-5	Policy	OFFICES and ASSEMBLY TYPE USES WITHIN THE HISTORIC COMMERCIAL CORE of the downtown should be located on upper floors, reserving ground floor space for retail uses.	Require ground floor retail and restaurants only in the core of downtown
D-8	Policy	The RENAISSANCE AREA URBAN CODE shall continue to be employed to ensure that development and redevelopment will be supportive of the architectural and historic context that is vital to the economic success of downtown Wake Forest.	Self-explanatory

Item #	Type	Action Item	Commentary
D-9	Policy	The Town should encourage efforts to restore MISSING OR UNDERUTILIZED STREET FRONTAGES, particularly on lots where previous buildings have been demolished and replaced with (oftentimes) surface parking.	If using code to achieve this goal, certain landscaping treatments (hedges or low walls) should be required along frontage
D-10	Policy	PARKING LOTS should generally be located to the side or behind buildings or in the interior of the block. Off-street parking spaces for multi-family buildings should be in the rear yard.	Self-explanatory
D-F	Action	Work with merchants and property owners to amend downtown area development regulations to permit office and assembly-type uses on upper floors only, reserving ground floor space for retail.	Require ground floor retail and restaurants only in the core of downtown
Parks, Open Space, Recreation			
PR-1	Policy	The Town, in cooperation with private sector interests, should continue to develop a system of open space greenways and walking trails to connect residential areas with, especially, schools and park facilities. The use of (1) natural corridors such as streams and floodplains, and (2) man-made corridors such as utility and transportation rights-of-way and easements, should be emphasized.	Require greenways and trails as part of the infrastructure for site and subdivision plans
PR-2	Policy	Mini-parks should continue to be supported in existing and proposed neighborhoods to meet the needs of small children and the elderly, and to encourage social interaction and mutual support among area families. Arrangements for some maintenance of new mini-parks by volunteers should be pursued.	Require new mini-parks in new neighborhoods
PR-3	Policy	Neighborhood and mini parks should be located in full view of residential and/or non-residential activities, where informal observation and oversight can help prevent vandalism and improve security.	Incorporate design standards for mini-parks that incorporate Crime Prevention Through Environmental Design (CPTED)
Streets: Major and Minor Streets			
S-2	Policy	ACCESS TO UNDEVELOPED SECTIONS of major streets shall be from intersecting minor streets, rather than private driveways, whenever possible.	Access management standards
S-3	Policy	Under specified conditions, minor streets should be located so as to intersect with a major street (other than a limited access highway) at REGULARLY SPACED, REASONABLY FREQUENT INTERVALS (400' to 600').	Access management standards
S-4	Policy	Central medians shall be incorporated into the design of new or improved major streets whenever possible.	Add this to the current street sections
S-5	Policy	Landscaping and, where possible, street trees should be planted in central medians of major streets.	Add this to the current street sections

Item #	Type	Action Item	Commentary
S-6	Policy	Streetyard vegetation should be planted or retained along major streets to soften and unify the streetscape, and to create an attractive VISUAL EDGE to the roadway while allowing views through to businesses. (Total screening may be required along limited access highways.)	Evaluate existing landscaping standards along street edges
S-7	Policy	So as to provide visual cues to motorists approaching potentially hazardous street intersections, contrasting streetyard plantings should be employed along major streets to create DISTINCT CHANGES IN VISUAL CHARACTER between the landscape of intersections and the landscape of the properties between intersections.	Revise streetscape standards
S-9	Policy	PARKING AREAS within a major street corridor should be generally screened from view using structural elements, topographic features and/or plantings. Plants should be tall enough at maturity to obscure views of parked cars. Service and loading areas should be completely screened.	New screening standards for front yard parking areas
S-10	Policy	SPECIAL ROADWAY OVERLAY ZONING should be employed to help implement roadway corridor plans, particularly with regard to development standards for buildings, signage and parking areas within sight of the roadway.	Use overlay zone to implement corridor plans for site and subdivision plans
S-12	Policy	The Town shall encourage STREET PATTERNS that respond to site topography, accentuate focal points and interesting vistas, create interesting public spaces and intersections, and that are coordinated with the placement of significant structures or open spaces.	Revise street standards and correlate them to context zones
S-13	Policy	Consider incorporating CENTRAL MEDIANS into the design of new or improved "neighborhood axial" streets.	Self-explanatory
S-14	Policy	To allow for many alternative routes for walking and biking, as well as a beneficial network of local streets, minor streets in COMPACT NEIGHBORHOODS shall be developed in SHORT BLOCKS OF 300 TO 500 FEET in length.	Reduce maximum block length for streets
S-15	Policy	STREET WIDTHS should be designed to fit the intended use of the street, corresponding to the traffic load and planned development types. Minor streets shall be no wider than necessary to serve their intended use.	Create new neighborhood-friendly street sections
S-16	Policy	A FULLY CONNECTED HONEYCOMB OF STREETS should be employed to promote convenient circulation within the neighborhood and provide for multiple, alternative outlets from the area to adjoining neighborhoods and major streets. Careful design should ensure that cut-through traffic routes are not created.	Connectivity standards - See all comments for FN-9

Item #	Type	Action Item	Commentary
S-17	Policy	ON-STREET PARKING shall be encouraged in compact neighborhoods. VERTICAL CURBING shall be preferred over rolled or valley curbing to properly contain vehicles within the borders of the paved street area.	Allow on-street parking to count towards requirements. Revise street standards to accommodate on-street parking in neighborhood and amend Manual of Specifications regarding curb details
S-18	Policy	CONSERVATION SUBDIVISIONS (I.E. LOW IMPACT DEVELOPMENT), those designed to minimize environmental disturbance and protect adjoining natural resources, may employ grassed swales to capture stormwater runoff, filter out pollutants and recharge groundwater resources.	Revise subdivision standards and district provisions to permit the construction of low impact neighborhoods. Revise the Manual of Specifications to include alternative storwmwater management practices.
S-19	Policy	To shorten the street crossing distance for pedestrians at intersections, the TURNING RADIUS OF CORNERS at intersections involving minor streets shall be as small as possible while allowing for reasonable truck and emergency vehicle maneuvering.	Revise the Manual of Specifications to reduce the turning radius of streets
S-B	Action	Amend the Town's subdivision regulations to allow for local streets to have "offset" and "y" intersections, allowing for the creation of memorable street spaces and reference points in a neighborhood.	Self-explanatory though caution is given to avoid an excessive number of these types of intersections so as to preclude connectivity
S-D	Action	Amend the Town's subdivision regulations to allow for maximum block lengths of no more than 500 feet and preferably 400 feet.	See comment from S-14
S-E	Action	Amend the Town's development regulations to include a "connectivity index", a straightforward performance standard that discourages the overuse of cul de sacs.	Evaluate a number of connectivity standard/tools
Sidewalks			
SW-2	Policy	FOR NEW CONSTRUCTION, SIDEWALKS shall be required on both sides of the street (1) along thoroughfares and collectors, (2) in multi-family developments, (3) in "front porch" developments and (4) along local streets within walking distance of a major pedestrian trip attractor, such as a school, library, shopping center or similar facility. Sidewalks shall be required on one side of all other streets, except cul de sacs less than 400 feet long.	Amend the ordinance as noted. Other such street details may also be reviewed as part of a context-sensitive evaluation of the street hierarchy
SW-3	Policy	SIDEWALK WIDTH should correspond with anticipated pedestrian traffic volumes, adjoining land uses, and sidewalk activities. Except where constrained by unusual physical limitations, a minimum five foot width shall be required. The VERGE WIDTH (i.e. space between the sidewalk and the edge of the street) should correspond with the posted speed of the adjoining roadway, but should not be less than 6 feet.	Amend landscaping standards and street details to increase the current verge width to a minimum of 6 ft. Alternatives should be given that allow for variations (e.g., the use of tree wells in lieu of planted verges)

Item #	Type	Action Item	Commentary
SW-C	Action	Amend the Town's development regulations to require sidewalks on both sides of the street in "front porch" developments. (i.e. developments where homes have been pulled up close to the street and have functional front porches) and within walking distance of schools or commercial centers.	Consider this as a standard for all development since building types can change. Use lot widths or density instead of expected design features on a home as these can change based on buyer and builder preferences.
SW-D	Action	Amend the Town's development regulations to require that sidewalks have a minimum width of five feet and a minimum verge width (i.e. space between the sidewalk and the edge of the street) of not less than 6 feet	Self-explanatory - See also SW-3.
Bikeways			
B-1	Policy	The BICYCLE FACILITY SELECTION GUIDE, as used by the Federal Highway Administration, shall be employed for determining the most suitable type of bicycle facility for any new or upgraded roads in Wake Forest.	Establish context-appropriate guidelines for town bicycle facilities
B-2	Policy	The Town should facilitate bicycle and pedestrian way CONNECTIONS BETWEEN NEIGHBORHOODS, either by street or connecting path, to enable the effective use of local, minor streets for pedestrian and bicycle travel.	Require bicycle/pedestrian connections for long, uninterrupted blocks or where topography precludes street connection
B-3	Policy	STRIPED BICYCLE LANES and appropriate signage should be installed ALONG EXISTING STREETS where called for in the Bicycle Plan.	Implement the bicycle plan through the site and subdivision process
B-4	Policy	STRIPED BICYCLE LANES and appropriate signage should be required ALONG NEW COLLECTOR LEVEL STREETS. Bicycle lanes and signage may also be required along other streets, to be determined on a case by case basis.	Amend the street standards to accommodate this additional bicycle accessiblity
B-6	Policy	All new public and private developments should have BIKE PARKING AND BICYCLE ACCESS.	Require adequate bicycle parking
B-7	Policy	All future ROAD CONSTRUCTION AND IMPROVEMENTS should be examined for bikeway feasibility and conformity with the Town of Wake Forest Bicycle Plan. As appropriate, bikeways should be installed during road construction or improvements.	Require sites and subdivisions to improve their frontage/reserve right-of-way in accordance with an adopted plan or escrow moneys towards the CIP fund
B-8	Policy	All FUTURE DEVELOPMENTS AND SITE PLANS shall be examined for bicycle compatibility and conformity with the town Bicycle Plan. As appropriate, bikeway routes shall be identified and planned for in the construction of such developments.	Incorporate comformance with the Bicycle Plan into the site and subdivision process
B-9	Policy	Bicycle facilities and their impacts should be included in TRAFFIC IMPACT ANALYSES for new private developments.	Amend existing TIA standards

Item #	Type	Action Item	Commentary
B-C	Action	Amend the Town's subdivision regulations and/or Town Code to require bicycle lanes or wide striped shoulders, on streets with a functional classification of Urban Collector or higher and, further, to require signage to indicate the presence of cyclists to motorists.	Establish context-appropriate guidelines for town bicycle facilities. - See also the comment for B-1
B-G	Action	Amend the Town's Manual of Specifications to include bicycle facilities as part of the Traffic Impact Analysis and a potential traffic mitigation strategy for new developments.	Amend existing TIA standards - See also the comment for B-9
Greenway Trails			
GT-3	Policy	GREENWAY CONSTRUCTION should be treated as a normal element of infrastructure necessary to support new development.	Require greenways and trails as part of the infrastructure for site and subdivision plans - see also PR-1
Public Transportation			
PT-2	Policy	Site planning that incorporates TRANSIT STOPS AND CONVENIENCE CLUSTERS shall be required, where appropriate.	Encourage higher density within 1/4 - 1/2 mile of planned station areas. Care must be taken to ease transition to existing suburban residential areas. Small area plans can be very helpful. - See also ON-7 and ON-J
PT-C	Action	Amend the Town's development regulations to encourage compact, transit compatible development patterns.	See PT-2 above
PT-D	Action	Amend the Town's development regulations to include development standards for the location and design of transit stops and convenience clusters in public and private developments.	Require the reservation of areas for transit-shelters. Incorporate design standards that require pedestrian-friendly design. - See also LSC-7
Street Trees			
ST-2	Policy	So as to create a unity of design and effect, CONSISTENT STREET TREE SPECIES should occur along predetermined sections of streets.	Need to develop a specific planting plan and implement it through the site and subdivision process
ST-3	Policy	To prevent future decimation of tree cover over entire areas of the community by disease (e.g. Dutch Elm disease), NO SINGLE TREE SPECIES should comprise more than 10 to 15% of the total street tree population of the town. Further, trees in a neighborhood area should vary from street to street.	Self-explanatory. A plan and an accurate inventory will be necessary to coordinate all street tree plantings.
ST-4	Policy	REGULARLY SPACED STREET TREES should be planted in central medians, frontage street medians, plaza strips and, where necessary, in dedicated easements on private property.	Self-explanatory

Item #	Type	Action Item	Commentary
ST-5	Policy	The PLANTING OR PRESERVATION OF STREET TREES of appropriate size and species should continue to be required as part of the upfront costs of all new development, in accordance with the Town's street tree planting master plan.	Continue implementation of street tree program through site and subdivision process
ST-D	Action	Amend the Town's municipal code and zoning ordinance so as to establish a consistent preferred distance between large street trees.	Self-explanatory
Street Lights			
SL-4	Policy	Streetlights should be installed on both sides of a street, unless a newly approved street is planned from the outset to have a sidewalk on only one side.	Add to streetscape details required for new construction or frontage retrofits
SL-C	Action	Amend the Town's development regulations as necessary to require that the installation of new streetlights correspond to the installation of sidewalks in new developments. That is, if sidewalks are installed on both sides of a street, then streetlights should also be on both sides.	Self -explanatory - See also SL-4
Wireless Telecommunications Facilities			
WTF-3	Policy	In residential areas, historic districts and the Renaissance districts, cell towers should only be considered when there is no alternative for serving those areas and no other alternative wireless telecommunication structure can be utilized. The Town expects that the least visually disruptive technology will be used in these visually sensitive areas	Incorporate as part of SUP findings
TF-A	Action	Periodically evaluate town standards for emerging wireless telecommunication technologies to facilitate their use as an important economic development feature while 1) protecting the public health, safety and welfare of area residents and 2) preserving the historic and aesthetic qualities of Wake Forest.	Review the current standards to ensure the minimum amount of regulation necessary to achieve goals
Community Character			
CC-1	Policy	New, expanding, or improved businesses should employ architectural standards consistent with Wake Forest's architectural character and should avoid standard prototype designs otherwise employed in "Anywhere USA".	Update design standards for all building types
CC-2	Policy	Exceptional locations, views and vistas in the town should receive exceptional treatment and/or protection in design and development.	Identify important locations on the zoning map
CC-4	Policy	Significant natural and existing man-made elements should be incorporated into the thematic design of new developments.	General design standard implemented during design review or through an SUP process

Item #	Type	Action Item	Commentary
CC-5	Policy	Large trees, ponds, creeks, or other natural features of the landscape should be saved when locating new streets, buildings, parking lots, etc.	Self-explanatory
CC-6	Policy	Community character should be supported by development that is compatible when considered within the context of the surrounding area.	Establish clear transitions and edges between incompatible areas using design standards and landscaping
CC-7	Policy	Exterior lighting should be attractive, functional and safety conscious, while also avoiding negative impacts on the night sky visibility of Wake Forest.	Ensure that the existing lighting standards adequate address "light spillage and night sky pollution" concerns
CC-A	Action	Prepare a map of Wake Forest that identifies exceptional locations, views and vistas within the community. Reference this map, along with supporting photo documentation, in the Town zoning ordinance and employ it when reviewing development proposals.	Self-explanatory - See also CC-2
CC-B	Action	In reviewing site plans, subdivisions and planned unit developments, the Town should encourage developers to place noteworthy buildings, open spaces, or other design features in positions of visibility and prominence.	Add to key design features during site and subdivision process - may be a condition added during design review or SUP process
Regional Intergovernmental Cooperation: Community-Oriented Schools			
S-6	Policy	COSTS FOR NEW SCHOOLS, including site acquisition and construction costs, shall be borne largely by the new growth and development creating the demand. Methods for assigning these costs may include land dedication, fees in lieu of land dedication, and school impact fees, among others. Trade-offs may include density bonuses, density transfers, and infrastructure partnerships, among others.	Clarify expectations for reservation or dedication in UDO. Need to coordinate with Wake County. May need special legislation to implement because of recent court cases regarding Adequate Public Facilities Ordinances for schools.
S-7	Policy	The Town shall seek to foster diversity in community-oriented public schools by encouraging DIVERSITY IN THE NEARBY NEIGHBORHOODS FEEDING EACH SCHOOL. Planning and zoning should be employed to encourage a variety of housing types and levels of affordability within largely walkable/bikeable community school service areas.	Permit a variety of lot sizes and housing types within neighborhoods.
A Healthy, Sustainable Environment: Walking & Transit-Oriented Development			
HSE-1	Policy	Development policies should work to make Wake Forest more WALKABLE AND PEDESTRIAN-FRIENDLY, and less dependent on the single-occupant automobile.	Compact form, mixed-use, and the provision of bicycle and pedestrian facilities should be considered during the preparation of all UDO standard. Ensure that the current provisions do not prevent walkability.
HSE-2	Policy	Compact, transit oriented MIXED USE DEVELOPMENTS should be encouraged so as to facilitate walking, biking and transit options.	Self-explanatory - See also PT-C and PT-D

Item #	Type	Action Item	Commentary
HSE-3	Policy	New, HIGHER DENSITY RESIDENTIAL DEVELOPMENT should be located within walking distance of jobs and services and designed to be compatible with current and future transit services.	Implemented primarily through zoning district designations and SUP process
A Healthy, Sustainable Environment: Water Quality & Low-Impact Development			
HSE-4	Policy	The environmental benefits of LOW IMPACT DEVELOPMENT, emphasizing on-site stormwater retention, infiltration and/or slow release, shall be recognized and facilitated.	Amend Manual of Specifications to accommodate alternative stormwater practices
HSE-5	Policy	RUNOFF AND DRAINAGE from development shall be of a quality and quantity as near to natural conditions as possible.	Amend Manual of Specifications to accommodate alternative stormwater practices but consider level of requirement based on context
HSE-6	Policy	VEGETATED RIPARIAN BUFFERS (natural or planted) shall be required along all creeks, rivers, lakes and other water bodies in Wake Forest.	Refine existing requirements
HSE-7	Policy	CONSERVATION SUBDIVISIONS should be encouraged where site conditions call for minimizing environmental disturbance and protect adjoining natural resources. Streets and properties in such subdivisions may employ GRASSED SWALES to capture stormwater runoff, filter out pollutants and recharge groundwater resources.	Revise subdivision standards and district provisions to permit the construction of low impact neighborhoods. Revise the Manual of Specifications to include alternative storwmwater management practices. - See also S-18
HSE-8	Policy	LARGE PARKING LOTS shall have landscaped planting islands and perimeter buffer strips and may use other design technologies to intercept and absorb runoff. Parking requirements shall be carefully gauged by land use so as not to create excessive paved surface areas.	Amend Manual of Specifications to require rain gardens and other bio-rentention techniques to control stormwater runoff quantity and quality
HSE-9	Policy	Development activities in the SPECIAL FLOOD HAZARD AREA shall be carefully controlled. If development must occur, very low intensity uses such as open space and recreation shall be preferred.	Establish an overlay district that regulated form, use, and impact of development in the Special Flood Hazard Area
HSE-G	Action	Explore the need for low impact development requirements and standards.	Revise the Manual of Specifications to include alternative storwmwater management practices. - See also S-18 and HSE-7
A Healthy, Sustainable Environment: Green Building Practices			
HSE-11	Policy	Site plans for new development should work sympathetically with the NATURAL FEATURES OF THE LAND, including existing topography and significant existing vegetation.	General design standard - see also CC-5
HSE-12	Policy	A combination of incentives and disincentives may be employed to protect EXISTING TREES and/or require the replacement of trees removed for development.	Update tree protection standards - may need special legislation to protect certain trees on private property

Item #	Type	Action Item	Commentary
HSE-13	Policy	GREEN INFRASTRUCTURE (grassed swales, rain gardens, bio-retention strips, cisterns, rain barrels, permeable pavements, etc.) shall be encouraged in place of gray infrastructure, whenever appropriate to the location and circumstances of development.	Revise the Manual of Specifications to include alternative storwmwater management practices. - See also S-18, HSE-7 and HSE-G
Arts, Culture and Historic Preservation			
ACH-2	Policy	New private sector developments should be encouraged to include art as an integral element of PRIVATELY OWNED COMMON AREAS AND SEMI-PUBLIC SPACES.	Could be an incetive for increased density, height, etc.
ACH-5	Policy	DESIGN STANDARDS should continue to be employed so that development and redevelopment is consistent with the architectural context, community character, economic attractiveness and livability of Wake Forest.	Previously addressed elsewhere

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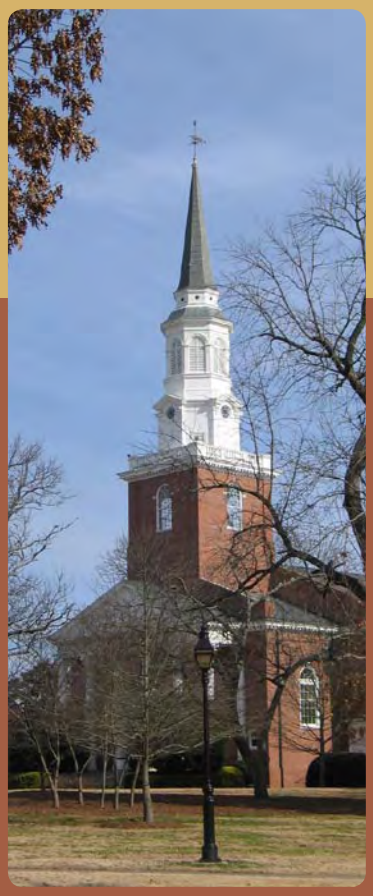
STAKEHOLDER INTERVIEWS



On January 27th and 28th, 2010, the Lawrence Group conducted nine stakeholder group interviews with a total of more than seventy-five individuals intended to solicit general perceptions, comments, and recommendations on the current land development process in the Town of Wake Forest. While town staff was present at these interview, we do not feel that the participants' commentary was inhibited or reserved in any way. Further, we believe that the participants represented a broad cross-section of stakeholders who are affected by the zoning and development ordinances.

The stakeholder groups included representatives from the planning, engineering, and inspections staff; other senior staff member from related town departments; attorneys; state and federal stormwater officials; surveying and engineering consultants; architects and land planners; developers, builders and realtors; neighborhood leaders; Raleigh water and sewer officials; business leaders; and members of citizen boards.

The notes on the following pages are the cumulative commentary that was collected during those interviews as well as additional commentary that was submitted subsequent to those meetings. The information has been sorted for easy review and collation with the recommendations found herein.

1.0 GENERAL FORMAT & ORGANIZATION

1.1 General Organization
- Improve consistencies, definitions, and location
- Need to increase transparency in the ordinances
- Improve the standards to make them more user friendly
- Link specs and standards to coding numbering system
- Some contradictory language
- Make sure to consolidate the relevant section
- The ordinance should be organized by the user, the staff, the boards
- It's a mess right now, very difficult to find things – need a unified ordinance online
- All developers want to know is what the requirements are and want to find those out early in the process
- Staff is very helpful in sorting things out that could otherwise be made clear in the text – the rewrite would help the staff as much as the users
- It's easier to just call the staff than to try to navigate
- Consistency of interpretation of enforcement are not adequate – based largely on the current poorly worded language
- Knightdale's UDO is a good model

1.2 Graphic Design, Illustrations and Layout
- Need more visual clues and illustrations
- Can we better illustrate the appearance standards?
- Improve user friendliness.

1.3 Online Interface
- Current software does not currently permit online interface with the end-user
- Once the ordinance is updated, the town needs to have upgraded development checklists
- Be sure to have a good checklist for the applicants – can it be clickable on the web
- Online interface is essential – it saves time and makes things more clear
- Durham has a good online interface
- Would like an online interface for building permit
- Can the GIS system be used to show the zoning requirements for each piece of property (using iMaps)
- Still working on using the new permitting system to improve zoning holds

2.0 DISTRICTS & USES

2.1 General Use Provisions
- Need to have a clear use table
- Where do we see pockets of urbanization and preservation and how is that dispersed around the town?
- Do we need to have a compulsory use for certain buildings in the downtown? Should be a limit on governmental intervention in individual buildings.
- Should storefront churches be allowed in the downtown?
- Different areas of town do need to have different regulations
- SEBTS has its own ICD district. That did help to clarify issues. They also have a campus master plan in place.

2.2 Special Use Permits
- There are too many things (SUPs) that have to go to Planning Board and BOC – be sure to still have some flexibility with the staff

2.3 Non-Conformities
- Be sure to include grandfathering and the ability to expand certain uses
- The current non-conformity that is damaged by more than 50% is going to be changed to permit residential districts to rebuild on the same footprint

2.4 Temporary Uses
- The former golf course on the west side of US 1 – now a Renaissance festival – spurned a new temporary ordinance which is now in the town board's hands

3.0 BUILDING DESIGN & HISTORIC PRESERVATION
- Don't want to mess with appearance standards
- Can we make the current appearance standards more quantitative?
- Need to consider the markets and what is acceptable
- There are reasonable aesthetics and then there are absurd aesthetics
- Need to have a hierarchy of aesthetics in various areas – South Main is more important than others, for example
- There appears to be some inconsistency with the implementation of the design standards
- It's hard to legislate taste – Cary

3.1 Residential Design
- Focus on standards for housing in older neighborhoods – orientation, design

3.2 Commercial/Industrial Design
- The architectural guidelines (for industrial parks) are

too strict and cost jobs to other lower cost areas
- Remove aesthetic requirements from parts of buildings that can't been seen for industrial parks (backs of buildings)
- Need to check the appearance codes in the industrial parks
- Stone veneer on all four sides of the building – is this necessary?

3.3 Historic Preservation
- Historic preservation – taken from state statutes
- Don't want to lose the Delay of Demolition requirement

3.4 Design Review Process
- Is an architectural review board necessary instead of the Planning Board?
- Design requirements need to be flexible enough for the styles to vary while still being tasteful
- The current design standards are led by a single staff person – fortunately that person is good to work with but what if that person leaves?
- Appearance standards are managed through administrative review – appeals through BOC
- The current entitlement design approval is a pretty straight forward process.

4.0 SITE STANDARDS (PARKING, LIGHTING & SIGNS) & COMMERCIAL DEVELOPMENT

4.1 Parking
- The parking requirements are not clear, particularly for odd-ball uses (schools) and need to have those standards defined
- Look at medical office parking and be sure to have shared parking requirements
- Let parking requirement be more market oriented
- Need interconnectivity between parking lots but be reasonable

4.2 Lighting
- Lighting standards are disorganized
- Parking lot lighting
- There is a focus on pedestrian lighting that requires more frequent, shorter poles
- Current standard does not prefer lighting in the tree planting island
- Evaluate existing lighting for security
- Take a look at lighting standards – current standards were written to favor yellowish light (hps) because the eye can perceive things in shadows better over metal halide (white) – verify
- Can the lighting on N Main Street be improved pedestrian safety
- Look at LED lighting standards for possible inclusion – should it permitted or required (would need a spec)

4.3 Signage
- The sign ordinance is cumbersome particularly for individual lots in a commercial subdivision
- Thoroughly evaluate each component of the current code to determine if it meets contemporary standards for this market.
- Revise the format of the sign code. The code has developed sporadically over time through text amendments.
- Consider removing / prohibiting the large pole signs altogether. Currently, HB will allow these signs provided that they are not located in the US-1 and NC98 Bypass Corridors.
- Evaluate the actual sign types that may be utilized in Wake Forest now and in the future. Consider revising the current defined and regulated sign types.
- Consider revising our approach to temporary signage (Potentially allowing up to four per year versus restricting them to grand openings only).
- Develop better use of graphic illustrations for the sign code.
- Clarify and codify the policy for uniform sign plans for shopping centers.
- Remove PUD language.

4.4 Big-Box Commercial
- Recently had big-box stores – do need to consider how to approve large projects – they are unique
- Shopping center submittal – Bldg permit in December and received approval in May (no grading was permitted until the final approval) – can the site approval be separated from building permit?

5.0 TREES, LANDSCAPING & OPEN SPACE

5.1 Tree Protection
- Tree Board is advisory only – public realm only
- What is the rule for a homeowner to replace dead trees, for example?
- The challenge for landscape protection is when there are long term requirements for individual lots
- The landscape ordinances for conservation areas are not

clear after the homeowners move in
- All buffers have to be in private property - this has changed recently to ensure this
- Annual reminders about the buffer areas sent to homeowners associations and individual property owners
- Page about buffers for residents on the web site under residents tab
- Large lots are easier to manage for buffers – it's the smaller lots that are problematic
- Look at the tree removal permit requirements – are they applicable to existing lots?
- What is the US 1 SHOD? How is this enforced?

5.2 Landscaping
- Tree placement is not consistent
- Tree specification is necessary to keep up with advances in technology
- Make sure that planting issues are viable so that too much plantings don't crowd out and die
- The current landscaping plan must be completed by a landscape architect as opposed to a PE or a surveyor
- Landscaping is a big issue for the electric – placement of landscaping – often times the landscaping plans are done independent of the site electrical
- Is there a conflict between street trees and the utilities – probably more of a NCDOT
- Is there a conflict between the subdivision standards and the site plan for the individual buildings – developer installed trees vs site plan reviews

5.3 Open Space
- Greenways – want to be very involved – look at site plans that have greenway segments – will review before Planning Board
- Currently only use facility fees for parks – geared to larger parks that serve the area or community
- The current playgrounds are privately maintained and provided at the discretion of the developer
- The smaller parks are mentioned in the Community Plan, but not currently provided – need more amenities

6.0 STORMWATER

6.1General Standards
- New stormwater and erosion control ordinances are new – need to be better integrated into the other ordinances – watershed might be stricter
- Could we isolate all requirements related to water quality and separate them from landscaping
- Reference state's MP manual and other standard details (stormwater)
- Do currently have provisions for redevelopment (stormwater)
- Good parts of water quality ordinance – jurisdictional stream draining more than 50 acres and has a defined bed and bank – often has aquatic life downstream
- Need to have things that are measureable to help better implement the intent
- Do not build in the floodplain
- Development in the Special Flood Hazard areas (including the 500 year floodplain) is prohibited
- Look at stormwater issue to make sure that there is consistency
- Is it possible to get a grading plan without a site plan approval – is there any condition?
- Why is the 500 year floodplain included in the buffering restrictions – could grading be permitted in that area?
- Look at the universal stormwater program (everything over 24% would have to use engineered stormwater controls) also includes floodplain (must stay out of it) – Butner has adopted it recently
- Would like to see some stormwater management consistency between DWQ and the town – can the statewide manual be adopted by the town?

6.2 Water Quality Buffers
- Cary adds 50 ft to the existing 50 ft Neuse River buffer – used to be able to bubble it out
- Highway buffer allows it to be offset to accommodate certain site conditions – can the water quality buffers use the same standard?
- Does it make sense to provide a buffer to the wetlands?
- Current definition of "built-upon" not clear
- Look at various buffers in the code and be sure to provide a consistent definition
- The current 50+50 ft buffer requirements are exceptional
- The town doesn't allow impacting the first 20 feet of the buffer but DWQ does
- Change the rule that precludes impervious surfaces within 50 ft of a wetland – is a manhole "built-upon"?
- Common areas around buffers should be based on actual surveys
- Having private property out of buffers dramatically improves administration
- Buffers reduced the buildable acreage on a piece of property

6.3 LID
- Low impact development needs to resolve all of the various
- Check on whether sand filters are permitted in the town
- Need to better coordinate street sections with stormwater
- Make sure that LID doesn't increase the street ROWs

6.4 Maintenance
- The new stormwater regulations impact the homeowners because they have to pay higher dues to maintain the systems – Apex is much less expensive than Raleigh

6.4 Other Stormwater Issues
- Need to do basin area studies – not currently context sensitive
- Question about big picture of water quality and fees – we need more regionalized storm water controls
- The Corps Permit are required for every permit – but not usually necessary
- Stormwater BMPs can add $8-10k to the cost of each lot
- Need to define violations/fines (stormwater)

7.0 INFRASTRUCTURE
- Town Public works manages streets, storm drainage, and some electric
- Solid waste is handled by contract

7.1 Streets & Alleys
- Do run garbage collection down alleys
- Need a design spec for alleys that includes subsurface utilities
- Currently allow private streets – needs to meet development
- Private streets – townhome, shopping center driveways, can reduce right-of-way widths
- Need to clearly define the street hierarchy – currently based on function
- Have a traffic calming ordinance
- Conflict with NCDOT and their network
- Can the UDO address the cross section for NCDOT streets? Need to create a better dialogue to ensure a smooth approval
- Incorporate a compete streets policy particularly with the collector street system – new street sections

7.2 Water & Sewer/Coordination with Raleigh
- Raleigh currently handles all utilities
- Raleigh public utilities handbook – in the Public Utilities
- Water mains will be placed on the north and east side of the road. Sewer goes down the south and west within ROW.
- Raleigh has a set of requirements for water/sewer lines that need to be coordinate with the expectation of the overall development process

7.3 TIA & Connectivity
- Look at the thresholds for requiring traffic studies – what warrant a four way stop or a roundabout
- Continue to encourage the street connectivity throughout the community
- Evaluate the current TIA standards – for some smaller projects
- The current threshold for TIA (150 peak hour trips) would have to do a detailed traffic impact study
- What is the daily traffic thresholds for local streets?
- Connectivity is a good thing but where do we draw the line particularly when connecting commercial sites and residential
- Larger sites should require more connections – evaluate a links and nodes strategy, perhaps every 1000 feet

7.4 Specifications
- Don't currently have a detail for a roundabout
- Marking of fire details and lanes – look at Raleigh's ordinance/details – have preferred locations for various site-related equipment (hydrants, connections)
- Have not adopted Fire Code-Appendix D!

7.5 Improvement Guarantees and Bonds
- Need a guarantee of infrastructure completion
- How do we address those areas that are partially developed or otherwise uncompleted?
- Can WF institute a restoration bond (remove partial infrastructure)?
- Development plan expires in 12 months – should be longer provided activity is occurring. Need to have extensions provided activity is occurring. Larger projects need a longer initial term.

7.5 Other Infrastructure Issues
- Currently rewriting yard waste collection ordinance to better manage how contractor debris is collected
- Need to standardize collection practice
- Have a 48 gallon can for recycling – collecting weekly – have tripled the amount of collection

- Need to look at transit requirements – bus shelter, park and ride lot, public access easement
- Need to focus on the maintenance of the existing infrastructure
- Need to encourage more sidewalks around the community – step up the road frontage requirements – make sure they connect the network
- Need to erect signs at the end of dead end streets that note that a street connection will occur
- Subdivision ordinance – flag lot standards – private road standards – multiple lots with one shared driveway

8.0 APPROVAL PROCESS

- On a number of comments for review they are often not addressed on second review
- There are currently six standards to consider for review process
- Need to improve the process from the plan to the execution
- The current process is unpredictable
- Need to have happy medium between standards and flexibility
- There has been an increase in private legal counsel – many are brought by out of town development teams
- Keep it simple – keep the paperwork simple – short forms
- About middle of the road for development process – not a nightmare
- Like working in Wake Forest – it's a pretty decent place to work – have worked in many other places
- Try to make the process as objective as possible – clear approval process
- In the region, WF is in the middle in terms of pain of process

8.1 Special Use Permits (SUP)

- Can we reduce the number of SUPs?
- Can the CU rezoning process be streamlined to ensure that future applications don't have to be SUPs?
- Can we clearly define what needs to go to the Board and why? It seems like nearly everything goes to the Board.

8.2 Certificates of Appropriateness (COA)

- Manage COA from Historic District and Landmarks
- Manage all COA for all projects (minor and major) – minor is no visible change – administrative approval (1 day)
- Major review – Public Hearing (need application 30 days before hearing) – could the 30 days be shortened? Still need staff time to review, but doesn't need to be 30 days
- Everyone in the historic district gets a letter every month with the agenda
- Nine members on the commission – good number – have certain qualifications – 5 must be residents (of the 40 houses) – possibly reduce to 3 – all other members must be residents
- As a CLG they must have qualified people – some training
- Current application now has some qualifications line

8.3 Other Agency Reviews/Permits

- Process seems to work between the City and the Town (for w/s reviews and approvals)
- Conventional review process takes about one week – pump station review make take longer
- Process has seemed to improve dramatically since the personnel has changed
- Need to make sure that the standards are consistent across jurisdictions and don't have conflicts – keep process streamlined with other agencies
- Still a disconnect between the town and other agencies (City, Health Dept and State)
- The relationship with Raleigh and the water/sewer system is a challenge
- Feel that the town has grown adequately to manage the growth but the remote contact with Raleigh is still as challenge
- There is a complication with the City of Raleigh, NCDOT and the planning and approval processes – can the town play a larger advocacy role in supporting approved project?
- It has been a challenge to get comments back from Raleigh – improve communications
- The building design for SEBTS took 12 months for building permits – it was tangled up with other jurisdictions – City of Raleigh (Fire suppression and controls issues) even though DOI approved it
- Need an ombudsman for project led by the town to coordinate other jurisdiction

8.4 Staff Review & Inspections

- Don't currently have a formal setback inspection but do require a elevation inspection
- Hope to improve current communications with divided staff locations – will soon be under one roof in the new building
- One of the question is how inspections are handled – is

there a coordinated program – depends on whether it is public or private
- Need to have clear direction on what is required and how it is checked for conformity
- Seems to be good relationships between contractors and inspectors/engineering – have done recent surveys that were positive
- Stability of town staff has been very helpful and is a major positive
- There appears to be a movement to remove the discretion from the staff and move it to the Boards
- Most comments in Apex are dealt with in TRC – everyone participates in those reviews (all related staff and owner/design team)
- Needs a clear interpretation process, particularly for field reviews and engineering
- WF has cross trained inspectors – which improves availability
- Building permit is first-come, first-served
- Professionalism is good, the systems need to be improved
- The staff is very good about meeting to explain issues
- WF is near the top in terms of working with them
- Have a difficult time with inspectors – though this may be a inaccurate perception
- Town staff review should be required
- Empower the inspectors in the field to be able to make a call in the field
- There has been an improvement in the last few years for customer service – town staff is very approachable
- It's nice to keep things on a staff level – like Cary – particularly for smaller projects
- Look at the Holly Springs for a advisory review committee

8.5 Board/Commission Reviews
- There is a strong political element that changes every so often – pro-growth to anti-growth
- Some commissioners' expertise is making the process challenging
- Need to include mandatory education with the Board members
- Some conflict between Planning Board and staff about interpretation matters (water issues)
- Training is essential for boards and commissions to ensure consistency
- Too many "voluntary" conditions added through the public process
- The staff review process is controllable but the public review process is much more unpredictable – too many conditions are added that aren't included in the code
- Can design be affected at the Planning Board?
- Is there an annual process by which the town board can address certain items?
- If the planning board makes a unanimous decision then the town board must have a 2/3 vote
- The Planning Board is in a difficult position of not really knowing their true role

8.6 Public Engagement
- Some neighborhood groups have some strong influence – neighborhoods meetings are currently voluntary – some developers are OK with that
- The community needs to have a "venting process" for the general public – the planning board is the marriage of vetting and venting
- Need to be sure to keep public meetings as open meetings
- It is a God-given right to stand up and have your say about public matters
- Have a required neighborhood meeting to discuss the plans in advance of the planning board

8.7 Review Schedule
- Currently reference fee schedule
- Look at the process in Apex – formal timeline and deadlines – electronic submittal
- WF has a submittal date but no clear timeline
- Knightdale – quality point system for water and sewer access, also have a full group of people – several depts to each meeting
- Need to have a threshold for what classifies a re-review
- Current process
- Pre-application conference (planner and engineer & city for utilities)
- Development Plan (commercial plan)/Master Plan (subdivision) – TRC Meeting
- Preliminary CDs (some is driven by the Board's expertise reviewing the plan)
- Plans are turned in to a black hole – no way to track the permitting process – online would be ideal – Raleigh has a good process
- Express reviews for site plans
- Cary has a clear path of entitlements even though they have rigorous standards
- Would an express review be a possibility? Can now do in Raleigh
- There is a lot of time that elapses between reviews

- Don't have a timeline for the review schedule.
- A specific timeline will be helpful that corresponds to a regular meeting schedule, particularly for first and second review
- Streamline the approval process – requires a lot of education with new clients to the town
- There is a perception that it takes twice as long to get permits than it did 2-3 years ago
- Don't have enough time between Planning Board meetings to turn around comments/revisions so it might take three months instead of two

8.8 Submittal Requirements

- Need to submit about 90% construction plans to just get basic entitlements - not a good conduit to other agency reviews – also requested by staff so they can have all of the necessary information – as requested by Planning Board and BOC
- Would like finality of approved construction drawings to ensure that there won't be any field changes
- Have had to get multiple letters to engineering opinions for the same things – one for engineering and one for inspections
- The amount of information required on Planning Board submittal is enormous – a finished product – just for preliminary approval
- Would like to avoid submitting a full set of CDs for Special Use permit and master plan approvals

OTHER COMMENTS

- What is uniquely WF? (Love of trees, All things historic, The SEBTS Campus)
- The Renaissance plaza has been a success story
- The Factory is a great project – unique to the region
- Heritage is considered to be the project that put WF on the map
- 1A is a real problem
- Have concerns about inclusionary zoning – costs are the same for each home permit – can larger homes have larger fees with the increased fees going to help finance affordable housing
- Can't make the regulations too restrictive so as to preclude economic development but need to maintain community value
- Need to step back and redefine the broad intent and make sure that everyone has a sense of the big picture
- Should the town be exempt from the ordinance? No they shouldn't.
- The town has come a long way in protecting the gem of this town – need to enhance all of the regulations that has got us here but add some clarity
- Affordable housing – each regulation adds cost to the development
- Common platting standards between the Wake County municipalities
- Perception that the town is very helpful for the local business
- Hope the code doesn't make the town too rigid, still some administrative discretion for minor changes

C

ANNOTATED OUTLINE

The following annotated outline summarizes the key provisions of the proposed Unified Development Ordinance (UDO) for the Town of Wake Forest, NC. The UDO is a part of the Town's Code of Ordinances that consolidates the standards and procedures for land use permitting for the planning and zoning jurisdiction of the Town. The outline compares and consolidates the processes, procedures, standards, language and definitions of the various code provisions. It identifies new provisions or provisions that need to be modified. The outline does not provide language for the UDO. Instead, its intent is to provide the framework for a draft UDO. It is expected that the framework and the code text will evolve and change as the process of developing the ordinance unfolds.

This outline contains each heading of a draft UDO, from Chapter and Section headings to subsection headings. A summary below each heading explains the subject matter of the section. Some sections also discuss alternative regulatory approaches. Some sections are consolidated for purposes of convenience, with key policy issues highlighted and discussed. This outline compares the existing ordinance structures to the new structure by including cross-references to existing sections of the various ordinances that would be moved, revised or replaced. These references are set out in italicized and indented text.

1.0 PURPOSE AND APPLICABILITY

1.1 Title

Establishes a title (Unified Development Ordinance for the Town of Wake Forest) for a shorthand reference.

1.2 Authority

Describes the authority prescribed for zoning and subdivision provisions. *Replaces/expands upon Z-I.2 & S-I.B*

1.3 Jurisdiction

Applies to all public and private development within the corporate limits of the Town of Wake Forest and the ETJ to the extent permitted by law. *Revises Z-II*

1.4 Purpose and Intent

Describes the purpose and intent of the UDO in accordance with the General Statutory grant of power and references the principles of the *2010 Community Plan. Replaces/expands upon Z-I.1 & S-I.A*

1.5 Consistency with All Adopted Plans

Requires consistency with all adopted plans in accordance with G.S. 160A-382-383.

1.6 Required Conformance with this Ordinance

General statement requiring conformity of all land development to this ordinance.

1.7 Transitional Provisions

Describes relationship to the previous development ordinances in effect prior to the adoption of this revision.

1.8 Conflict with Other Laws

Describes procedure for administration of this UDO with respect to other local, state, or federal laws or judicial decisions. *Revises Section Z-IV.8&12*

1.9 Interpretation

Outlines how to interpret the standards of this ordinance as the minimum necessary and that any greater standards shall govern unless noted. *Revises Section Z-IV.7*

1.10 Effective Date

Date the regulations shall become effective (date of adoption). *Section Z-XII*

2.0 DISTRICT PROVISIONS

2.1 Official Land Development Map

Describes the rules pertaining to the official Land Development Map and the interpretation of district boundaries. *Revises Section Z-IV.5-6*

2.2 Districts by District Type

Organizes and describes the proposed base districts. Each Section will be organized as follows: District Type, Brief Description, Use Table, Dimension/Form-based standards, Reference to other Applicable Standards. *Revises Section Z-V.1,4-30,35,37 & Z-VI.3*

Current District	Recommended District	Description/Commentary
RD	Rural Holding District (RD): 1 Unit/5 Acres	Consider dramatically reducing the permitted density to keep it truly rural until development is pending. Could also consider rezoning for the anticipated development type as most of these areas are surrounded by other development currently
R20	General Residential-Low Density (R3)	2 units/acre
R15	General Residential-Low Density (R3)	3 units/acre
R10	General Residential-Medium Density (R6)	6 units/acre - Mixed residential permitted in new development
MF	General Residential-Medium Density (R6)	6 units/acre - Mixed residential permitted in new development

Current District	Recommended District	Description/Commentary
R8	General Residential-Medium Density (R6)	6 units/acre - Mixed residential permitted in new development
R5	Urban Residential (R10)	10 units/acre - All residential uses permitted by right
O-I	Residential Mixed-Use (RMX)	Residential scaled limited office/retail and higher density residential
NB	Neighborhood Mixed-Use (NMX)	Expanded permitted uses by right. All residential uses also permitted by right.
RA-C	Neighborhood Mixed-Use (NMX)	Expanded permitted uses by right. All residential uses also permitted by right.
RA-HC	Renaissance Area Historic Core (RA-HC)	No change
RA-UC	Urban Center (UC)	Expand for use in other areas
ICD	Institutional Campus Development (ICD)	All buildings/uses internal to campus permitted by right. All perimeter uses within 200 feet of exterior may require additional permitting.
HB	Highway Mixed-Use (HMX)	Expanded permitted uses by right except Regional Centers. All residential uses also permitted by right.
I	Industrial (I)	Most permitted uses permitted by right. Residential excluded. Heavy Industrial may require SUP.
HI	Heavy Industrial (HI)	Conditional District only or SUP.

2.3 Table of Permitted Uses

Describes use categories, consolidates the existing uses, and provides tables indicating the permitted uses in each zoning district. *Also includes Revisions to Section Z-IV.20*

2.4 Uses Not Expressly Permitted or Conditional

Defines what to do with uses not expressly enumerated as permitted or special uses.

2.5 Overlay Districts

The section would include overlay districts for the purpose of imposing additional design, use, or other standards over a base district or districts. *Incorporates Historic Landmarks, Falls Lake Watershed Protection, Special Highway Overlay, R-80W, R-40W and Richland Creek Watershed Protection from Z-V.3,31-34,36*

2.6 Conditional Districts

This would describe Conditional Districts with conditions voluntarily added by the applicant and approved in a legislative procedure by the Town Council in accordance with G.S. 160A-382. *Revises Z-V.2*

3.0 SUPPLEMENTAL USE STANDARDS

Specific standards for various Uses Permitted by Right with Additional Standards and Special Use Permits.

3.1 Applicability

Establishes the provisions which shall apply regardless of the underlying zoning district provisions.

3.2 Supplemental Use Standards

Describes the provisions noted in the use table as having supplemental standards organized by major use category (Residential, Lodging, Office/Service, Commercial, Entertainment/Recreation, Civic/Institutional, Industrial, Agriculture and Infrastructure). *Revises Sections Z-VI.7-8,11 & Z-VIII.12*

4.0 GENERAL PROVISIONS FOR ALL DISTRICTS

4.1 Applicability

Establishes the provisions which shall apply regardless of the underlying zoning district provisions.

4.2 General Provisions
Describes the provisions applicable to all development plans subject to this UDO.

4.3 Basic Lot and Use Standards
Describes the provisions for lot and use standards including methods for interpreting various standards found throughout the UDO. *Revises Section Z-IV.3-4, 14-18*

4.4 Irregular Lot Setbacks
Establishes that the Administrator shall decide the location of required front, side, and rear yards on irregularly shaped lots subject to certain guidelines.

4.5 Measurement of Height
Establishes a common method for the measurement of height for all dimensions found throughout the UDO.

4.6 Accessory Uses and Structures
Describes accessory structures and their associated uses/general requirements.
Revises Section Z-IV.21

4.7 Temporary Uses
Specific standards for various temporary uses. *Revises Section Z-IV.21 and Z-IX.2.1*

5.0 BUILDING TYPES, DEVELOPMENT TYPES & DESIGN STANDARDS

5.1 Purpose and Intent
Establishes regulations specific to design standards for building types for the Town of Wake Forest. The standards in this Chapter are intended to attach the same or greater level of importance to the overall building design as is placed on the use contained within. *Revises Section Z-VI.9.A*

5.2 Applicability and Administration
The provisions outlined in this Chapter shall apply throughout the jurisdiction of this Code, regardless of the underlying zoning district provisions. *Revises Section Z-VI.9.B-C*

5.3 General Building Design Requirements
Describes the general design requirements buildings shall meet, including but not limited to: frontage requirements, entrances, street vistas, and façade design.

5.4 Exceptions
Defines exceptions to general building design requirements. *Revises Section Z-VI.9.D*

5.5 Building Types
Specialized building design requirements are defined for six common building types found throughout the Town of Wake Forest (as outlined below).

5.5.1 Detached House
5.5.2 Townhouse Buildings
5.5.3 Apartment Buildings
5.5.4 Shopfront/Mixed-Use Buildings
5.5.5 Commercial Buildings
5.5.6 Industrial Buildings
5.5.7 Civic Buildings

5.6 General Building Design Requirements
Qualitative principles used to evaluate all applications but specifically those requiring a formal design review process. *Revises Section Z-VI.9.F-J*

5.7 Civic Building Design Standards
Quantitative principles used to evaluate all civic building applications for administrative review as well as those requiring a formal design review process.

5.8 Residential Building Design Standards
Quantitative principles used to evaluate all detached home, townhome, and apartment building applications for administrative review as well as those requiring a formal design review process. *Revises Section Z-VI.9.H*

5.9 Manufactured Home Building Design Standards

Quantitative principles used to evaluate all manufactured home applications for administrative review as well as those requiring a formal design review process. *Revises Section Z-VI.8*

5.10 Mixed-Use/Commercial Building Design Guidelines

Quantitative principles used to evaluate all mixed-use and commercial building applications for administrative review as well as those requiring a formal design review process. *Revises Section Z-VI.9.G-J*

5.10 Industrial Building Design Guidelines

Quantitative principles used to evaluate all industrial building applications for administrative review as well as those requiring a formal design review process.

5.11 Development Types

Specialized standards for various development typologies beyond the typical subdivision standards

5.6.1 Cluster/Zero Lot Line Developments *Revises Z-VII.7*

5.6.2 Grayfield/Brownfield Redevelopment (will note permitted exceptions to help streamline/encourage this type of redevelopment)

5.6.3 Manufactured Home Parks *Revises Z-VII.12.3*

5.6.4 Traditional Neighborhood Development *Revises Z-V.37*

6.0 INFRASTRUCTURE STANDARDS

6.1 Purpose and Intent

The purpose of this Chapter is to provide standards for the site development and subdivision of real property.

6.2 Applicability

The provisions outlined in this Chapter shall apply to all site and subdivision plans. Also included will be references to state subdivision standard and the integration of the Manual of Specifications, Standards and Design (MSSD).

6.3 Required Improvements for all Development

Describes the required improvements associated with all development segregated by site plan and subdivision plans, including but not limited to: public water supply distribution and hydrants, sewer, public streets and rights of way, sidewalks, underground utilities, landscaping, etc. *Revises Section S-IV*

6.4 Land Suitability

Establishes regulations regarding areas in which land may not be suitable for development, such as flood hazard areas, watersheds, and demolition landfill areas.

6.5 Sedimentation and Erosion Control

Establishes sedimentation and erosion control regulations for the Town and ETJ. These are to be in accordance with the North Carolina Sedimentation Pollution Control Act of 1973 as amended, and other federal / state law or locally adopted Code. *Adapts MSSD-Section 7*

6.6 Connectivity

Standards for street, pedestrian, and bicycle connectivity for all development

6.7 Thoroughfare Plan Conformity

Required conformance with the adopted transportation plan in the reservation or dedication or rights-of-way and the construction of certain facilities.

6.8 Town Street Classification and Design

Establishes required street sections for various development contexts. *Revises Section MSSD-2.1*

6.9 Sidewalks and Other Pedestrian Facilities

Establishes requirements for sidewalks and other pedestrian pathways

6.10 Bicycle Facilities

Establishes requirements for bicycle facilities

6.11 Driveway Access

Establishes requirements for driveway access. *Revises Section Z-VI.1-2*

6.12 Transportation Impact Analysis

Establishes a requirement for the submittal of a transportation impact analysis with certain development plans and requires the upgrade of facilities in accordance with an adopted level of service for various roadways and intersections. *Revises Section MSSD-2.10*

6.13 Improvement Guarantees

Defines regulations for improvement guarantees including surety performance bonds, cash/equivalent security, defaults, and releases of guarantee security.

7.0 PARK, RECREATION AND CIVIC SPACE LAND

7.1 Purpose and Intent

Defines open space terminology and establishes general intent for open space regulations as well as reference to any applicable enabling legislation. Specifically, these regulations permit the creation of centrally located land as neighborhood open spaces.

7.2 Open Space / Civic Space Standards

Defines various types of open space and civic spaces and includes criteria for expected improvements including: Location, Topography, Shape, Unity, Accessibility, Usability, and Community Plan Compatibility

7.3 Open Space / Civic Space Dedication

Residential and mixed-use residential developments shall be required to dedicate open space (except for in Downtown). This section describes in detail how to calculate open space dedication through the use of an open space dedication matrix.

7.4 Payment in Lieu of Open Space / Civic Space Dedication

Establishes regulations for payments in lieu of open space dedication, which may be appropriate where dedication is prohibitive. A formula for determining fee payment is provided within this section.

7.5 Recreation Facility Fee Requirements

The standards for the payment of the required facility fees will be noted.

8.0 TREE PROTECTION, LANDSCAPING AND SCREENING

8.1 Purpose

Establishes the purpose and intent for landscape requirements as well as reference to any applicable local enabling legislation. *Revises Z-VI.6.A*

8.2 Applicability

Defines applicability for landscaping regulations based on development type. *Revises Z-VI.6.B & L*

8.3 General Provisions

Defines standards that are generally applicable including existing vegetation, grading and development in landscape areas, landscape maintenance, easements and rights-of-way, public tree care, tree trimming, and protective measures during construction. *Revises Z-VI.6.K*

8.5 Tree Protection

Establishes protection and preservation standards for existing trees and vegetation within the Town and ETJ including required tree save areas and credits for preservation of existing trees. *Revises Z-VI.6.C-F,M*

8.6 Buffers and Screening

Establishes the types of planting yards that shall be required within Wake Forest's zoning districts for screening and/or buffering certain uses. *Revises Z-VI.6.G*

8.7 Street Tree Plantings

Establishes requirements for the planting of trees within the public right-of-way between the curb/street pavement and the sidewalk. Requirements are differentiated by corridor type and fronting use. *Revises Z-VI.6.H*

8.8 Vehicular Use Area Screening

Establishes requirements for the screening of parking lots from visible from the public right-of-way. *Revises Z-VI.6.G*

8.9 Vehicular Use Area Landscaping

Establishes requirements for landscaping the interior of parking areas. *Revises Z-VI.6.I*

8.10 Watercourse Buffer Areas
Establishes requirements for protection of landscaping parallel to certain protected watercourse. *Revises Z-VI.6.J*

8.11 Fences & Walls
Defines requirements for fences and walls within residential, commercial/mixed-use, and industrial areas.

8.12 General Installation and Maintenance Standards
Establishes planting standards for new plantings, preservation of existing vegetation, irrigation, installation time and permitted delays, maintenance, penalties. *Revises Z-VI.6.N*

9.0 PARKING AND LOADING *Revises Section Z-VII.1-2*

9.1 Purpose and Intent
Establishes regulations for the construction, expansion and renovation of parking lots, loading areas, and similar facilities.

9.2 Applicability
Describes what provisions apply based on development type or district.

9.3 Off-Street Parking and Loading Requirements
Defines minimum parking ratios with a Use Type/Required Parking Spaces matrix. *Revises Section Z-VII.1.C-E, I*

9.4 Bicycle Parking Standards
Establishes requirements for bicycle parking at multi-family and non-residential developments. *Revises Section Z-VII.1.G*

9.4 Transportation Facility Permits
Establishes requirements for the issuance of transportation facility permits for large parking areas. *Revises Section Z-VII.1.H*

9.5 General Parking Provisions
Includes standards for the provision of satellite parking, payments in lieu, shared/combined parking, overflow parking, structured parking, use of parking spaces, general design standards for parking spaces, circulation drives, and driveways, surfacing, non-paved areas, and exemptions and adjustments.

10.0 LIGHTING *Revises Section Z-VI.10.A-B*

10.1 Purpose and Applicability
Establishes the purpose and intent for lighting regulations within the Town of Wake Forest and ETJ as well as reference to any applicable enabling legislation. These regulations are intended to control light spillage and glare so as to not adversely affect motorists, pedestrians, and land uses of adjacent properties.

10.2 Design Standards
Establishes standards for maximum permitted illumination measured in average foot-candles. Includes an Illuminating Engineering Society chart representing a number of exterior lighting uses for general reference.

10.3 Outdoor Recreational Lighting
Establishes that the lighting of active recreation areas, such as ball fields and tennis courts, are not considered in this chapter due to their unique requirements. Illumination shall fall within the primary playing area and no direct light shall be directed off site.

10.4 Street Lighting
Sets forth street lighting design standards. Regulations specifically define minimum average street light spacing, fixture placement, cut-off fixtures, and lighting along alleys.

10.5 Exemptions
Establishes exemptions from lighting requirements, including lighting of the US and NC flags, residential lighting, construction/emergency lighting, holiday decoration lighting, and underwater lighting.

10.6 Prohibitions
Lists prohibited lighting.

10.7 Administration

Defines how light level measurements are to be determined. This section also establishes requirements for a lighting plan application which shall be used when submitting a site plan or applying for a building, electrical, or sign permit to install outdoor lighting fixtures.

11.0 SIGNS *Revises Section Z-VI.4*

11.1 General Purpose and Intent
Establishes the purpose and intent for signage regulations within the Town of Wake Forest and ETJ as well as reference to any applicable enabling legislation. *Revises Section Z-VI.4*

11.2 Applicability
Establishes when a sign permit and master sign are required and the procedures appropriate to each. *Revises Section Z-VI.4.A*

11.3 Computation of Signage Area
Clearly illustrates how signage area is calculated. *Revises Section Z-VI.4.I & Revises Diagrams 1-4*

11.4 General Provisions
Sets forth general provisions for design and administration. *Revises Section Z-VI.4.A*

11.5 Signs Not Requiring a Permit
A list of those signs that do not require a permit. *Revises Section Z-VI.4.C*

11.6 Permitted Signage by District
In a clear and concise manner using easy-to-read tables, this section will indicate what types of signs are permitted in the various districts. *Revises Section Z-VI.4.D-F & I*

11.7 Principal/Primary Signage Types
Design standards for principal/primary signs such as free standing, monument, and wall signs.

11.8 Secondary/Incidental Signage Types
Design standards for secondary/incidental signs such as smaller than 8 sq ft including directional and directory signs.

11.9 Prohibited Signs
A list of those signs that are not permitted under any circumstance. *Revises Section Z-VI.4.B*

11.10 Sign Illumination
Lighting requirements for signs. *Revises Section Z-VI.4.A.4*

11.11 Maintenance and Upkeep of Signs
Standards and requirements for the maintenance of signs such as partially lit lettering and damage repair. *Revises Section Z-VI.4.A.6*

11.12 Nonconforming Signs
Standards for non-conforming signs. *Revises Section Z-VI.4.G*

12.0 STORMWATER *Replaces Section Z-XIII, Phase 2 Stormwater Ordinance & MSSD 7.0 and adapts the Model Universal Stormwater Ordinance (MUSO) promulgated by NC DWQ*

12.1 Purpose and Intent
Outlines the purposes and general applicable enabling legislation. *MUSO Section 102-104*

12.2 Applicability
Defines when the standards of the Section apply to development application as well as provides guidance on interpretation and references to the State Design Manual. *MUSO Section 105-107*

12.3 Standards
Defines the standards for all stormwater control measures. *MUSO Section 301-308*

12.4 Maintenance
Establishes requirements for maintenance of stormwater control structures and annual inspections. *MUSO Section 401-408*

12.5 Illicit Discharges

Establishes requirements for the prevention illicit discharges into the stormwater system and procedures for mitigating such events. *MUSO Section 701*

13.0 NONCONFORMITIES

13.1 Purpose and Applicability

Establishes the purpose of nonconformity regulations. They are intended to regulate and limit the continued existence of uses and structures established prior to the effective date of this Code. This section will include an applicability matrix for required retrofitting of existing development. *Revises Section Z-IV.1.C*

13.2 General Provisions

This section outlines the appeals and modification request procedures as well as standards for discontinuance.

13.3 Nonconforming Plan

Defines regulations for nonconforming plans including plans approved prior to the adoption of this code and amendments / modifications to previously adopted plans and special use permits. *Section Z- IV.1.H*

13.4 Nonconforming Lots

Defines regulations for nonconforming lots and specifically addresses nonconforming lot development. *Revises Section Z- IV.1.A*

13.5 Nonconforming Uses & Structures

Defines regulations for nonconforming uses, structures, accessory uses, accessory structures, and open uses of land, including expansions, changes to conforming use, and abandonment. *Revises Section Z- IV.2.B-F*

13.6 Nonconforming Manufactured Homes and Mobile Home Parks

Defines regulations for nonconforming manufactured and mobile homes, and mobile home parks for repairs and replacements.

13.7 Nonconforming Design Elements and Site Features

Defines regulations for nonconforming features such as parking lots, street frontages, landscaping, screening, lighting and building design including repairs, alterations, and damage/destruction.

13.8 Nonconforming Signs

Establishes regulations for nonconforming signs, including repairs/maintenance, replacement, and abandonment. *Revises Section Z-VI.4.G*

14.0 ADMINISTRATIVE AGENCIES

14.1 The Administrator

Defines the duties of the Administrator, including general responsibilities and, maintenance of all records and files. *Revises Section Z-IX.1,4 & Z-XIII.4.A,C*

14.2 Technical Review Committee

Defines responsibilities and membership for the Technical Review Committee

14.3 Planning Board

Establishes authority and defines responsibility, membership, and terms of office for members of the Planning Board.

14.3 Board of Adjustment

Establishes authority and defines responsibility, membership, and terms of office for members of the Board of Adjustment. *Revises Section Z-XI*

14.4 Design Review Board

Establishes authority and defines responsibility, membership, and terms of office for members of the Design Review Board.

14.5 Historic Preservation Commission

Establishes authority and defines responsibility, membership, and terms of office for members of the Historic Preservation Commission. *Revises Section Z-V.3.B*

14.5 Meetings and General Procedures

Defines that all meetings shall be open to the public and shall be conducted in accordance with the procedures set forth in these regulations.

14.6 Staff

Establishes staff responsibilities to Boards, Commissions, and/or Committees.

14.7 Attendance Policy

Defines the attendance policy for Board, Commission, and Committee members.

15.0 ADMINISTRATION

15.1 Purpose and Intent

Defines the purpose and intent for establishing a clear, comprehensive, and orderly process for land development within the Town and ETJ.

15.2 General Provisions & Applicability

Establishes applicability for the provisions outlined in this Chapter affecting all development within the jurisdiction of the Town of Wake Forest. Additionally, this section defines when a zoning permit is not required for certain uses, as well as when the development review process may be waived. A table for all of the various permit types should be placed here for clarity. See example below:

Permit/ Process Type	Section	Permit/ Process Type	Reviewing Agency	Public Notification	Approving Agency	Appeal Process	Permit Period	Permit Extension
Certificate of Compliance	15.6.1	Administrative	Admin	None	Admin	BOA	6 months	6 months
Temporary Use Permit	15.6.2	Administrative	Admin	None	Admin	BOA	See 4.7	n/a
Certificate of Occupancy	15.6.3	Administrative	Admin	None	Admin	BOA	n/a	n/a
Modification of Standards	15.6.4	Administrative	Admin	None	Admin	BOA	n/a	n/a
Grading Permit	15.7.1	Administrative	Admin	None	Admin	BOA	6 months	Re-submit
Floodplain Development Permit	15.7.2	Administrative	Admin	None	Admin	BOA	1 year	Re-submit
Stormwater Permit	15.7.3	Administrative	Admin	None	Admin	BOA	1 year	Re-submit
Site Plan/Design Review (Minor)	15.8.1	Administrative	Admin	None	Admin	BOA	1 year	1 year
Site Plan/Design Review (Major)	15.8.2	Quasi-Judicial	Admin	Yes	DRB	Superior Court	1 year	1 year
Subdivision (Minor)	15.9.1	Administrative	Admin	None	Admin	BOA	30 days to file Plat	Re-submit
Subdivision (Major) – Preliminary Plat	15.9.2	Quasi-Judicial	Admin	Yes	Planning Board	BOA	1 year to Final Plat	6 months
Subdivision (Major) – Final Plat	15.9.3	Administrative	Admin	None	Admin	BOA	30 days to file Plat	Re-submit
Special Use Permit	15.10	Quasi-Judicial	Planning Board	Yes	Planning Board	Superior Court	6 months	6 months
Designation of Historic Landmarks/Districts	15.11.1	Legislative	HPC	Yes	BOC	Superior Court	n/a	n/a
Certificate of Appropriateness (Minor)	15.11.2	Quasi-Judicial	Admin	None	Admin	HPC	6 months	Re-submit
Certificate of Appropriateness (Major)	15.11.3	Administrative	Admin	Yes	BOA	Superior Court	6 months	Re-submit
Appeal of Administrative Decision	15.12	Quasi-Judicial	BOA	Yes	BOA	Superior Court	30 days to Appeal	n/a
Variance	15.13	Quasi-Judicial	BOA	Yes	BOA	Superior Court	30 days to Appeal	n/a
Text Amendment	15.14	Legislative	Planning Board	Yes	BOC	Superior Court	n/a	n/a
Map Amendment (Rezoning)	15.14	Legislative	Planning Board	Yes	BOC	Superior Court	n/a	n/a
Conditional District	15.15	Legislative	Planning Board	Yes	BOC	Superior Court	May be rescinded after 2 years	n/a
Vested Right	15.16	Legislative	Planning Board	Yes	BOC	None	2-5 years	Up to 5 years total

15.3 Public Notification
Outlines the various public notification requirements including notices in the newspaper, to affected property owners, to adjacent property owners, to the full community, and standards for neighborhood meetings. *Revises Section Z-X.3.A and XI.3.B*

15.4 Application Requirements
Outlines the general application requirements and references the MSSD for key checklists of submittal requirements for the environmental survey, sketch plan, master plan, construction documents/preliminary plat, as-built drawings, final plat and building elevations for design review.

15.5 General Requirements for Quasi-Judicial Hearings and Decisions
Standards and procedures for all quasi-judicial processes, regardless of the decision-making body. *Revises Section Z-VIII.2-9*

15.6 Administrative Permits
Permits for activities that impact the natural environment including Grading Permits, Floodplain Development Permits and Stormwater Permits. *Revises Section Z-IX.3, Z-IX.2.A*

15.7 Environmental Protection Permits
Permits for ordinary compliance with the standards of the UDO including those permitted uses with supplemental use standards issued by the administrator and not requiring any additional board/commission review including Certificates of Compliance, Temporary Use Permits, Certificates of Occupancy, and Administrative Modification of Standards. *Revises Section Z-XIII.4.B, Section MSSD 7.7 & USMO 202-205*

15.8 Site Plans/Design Review
Establishes applicability and procedures for site plan submission and approval and the approval of building elevations. *Replaces Section Z-IV.13*

15.9 Subdivisions
Establishes applicability and procedures for subdivision submission and approval. *Revises S-III*

15.10 Special Use Permits
Defines regulations for special use permits including the procedures, effect of approval, substantial changes, and rescission of special use permits. *Revises Section Z-VIII.2-11*

15.16 Historic Preservation
Defines regulations for the issuance of Certificates of Appropriateness in Historic Districts including minor works and regular petitions and for the procedures for the designation of historic landmarks and districts. *Revises Section Z-V.3.C-F & Z-VI.12*

15.14 Appeals of Administrative Decisions
Establishes regulations for appeals of administrative decisions. *Revises Section Z-XI.4.A & Z-XI.5*

15.15 Variances
Establishes regulations for variances. *Revises Section Z-XI.4.B & Z-XI.5*

15.18 Text Amendments and Rezonings (Map Amendments)
Establishes regulations regarding text amendments and rezonings. *Revises Section Z-X*

15.19 Conditional Districts
Establishes regulations regarding conditional use districts, including general requirements, procedures, substantial changes, and rescission of conditional use districts. *Revises Section Z-V.2*

15.20 Vested Rights
Defines vested rights regulations including Town Council action, effect of approval of vesting, establishment of common law vesting plans, and revocation/expiration of a vested right. *Revises Section Z-IV.24*

17.0 VIOLATIONS AND PENALTIES

17.1 Complaints Regarding Violations
Establishes that written complaints may be filed whenever a violation of this Code occurs or is alleged to have occurred.

17.2 Penalties for Violation and Enforcement Mechanisms

Defines the following remedies and enforcement power which may be used to enforce the Town's Code, including: criminal penalties, equitable remedies, injunctions, orders of abatement, and civil penalties. Executions of court decisions, stop work order/revocation of permits, and provisions for replacement of disturbed/damaged vegetation are also defined in this section. *Revises Section Z-IV.9-11 & S-I.F*

18.0 DEFINITIONS

18.1 Intent

18.2 Rules of Construction

Defines how certain words, concepts, or ideas should be interpreted. *Revises Section Z-III.1*

18.3 Definitions

Consolidates, updates, and adds to definitions in the UDO. All Definitions are included in one location in the document and are free of regulations. *Revises Section Z-III.2, Z-VI.4.H, Z-VI.6.N, Z-VI.11, Z-XIII.2, S-II.A, MSSD-7.4 & USMO-601 et al*

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