Town of Chapel Hill Land Use Management Ordinance

Critique & Technical Report

FINAL November 11, 2011











prepared by

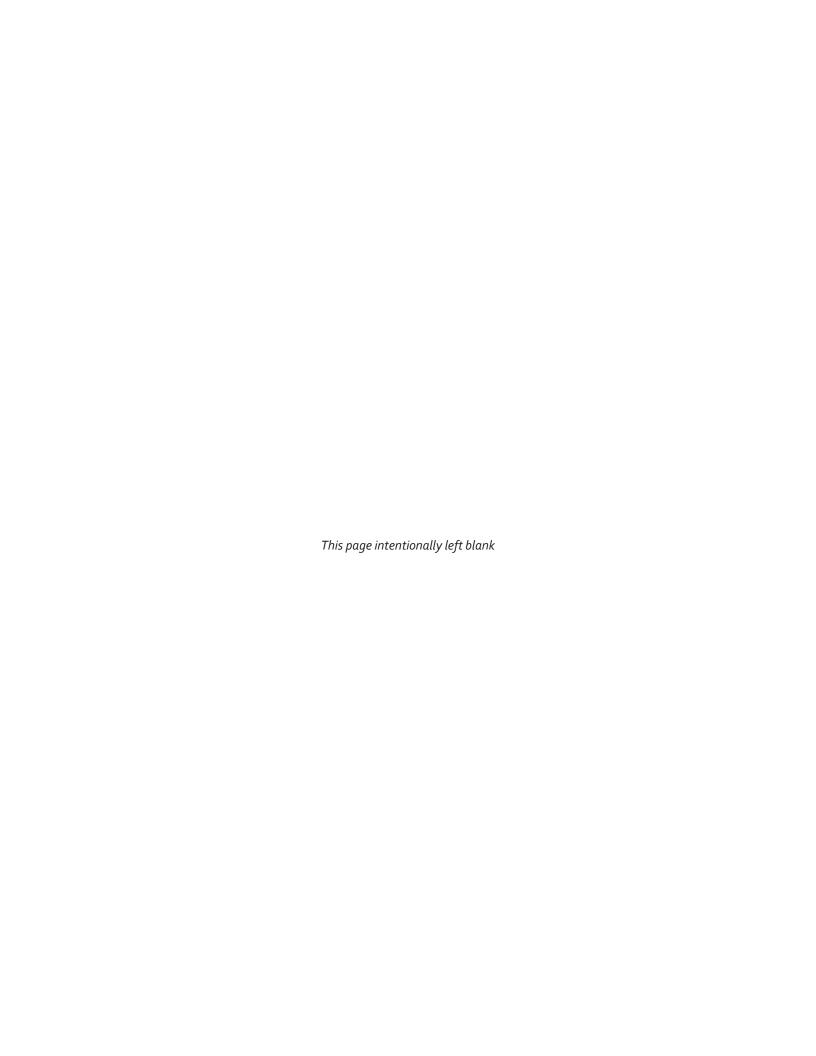
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CONTENTS

INTRODUCTION & SUMMARY Purpose of Report .1 Methodology .2 Organization .2 Summary of Key Findings .3	. 1
CHAPTER 1.ORGANIZATION & USABILITY	. 5
CHAPTER 2.DISTRICTS & USESRecommended LUMO Revisions	17
CHAPTER 3.DEVELOPMENT STANDARDS.Streets and Streetscape31Recommended LUMO Revisions31Parking34Site Lighting36Signs37Stormwater and Water Quality38Landscaping39Steep Slopes40	31
CHAPTER 4.PROCESS & ADMINISTRATION. Recommended LUMO Revisions	41
CHAPTER 5.THE BIG IDEAS Improving the Process and the Outcomes	47
CHAPTER 6.UPCOMING TEXT AMENDMENTS	53
IMPLEMENTATION MATRIX	55



INTRODUCTION & SUMMARY

The Town of Chapel Hill (Town) has engaged national planning and development code consultants Code Studio to prepare a critical analysis and technical report of the Town's Land Use Management Ordinance (LUMO). The LUMO was written to implement *Planning for Chapel Hill's Future: The Comprehensive Plan* (the Plan) adopted in May of 2000. The Chapel Hill Town Council adopted the LUMO in January of 2003, replacing the 1981 Chapel Hill Development Ordinance.

In the decade since the adoption of the Plan, a lot has changed in how development occurs in Chapel Hill. Some of this change is due to shifting trends nationally, but much of it is due to the continued evolution of the community's vision. The Town realizes this and has made a concerted effort to capture the community's current vision with updated planning policies. However, despite a litany of patchwork amendments, these changing conditions and evolving community vision have resulted in the LUMO becoming outmoded, leaving the Town with the task of implementing a new vision with an old tool.

Purpose of Report

Chapel Hill has committed to updating the decade old Plan with a new comprehensive sustainability plan for Chapel Hill. As a precursor, the Town has decided to develop a thorough understanding of the strengths and weaknesses of the current regulatory system. This helps establish a baseline against which tolerance for change, new policy and regulatory direction can be measured. In short, this report takes the conversation of how to regulate development in

Chapel Hill to the next level by identifying barriers in the Town's current approach and projecting what is possible.

More specifically, the report provides Chapel
Hill staff with a critical overview of the Town's
current regulatory tools. It identifies many of the
inconsistencies between current policy and the LUMO,
highlights the complexity of the current system,
suggest ways to simplify the approval process while
improving the quality of development, and prioritizes.
Further, the report evaluates the LUMO against
national and regional best practices and recommends
ways to generate a more modern, user-friendly, and
streamlined development code. Each suggested
strategy is sorted as either a pre or post plan revision
to the LUMO. The pre-plan revisions are prioritized
considering complexity and parallel projects.

Documents Reviewed

RULES AND REGULATIONS

Town Charter

Land Use Management Ordinance (LUMO)

PLANS

Planning for Chapel Hill's Future: The Comprehensive Plan (2000)

Chapel Hill Bicycle and Pedestrian Action Plan (2005)

Chapel Hill Land Use Plan - Map (2008)

Downtown Chapel Hill Small Area Plan (2000)

Northern Area Task Force Plan (2007)

Northern Area Workshop TOD Concept Plans (2008)

POLICY REPORTS AND MANUALS

Chapel Hill Design Manual

Complete Streets Policy

Development Review Assessment

Internal Development Process Review

Downtown Development Framework Neighborhood Conservation Districts

DESIGN GUIDELINES

Chapel Hill Design Guidelines

Design Guidelines for the Chapel Hill Historic Districts

Duplex Design Guidelines

INTERVIEWS

Chapel Hill Planning Staff

Chapel Hill Engineering Staff

Private Development Professionals

INTRODUCTION

The ideas and specific approaches outlined below represent only the beginning of the process. As conversations take place in the months ahead, the ideas presented below will evolve. If Chapel Hill wants to see results, the Town must continue to discuss the recommendations, refine them based on updated policy changes, including the new comprehensive plan, and ultimately work with the community to amend the LUMO.

Methodology

In preparing this report, Code Studio reviewed a variety of regulatory and planning policy documents, developing a working knowledge of the LUMO as well as the plans and policy reports. While our study of these documents provides a foundation for understanding the community's vision and regulatory framework, it was the time we spent touring the community, reviewing projects that have been built under the LUMO, and meeting with

Town staff, stakeholders and private sector development professionals that provided the details of the problems and opportunities facing Chapel Hill.

Our recommendations and analysis of the LUMO and of Town Policy is based on both our review of documents and interviews with stakeholders. In some cases there were inconsistencies between what we read in Town policy and the LUMO and what we heard in interviews. To the extent possible these inconsistencies were highlighted in the report.

Chapters in the Technical Report

Chapter 1. Organization & Usability

Chapter 2. Districts & Uses

Chapter 3. Development Standards

Chapter 4. Process & Administration

Chapter 5. The Big Ideas

Chapter 6. Upcoming Text Amendments

Chapter 7. Implementation Matrix

Organization

Fundamentally, this report is a critique of the LUMO. It is organized around six chapters. Each chapter focuses on an attribute or feature of the LUMO, examining how effectively it implements Town policy and how it compares to regional and national best practices. Some chapters address features that permeate the entire code, such as organization and usability or sustainability; while other chapters focus on specific attributes such as districts and uses, development standards, or process and administration. Each chapter begins with a quick reference list of suggestions contained in the chapter. These suggestions are organized into one of two categories: (1) Precomprehensive plan revisions that could be undertaken before the comprehensive planning process with little or no additional policy input; or (2) Post comprehensive plan revisions that require additional policy discussions and should be considered as part of a complete LUMO revision.

Additionally, chapter five of this report highlights some of the big ideas that were identified during interviews and in subsequent conversations with Town staff. The report concludes with an implementation matrix that captures the recommendations in the report and catalogs them by complexity, leveraging opportunities and priority.

INTRODUCTION

Summary of Key Findings

Through evaluation of the Town's regulatory and planning policies, it became clear that there is a disconnect between the policies of the Town and how the LUMO is implementing them. In short, Chapel Hill appears to be shifting from suburban sprawl patterns toward more compact infill patterns. The Town has made a firm commitment to growing sustainably, incorporating sustainability principles that reduce Chapel Hill's carbon footprint, improve the Town's economic vitality, and enhance the quality of the built environment.

The LUMO as currently written, is a suburban development code. It contains rules that perpetuate unsustainable and outmoded sprawl development patterns and in many cases prohibits or severely limits the ability to build truly sustainable, compact, walkable and mixed-use places. Further, the LUMO lacks the organization and standards that allow efficient development. Instead, the Town relies on an ambiguous and potentially arbitrary case-by-case approval process for most development.

The LUMO, while well-intentioned, has evolved into an impediment to implementing Chapel Hill's vision. While the best approach for repairing the LUMO is a complete overhaul after the completion of the updated comprehensive plan, there are some changes that could help facilitate the right development patterns. These short and long term changes, and the reasoning behind them, are set forth in the following chapters.

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CHAPTER 1.ORGANIZATION & USABILITY

When a community's rules for development are difficult to find, read and understand, they take more time to use. This means that developers unnecessarily spend time and money trying to figure out the rules and Town staff spend time trying to explain, interpret and enforce them. Further, ambiguity as to the rules can add to the uncertainty among neighbors who may not understand how their neighborhood could change.

The most effective development codes are logically organized and clearly written. They contain the rules necessary for laying out all developments in one easy to access location, and convey information with plain language that is backed up with clear graphics. In some respects, Chapel Hill is ahead of the curve. Since the 1980's, the Town has been operating under a "unified" development code. This means that Chapel Hill combined the essential pieces of zoning and subdivision into one ordinance. The current LUMO continues this practice of a "unified" ordinance, but there are some pieces missing and the overall usability of the LUMO is hindered by inconsistent numbering conventions, missing cross-references, bulky language and unclear or missing graphics. The following sections examine the organization and usability of the LUMO and make specific recommendations for improving both.

ORGANIZATION & USABILITY Recommended LUMO Revisions

Pre-Comprehensive Plan Revisions

- » Reformat the LUMO and establish a consistent numbering convention.
- » Maintain a digitally enhanced draft of the LUMO for download from the Town's website.
- » Move all definitions to the definitions article; remove requirements or standards from definitions.
- » Reorganize the LUMO into a more logical order, combining articles where necessary.
- » Edit the LUMO to eliminate unnecessary legalese and unclear provisions.
- » Update graphics and tables to more clearly convey information.
- » Update the page layout to include running headers, paragraph titles and improved fonts.
- » Increase use of digital cross-references to better link sections of the LUMO and point the users to additional regulation that may apply.

Post Comprehensive Plan Revisions

- » Redefine terms that are used inconsistently either in the LUMO or in enforcement so that they are consistent with their intended meaning.
- » Eliminate footnotes in favor of standards.

General Organization & Format

The LUMO contains the majority of the components needed for a developer, familiar with Chapel Hill's system, to lay out a site plan. There are some additional regulatory elements scattered throughout Chapel Hill's Code of Ordinances that could enhance the LUMO through integration or through improved cross-references. Similarly, there are a number of general design standards addressing streets, streetscapes, and parking lots that are located in the *Town of Chapel Hill Design Manual* (Design Manual) that could be better integrated into the LUMO or enhanced with cross-references. Further, the LUMO lacks a logical structure and order and should be reformatted, and reorganized to improve the user-friendliness of the document.

The Design Manual

Chapel Hill's development regulations can be found in two primary places. The LUMO and the Town's Design Manual. This two-part approach is common in many communities. Development codes, like the LUMO, are used to establish general development standards while administrative manuals, like the Design Manual, are used to establish the official technical policies of the community.

Chapel Hill differs from some communities by choosing to include general regulatory elements in the Town's Design Manual that are often found in a development code. For instance, the Design Manual includes many of the Town's standards related to stormwater, landscaping, access management, streets and streetscapes, parking lot design, utilities and easements, and screening. Some of these issues are technical in detail (the depth of a footing for a fence, or the angle at which utility connections must be made), but others such as parking lot design and landscaping and access management are general development standards and are often located in a development code such as the LUMO.



CHAPTER 1. ORGANIZATION & USABILITY

There is no hard and fast rule for what should be in the LUMO and what should be in the Design Manual. Each community has its own approach. As a general rule of thumb we encourage communities to locate standards in their development code and guidelines and policies in their technical manuals. As Chapel Hill moves forward and updates the LUMO, discussions should be had as to whether some of the standards found in the Design Manual would be more effective if moved to the LUMO or at a minimum cross-referenced between the two documents. The following table provides an overview of the contents of the Town's Design Manual and suggests one option for how Chapel Hill might more effectively structure both the Design Manual and LUMO.

	Sub-Section	Design Manual	LUMO	Comment			
	2.1 Introduction	-		No change recommended.			
	2.2 Performance Criteria		•	Typically, the performance standards for stormwater quantity and quality would be located in the LUMO.			
STORMWATER MANAGEMENT	2.3 Hydrologic Design	•		No change recommended.			
	2.4 Integrated Management Practices/ BMPs	-		No change recommended.			
TS M	2.5 Stormwater Impact Statement and Stormwater Plan Criteria	•		No change recommended.			
	2.6 Drainage Facility Design	-		No change recommended.			
REE	3.1 Design Standards		•	Typically, design standards for landscaped areas would be included in the landscaping section, parking, streetscapes or screening section of the LUMO.			
IG & TI	3.2 Plant Selection Standards	-		Listings of allowed and prohibited plants is typically considered a technical standard and would remain in the Design Manual.			
LANDSCAPING & TREE PROTECTION	3.3 Landscape Installation and Maintenance Specifications	•	•	Basic landscaping installation, size and maintenance standards would be appropriate in the LUMO. Other more specific installation requirements such as soil preparation, mulching and staking may be more appropriate in the Design Manual.			
Š	3.4 Tree Protection Standards	•	•	Many of the tree protection requirements in the Design Manual are repeated in section 5.7 Tree Preservation, of the LUMO. Recommend removing duplication.			
	4.1 Required Access		•	Both site and neighborhood access would typically be located in the LUMO. If technical construction standards are needed, those would go in the Design Manual.			
	4.2 General Standards		•	The requirements in this sub-section are of the type that would typically be found in the LUMO under a streets section.			
	4.3 Structural Standards	•		These construction standards are more technical in nature and would typically be in the Design Manual.			
	4.4 Traffic Control Devices		•	This type of language would typically appear as a standard in a development code. Could be moved to the LUMO section on subdivision or streets, or cross-references added.			
	4.5 Extension and Completion of Access Ways		•	This is a typical "to-and-through" utility improvement language and is often found in a development code.			
	4.6 Public and Private Access Ways			This sub-section does not address design but does contains a standard of the sort typically found in a development code.			
N O	4.7 Names, Identification and Address for Public and Private Streets	•		Street naming conventions and address procedures are usually in a policy document like the Design Manual.			
CULATI	4.8 Minimum Street Elevations	•	•	This standard is relatively direct and would be more effective if located in both the LUMO as a standard and in the Design Manual as a design element.			
ACCESS & CIRCULATION	4.9 Guardrails and Barriers	•	•	The granting of the authority to the Town Manager to require guardrails or barriers would typically be in the LUMO. Any design standards for what the barriers should look like belong in the Design Manual.			
ACCES	4.10 Transit Amenities	-	•	As with the comments above. The authority to administratively require transit amenities should be delegated in the LUMO. Any design standards would belong in the Design Manual.			
	4.11 Bicycle Parking		•	Both bicycle and vehicular parking ratios are typically located in the development code.			
	4.12 Street Classification and Geometric Standards	-	•	This sub-section should be located in both places. The requirements and street cross- sections should be in the LUMO, any technical requirements should be in the Design Manual.			
	4.13 Bicycle Paths		•	Bicycle path standards are simple and should be in the LUMO.			
	4.14 Bicycle Lane		•	Bicycle lane standards are typically included with street cross-sections in the development code.			
	4.15 Work Zone Traffic Control	•	•	No change recommended.			
	4.16 Disability Access		•	Typically state this once at the beginning of a development code.			
	4.17 Soils Report			No change recommended.			
	4.18 Groundcover within Rights-of-way	-		No change recommended.			

	Sub–Section	Design Manual	LUMO	Comment				
ی ھ	5.1 Off-Street Parking	•	•	The technical construction standards typically remain in the Design Manual. All other requirements, including design standards, would typically be in the LUMO				
PARKING & LOADING	5.2 On-Street Parking		•	On-street parking would typically be in the LUMO and included with the street cross-sections.				
	5.3 Loading Space Requirements			Off-street loading and screening is typically addressed in a development code. The requirements in the Design Manual should be moved to the LUMO.				
	6.1 Street Lighting Applicability			The requirement for the developer to install street lighting is typically included in the development code. The types of light may be in either document.				
KINGS	6.2 Street Lighting Plan Submittal Requirements	•		Submittal requirements do not need to be specifically listed in the LUMO, can be liste in the Design Manual or on an application form.				
1ARK	6.3 Street Lighting Guidelines	•		Typically found in a technical manual.				
STREET LIGHTS SIGNS & MARKINGS	6.4 Street Light Pole and Fixture Standards for Residential Streets	-	•	Street light types may be listed in either the development code or in a separate technical manual.				
ITS SIG	6.5 Street Light Placement Standards for Residential Streets	•	•	The location and separation requirements may be located in both the Design Manual and in the LUMO's section on Streets.				
T LIGH	6.6 Street Signs and Markings Applicability	•	•	Requirements to install street signs should be in both the LUMO and Design Manual. The design of the street signs is typically in the Design Manual.				
STREE	6.7 Street Signs and Markings Plan Submittal Requirements	•		The technical requirements of the street sign would typically be in the Design Manual				
	6.8 Street Signs and Marking Standards	•		The technical requirements of the street sign would typically be in the Design Manual				
	7.1 Interrelation of Utility Lines		•	General design requirements could be in both the LUMO and the Design Manual.				
STN	7.2 Underground Utilities	•	•	Requirements for underground utilities should be in the LUMO. Technical standards related to connections would typically be in the Design Manual.				
UTILITIES & EASEMENTS	7.3 Surface Appurtenance		•	Location and screening requirements for utility appurtenances would typically be in the LUMO.				
& E/	7.4 Sewage Collection System		•	Requirement to provide sewers should be in the LUMO.				
LITIES	7.5 Water Distribution Systems	•	•	Minimum water pressure requirements and minimum line size are typically established in the LUMO. Other technical requirements are typically in the Design Manual.				
5	7.6 Automatic Sprinkler Systems	•		Sprinkler requirements are typically in a technical manual.				
	7.7 Easements	•		Easement dedication requirements should be in the LUMO but specific language would typically be in a technical manual.				
	8.1 Residential Collection			Belongs in a Design Manual or another section of the Town Code.				
AGEMENT	8.2 Multi-Family/Commercial/ Institutional Refuse Collection			General requirements for dumpsters and screening are typically located in the development code. The technical and operational requirements are more often found in a technical manual.				
IAN	8.3 Residential Recycling	-		Belongs in a manual or another section of the Town Code.				
SOLID WASTE MANAGEMENT	8.4 Multi-Family Recycling	•	•	General requirements for recycling facilities on a site and screening could be located in the development code. The technical and operational requirements are more often found in a technical manual.				
SOLID	8.5 Commercial/Institutional Recycling		•	General requirements for recycling facilities and screening are typically located in the development code. The technical and operational requirements are more often found in a technical manual.				

Format

Successful code organization relies on intuitive formatting. This includes the order in which materials appear as well as how paragraphs are numbered and spaced.

Order of the LUMO

Currently, the LUMO is codified as an Appendix to the Town's Code of Ordinances. While not uncommon, this codification is made awkward considering there is an appendix to the LUMO (essentially an appendix to an appendix). These appendices should become articles in the LUMO.

The LUMO consists of nine articles and two appendices. There are articles within the LUMO that are "reserved" and others that should be combined. Articles addressing process and general provisions are scattered throughout the ordinance and are interlaced with site and subdivision standards. One approach to improving the navigability of the LUMO is to reorganize and consolidate the articles. An example of what a reorganized LUMO might look like is below.

Article 1. General Provisions

Consolidate the existing general provisions, purpose statements and the legal status article into one.

Article 2. Districts and Uses

Establish the zoning districts, include the allowed use table, and include the special regulations for particular uses currently found in Article 6.

Article 3. Site Standards

Site dimensional standards for each zoning district, including Neighborhood Conservation Districts.

Article 4. Development Standards

Development standards for all sites (parking, streetscapes, streets, signs, landscaping).

Article 5. Public Improvements

Currently, the LUMO does not contain an article dedicated to the public improvements associated with the subdivision process. This article would consolidate all of those into one article.

Article 6. Natural Resource Protection

Combine issues such as tree protection, the Jordan Rule buffers, steep slopes, and floodplain regulations.

Article 7. Administration and Procedures

The LUMO has three articles that deal with procedural or administrative issues. These articles should be consolidated into a common article. Additionally, The Town should move this new article toward the end of the LUMO so that it occurs after all the standards have been established.

Article 8. Definitions

Appendix A (Definitions) of the LUMO should be an article.

CHAPTER 1. ORGANIZATION & USABILITY

Paragraph Numbering

An accurate and consistent paragraph numbering system is equally as important as order in creating a user-friendly document. The LUMO is currently a hodgepodge of numbering conventions.

An example of this inconsistency can be seen in Section 5.3.2, Steep Slopes. The section mixes non-labeled paragraphs with numbered paragraphs and applies bullet points in place of a traditional alphanumeric system. These types of inconsistent patterns can make it difficult to read, difficult to cite, and difficult to cross-reference the LUMO. Further, Article 6. Special Regulations for Particular Uses, applies a different numbering convention than that used in other articles.

To repair these inconsistencies and improve the overall organization of the LUMO, the Town should implement a consistent numbering convention. One possible numbering convention might be as follows.

Article 1. [Article]

Sec. 1.1 [Section]

1.1.1 [Sub-section]

- A. [Paragraph]
 - 1. [Sub-Paragraph]
 - a. [ltem]
 - i. [Sub-Item]

Where material does not fit within the seven levels of this scheme, consideration should be given to starting a new section. The keys are to be consistent and clear. Each paragraph should have its own citation. Generic designations such as bullet points, asterisks, or dashes should never be used.

Usability

In addition to the poor organization and format, the effectiveness of the LUMO is compromised by an overreliance on text and legalese, poor page layout, a lack of visual aids and cross-references, an overreliance on footnotes and inconsistent definitions.

Plain Language Drafting

The trend in development codes is to move away from codes written primarily for lawyers and toward codes that are written for the general public and design professionals. An important part of this is to eliminate the typical legalese in favor of a more plain language approach to drafting. Eliminating archaic legal terms such as "therefore", "herein", "henceforth", or "said" and, where possible, replacing "shall" with "must" can help the overall readability of the code. For example, the LUMO contains the following provision as it relates to signs:

5.14.2. Signs Subject to Control

Unless specifically exempted, no sign visible from the public right-of-way, whether exterior to or interior to a structure, shall be erected, displayed, or substantially altered except in accord with the provisions of this appendix and until a zoning compliance permit has been issued therefore.

This verbose provision contains language that is redundant and unnecessary. Under a plain language approach, this same provision might read as follows:

5.14.2. Signs Subject to Control

Unless exempted in [cross-reference], interior or exterior signs, visible from the public right-of-way, may only be displayed or altered in accordance with the provisions of this development code.

This change may seem subtle, but when applied to the entire code, the approach can simplify verbose and outmoded language. This is not to suggest that a legally-defensible code is not critical, however even the federal government has moved to require plain language drafting of new regulations.

Another irritant to readers is the duplication of numbers in both text form and numeric form, for example "twenty-four (24) inches." This duplication should be eliminated in favor of spelling out numbers ten or less and using the numeric form of numbers greater than ten.

At a minimum, the Town should make an editorial pass through the LUMO to eliminate unnecessary legalese and fix any sections of the LUMO that have been rendered ineffective due to patchwork amendments or poor drafting.

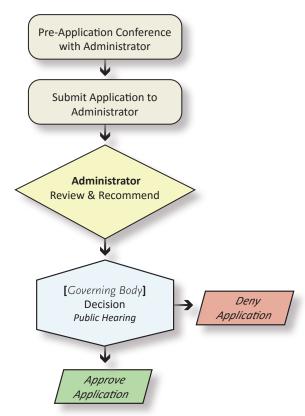
Graphics and Tables

The LUMO currently makes limited use of tables and graphics, and when they are incorporated they are often bulky and difficult to use and interpret, with some requiring pages of rules for interpretation. The best tables are intuitively understood.

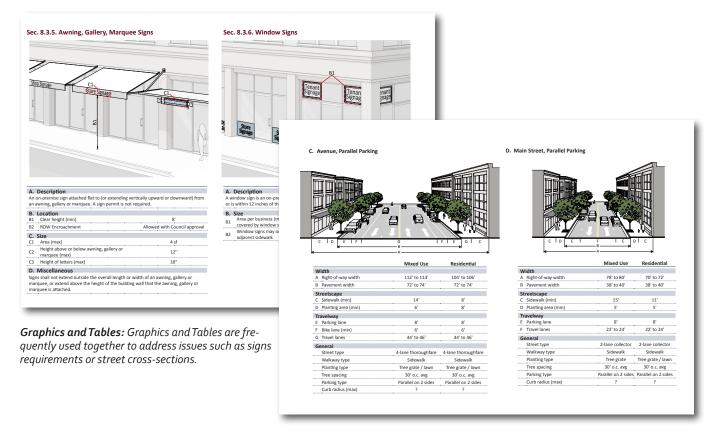
Graphics are most helpful for illustrating standards, especially those related to building form or measurements. Graphics provide the opportunity to signal the quality of development the community expects from developers. The LUMO currently has some graphics, such as the measurement of slope and stream corridor zones, that accomplish this. The LUMO also contains some graphics, such as the TOD graphics, that are not regulatory and therefore unnecessary.

Additional graphics would make other portions of the LUMO easier to understand. Possible additional graphics include the following:

- » Flow charts for procedures provide a helpful overview to users not familiar with the process.
- » Illustrations of sign types and sign measurements when combined with tables can help clarify requirements.
- » Architectural standards and infill compatibility can convey design elements and how infill should relate to surrounding lots.



Site Plan Flow Chart: Flowcharts can provide an overview of a procedure.



CHAPTER 1. ORGANIZATION & USABILITY

Where possible, best practice concepts should be used in the illustrations and graphics as a way to broadcast sound development practices. We are not suggesting the Town eliminate the words; however, supplementing them with images and tables makes access to the information more intuitive for more people. Remember—the target of the code is residents and neighbors as well as design professionals and lawyers.

Tables are most useful when a comparison of standards is helpful—for example, a series of districts with varying minimum lot areas can be portrayed in a single table, allowing a developer to seek the correct zoning district for the kind of development desired. Tables are also important for standards such as allowed uses. By including the uses in matrix form, consistency across districts is easier to maintain, and the chance of errors of omission that might occur during future amendments is reduced.

Many of the current tables, such as Table 3.8-1 Dimensional Table, put too much information into a limited space and should be broken into a series of tables.

Digital Enhancements

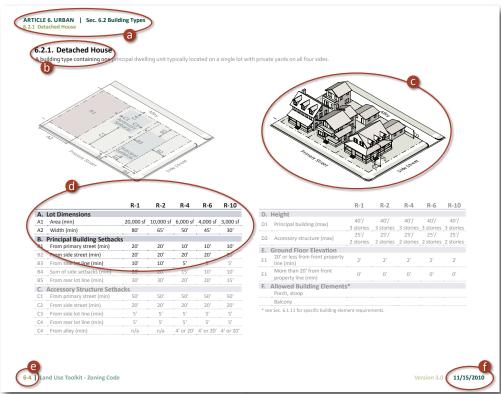
The LUMO should take advantage of advances in document technology such as digital cross-references, tables of contents and index, allowing the user to click on a page number or cross-reference and jump to that section. Additionally, document navigation techniques such as thumbnails embedded in Adobe PDF documents can be useful. These digital enhancements are often just a "save as" away from the original document. Digital enhancements can also include internal interpretations embedded as comments, legislative history (including links to prior versions), and external links to items such as state statutes, external manuals and other helpful materials.

Page Layout

The evolution of page layout software beyond basic word processing has further enhanced development codes. Now, features such as running headers, that allow the reader to quickly flip through pages of the code, footers on each page with a date of publication or adoption help reassure users they have the most current copy of the LUMO. Development regulations don't have to read like a novel, but they do need to be laid out so that people can intuitively find the information they need.

At the time that Chapel Hill updates or significantly edits the LUMO, the Town should consider updating the page layout of the LUMO to include some of the features identified on the following page layout examples.

CHAPTER 1. ORGANIZATION & USABILITY



- RUNNING HEADER
- PROMINENT TITLES
- **GRAPHICS AND ILLUSTRATIONS**
- CLEAN, EASY TO READ TABLES CONVEY INFORMATION
- PAGE NUMBERS REFERENCE ARTICLE
- ADOPTION DATE

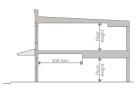
GRAPHICS REINFORCE HOW TO MEASURE STANDARDS

CONSISTENT NUMBERING, INDENTED PARAGRAPHS

- GENEROUS USE OF WHITE SPACE
- RUNNING FOOTER

B. Ground Floor Elevation round floor elevation is measured from the average curb level of the adjoining reet, or if no curb exists, the average level of the center crown of the street to Ground floor elevation is measured from the av C. Floor Height 1. Floor height is measured from the top of the finished floor to the ceiling Minimum ground story height applies to the first 30 feet of the building measured inward from the street facing facade. At least 50% of the ground floor must meet the minimum height provisions.

3. At least 80% of each upper story must meet the minimum upper story height



11/15/2010 - Version 3.0

D. Heigh ncroachments

> Any heid encroachment not specifically listed is expressly prohibited except anning Director determines that the encroachment is similar to a permitted roachment listed below.

Sec. 9.1 Measurement & Exceptions | ARTICLE 9. RULES FOR BUILDING TYPES

- m height limits of the district do not apply to spires, belfries, The ma nes not intended for human occupancy; monuments, water s or other similar structures which, by design or function, must cupola exceed t stablished height limits.
- The follow g accessory structures may exceed the established height limits,exc the maximum building heigl do not ex

 - Flagp

 - eight of four feet;
 - rvesting systems; and
- ructures may exceed the established height limits, ept when located w n an Airport Overlay District, provided they do not ling height by more than 12 feet, do not occupy more than 25% of the r area, and are set back at least ten feet from the edge of the roof:
 - a. Amateur commun
 - b. Cooling tower:
 - c. Elevator penthous ılkhead; d. Greenhouse:
- e. Mechanical equipment
- f. Skylights:
- q. Stairway access to roof; and h. Tank designed to hold liquids.

Land Use Toolkit - Zoning Code

Cross-References

One way to directly improve the usability of the LUMO is the consistent and generous use of cross-references. Cross-references link the development code both internally and to other sections of the Town's Code of Ordinances. They put the user on notice of other relevant provisions and reduce the need to repeat significant pieces of text. The LUMO does use cross-references, but their use could be improved with a consistent numbering convention and more liberal application. Below are a handful of areas that could be improved with additional cross-references.

- Stormwater Perhaps the most glaring omission is the lack of clear cross-references that link the ordinances addressing stormwater and water body buffers. The RCD, WPD, Jordan Rules, and 5.4 Stormwater Management should all be linked using cross-references where applicable.
- » Streets and Sidewalks Chapter 17 of the Code of Ordinances dealing with streets and sidewalks contains several references to the "Chapel Hill Zoning Ordinance" (Not the LUMO). Likewise, the LUMO and the Design Manual both contain standards for streets and sidewalks, however, none of these various provisions are linked through cross-references.
- » Use Standards Table 3.7-1 contains the Town's Use Matrix. Some of the uses identified in the matrix have additional standards that apply to them. While the LUMO contains a "See Also" type of cross-reference, it is generic and not very specific ("See Also Article 6"). This approach should be eliminated, and the Town should cite to the targeted paragraph as opposed to citing generically to an article.

Footnotes

The LUMO relies heavily on footnotes as a means of regulation, especially accompanying tables. While an occasional footnote might improve the user-friendliness of a code, the extent to which the LUMO uses footnotes becomes a distraction. The Town should review all footnotes and determine how to incorporate them into the ordinance.

Definitions

A final way to improve usability is to consolidate all the definitions in one article. The LUMO includes many of the definitions in Appendix A. Definitions. There are some stragglers throughout the LUMO, and some provisions contain separate definitions. These typically occur as part of an intent or purpose statement. For example 5.17.1 expressly defines the term "Demolition by Neglect," a term not defined in Appendix A. The Town should amend the LUMO so that these terms are defined only once.

A second issue with the definitions in the LUMO is that many contain regulatory language. Definitions are at their best when they are descriptive in nature, but avoid standards or requirements. The LUMO should be reviewed to remove any regulatory language or standards that are embedded in certain definitions.

A final problem with the definitions in the LUMO is that there is often a disconnect between the plain meaning of the definition and the Town's interpretation of the definition. For example, the term "development" is defined broadly in the LUMO to include any disturbance of the land, but "development" tends to be interpreted by the Town more narrowly depending on the context in which the term is being used. In addition to improving the usability of the LUMO, such inconsistencies are often the subject of lawsuits. The LUMO should be amended to bring such definitions in line with their desired meaning.

CHAPTER 2.DISTRICTS & USES

Zoning districts are the primary organizing mechanism and implementing device of most development codes and the LUMO is no different. Over the years, zoning districts have evolved from just a means of separating uses to a more complex tool that provides detail and texture for a community. Modern development codes must contain a rich palette of zoning districts to "paint" each neighborhood in a manner consistent with the community's vision.

The LUMO contains a relatively simple set of generally suburban districts, and relies on the case-by-case approval of special use permits and conditional zoning districts to provide most of the control. When the community's development patterns were mostly suburban greenfield development, this limited set of districts may have been all that was needed.

DISTRICTS & USES Recommended LUMO Revisions

Pre-Comprehensive Plan Revisions

- » Consolidate similar residential zoning districts.
- » Improve the readability of the LUMO's current use matrix and reorganize and update uses.
- » Evaluate impervious coverage and FAR standards to make sure they are accomplishing the intent of the districts.

Post Comprehensive Plan Revisions

- » Update residential site dimensional standards to better reflect the intent of the districts.
- » Add a cottage lot zoning district.
- » Revise cluster development standards.
- » Update current mixed use districts to create a more pedestrian scaled environment.
- » Develop new commercial corridor standards.
- » Reorganize the Town's zoning system to reflect the updated community vision and modern zoning techniques.
- » Update rural zoning districts so that standards generate a more rural characteristic and allow small farms by-right.
- » Add contextual infill standards to improve infill compatibility and reduce the reliance on NCDs.
- » Improve connectivity through block perimeter and block face standards.
- » Develop building type regulations to better control form and promote diversity within zoning districts.
- » Improve regulations addressing transitions between districts and compatibility between uses and building types.
- » Enhance palette of mixed use zoning districts and update standards to better address issues of scale and form.
- » Develop a form-based code for the Town Center and select growth centers.
- » Incorporate select form standards into all commercial and mixed use zoning districts.
- » Evaluate the potential location of future industrial and materials handling districts and ensure that adequate standards are in place to address transitional and compatibility concerns.
- » Evaluate the community's tolerance for non-residential uses in residential districts and other changes to the use
- » Develop a form-based toolkit for Chapel Hill and incorporate form-based elements into existing zoning districts.

CHAPTER 2. DISTRICTS & USES

However Chapel Hill is changing. The Town is running out of easily developable tracts within the defined growth boundaries and will soon have to refocus toward more infill development. The time and energy required to battle through every approval on a case-by-case basis is not sustainable, and is potentially detracting from the quality of development that is achievable under a more prescriptive and predictable development code.

The following sections examine Chapel Hill's current zoning districts, special uses and the use matrix and point out the constraints facing each. This chapter will also point to how form-based elements could be incorporated into some districts to provide a more predictable regulatory system.

Zoning Districts and Special Use Permits

Article 3 of the LUMO establishes the palette of zoning districts, and sets forth the intent, allowed uses and general dimensional standards for each district. The base zoning districts fall into one of three categories: (1) general use districts, (2) conditional use districts, and (3) special districts.

General use districts look like, and in some ways function like, typical zoning districts. Certain uses are allowed by-right and other uses require a special use permit. However, Chapel Hill's districts differ from most zoning districts—regardless of what the allowed use table says, if a project is larger than 20,000 square feet in size or disturbs more than 40,000 square feet of land, it will requires a special use permit. This is an atypical approach to regulating use.

Conditional use districts mirror the general use district except that every use, regardless of size, requires a special use permit approved by the Town Council. Again, this varies from common practice, which is to use the conditional district process to eliminate uses perceived as potentially problematic.

Special districts, are intended to supplement the base districts in the LUMO. They allow for certain large scale mixed use projects, office and institutions, TODs and university needs. Some of these districts require large buffers around them that create a pod-like effect, limiting any chance for integrating new projects with existing development and continuing an auto-dependent environment that at best can hope to become a "drive-to" urbanism destination.

In addition to the base zoning districts, the LUMO also provides several planned development options. Planned developments are allowed in all zoning districts through the special use permit process (not rezoning).

Over the years, Chapel Hill has shifted to a case-by-case approval process. Little development occurs by-right (subject only to planning board or staff technical review) and most development is heavily negotiated. It was reported to our team that it is not uncommon for a large project to take 18 to 24 months to go from application to council approval. Further, this tedious and expensive system is not necessarily improving outcomes, and given the realities of the current real estate economy, may become a crippling issue for the Town. If Chapel Hill wants to improve development outcomes and become more sustainable in its development patterns, then it must change the way it approves development. This means thinking differently about development standards and trusting that the standards in the LUMO will do their job.

CHAPTER 2. DISTRICTS & USES

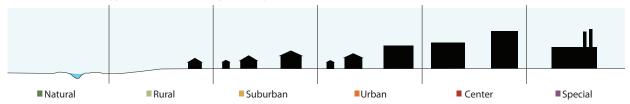
Before the Town can trust the LUMO to operate effectively as part of a by-right system, the Town must be sure that it has the right zoning districts in place. Chapel Hill would need to update the palette of zoning districts in the LUMO to (1) provide the tools to implement its vision; and (2) provide the regulatory controls necessary to streamline the development process. This section of the report looks at the zoning tools that could be available to the Town in an updated LUMO, specifically addressing the following:

- 1. Reorganizing the system;
- 2. Zoning district changes; and
- 3. General changes impacting zoning.

Reorganizing the System

To move toward a more by-right or administrative approval system, the Town should start from scratch with its zoning district organization. This would mean eliminating the current three categories of base zoning districts and any associated special use permits, and reorganizing the zoning districts in a more logical manner.

There are a number of options for how the Town might do this. Some communities choose to organize their districts around their context, from rural to urban, recognizing that rural places operate under different rules and thus demand different zoning districts than urban places. This approach has the advantage of putting neighbors on notice of what type of character they can expect in the future.



Other communities choose to organize their zoning districts around anticipated areas of change and anticipated areas of stability. This approach applies one set of rules and zoning districts to nodes, corridors, and other areas that are anticipated to change in the near future, and another set of zoning districts to areas that can expect a less dynamic shift in their current character.

Another common approach is to focus on general intensities and purpose of the zoning districts such as how they implement the future land use map. An example of this can be seen in the following table.

District Group	2008 Land Use Plan Categories	Implementing Zoning Districts
Rural Residential	Rural Residential	R-LD ₅ , RT,
Residential	Low Residential, Medium Residential, High Residential	R-LD1, R-1A, R-1, R-2A, R-2, R-3, R-4, (R-5/R-6), R-SS-C,
Mixed Use	Neighborhood Mixed Use, Office Mixed Use, Town/Village Center	NC, MU-R-1, OI-1, OI-2, OI-3, OI-4, MU-OI-1, MU-V, TOD, TC-1, TC-2, TC-3
Special Districts	Commercial, Industrial, University	CC, I, MH, U-1

The organizational approach that Chapel Hill chooses to implement is not as important as making sure that there is a mechanism in place that gets the right rules in the right place. This will require a strong link to the comprehensive future land use plan.

Zoning District Changes

To facilitate a discussion of the changes that may be needed to Chapel Hill's palette of zoning districts, this section loosely groups them into the five categories identified in the table above.

Rural Residential (R-LD-5, RT)

Most of Chapel Hill is urbanized, but that does not mean there is no need or desire to preserve the rural character of certain portions of the Town. The LUMO has two zoning districts (R-LD-5 and RT) with minimum lot sizes that are large enough to help with this preservation. The Town could improve these districts by considering the following changes:

- » Rural Standards. Amend site dimensions and site development standards to be more rural in character.
- » Allow small farms. Amend the use matrix to allow small scale agricultural uses by-right.

Residential (R-LD-1, R-1A, R-1, R-2A, R-2, R-3, R-4, R-5, R-6, R-SS-C)

The zoning districts applied to the greatest area of land in Chapel Hill are the residential districts. They are responsible for the way that much of Chapel Hill looks and feels today, and are not likely to change significantly. There are two things to keep in mind when thinking about rules for residential areas. First, existing areas should be protected from non-compatible infill and second, there is a demand for new residential patterns which may require new residential districts. In updating the residential zoning districts in the LUMO, Chapel Hill should consider the following changes.

Rules for Existing Districts

- » Contextual infill. Develop contextual infill standards that ensure compatibility of features such as setbacks, massing, bulk, impervious surface and garage placement for tear downs and small-scale infill projects. May help reduce the need for NCDs.
- » **Consolidate similar residential districts.** The current set of residential zoning districts offers little diversity in lot dimensions and site development standards or use. Consider consolidating the following districts.
 - R-5 and R-6: These districts contain identical standards and should be consolidated to eliminate confusion.
 - R-2A and R-2: There is minimal difference in intensity of these districts and the building envelopes are similar. The one difference is that R-2 allows two-family duplex dwelling. Is this a large enough difference to keep separate?
- » Improve dimensional standards. Current site dimensional standards are awkward and should be revisited. For example, while moving among zoning districts may reduce the minimum lot size by half, the street setbacks will decrease only modestly (one or two feet). This static approach to setbacks prevents planners from using zoning districts to create meaningful changes in character. The Town should evaluate the site dimensional standards and recommend changes that provide greater diversity in character.

New Residential District Rules

» Allow Cottages. A district missing from the LUMO that is common in many communities is a small lot cottage district. These districts serve as an effective transition from mixed use areas to established single-family districts. The Town should consider adding a residential district that would allow cottage lots as small as 3,000 square feet.

CHAPTER 2. DISTRICTS & USES

- » Connectivity. Establishing maximum block perimeter and maximum block face length would build a more connected and walkable Chapel Hill. Consider establishing maximum block standards to new and redeveloped residential areas.
- » **Residential building type.** Regulating by building type in certain residential districts is a way to improve predictability and reduce the need for extensive footnotes in the site dimensional matrix. It is a cleaner way to address differences in the building envelope standards for single-family, duplex, townhouse and multi-family buildings.
- » Improve cluster standards. The LUMO allows cluster developments following approval by the Town Council of special findings. New standards should be developed that clearly articulate how cluster developments work in each residential zoning district. Further, the Town should consider additional incentives for cluster development including additional residential building types, smaller lot sizes and modest increases in density.
- » Focus on transitions. The LUMO does not adequately address transitions from commercial or mixed use corridors and nodes to single-family residential, in many cases settling for a large suburban landscape buffer. The Town should address this issue through the planning process, and develop an appropriate palette of design-focused transitional standards that do not compromise urbanism.

Mixed Use Districts (NC, MU-R-1, OI-1, OI-2, OI-3, MU-OI-1, MU-V, TC-1, TC-2, TC-3, TOD)

Part of becoming more sustainable is providing people the opportunity to live, work, shop and play within close proximity to each other. When effectively planned and developed, mixed use projects can reduce vehicle miles traveled, increase pedestrian activity and save on infrastructure and land consumption.

While the push toward building compact walkable mixed use places is not new to Chapel Hill the concept of allowing it by-right in certain zoning districts is. Currently in Chapel Hill, the development of mixed use places will likely require the applicant to file either a planned development, special use permit or ask for a conditional use district, and then file associated special use permits. Regardless, the outcome is the same, a lengthy and expensive negotiation between the developer, the Town and the neighbors in order to get the type of development that Chapel Hill says it wants and needs.

Toward this end, the Town should refine its current neighborhood commercial, office, mixed use, and town center districts into updated mixed use zoning districts that provide an opportunity for by-right mixed use development.

Neighborhood Scale Mixed Use Districts

Neighborhood scale mixed use districts should allow single-family residential uses, but allow for the mixing of office, retail and upper story residential of up to four stories. Typical retail and office uses range from 500 square feet to 10,000 square feet. While there currently is not a true neighborhood mixed use district in the LUMO, both the NC and MU-R-1 (no longer available for new applications) contain traits of this district. To better address this need, the Town should consider retaining the MU-R-1 district and modifying both the NC and MU-R-1 district to reflect the following characteristics.



- » Vary the height of the neighborhood scale mixed use districts to provide for multiple intensities. A variety of neighborhood mixed use districts should be available for application. One district should allow up to three stories while another district might allow up to four stories. For example, the NC district could be reduced from 60 feet to 40 feet (three stories), and the height of the MU-R-1 (or its retained equivalent) district could be reduced from 90 feet to 52 feet (four stories). The precise approach and location for these districts should be determined during the comprehensive planning process.
- » **Pedestrian scale standards.** All mixed-use district dimensional standards should allow, and in some cases require, build-to, pedestrian-focused buildings.
- » **Control scale.** Establish maximum single user floor area for the districts to ensure that the scale remains appropriate. Consider capping individual users square footage at 5,000 square feet maximum for one district and 10,000 square feet maximum for another district.
- » Reduce minimum lot size. The current minimum lot size in the NC and MU-R-1 districts is too large to generate compact neighborhood scale mixed uses. It is common to find neighborhood scale mixed use projects on lots as small as 3,000 square feet and as narrow as 25 feet.
- » **Eliminate minimum site size.** Remove the minimum site size requirement from the MU-R-1 (or its retained equivalent) district and allow it to function like a typical base district instead of a special district.
- » Remove the required 50-foot street and boundary buffer from the MU-R-1 districts equivalent. This buffer prevents neighborhood scale mixed use from integrating into existing neighborhoods. A better approach would be to craft specific design or form standards to better facilitate the transition.

Office Mixed Use District

Chapel Hill has five zoning districts that are focused on office and institutional uses. All allow residential but none appear to allow commercial/retail uses as a principal use. Some communities find that certain prime office land needs to be preserved for office or institutional uses and limited ground floor retail. The remaining palette of districts could favor office and institutional uses, but also promote a mix of retail and even residential. To refine the current office districts in the LUMO, Chapel Hill should consider the following changes.

- » Consolidate OI-1 and OI-2. These districts allow the same uses and have similar site dimensional standards. Unless there is a compelling reason to keep them separate, the Town should consolidate them.
- » Remove the required 50-foot buffer from the boundaries of the MU-OI-1 district or its future equivalent. This requirement prohibits the integration of this district with adjacent districts and is a blunt approach to transitions between districts. A better approach would be to develop design or form standards that address the transition concerns of the community.
- » Mixed use office district. Adopt at least one true mixed use office district that allows for a pedestrian focused built-to environment and prohibits a purely auto-oriented environment. This district should favor office, but allow ground floor retail and upper-story residential and townhouse development, but may not allow singlefamily or attached family living.

Village and Town Center Mixed Use Districts

Where the neighborhood scale mixed use districts provide the corner store and occasional neighborhood coffee shop or deli, the village and town center districts provide for the remaining pedestrian-focused retail. These districts are used to generate the vibrancy and charm of Franklin Street and allow new mixed use developments to occur in nodes outside of downtown.

CHAPTER 2. DISTRICTS & USES

There is clearly a demand for urban mixed use development in Chapel Hill. It can be seen in the new East 54 mixed use project developed under the MU-V special district. While the project has some positive features, the rules for the MU-V district and the case-by-case approval process resulted in what is marginal urbanism at best. This doesn't prevent a modest upper-story residential unit in the project from selling for upwards of \$500,000. The cost for these upper-story residential units may be attributed to the lack of availability in the marketplace, the cost associated with developing under the LUMO, or a combination of the two.

Similarly, downtown Chapel Hill continues to change. With large mixed use projects scheduled in the coming year, the character of Franklin Street is changing. The charm of Franklin Street coupled with the economic engine of the University will continue to have developers looking for redevelopment opportunities.

If Chapel Hill wants to encourage more mixed use village and town center type developments, and wants to improve integration of this development into the existing fabric of the community, then the Town must create zoning rules that promote these forms and allow them with a streamlined process. The Town should consider the following recommendations for zoning districts for downtown and for new mixed use centers.

Downtown Chapel Hill

- » Form-based code for downtown. Because of the historical and cultural importance of downtown, the complexity of redevelopment, land use and development pressures, the Town should strongly consider preparing a form-based code for downtown. Through a form-based code, the Town can address issues of entitlement, transitions, streetscape, height and massing ahead of actual developer requests, allowing a more streamlined process. When combined with downtown design guidelines, a form-based code could provide a powerful tool for increasing predictability for developers and the community alike.
- » More thoughtful zoning. As an alternative to a form-based code, the Town should expand its current town center zoning districts to better reflect the diversity of the built environment downtown. In doing this, the Town should consider whether the current zoning districts adequately provide an edge and an appropriate transition out of downtown. Whether the current town center districts generate the appropriate mix of uses? Whether the site dimensional and site development standards allow for the kind of walkable, pedestrian focused urbanism that makes downtown thrive?
- » **Downtown form standards.** Regardless of the approach, new districts for downtown Chapel Hill should, at a minimum, contain the following form standards:
 - Require buildings to be pulled up to the street with no parking between the building and the street.
 - Require transparency on the ground floor and upper floors.
 - Require minimum ground floor heights.
 - Require ground floor residential uses to be elevated above grade 18 24" minimum.
 - Place limits on blank wall area of buildings.
 - Control building mass by district.

New Mixed Use Centers

» More diverse districts. Create a more nuanced set of mixed use districts that can function as a regulatory "toolkit" for building mixed use centers. These tools should offer a diverse set of intensities so that a combination of them can be applied to both greenfield development and the redevelopment of under-utilized suburban sites such as University Mall or outmoded strip commercial.

» New mixed use districts should be pedestrian-oriented, but should contain a place for the automobile as well. This collection of districts should vary by the extent of parking between the building and street. Some districts require building to be built-to the street, other districts allow limited parking between the building and the street, but retain their focus on the pedestrian. An example of these districts can be seen in the images below.

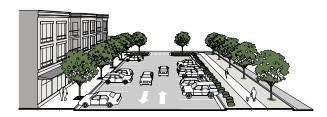
Main Street Condition

Multi-way Boulevard Condition

Limited Parking Condition







» Basic form standards. New districts should contain some of the form standards identified for the town center districts.

Special Districts (CC, I, MH, OI-3, OI-4, U-1)

The special districts are for areas of the community that require large areas of land, are auto oriented, or occupy campus-type settings. Typical examples of these uses include university facilities, office parks developed under a master plan, big box shopping centers and mall sites. To address the needs of these areas, the Town should consider the following changes to the LUMO.

Commercial Corridors

To the extent possible, replace the existing commercial corridor zoning districts with a collection of mixed use districts. Where conditions are such that auto-oriented patterns with large surface parking lots will continue, then consider the following changes.

- » Build-to environment. Allow development to "build-to" by eliminating mandatory setbacks.
- » **Form standards.** Add certain form requirements to commercial districts to improve their pedestrian character. Require certain form standards if buildings choose to locate near the street.
- » **Parking lot standards.** Improve standards for parking lot landscaping when parking is located between the building and the street.

Industrial and Materials Handling

Heavy industrial and materials handling uses can be difficult for communities to successfully integrate into their existing fabric. Chapel Hill has very little land zoned for either of these activities. The current zoning districts appear to adequately meet the needs of the community. One suggestion is to consider where new sites for these zones might be appropriate and ensure that transitional strategies have been addressed. The Town should also consider whether buffers and landscaping requirements around these uses are appropriate.

Campus Districts

Chapel Hill is currently using two districts to implement campus uses (OI-4 and U-1). These zoning districts appear to be working well.

Neighborhood Conservation Districts

Appendix B, Neighborhood Conservation Districts contains the standards and boundaries for seven neighborhood conservation districts (Appendix B also contains the zoning map which should be moved to its own more appropriate section). The concept is for these districts to function as overlay districts protecting the character of select neighborhoods by establishing more specific site dimensional standards and certain characteristics such as fencing, bedroom to bathroom ratio, or accessory dwelling units and duplex regulation.

The idea of neighborhood conservation districts is not unique to Chapel Hill. Many communities have special rules for neighborhoods that may not meet the criteria for historic district protection. These districts typically focus on scale, massing, and other site dimensional standards. Another approach is to incorporate these types of infill protection into contextual infill standards. Contextual infill standards apply generally and address issues of lot width, setback, height, and garage or front porch placement. They base their standards on the established pattern on a given block face. In Chapel Hill these infill standards might be useful in limiting the number of neighborhoods that feel it necessary to have specially crafted neighborhood conservation districts.

It is important to keep in mind that these types of conservation districts should not be used in place of private covenants and restrictions. The Town should not be in the business of enforcing standards and restrictions that are more appropriate as private covenants.

General Changes Impacting Zoning

In addition to the rules that generate the character of a zoning district, there are site dimensional standards and general development standards that impact the outcome of a project under a current zoning district. The specifics of these standards will be addressed in detail in other parts of this report but are identified and discussed here generally.

Impervious Coverage

Most zoning districts in Chapel Hill limit impervious surface. In some cases this is a result of state environmental regulations. This is a common conventional approach to managing stormwater. However, in many cases the limits on impervious coverage force a smaller building than required by setbacks under the zoning district or result in an awkward building design to meet the standards. In updating the LUMO, the Town should take a look at the state requirements and calibrate its impervious surface ratios so they relate appropriately to each zoning district while staying within the limits of the state regulations.

Floor Area Ratio

As with Impervious Coverage, the LUMO's floor areas ratio system does not always relate to the entitlements set out in each zoning district, and are often so low that developers must acquire larger-than-necessary tracts of land or seek an up-zoning. This practice can contribute to sprawling development patterns and makes development more expensive. Some communities have used floor area ratio bonuses as a means of incentivizing certain development attributes such as affordable housing. This is similar to the approach Chapel Hill has taken toward inclusionary zoning. Following the Comprehensive Plan update, the Town should calibrate its floor area ratio requirements to ensure they are generating the intended outcomes.

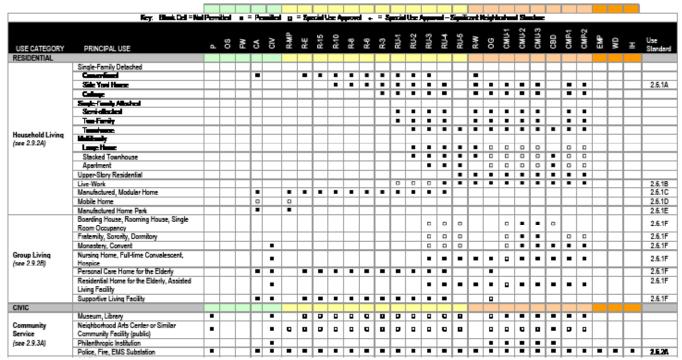
Streetscapes and Landscaping

Outside of the Town Center and Mixed Use Village zones, the starting point for how a development addresses the street is typically a 10- to 30-foot planted buffer. While this approach may be appropriate in a select few suburban contexts, it is not appropriate as a general standard for creating. The problem is that any proposal to provide a walkable urban street front is perceived as degrading the environment because it doesn't provide 30 to 50 feet of green. This results in proposals for mixed use projects being compromised with urban intensities combined with a suburban streetscape, and ultimately a reduction in the quality of the urban environment. For this reason, the Town should focus on getting the right rules in the right places by developing urban streetscape and landscaping standards for urban areas, while applying the suburban rules only to suburban intensity projects.

Use Matrix

Table 3.7-1 in the LUMO contains the Town's use matrix. This table establishes the principal, special and accessory uses allowed for each general and special use district. The table also provides regulations for staff and the Town Council in their approval of special use permits in the conditional use districts, and divides the uses into use groups that serve as regulatory shorthand for site development and use standards such as landscaping.

One of the problems with the use matrix is its general appearance. The long string of uses and black boxes can make the table difficult to use. A more aesthetically pleasing and rational organization for a use matrix could be as follows.



Example Use Table: Memphis and Shelby County Unified Development Code

Generally, the use matrix seems to be serving its purpose but there are a number of changes that could help improve the use friendliness of the table and the consistency of the zoning system. The Town should consider the following changes to the use matrix.

General Changes

- » Readability of the table. Improve the overall layout design and organization of the table.
- » Organization. Group uses by use category, not alphabetically.
- » Remove accessory uses from the use matrix. The use matrix is intended to identify allowed principal uses. The inclusion of accessory uses clutters the table and causes the table to be excessively long in order to include all conceivable accessory uses. Accessory uses are secondary and incidental to the principal use, and most communities allow the LUMO administrator to make this determination. If a certain use standards applies to an accessory use, address it in the use standards section of the LUMO.
- » Evaluate the LUMO for consistent terminology. The LUMO repeatedly uses the terms "commercial" and "retail" uses, but the Use Matrix uses the term "Business-convenience" and Business-general". Consistency in terminology is important to making the LUMO legally defensible and usable.

Specific Use Changes

- » Remove single-family and duplex dwelling from certain mixed use and commercial districts. Currently, single-family and duplex dwellings are allowed in all commercial districts. While this may be acceptable in neighborhood mixed use districts, or some other commercial districts in areas where the Town would like to focus urban mixed use nodes, single-family dwellings can detract from the level of urbanism. For example, you would not want to see a single-family dwelling locate mid-block along the downtown commercial portion of Franklin Street, so why code for it?
- » Add more detailed uses for business. Retail, restaurants and commercial businesses operate differently. A convenience store without gas pumps operates differently than either a convenience store with gas pumps or a full-service gas station with a mechanic, and should be treated differently. Similarly, a restaurant with a drive-thru operates differently than a neighborhood deli or coffee shop. While one of these uses might be acceptable as a neighborhood gathering spot, the other may need to be located on a commercial corridor.
- » Allow light manufacturing in certain mixed use districts. A common feature in many communities are artisan manufacturing such as jewelry making, painting, sculpting and welding. These uses, when combined with galleries, help activate streets and should not be relegated to industrial districts.
- » Allow select retail uses in new residential districts. As a way to decrease vehicle miles traveled and add convenience, many communities allow certain retail uses such as corner stores, dry cleaning drop off, salons, post office, delis, and coffee shops to locate in higher intensity residential districts, provided they locate on corners. This approach should be considered where new higher intensity residential districts are created.

Regulating Form

As noted above, Chapel Hill seems to have lost faith that the standards in the LUMO will generate the type of development that the Town wants. So instead the Town forces most development through a case-by-case approval process. One way to restore faith in the standards of the LUMO is to graphically prescribe what type and form of development go where using form-based code techniques.

Form-based codes require a level of fine grained planning and coding that has not been seen in Chapel Hill.

An area is studied and planned in detail through a public planning process such as a charrette or open design workshop. Once planned, the area is specifically coded to implement the plan, using the form of the building (rather than the use) as the primary control to ensure that buildings address the public realm, and relate to each

CHAPTER 2. DISTRICTS & USES

other appropriately. Form-based codes are most appropriate for creating human scale places. If Chapel Hill envisioned a scenario where the community looks to become a Town of connected urban villages, the urban villages would be appropriate for form-based codes. Additionally, the current town center could benefit greatly from a form-based code to ensure that infill projects complement the existing fabric. This level of planning and coding associated with form-based codes only works if the Town is willing to reduce its level of negotiation and case-by-case approval in the coded areas and allow more development to occur by-right in a manner consistent with the form-based code.

As Chapel Hill begins its updated planning process the Town has the opportunity to think about possible locations for growth. Identifying the key nodes, corridors and districts where growth is anticipated. These areas could be candidates for testing Chapel Hill's tolerance for form-based codes.

Form-based elements can find their way into development codes in other ways. As mentioned before many traditional development codes have found that including building type regulations can be a way to control the subtle differences in between how a mixed use building functions in the town center and how a mixed use building might function as a neighborhood center. The following page contains an example of how a building type model can be integrated with a traditional euclidean zoning model.

Sec. 4.1.2. Building Type Descriptions

The following building types have been established to allow for detailed regulation of form applicable to development within each zone. All graphic depictions of building types are for illustrative purposes only.



A. Detached House

A building containing one principal dwelling unit located on a single lot. A series of detached houses as part of a single project may be located on a single lot.



B. Attached House

A building containing not more than two dwelling units arranged one above the other or side by side. The entire building is placed on a single lot. Often called a duplex.



Building Types and Applicable Districts: Regulating the form elements of building types can be done as part of a more traditional euclidean based zoning code. These pages define the building type and designate the zoning districts that each building type is allowed.



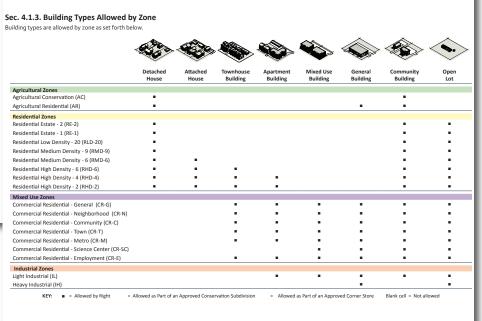
E. Mixed Use Building

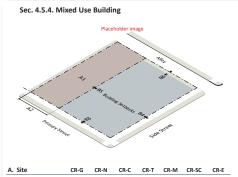
A building type intended for ground floor commercial uses with upper-story residential or offices uses.



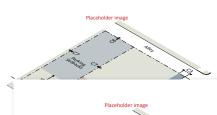
F. General Building

A building type intended primarily for commercial, office, manufacturing and employment uses.

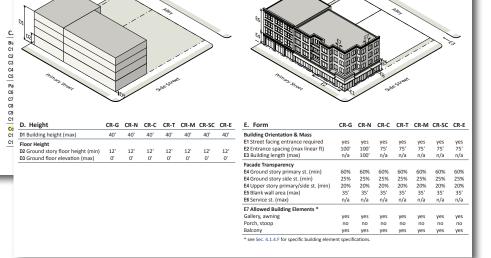




A1 Total Allocation	0.50	0.50	0.75	1.50	2.00	1.50	1.50
A2 Commercial	0.50	0.50	0.60	1.25	1.50	1.50	1.25
A3 Residential	0.30	0.50	0.60	1.25	1.50	0.25	1.25
MPDUs required							
A4 Less than 20 units							
A5 20 or more units							
B. Lot							
Dimensions (min)							
B1 Area	15,000 sf	15,000 sf	10,000 sf	7,000 sf	3,000 sf	15,000 sf	15,000 sf
B2 Width	125'	125'	100'	70'	30'	125'	125'
Building Setbacks (min)							
B3 From primary st.	10'	10'	7'	5'	0'	5'	5'
B4 From side/service st.	10'	10'	7'	5'	0'	5'	5'
B5 From interior lot line	0' to 5'	0' to 5'	0' to 5'	0' to 5'	0' to 5'	0' to 5'	0' to 5'



Building Types Form Controls: The standards for each building type differ by zoning district. This allows additional comfort in the community for allowing a diverse mix of building types in each zoning districts. These regulations can be combined with transitional or compatibility standards.



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CHAPTER 3. DEVELOPMENT STANDARDS

Where zoning districts provide the rules for site dimensions, use and form, the development standards provide the remaining rules needed for designing a project. Development standards typically address issues such as streets and streetscape, parking, site lighting, signs, stormwater, landscaping and steep slopes.

Article 5 of the LUMO, in combination with the Town's Design Manual and standard details contain most of Chapel Hill's development standards. This chapter addresses the contents of those sections. It compares the Town's current development standards and offers suggestions for how they can better implement Town policy and how they compare with national best practices.

Streets and Streetscape

The built environment is intrinsically linked to transportation and the street and streetscape system. To this end, the LUMO should contain the rules needed to lay out and generally design the street and streetscape associated with a development. In addition to moving the street and streetscape designs to the LUMO, the Town should consider

DEVELOPMENT STANDARDS Recommended LUMO Revisions

Pre-Comprehensive Plan Revisions

- » Widen the current planting strips in the Town's street cross-sections to better accommodate street trees and to buffer pedestrians from vehicular traffic.
- » Update residential parking ratios and regulate driveway separation and width.
- » Update parking ratios for small scale commercial uses.
- » Develop parking locational standards for required residential parking.
- » Merge Jordan Rules and the RCD and WPD overlay districts.
- » Update sections of the Town's Design Manual and street cross-sections.

Post Comprehensive Plan Revisions

- » Enhance the site lighting requirements.
- » Update and modernize the sign ordinance to account for changes in law and changes in technology.
- » Improve connectivity through the implementation of improves connectivity controls such as block standards.
- » Develop Illustrated and contextually appropriate streetscape and street cross-section standards that promote the Town's complete streets policy.
- » Develop neighborhood street cross-sections with on-street parking.
- » Create a residential parking district plan.
- » Update vehicle and bicycle parking ratios and the readability of the parking ratio table; implement a parking credit system.
- » Modernize parking lot design standards.
- » Improve and provide urban options for natural resources including stormwater, tree protection, and steep slopes.

CHAPTER 3. DEVELOPMENT STANDARDS

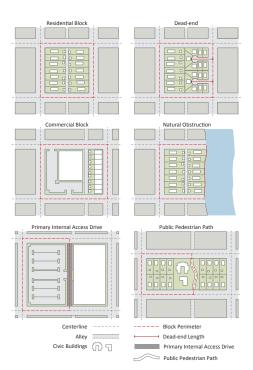
changes to the design standards of both. The Town has taken a strong policy position that Chapel Hill is going to be a community of complete streets, yet the current standard details for streets and sidewalk are limited in their support of this policy. The fact that the Town has an entire set of standard details dedicated to traffic calming techniques indicates that Chapel Hill has a history of building wide, auto-dominated roads. To address these issues and help bring Chapel Hill's streets in line with the Town's complete street policy, the following changes to the LUMO should be considered.

Improve Connectivity

Improved connectivity means more ways to get from point A to point B, which means traffic is dispersed such that instead of building a four-lane street, the Town might only need a more pedestrian and bike friendly two-lane street. An approach that has worked in a number of communities to increase connectivity is to establish maximum block perimeters, maximum block face, and maximum dead-end street lengths by zoning district. An example of this type of regulation can be seen below.

	Block Perimeter (max)	Block Length (max)	Dead-End Street (max)
R-1, R-2, R-4: By Average	Lot Size on Block		
40,000+ sf	7,500'	2,000'	800'
20,000 - 39,999 sf	5,000'	1,300'	500'
10,000 - 19,999 sf	4,000'	1,150'	400'
6,000 - 9,999 sf	3,000	1,000'	300'
up to 5,999 sf	2,000'	600'	200'
R-6, R-10: By District			
R-6	2,600'	800'	300'
R-10	2,400'	700'	300'

Block and Block Face Standards: Example of how block and dead-end street maximums might be regulated and measured. The table provides an example of measurements based on average lot size by residential zoning district.



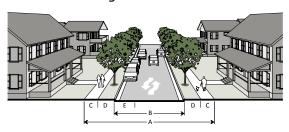
Complete Street Cross-Sections

From a best practice perspective, Chapel Hill's standard details for local streets with on-street parking are good. The travel-way is reasonably narrow and the sidewalk on both sides of the street are a good width for the street. The other standard details for street cross-sections contain a number of concerning features—vehicular travel lanes are too wide, while bike lanes, planting strips and sidewalks are too narrow. Additionally, the Town should consider a more diverse set of street types. If the Town wants new streets to comply with a complete streets approach, the Town should consider the following.

CHAPTER 3. DEVELOPMENT STANDARDS

- » Add a diverse set of street cross-sections. Chapel Hill provides street cross-sections for a limited number of street types. The Town should develop and add cross-sections for the following street types and link them to applicable zoning districts:
 - Rural (no curb and gutter)
 - Neighborhood yield
 - Neighborhood local
 - Avenue with 2 lanes
 - Avenue with 4 lanes
 - Main Street with parallel parking
 - Main Street with angled parking
 - Multi-way Boulevard
 - Residential Alley
 - Commercial Alley
- » Link streetscapes to context. For most cross-sections, Chapel Hill has a one-size-fits-all streetscape with a 3-foot planting strip and a 5-foot sidewalk. Streetscapes should vary based on the nature of the street. On a narrow residential street, a 5-foot sidewalk is sufficient, but in a built-to environment, the sidewalk should be between 8 and 15 feet. The Town's streetscapes should be revised to better reflect these distinctions. An example of these changes can be seen below.

Neighborhood Yield



	Residential
Width	
A Right-of-way width	46' to 48'
B Pavement width	24' to 26'
Streetscape	
C Sidewalk (min)	5'
D Planting area (min)	6'
Travelway	
E Parking lane	7'
F Travel lane	15' to 17'
General	
Street type	2-way local
Walkway type	Sidewalk
Planting type	Tree lawn
Tree spacing	30' o.c. avg
Parking type	Parallel staggered
Curb radius (max)	?
	······

Avenue with 4 Lane (parking and bike facilities)



	Mixed Use	Residential
Width		
A Right-of-way width	112' to 114'	104' to 106'
B Pavement width	72' to 74'	72' to 74'
Streetscape		
C Sidewalk (min)	14'	8'
D Planting area (min)	6'	8'
Travelway		
E Parking lane	8'	8'
F Bike lane (min)	6'	6'
G Travel lanes	44' to 46'	44' to 46'
General		
Street type	4-lane thoroughfare	4-lane thoroughfare
Walkway type	Sidewalk	Sidewalk
Planting type	Tree grate / lawn	Tree grate / lawn
Tree spacing	30' o.c. avg	30' o.c. avg
Parking type	Parallel on 2 sides	Parallel on 2 sides
Curb radius (max)	?	?

- » **Expand planting strips.** Chapel Hill's 3-foot planting strip is too narrow to allow for any meaningful street trees. When planted between the sidewalk and the travel way, street trees buffer pedestrians from traffic and provide shade. To accommodate street trees, planting areas would typically be a minimum of 5 feet, and often as wide as 10 feet along major arterials.
- » **Illustrated cross sections.** As opposed to the technical drawings of the standard details, the Town should consider more illustrative cross-sections to broadcast the intent of the LUMO.

Parking

Chapel Hill, like other college towns, is struggling with parking management. While this struggle is primarily with residential parking, there are also ways that the Town could improve its commercial parking. Section 5.9 of the LUMO, in combination with the Design Manual, regulates both residential and commercial off-street parking. The following sections recommend changes that Chapel Hill should consider for improving how the Town's regulations address parking and parking areas.



Residential Parking

One element of Chapel Hill's residential parking problem is a result of high percentage of the student housing in the community. These two issues are directly linked and the Town must address both parking and student housing.

The Town should consider the following suggestions for short and long term changes to the LUMO to improve residential parking. These suggestions primarily target new development and redevelopment, or change in use of existing properties.

- » Update parking ratios to better reflect the needs of student housing.
 - Require off-street parking spaces (possibly 2) for single-family houses on lots larger than 5,500 square feet. Consider not linking it to bedrooms.
 - Increase the parking requirements for duplexes (possibly 2 per unit regardless of number of bedrooms) and eliminate parking maximums for duplexes or set the maximum at 3 on site.
 - Increase parking maximums for multi-family residential from 125 percent of the minimum to 175 percent of the minimum.
 - Evaluate other non-town center residential parking requirements and consider increasing the minimum parking requirements.
- » Limit front yard parking. Continue with recent efforts to reduce the percentage of front yard area that can be used for parking or drive areas and limit approval of exceptions to existing lots. As part of the planning process, consider the appropriate scale of front yard parking area to building width and update the LUMO accordingly.
- » **Regulate driveway separation.** The design manual suggests that driveways on local streets be separated by 50 feet. Regulate residential site access in the LUMO.
- » **Neighborhood streets with on-street parking.** Update street cross-sections so that all neighborhood local and collector streets allow on-street parking.
- » **Parking districts.** Consider the creation of parking districts that would establish different parking ratios for different areas of the community depending on parking needs.
- » **Location of parking.** Following the Comprehensive Plan update, consider a more detailed regulation of residential parking. Designate portions of the lot that are appropriate for parking and portions that are not appropriate for parking. This may change by zoning district or by building type. Required parking for single-family residential and duplexes should be behind the front facade of the building.

Commercial Parking

Unlike the shortage of student related residential parking, Chapel Hill commercial and mixed use parking seems to be under control. Due to the high priority the community places on tree cover, most parking areas are well landscaped and shaded. There are some adjustments that could be made to the LUMO to improve how it controls parking ratios, parking lot design, and bicycle parking.

Parking Ratios

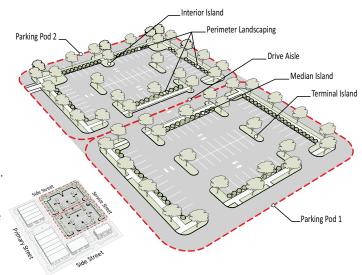
Chapel Hill's commercial parking ratios are typical for a primarily suburban town that is heavily reliant on personal vehicles for transportation. The Town recognizes that different built environments may require different standards. This can be seen in the exemption from required parking in the Town Center and the reduced parking requirements in the MU-V zoning district. In continuing to refine the LUMO's parking ratios the town should consider the following changes:

- » Move all parking related regulations to one section of the LUMO. Section 3.5.1(d) provides a 50 percent parking credit for uses in the MU-V zoning district. This credit should be referenced in section 5.9 Parking and Loading.
- » **Generally update the parking ratio table.** There are currently issues in the parking ratio table that should be cleaned up. For example:
 - Consistency between use matrix and uses on the parking ratio table.
 - Link parking to less dynamic variables than employees or students. Consider square footage or classrooms.
 - Improve user-friendliness of the table.
- » Revise parking ratios to better reflect current parking needs. Some minimum parking ratios are higher than typical communities. For example Chapel Hill requires parking for restaurants at 1 per 110 square feet while a more common ratio is 1 per 150 square feet.
- » Accommodate small scale retail. In an effort to help small boutique retail, many communities implement a parking ratio of 1 per 1,000 square feet for individual users that are less than 3,000 square feet.
- » **Parking credits.** Many communities offer parking credits for sites that meet certain requirements, such as locations within 500 feet of a transit stop or on-street parking adjacent to the site.

Parking Lot Design

For the most part, surface parking lots in Chapel Hill are shaded and well landscaped. The Town's design manual contains landscaping criteria that seems to be serving its purpose. As discussed in chapter 1, these design standards may be more effective in the LUMO. If this option is selected then the following suggestions should be considered.

- » Viability of plantings. Landscaping islands are only required to be 4 feet wide. Consider enlarging this to 6 feet.
- » Pedestrian access. Require a pedestrian path through the parking lots by dividing parking lots into manageable parking pods integrated with pedestrian walkways and landscaping.



CHAPTER 3. DEVELOPMENT STANDARDS

- » Exempt lots. Exempt parking lots that are wrapped by buildings built-to the street. If a project provides a parking court surrounded by buildings on all four sides consider exempting the interior parking area from the landscaping requirements.
- » Innovative parking lot design. Update design requirements so that parking lot landscaping can be integrated into a light imprint/low impact stormwater system. For example, the LUMO currently requires these landscaped areas to be curbed. Consider allowing equivalent alternatives that would allow sections not to be curbed, but use wheel stops.

Bicycle Parking

The LUMO is ahead of the curve when it comes to required bicycle parking. The parking ratios seem reasonable and there is no doubt that Chapel Hill has a lot of experience in dealing with high bicycle ridership. If the Town chooses to update this section, there are a few suggestions that should be considered.

- » Relocate bicycle parking requirements to one location. Currently, both the LUMO and the Design Manual contain basic bicycle parking controls. These standards should all be located in the LUMO section on bicycle parking.
- » Students, residents and employees as a unit of measurement. Where possible, consider a less dynamic element to use as a measuring device for required parking. For example, apply minimum bicycle parking by classroom. This allows small fluctuations within a school without the risk of becoming nonconforming from year to year.
- » Consider a modest parking credit for adding short- and long-term bicycle parking. Long-term bicycle parking is often more heavily protected and often covered from the elements. Some communities require short and long term bicycle parking but others offer incentives instead.

Site Lighting

A source of potential conflict and nuisance between adjacent land uses is site lighting. Whether in the form of non-recessed lighting under fuel canopies, non-cutoff lights in parking lots or un-shielded floodlights, light pollution can encroach on the quiet use and enjoyment of neighboring properties. Section 5.11 of the LUMO contains the Town's standards for site lighting. While somewhat limited in scale, many of the basic elements are present. As the Town turns toward more focused infill development the following changes to the Section 5.11 of the LUMO should be considered.

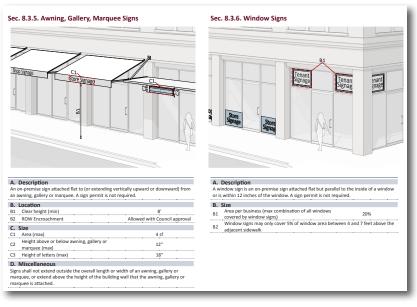
- » Prohibited sources. Many communities include a list of lighting types that they have determined as undesirable, dangerous or inefficient. For example, many communities prohibit cobra head type fixtures with drop lenses, search lights, low-pressure sodium, or mercury vapor lights that are not color-corrected.
- » Pedestrian scale fixture height. The LUMO adjusts the height of a lighting source based on whether the light source is cutoff or non-cuttoff. While this is a good approach, the LUMO should also require lighting fixtures within 50 feet of a residential use be limited to 15 feet in height.
- » Vehicular canopy lighting. The LUMO has special requirements for site lighting related to sports fields. The Town should add lighting for vehicular canopies often associated with gas stations or bank tellers. Typical standards require lighting to be recessed into the canopy, or adequately shielded.

Signs

There are few issues in development codes that are as litigious as sign regulations. To this end, they must be carefully drafted and reviewed by attorneys and planners with experience in first amendment issues. This typically means limiting regulations to time, place and manner restrictions. To this end, there are several areas where the Town's sign regulations can be improved.

Section 5.14 of the LUMO sets out the basic sign requirements for the Town. These regulations are typical of sign ordinances drafted 10 to 20 years ago. The problem is that there have been significant changes in the sign industry, the technology and the legal framework with which the industry and regulators operate. As the Town updates the LUMO, they should consider making the following changes to the Town's sign ordinance.

- » **Content based regulations.** Section 5.14.5 sets forth the Town's general regulations for signs. One area of concern is that sub-sections (a) and (d) are content based and thus likely legally suspect. Unless North Carolina courts have upheld these types of provisions, the Town should consider repealing sub-sections (a), (b), and (d) as content-based regulation.
- » Update Sign Types. An area of concern is the lack of regulations addressing digital and electronic signs. As technology has improved, it has made fully digital and electronic signs and billboards a profitable option for businesses and sign companies. When properly regulated, this new technology can be an aesthetic improvement over the old static signs, however, if not regulated the technology can become a nuisance to the community. Chapel Hill must update its sign ordinance to account for digital and electronic sign types. This includes clearly allowing them or prohibiting them, and if allowing them, then regulating their movement, scrolling of messages and brightness.
- » Unified Sign Plan Update. When appropriately structured, unified sign plans can be beneficial for commercial centers, office parks, or other multi-user developments located along commercial corridors. The problem is that when the same plan requirements are applied to town center or mixed use projects, it can result in a misallocation of signage. After a public planning process, the Town should consider different sign requirements for commercial centers located along corridors than for town center and mixed use projects.
- Clear and predictable requirements. Chapel Hill's sign ordinance is cumbersome and relies heavily on text to describe a complex regulatory approach. While these regulations may generate the right outcome, it is hard to tell because they are difficult to follow and enforce. Many communities are shifting to more graphic depictions of sign types, rules for measurements, and other regulations. This helps the development community understand what is expected of them. As Chapel Hill updates the LUMO, the Town should consider adopting a modern yet streamlined sign ordinance that protects the Town from legal challenges while protecting the visual integrity for which Chapel Hill is known.



Stormwater and Water Quality

Repairing the inconsistencies in Chapel Hill's stormwater and water quality regulations should be a top priority for the Town. The recent adoption of the Jordan Rules has created a new layer of stormwater and water quality regulations that, in many areas, conflicts with other existing provisions. In addition to repairing these conflicts, the Town must understand how the stormwater regulations are impacting the rest of the regulatory system. If not carefully tailored, stormwater regulations can have an anti-urban effect leading to further suburban sprawl. The economic impacts of the current system are real. Local developers claim that the current site-by-site stormwater management requirements associated with single-family and two-family living can add thousands of dollars to the cost of a home in Chapel Hill.

Impact of the Jordan Rules

One of the major issues facing the LUMO is the relationship between the state-mandated Jordan Buffer Rules, aimed at improving water quality in Jordan Lake, and the existing local Resource Conservation (RCD) and Watershed Protection (WPD) zoning overlay districts. The Jordan Buffer Rules, adopted in December of 2010, overlap much of the RCD and WPD. This overlap causes confusion in enforcement for a number of reasons.

First, there are certain areas where the Jordan Rules require more than the RCD or the WPD, but in other areas, the overlay districts are more stringent. Second, unlike the RCD or WPD districts, the Jordan Buffer Rules are not technically zoning and therefore do not exempt properties due to nonconforming status. Finally, there are areas of the Town where the RCD or WPD districts apply, but the Jordan Rules do not apply. These conditions make for multiple layers of rules that can be confusing for property owners to comply with, and difficult for the Town to enforce.

To remedy this, we recommend the Town draft unified regulations to replace the Jordan Rules and the RCD and WPD overlay districts. This new ordinance must accomplish all of the minimum requirements of the Jordan Rules, while going a step further to also regulate areas not mandated by the state that the Town feels are appropriate. This option provides the Town with an opportunity to comprehensively clean up its existing stormwater regulations as discussed in the next section.

Stormwater and Suburban Sprawl

Chapel Hill has expressed an interest in building sustainable, compact and walkable villages. Development of this type often requires small lots with a high degree of lot coverage, clustering the development footprint so that larger areas of contiguous land are available for habitat preservation. This pattern of development can run into problems when met with conventional stormwater control devices (BMPs).

Conventional BMPs commonly restrict the percentage of lot coverage. This often requires deep lots with large setbacks to accommodate stormwater. These standards can make building compactly difficult or even impossible and can result in suburban sprawl patterns. Chapel Hill should expand the selection of urban stormwater BMPs to provide better options for walkable, mixed use developments. Modern stormwater BMPs that do not have the same sprawl inducing results include "Light Imprint" approaches to stormwater management.

Stormwater and the Single-Family House

A concern that was repeated several times during interviews with practitioners and staff was the concern that too much time and resources are being spent reviewing single-family house additions or decks at the expense of reviewing larger, more significant projects.

Additionally, there was concern over the cost associated with site-by-site single-family stormwater approval. Some stakeholders suggest that current stormwater requirements for single-family houses can cost upwards of \$10,000 per approval where an existing single-family house proposed an addition. Two-thirds of these costs are estimated for engineering services and plan review alone. To address these concerns, the Town should consider the following approaches and amendments to the LUMO.

- » **Streamline single-family approval.** Evaluate the flow of single-family applications through plan review and continue to identify opportunities for improved efficiencies.
- » Reduce the cost of stormwater plan review for single-family homes. One way to address the expense of plan review for single-family homes would be to adjust the triggers for when review must occur. An additional cost-saving measure would be to reducing the requirements associated with each single-family stormwater review application.

Improving Review Triggers

As Chapel Hill repairs the conflicting provisions in its stormwater and water quality regulations, the Town should look for ways to clarify staffs role in interpreting the LUMO. Town staff is already working to improve the "triggers" for when development or land disturbance is significant enough that it should be reviewed by stormwater engineering staff. As part of this effort, Chapel Hill should consider the following suggestions.

- » Clear and defensible triggers. In updating the LUMO, the Town should determine whether the current trigger, "land disturbing activity", is the right approach or if "impervious coverage" is more appropriate. Additionally, any exemptions or credits for the triggers should be clearly identified in the LUMO.
- » Context appropriate triggers. Approaches to stormwater management differ between rural, suburban and urban places, the LUMO should have different review triggers depending on the context of the development.

Landscaping

Chapel Hill's strategy for landscaping focuses on buffering different uses from each other and the street. There are a set of five landscape buffers detailed in the Design Manual. Section 5.6 of the LUMO sets out the requirements for when each buffer is required, where it must be located and other related standards.

The current approach to landscaping is fundamentally anti-urban. In many districts it requires substantial landscaping and planting buffers between uses and districts. In addition to making walkable, mixed use, neighborhoods difficult to develop they can promote the continuation of sprawl development patterns. An alternate approach to protecting neighborhoods is to use form-based controls and design approaches improve the compatibility between potentially conflicting intensities.

If Chapel Hill shifts toward more sustainable development patterns, more compact urban developments will occur. Instead of trying to hide these projects with landscaping buffers, the Town would benefit from taking a more

CHAPTER 3. DEVELOPMENT STANDARDS

strategic and context appropriate approach to greening the streetscape and facilitating transitions between uses. The Town should consider the following changes to the LUMO.

- » Equivalent alternatives. Consider a new alternative buffer process that will allow developers to work with planning staff (rather than the design commission) to propose more flexible alternative buffers and streetscapes. Urban and infill projects are more complex than suburban greenfield projects, and the Town must provide developers with the flexibility needed to build smaller, context appropriate streetscapes and buffers.
- » Streetscapes. Eliminate the 20-foot buffer between all uses and collector streets and replace it with a selection of contextually appropriate streetscapes. These might be mapped in special areas or linked to zoning districts
- » **District buffers not use buffers.** With the exception of certain select uses, do not require buffers between similar or like uses and projects. Instead, consider using landscaping buffers between certain zoning districts that might be in conflict. For instance, require an intense landscaping buffer where the Community Commercial district abuts a single-family residential district, but not one between the Neighborhood Commercial and the Office/Institutional-1 districts.
- » **Contextually appropriate buffers.** Develop a mix of buffers for various contexts—urban buffers for urban areas, suburban buffers for suburban areas, and rural buffers for rural areas.
- » **Illustrative examples.** Consider graphically illustrating the landscape options to broadcast their intended application and context.

Steep Slopes

Chapel Hill benefits from a beautiful natural topography. The Town has a calming roll that allows for scenic vistas and interesting grade changes. With these assets comes some difficulty in connectivity and in building impact on erosion and stability. Section 5.3.2, Steep Slopes provides the Towns controls for building on steep slopes.

Generally, the framework for regulating steep slope is there but the standards for construction techniques are anemic. The LUMO organizes steep slopes into four categorizes: (1) Less than 10 percent slope - no special regulations; (2) 10 to 15 percent slope - minimize grading and site disturbance; (3) 15 to 25 percent slope - must comply with construction techniques; and (4) 25 percent or more - no development unless approval of the board of adjustment. The town should prepare for increased development pressures on marginally sloped lands as the availability of prime developable land decreases. As such, the standards associated with category 2, 3, and 4 should be improved. In updating the LUMO Chapel hill should consider the following changes related to steep slopes.

- » **Update graphics.** The slope image examples do not appear to accurately reflect the slope percentages described and should be updated to better reflect the typical slopes.
- » Clearly state site preparation techniques. Where site conditions contain slopes between 10 and 15 percent the LUMO states that site preparation techniques are required and it states the submittal requirements but fails to mention the techniques that an applicant might expect. This could be accomplished in the LUMO or through cross-reference to the Design Manual.
- » Clearly state specialized site design techniques. The LUMO requires two modest erosion and sedimentation control techniques for sites with slopes greater than 15 percent but should consider including additional standards addressing issues of retaining walls and other cut and fill type activities.

CHAPTER 4.PROCESS & ADMINISTRATION

Development codes are only as efficient as their procedural and administrative provisions allow. A code's rules can be user-friendly, prescriptive and have the right standards for the community, but if the development approval process is mired in lengthy and contentious political or bureaucratic process, it will burden development with unnecessary costs and possibly drive activity to surrounding communities.

Chapel Hill relies on process, not standards, to control development. Some do not trust that the standards and regulations in the LUMO will generate reasonable outcomes, so they have used process to tinker with each development as it comes to the community. The Town relies on a complicated system of review boards, the Planning Board, and ultimately the Town Council, to approve development on a case-by-case basis and to negotiate incremental improvements in projects.

When communities rely too heavily on process to generate good development, it is typically because their rules are broken. In some ways (as outlined previously in this report), the LUMO is broken. As Chapel Hill refines its planning policies and addresses the changes needed in the LUMO, the Town should consider implementing the following process and administrative changes to help streamline development approvals. After all, a streamlined process is often the best economic development incentive a Town can offer.

PROCESS & ADMINISTRATION Recommended LUMO Revisions

Pre-Comprehensive Plan Revisions

- » Establish minimum professional criteria for membership on technical boards and commissions and require minimum training requirements.
- » Establish which elements of an application are binding.
- » Revise triggers for concept plan review and for special use permits so that fewer projects require conceptual review.
- » Clearly state and graphically illustrate the approval process in the LUMO.
- » Shift common conditions of approval to standards within the LUMO.

Post Comprehensive Plan Revisions

- » Streamline the approval process by shifting from the current case-by-case approvals to more by-right approvals.
- » Institute a system where certain adjustments to the standards and alternatives can be approved administratively.
- » Re-think the site plan review process and consider a clear distinction between major and minor site plans.
- » Eliminate the concept plan review process for most projects in favor of clearer standards.
- » Minimize reliance on conditional use zoning districts and special use permits in favor of improved districts and development standards.
- » Update nonconformities language to reflect the Town's tolerance for their continued existence.

Application Criteria

Chapel Hill requires applications to be complete prior to being considered for processing. The completeness review outlined in section 4.1.2 establishes a firm date that an applicants request enters the system. One minor change that might help Town staff is to amend the LUMO so that specific application requirements are not listed in the ordinance (see, for example, the zoning application requirements in 4.4.2.b). Most modern ordinances simply state that a completed application and all requirements identified on the application must be submitted. The application form contains the key elements required.

Application Review in General

One of the issues expressed by local practitioners is the burdensome review process for applications. The perception is that some departments are commenting on areas that are outside of their areas of expertise. Additionally, stakeholders complained that a consistent position by Town staff is lacking. Consolidated comments are not well organized, and there are often contradictory positions taken by Town staff, requiring applicants to spend time and money clarifying the concerns. Stakeholders also suggest there is not a clear and consistent interpretation of which portions of an application are binding and which are simply illustrative

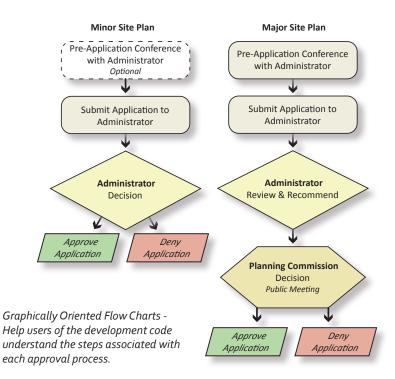
Similarly, professionals representing applicants suggest that there is a lack of professional representation on many of the boards and commissions, resulting in applicants needing to educate board and commission members on what is relevant to their review. Due to the special use permit's quasi-judicial process, there can be limited communication between applicants and Council. Further, town staff lack the resources to graphically display how conditions may negatively or positively impact the site layout.

Lastly, there is concern that the numerous public hearings and extensive opportunities for public review of applications lead to projects being weighted down with additional conditions beyond the code requirements. This can lead to a scenario where developers game the system, initially proposing a low-cost design in anticipation of reviewing agencies and commissions loading the project up with conditions for approval that add cost as they move through the system.

The Town is conscious of many of these problems. Work is underway to streamline the hearing process and improve communications between the staff and applicant. The Town is also considering consolidation of boards and meetings. Although many of the remedies for the problems identified are more procedural or policy shifts than regulatory, the resulting changes must be backed up and supported by the LUMO. To this extent, Chapel Hill should consider the following changes to the LUMO.

- » Identify makeup of boards. Either in the LUMO or in separate by-laws, the Town should amend the required background for the various boards and commissions. This allows the town to make appointments to various boards and commissions that are knowledgeable as to the intent and purpose of their body. The LUMO requires modest qualifications for groups such as the Community Design Commission, stating that the majority of members have special training, experience or interest in the planning and architecture fields. Consider creating similar requirements for members of all boards and commissions.
- » Require minimum training of members. Most communities require that members of advisory boards and commissions attend a certain number of hours of training. This is regularly accomplished through a retreat, attending a conference for the board's area of expertise, or regular training sessions. Regardless of the format, a requirement for 8 to 12 hours of annual training should be required.

- » Clearly identify the approval process. The LUMO should clearly articulate the approval process for each application available. Where possible, application processes should be consolidated. Consider using graphic flow charts in the LUMO to better communicate the approval process to those not familiar with the system.
- » Clearly identify binding elements. Clarify those portions of an application that are binding in the LUMO, and the portions that are illustrative only.
- » Shift the common conditions from the approval process to standards in the LUMO. Special use permits, planned developments and conditional zoning approvals have become laden with boilerplate conditions that are used again and again. To the extent possible, these conditions should be shifted to the LUMO as standards applicable to all development.



Administrative Decisions

One way to streamline many approval requests is to establish a procedure to administratively approve minor adjustments to the standards of the LUMO. The scale of these adjustments depends on the Town's tolerance for administrative approval. Typically these are minor requests such as a slight deviation (less than 15 %) from a setback, or the approval of an alternative landscape buffer or streetscape. The idea is that these changes are small enough not to require a public hearing. If applied, the exact limits of administrative approval and the criteria to be considered in decision-making must be in the code.

Zoning Compliance Permit

In Chapel Hill, there is a clear divide between the planning department and the building department. To bridge this divide, Chapel Hill requires the issuance of a zoning compliance permit for any and all activity on a lot. A strict interpretation of Section 4.9, Zoning Compliance Permit, suggests that even the removal of soil for a garden or small pond requires a property owner to request a zoning compliance permit from the Town. While zoning permits are common in many communities, the extent to which Chapel Hill requires them is a unusual. The Town should consider clarifying those activities that do not require the issuance of a zoning compliance permit.

Site Plan Review

Under the LUMO, most commercial and multi-family development is required to go through a public site plan review process. Those projects exempted from site plan review are still reviewed at the staff level through the zoning compliance permit process. Further, section 4.7.1 has the effect of allowing the Town Manager at his/her discretion to require any exempt development activity to go through site plan review. Even the most basic of applications may not be found to be exempt under this provision.

CHAPTER 4. PROCESS & ADMINISTRATION

To complicate this further, the Town Manager (under a zoning compliance permit) and Planning Board (under a site plan review) may apply additional conditions they determine are needed to bring the proposed project into conformance with the standards of the LUMO. Under the continued effort to streamline the approval process Chapel Hill should consider the following changes to their site plan review procedure:

- » **Allow Clear Exemptions.** Currently development activities that are exempt from site plan review may be required to go through full site plan review, where the Town Manager decides that there is a specific issue with the application. This language should be removed.
- » **Clarify Administrative Action.** The applicability language is unclear as to what "action" the Town Manager may take if a proposed development activity is exempt under the site plan review. It is assumed that this action is to issue a zoning compliance permit, but this should be clear.
- » Major and Minor Site Plans. To help improve the user-friendliness of the LUMO, the Town should separate site plan review into major and minor site plans. Minor site plans might include small residential projects or certain additions to existing buildings while major site plans might include large scale developments. This would allow the Town to adjust the site plan triggers so that only select projects are required to go to the Planning Board as major site plans, allowing smaller or less intense projects to go through an administrative minor site plan approval.

Concept Plan Review

For all but the smallest projects, Chapel Hill has restricted by-right approval in favor of a lengthy case-by-case review process. The Town has established thresholds that push any meaningful development into the special use permit process. All development greater than 20,000 square feet requires a special use permit. Likewise, special use permits come to the staff through conditional zoning districts, planned developments or as special use permits designated on the Use Matrix. As a precursor to all special use permits, as well as any master land use plans or major subdivision, an applicant must first prepare a concept plan to be reviewed by the Community Design Commission, and in some cases the Town Council.

The Commission is tasked with reviewing concept plans of a certain size. They evaluate the pre-development site, the proposed development concept, and the overall anticipated outcomes, and make recommendations. Following public hearing, recommendations and revision, the Concept Plan is typically submitted to the Town Council for review and approval. Only after this initial preliminary review and approval can a project submit its associated special use permit, subdivision or master land use plan (all of which are reviewed again in public).

As Chapel Hill works to improve the LUMO, the Town should consider the following changes both as short-term fixes and long-term paradigm shifts:

- » Clarify procedural requirements. If an applicant reads the concept plan review section, it is clear that concept plan review is a prerequisite to special use permits, master land use plans, or major subdivisions. However, if the applicant reviews the procedural steps for any of these applications, the prerequisite of the concept plan is not mentioned. At a minimum, these sections should be updated to put applicants on notice of the requirement.
- » Adjust the Triggers. As a short term fix, update the triggers for when concept plan review is required to apply only to master land use plan and limited, large scale or high impact special use permits.
- » Eliminate Concept Plan Review for most projects. When Chapel Hill eventually re-writes the LUMO, the Town should compile the right mix of standards and zoning districts so that a separate concept plan review process is not necessary. This would be part of finding the ultimate solution to streamline development approvals while also improving outcomes.

Conditional Use Zoning Districts

The LUMO allows a property owner to seek a rezoning to either a general use district or conditional use district. The primary difference is that under a general use district, all the uses within the district are allowed as dictated by the use matrix and there is no ability to condition the approval. Under the conditional use district rezoning, a property owner must agree to the rezoning. Additionally, the uses available on the property may be limited either by request of the applicant or by condition of the Town Council. In a conditional use district, every use (no matter the scale or impact) requires the issuance of a special use permit.

As a result of this additional authority, it has become common for applicants proposing anything but the most innocuous single family projects to apply for a conditional use district. The process allows neighbors, Planning Board members and Town Council members the ability to negotiate everything from use and landscaping to transitions and density on a case-by-case basis. Little is predictable in this process—neither the developer nor the neighbors know exactly what the final requirements are going to be until the rezoning is complete. This approach also requires the Town Council, neighbors, and developers to spend substantial time and money negotiating each project and, perhaps most importantly, there is no clear indication that this expensive and burdensome process is generating improved outcomes in the Town.

Best practice from around the country suggest that Chapel Hill should rely less on this legislative procedure for development approvals. In its place, the Town should create a new development code with appropriate development standards and the right mix of zoning districts, map the districts pro-actively, and thereby generate the right rules in the right places. However, the political reality is that it could be difficult for Chapel Hill to move away from conditional use zoning districts all at once. In an effort to streamline the approval process, the Town should consider the following adjustments to the LUMO:

- » **Typical Conditions.** Move boilerplate requirements that appear as conditions in most special use permit approvals to the LUMO as standards for all development.
- » **Proactive rezoning.** The Town is not likely to eliminate conditional use zoning districts in the near future. As an intermediate improvement, the Town should update the LUMO districts and standards, and then proactively rezone property to the new districts, applying the new standards. Zoning property consistent with small area plans allows the neighbors and landowners to consider development for an entire area during the planning process, and not incrementally on a case-by-case basis.

Special Use Permits

Chapel Hill has developed a dependency on the special use permit process. The Town is using process laden case-by-case approvals as a patch for a broken regulatory system. The best way to repair the LUMO is through a complete re-think of the overall zoning system. Following the comprehensive plan process, the Town should develop new zoning districts and development standards that reflect the community vision. The Town should then map these districts ahead of development in a manner that is consistent with the adopted plan. This process could eliminate some of the demand for process and the reliance on special use permits. In the meantime, there are some short term fixes that could help Chapel Hill with its reliance on special use permits:

CHAPTER 4. PROCESS & ADMINISTRATION

- » **Typical conditions.** As with conditional use districts, there are a number of consistent conditions applied to special use permits. To the extent possible, these conditions should be moved to the LUMO as standards.
- » Adjust the triggers. Under the current LUMO, all development greater than 20,000 square feet or 40,000 square feet of disturbed area must get a special use permit. One way to reduce the number of special use permits is to craft a more sophisticated threshold or multiple thresholds depending on the location, impacts or form of proposed development. Do the current triggers really reflect what the Town is concerned about? Or is the Town actually concerned about external project impacts, key corridors, or some other measure that would make a more appropriate trigger for special use permit?

Nonconformities

The LUMO currently has language addressing nonconformities in use, lots, features, signs and parking. Generally, the standards in the LUMO are acceptable to the extent that they are furthering the Town's policy. For example, it doesn't appear that the current standards would allow a nonconforming structure or a structure housing a nonconforming use to be brought up to the building code or to be retrofitted to be more energy efficient. If this is a policy the Town desires then the LUMO should be adjusted accordingly.

A similar policy decision is whether the Town would tolerate changing a nonconformity to the extent that the change brings it closer to conformance. For example, some communities would allow a structure that is nonconforming because it encroaches into the setback to add an addition that partially corrected the problem. Again this is a policy discussion that the Town should have as it goes through the planning process and then the nonconforming provisions should be written to reflect the desired outcome.

CHAPTER 5.THE BIG IDEAS

Several big ideas emerged from our review of Chapel Hill's policy documents and regulations and through interviews with key staff and stakeholders. The purpose of reviewing them here is to make the connection to how individual regulations function together as a system to address larger policy goals. This chapter is also intended to challenge some conventional thinking about how to achieve certain policy goals through regulations.

Improving the Process and the Outcomes

One problematic theme that runs throughout this report is Chapel Hill's reliance on process to manage development. The Town has successfully slowed the development process down with time consuming caseby-case negotiations, and in a "hot" economic environment, this may have been necessary. However, from the outside, it doesn't appear that this process-heavy atmosphere has substantially improved the outcome—the built environment.

THE BIG IDEAS **Recommended LUMO Revisions**

Pre-Comprehensive Plan Revisions

- » Apply a definition of household.
- Evaluate and update residential parking requirements, particularly duplex standards.
- » Revisit a rental property license program
- » Allow for encroachment of certain green features into setbacks and height limits.
- » Establish a vehicle parking credit in exchange for long-term bicycle parking.
- Craft standards for community gardens and urban farms as uses allowed by-right in certain residential districts.

Post Comprehensive Plan Revisions

- » Modernize development standards to better reflect the community vision in hopes of reducing reliance on caseby-case development approval.
- » Allow more diverse housing options.
- » Amend landscaping requirements to allow for non-ornamental landscaping options.
- » Incorporate standards that will improve connectivity and walkability within and between developments.
- » Update development standards to allow for truly sustainable places by promoting the development of compact, walkable, mixed use and diverse places.
- » Craft standards that allow for hidden density in existing residential areas and promote a diversity of housing types in new residential areas.
- » Improve selection of urban streetscape and street cross-sections.
- » Modify site dimensional standards, including setbacks, lot sizes, and FAR to allow for more compact development.
- Introduce urban form standards.

CHAPTER 5. THE BIG IDEAS

Applicants are gaming the system. They anticipate that the Town will load their project up with piecemeal conditions, so they seldom bring their best plans to the table. This forces the staff and neighbors to fight for quality development every time a project is proposed.

Best practice would suggest that the Town engage in a community wide planning exercise (such as the proposed new comprehensive plan) and then amend the LUMO to prescriptively detail the standards that are appropriate in each area. This allows the community as a whole to determine what development types are appropriate where, all at one time instead of on a case-by-case basis. Additionally, it puts the landowners and neighbors on notice as to what is likely going to occur on any given site. Where the standards are clear, detailed and contextually specific, there is less need to negotiate the details of each approval. Predictability reduces risk, and saves time and money which combined lead to a huge economic benefit.

As Chapel Hill updates its planning efforts and begins to re-think the LUMO, the Town should consider a more prescriptive development code and evaluate how much process is really necessary when appropriate districts and development standards are applied. To the extent possible, what is done today through the public review process would be replaced with strong planning and clear standards. As the Town incorporates the recommendations in this report and regains trust in their development standards, hopefully the residents will be comfortable letting go of some of the current case-by-case negotiations.

Managing the Impacts of Student Housing

Student housing has become a serious problem in Chapel Hill, as demonstrated by our site tour. Single-family homes are rented and occupied by large numbers of students, resulting in overcrowding, noise, parking and cluttering of yards. Additionally, inexpensive apartment complexes are contributing to the problem in many of the same ways. These problems are not unique to Chapel Hill, and to some extent are faced by most college towns.

There are a number of ways to address these problems; some options are appropriate for the LUMO while others, such as rental property license programs apply to the Town Code. Chapel Hill should consider the following adjustments to the LUMO as well as other sections of the Town Code.

- » Apply a definition of household. Currently, the LUMO defines a family as "an individual living alone or two or more persons living together as a single housekeeping unit, using a single facility in a dwelling unit for culinary purposes..." This is a very inclusive definition and well within the legal requirements of fair housing laws. A more typical definition would apply the term household instead, and allow "no more than four unrelated people" in any household. The Town must also continue to allow for group homes of six or more unrelated people according to fair housing laws, however, large student households need not be tolerated.
- » Allow more diverse housing options. Increasing the diversity of housing types to include such options as alley flats, mansion apartments, cottages and cottage courts, townhouse and upper-story residential can help disperse large clusters of students throughout the community and help with issues of affordability.
- » Evaluate and update residential parking requirements. Despite the recent text amendment to the LUMO regarding parking standards, the LUMO still takes a relatively simple approach to off-street residential parking. The approach taken is typical of a town without the need to manage a large student population. The Town should consider further revising parking requirements for single-family and duplex living.

- » Revisit a rental property license program. Some communities with high percentages of renter-occupied housing have instituted rental property license programs for owners of two or more units. This allows the community to directly link problem properties with the owners. When properly enforced, such a system can lead to better owner oversight. It is our understanding that Chapel Hill approved a rental licensing program several years ago but recently suspended it. The community should reevaluate this program to see if modifications might improve its effectiveness.
- » Nuisance enforcement. Chapel Hill has rules on the books already related to student housing impacts such as excessive noise and public intoxication. In many instances these rules are simply not effectively enforced. We understand that Town staff is currently working towards improved enforcement in all areas of the code and Town.

Removing Barriers to True Sustainability

Chapel Hill is a community intent on becoming economically, socially and environmentally sustainable. The Town has adopted carbon-reduction goals, established a sustainability office and is using sustainability as the organizing theme for its new planning efforts. Even in its current state, the LUMO makes certain efforts to broadcast this dedication to sustainability. The current code contains concepts such as solar setbacks, bicycle parking, water quality measures and tree protection. While well-intentioned, these regulations fundamentally miss one key point about creating a sustainable built environment. They focus more on modest incremental site features than on the built environment, and this type of "gadget green" is not truly sustainable.

Truly sustainable places are the antithesis of suburban sprawl. They are places that are compact, connected, walkable, offer a mix of uses and housing types, and are economically diverse. Sustainable places allow people to live in close proximity to work and shopping, increasing social interactions and the opportunity to drive less. Because sustainable places are compact and connected, they have smaller developed footprints, allowing communities to preserve meaningful amounts of open space and agricultural land. Compact and connected places also result in economically sustainable places through more efficient public services and reduced infrastructure and maintenance costs.

There is nothing wrong with removing the barriers to solar panels, geothermal heating and cooling systems, wind turbines, rainwater capture, composting and urban agriculture. The problem is that updating the LUMO to allow these ideas without shifting development patterns from suburban sprawl to truly sustainable compact, walkable patterns is simply a "green washing" exercise and will not be enough to accomplish the Town's goals.

Suggesting that development patterns in Chapel Hill should reverse course 180 degrees overnight is not realistic. However, as Chapel Hill updates the LUMO, the Town should remove regulations that stand in the way of green amenities and should encourage the building of truly sustainable places. As part of this gradual change in course, the Town should consider the following changes:

Allow Green Amenities

» Allow encroachments of certain green features. Consider allowing building features such as rain cisterns, solar panels, wind turbines and other renewable energy structures to encroach into required side and rear setbacks and maximum height limits.

CHAPTER 5. THE BIG IDEAS

- » Continue to promote bicycle facilities. Chapel Hill should continue to require bicycle parking as part of new development, and should consider ways to credit vehicular parking in exchange for long-term bicycle parking.
- » **Encourage urban agriculture.** Allow community gardens and urban farms as primary uses allowed by right in all residential and some mixed use districts with appropriate standards. When properly managed, these types of uses can contribute to social interaction and better health for the community through increased consumption of locally cultivated produce.
- » Allow non-ornamental landscaping alternatives. Many communities are allowing some forms of non-ornamental landscaping as alternatives to some required landscaping. Examples include allowing fruit trees to be included as allowed tree types.

Encourage Sustainable Places

- » Incorporate standards that will improve connectivity and walkability between developments. Many of the zoning districts and resulting development patterns in Chapel Hill actually discourage connectivity. New developments often appear to be planned with little consideration of how they relate to and connect with adjacent, existing properties. The Town's older mixed use districts require a 50-foot buffer around each project and from the adjacent streets. This has the effect of the project turning its back on the public realm and becoming an isolated pod. Additionally, the LUMO does not contain rules that promote connectivity within developments such as block face and block perimeter maximums. Lastly, the LUMO lacks "complete streets" cross-sections to generate walkable and bikeable streets.
- » **Promote compact development.** Under the LUMO, it is difficult to build compact neighborhoods. Site dimensions such as minimum lot size, low FAR, large minimum setbacks, minimum heights and impervious surface ratios all encourage large lot sprawling development patterns.
- » Encourage hidden density. One way to start the repair of existing sprawl patterns is to craft standards for improving compactness through hidden density. Hidden density occurs in accessory dwelling units and housing types that contain more individual dwelling units than appear from the streets. Alley flats, carriage houses, cottage courts and mansion homes can all be effective housing types to inject hidden density into appropriate residential areas.
- Provide a diversity of housing options. Linked with hidden density is the concept of life-cycle housing. This is the concept that in any given neighborhood a person should have the ability to choose from apartment, townhouse, cottage, or single-family home. This allows people the option of aging in place. It also provides a mix of incomes in each neighborhood and can help disperse heavy concentrations of student housing.
- » **Encourage mixed uses.** The LUMO allows a number of residential uses within its commercial districts but should consider the addition of appropriately scaled mixed use districts that use form standards to ensure compatibility and appropriate transitions between adjacent districts and uses.
- » **Stop discouraging sustainable places.** The LUMO heavily regulates stormwater, impervious coverage, and landscaping to manage the impacts of development. To the extent that these regulations discourage the development of compact sustainable places, the Town should consider revising them.

Getting Urbanism Right

Truly sustainable places are lovable places. They are the types of places where people can't help but spend time. Truly sustainable places are typically urban intensities. The problem in Chapel Hill is that outside of the downtown, there are very few examples of where the Town got urbanism right. The neighborhood center in Southern Village is an example of walkable urbanism, and the Town should take note of this example in future projects, setting it as a community benchmark.

More recent projects like East 54, 140 West, and Greenbridge are proof that this level of urbanism is in demand and will continue to be proposed in Chapel Hill. The LUMO must be prepared for it, and should have rules in place to control these urban forms and how they fit within the existing fabric of Chapel Hill. In each of the above cases, the projects were negotiated on a case-by-case basis. As was the case in East 54, this negotiation led to certain changes that compromised the quality of the urbanism on the project—the project turns its back on the street and isolates surrounding streetscapes.

Overall, the LUMO is simply not geared for urban infill development, and new standards and processes that provide more predictability to developers and neighbors as to what may or may not be developed on a given site should be added. Some of the qualities that the revised LUMO should contain include the following:

- » Focus on the public realm. The LUMO lacks adequate urban streetscapes to help knit the built environment together. This means replacing ornamental landscaping and lawns with more appropriately-scaled streetscapes with wide sidewalks and trees in tree grates. Additionally, on-street parking, or limited "teaser" parking through a multi-way boulevard configuration, must be allowed on streets with shopfronts. This helps to calm traffic and buffer the pedestrian from traffic on the street.
- » Reduce setbacks and lot sizes. Chapel Hill should consider a mix of zoning districts of various intensities that not just allow, but require buildings to be built to the street. The Town should take care in mapping these districts only in areas that have streets where it is appropriate to build up to the sidewalk. Likewise, the town should consider eliminating minimum lot size in favor of lot width or reduce minimum lot size to promote compact options.
- » Increase FAR and impervious coverage ratios. These two site standards force large lot development and disconnected projects. In addition to being confusing, FAR can result in big lots with small development footprints. This tends to result in building separation that decreases walkability. In certain districts where stormwater is either dealt with in an innovative way or is less of a concern, consider increasing the impervious coverage ratio. This can help create a better urban form and a more walkable environment.
- Wrban form standards. Consider developing form standards for mixed use and commercial buildings in certain districts to help ensure that streets are appropriately activated and to help ease residents' fear of urban developments. These form standards typically deal with such issues as build-to areas, building mass, ground floor transparency, blank wall area, entrance separation, and articulation.

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CHAPTER 6.UPCOMING TEXT AMENDMENTS

Chapel Hill is in the process of considering several text amendments to the LUMO. As part of our evaluation of policies and regulations, we have evaluated the impact of these text amendments on the existing LUMO, and whether the proposed amendments further the Town's planning policies.

Recently Proposed Text Amendments

The following text amendments are currently in the approval process and are addressed individually below.

Planned Developments: Minimum Lot Size

This text amendment was considered by the Town Council on March 17, 2008. The amendment proposes reducing the minimum site size for multi-family planned developments from five acres to one acre when located in residential conditional zoning districts. If the town is interested in encouraging compact development and infill patterns then an amendment to allow smaller multi-family development on property less than five acres in size is a step in the right direction. Other changes to consider include adjustments to the site dimensional standards to decrease required setbacks and to increase FAR, impervious coverage, and height in a manner that is consistent with the desired form.

Energy Management Incentives

On July 19, 2007 the Governor signed House Bill 1097. This bill authorized Chapel Hill to provide development incentives in exchange for reductions in energy consumption. This legislation allows the Town to offer density bonuses and other land use incentives in exchange for meeting certain energy conservation carbon reduction standards.

This amendment is an example of an overly simplistic incentive. Since the density bonus is allocated prior to the building being constructed and meeting the required energy efficiency level this incentive will be difficult to enforce. Additionally, the Town must be careful where projects seeking this type of an incentive are located. For example, suppose the most energy efficient building in the state were located in the Town's outskirts, if workers or shoppers have to drive 20 minutes each way to get there, the carbon emissions from the vehicles will far outweigh the carbon footprint of a conventional building located close to the center of town. A more sustainable approach would be to allow buildings in the town center or near compact walkable and mixed use places to build densely, and if they choose to build energy efficient, then allow some other incentive such as streamlined review or expedited permitting. We recommend that the intent and effectiveness of this type of text amendment be revisited once the Town completes the task of revising the Comprehensive Plan.

Special Use Permit Thresholds

On January 12, 2009 the Planning Board presented a petition to the Town Council. The petition suggested that the Council reduce the threshold for special use permits from 40,000 square feet of disturbed land to 20,000 square feet, and from 20,000 square feet of floor area to 10,000 square feet. As proposed and discussed thoroughly throughout this report, increasing negotiated case-by-case approvals is not the answer. As inefficient and cumbersome as Chapel Hill's current system is, this amendment will only make matters worse. If Chapel Hill is serious about streamlining development approval, then a proposed amendment of this nature should be rejected.

Sign Ordinance Amendments

On December 8, 2008 the Town Council received a petition from a resident seeking changes to the Town's sign ordinance. The petition requested that the Council address the gaps and limitations in the current sign ordinance.

On April 25, 2011, the Council amended the sign ordinance with respect to ground signs for large commercial centers. The standards in this new ordinance are focused on auto-dominated commercial corridors and may be inappropriate in mixed use or town center districts. Further, the size for commercial ground signs, especially ground signs on streets 35 mph or less, are large. This ordinance would greatly benefit from graphic form standards. With respect to other aspects of the Town's sign regulations, refer to the discussion on signs in Chapter 3 of this report.

Outdoor Site Lighting

On January 10, 2005, the Planning Board petitioned the Town Council to consider changes to the LUMO lighting provisions. Subsequent to receiving the petition, the Council decided to delay consideration of the request and incorporate the request into a more comprehensive revision to the LUMO.

Generally, reducing upward light pollution through the use of cutoff fixtures is a good thing. Chapel Hill does this now, though the effort could be expanded. As national initiatives such as the dark sky initiative gain more attention communities across the country are re-thinking the issue of light pollution in rural and suburban areas. These types of standards should be included in a revised outdoor site lighting section of the LUMO. Refer to the discussion on site lighting in Chapter 3 of this report.

Bed and Breakfast Establishments

On January 11, 2011, the Council received a petition from residents requesting the Council to amend the LUMO to allow bed and breakfast establishments as a use allowed by-right in the residential zoning districts. The Town is considering allowing bed and breakfast establishments by-right in certain residential districts. Generally, these types of activities in residential districts are innocuous and near town centers make a lot of sense. Some communities have found it beneficial to have a separate (non-LUMO) licensing ordinance for innkeepers and hotels. As the Town goes through its updated planning process and re-thinks the LUMO, they should consider other types of uses that might help to stabilize residential neighborhoods.

The proceeding chapters contain recommendations for how the LUMO could better implement Chapel Hill's planning policies. Implementing these recommendations will require the combined efforts of community stakeholders, development professionals and the planning staff as well as members of the advisory boards and the Town Council.

As a general rule, the time to engage in a major regulatory overhaul is after a planning effort -- such as the comprehensive plan update that Chapel Hill is beginning. This does not mean that the ideas in this report should be put on hold until after the plan updates are complete. There is still work to be done, some recommendations do not require additional policy input and the changes relatively simple to prepare. Likewise, there are other adjustments to the LUMO that are in the works or that are so closely related to other activities that are in the works that they should be completed before conclusion of the planning efforts.

The following pages contain a two-part implementation matrix. This matrix separates the recommendations into one of two categories: (1) Pre-Comprehensive Plan Revisions; and (2) Post Comprehensive Plan Revisions.

Pre-Comprehensive Plan Revision

Pre-Comprehensive Plan Revisions are recommendations that could feasibly be completed before the conclusion of the Town's comprehensive plan update. A recommendation is considered a pre-comprehensive plan revision if there is little or no additional policy needed to implement the change. For instance, formatting issues, minor adjustments to parking requirements and adjustments to certain regulatory triggers are changes that could be made with little to no additional policy input.

The Pre-Comprehensive Plan Revisions are further reviewed for complexity, parallel projects, and priority. Complexity considers the cost and time required to prepare the amendment only. It does not anticipate the cost or time of the adoption process. Parallel projects anticipate projects that are currently underway and have related code issues that should be addressed as part of their undertaking. The priority for each recommendation is determined based on the complexity of the recommendation, whether there are parallel projects and whether delaying implementation might result in undesirable outcomes. Once the full LUMO re-write is underway, all recommendations should be considered high priority.

Post Comprehensive Plan Revision

Recommendations that need additional policy direction or are complex and offer little immediate impact were classified as Post Comprehensive Plan Fixes. Having a public discussions about these recommendations during the planning process will arm the Town with policy direction needed to re-write the LUMO to be consistent with the shared community vision. Additionally, from an efficiency and fluidity of regulations perspective, Chapel Hill will have better results if planning staff focus primarily on the comprehensive plan and conduct most of the LUMO revisions as part of a comprehensive LUMO re-write. To help guide the planning discussions many of the Post Comprehensive Plan Revisions are accompanied by planning policy notes that outline planning considerations that should occur during the planning process.

Possible Pre-Comprehensive Plan Revisions	Com	plexity	Parallel Projects	Priority
Chapter 1. Organization & Usability				
Reformat the LUMO and establish a consistent numbering convention.	\$\$	© ©		Low
Maintain a digitally enhanced draft of the LUMO for download from the Town's website.	\$	ФФ		Medium
Move all definitions to the definitions article; remove requirements or standards from all definitions.	\$\$	© ©		High
Reorganize the LUMO into a more logical order, combining articles where necessary.	\$\$	© ©		Low
Edit the LUMO to eliminate unnecessary legalese and unclear provisions. $ \\$	\$\$	© ©		Medium
Update graphics and tables to more clearly convey information.	\$\$	© ©		High
Update the page lay-out to include running headers and footers, paragraph titles, and improved fonts.	\$\$	ФФ		Low
Increase use of digital cross-references to better link sections of the LUMO and point the user to additional regulations that may apply.	\$	© ©		Medium
Chapter 2. Districts & Uses				
Consolidate similar residential zoning districts.	\$	$\odot \odot \odot$		Low
Improve the readability of the LUMO's current use matrix and reorganize and update uses.	\$\$	ФФ		High
Evaluate impervious coverage and FAR standards to make sure they are accomplishing the intent of the districts.	\$\$	000		Medium
Chapter 3. Development Standards				
Widen the current planting strips in the Town's street cross-sections to better accommodate street trees and to buffer pedestrians from vehicular traffic.	\$	© ©	Complete Streets Program	High
Update residential parking ratios and regulate driveway separation and width.	\$	000		Medium
Update parking ratios for small scale commercial uses.	\$	$\Theta \Theta \Theta$		Medium
Develop parking locational standards for required residential parking.	\$	© ©		Low
Merge the Jordan Rules and the RCD and WPD overlay districts.	\$\$	© ©	Adoption and Implementation of the Jordan Rules	High
Update sections of the Town's Design Manual and Street Cross-Sections.	\$\$	© ©	Complete Streets Program	High
Chapter 4. Process & Administration				
Establish minimum professional criteria for membership on technical boards and commissions and require minimum training requirements.	\$	©	Advisory Board Review	High
Establish which elements of an application are binding.	\$	© ©		Medium
Revise triggers for concept plan review and for special use permits so that fewer projects require review.	\$	ФФ		Medium
Clearly state and graphically illustrate the approval process.	\$\$	(Development Review System	High
Shift common conditions of approval to standards within the LUMO.	\$	© ©		Medium

Cost

\$\$\$

\$ Staff resources\$ \$ Staff and addition

Staff and additional resources required
Significant additional resources required

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Technical fix (staff)

ФФ ФФФ

Time

Focused discussions needed (Advisory Boards / Sub-Committees)

⊕ ⊕ ⊕ Broad discussions needed (Public forums)

Pos	sible P	re-Comprehensive Plan Revisior	15		Com	plexity	Parallel Project	s Priority
Cha	pter 5.	The Big Ideas						
Appl	y a defini	tion of household.			\$	© ©		Medium
Evaluate and update residential parking requirements, particularly duplex standards.				\$	© ©		High	
Revisit a rental property license program.				\$\$	© ©		Low	
Allow for encroachment of certain green features into setbacks and height limits.			\$\$	© ©		High		
Establish a vehicle parking credit in exchange for long-term bicycle parking.				е	\$	O		Low
Craft standards for community gardens and urban farms as uses allowed by-right in certain residential districts.				llowed	\$	ФФ		Medium
Cha	pter 6.	Upcoming Text Amendments						
Reduce multi-family planned development size requirements from five acres to one acre.			n five	\$	© ©		High	
Adopt sign ordinance amendments.				\$	$\odot \odot \odot$		High	
Update outdoor site lighting standards.				\$	© ©		High	
Allov distri		I breakfast establishments by right in certain	residen	tial	\$	ФФ		High
	\$	Staff resources	a	Œ	Techni	cal fix (staff)		
Cost	\$\$	Staff and additional resources required	Time	\odot	Focuse	d discussion	s needed (Advisory Boards /	Sub-Committees)
	\$\$\$	Significant additional resources required	_	$\odot \odot \odot$	Broad	discussions r	needed (Public forums)	

57

Planning Policy Notes
 Discuss the appropriate context and character for certain areas of town during the planning process. Graphically model site dimensional standards to provide a better example of how the site dimensional standards relate to the designated context or character.
 Discuss the tolerance for allowing 2,500 to 3,000 square foot single family lots in select zoning districts during the planning process. Use graphic examples of cottage housing types during the discussion.
 Discuss the Town's tolerance for small lot residential when integrated with larger lot sizes and where cluster developments are appropriate. Calibrate incentives (reduction in lot size) so that they offset the cost of required common open space.
 Discuss the various intensities of mixed use districts and come up with a general palette of options during the planning process.
 Discuss community tolerances for reducing the amount of parking between the building and the streets along the commercial corridors.
• Identify where a rural character is desired, not large lot residential area.
• Identify the characteristics that are the most important to NCDs For example: height, massing, setbacks, garage placement, and others.
Survey the Town to identify typical block dimensions for various areas and identify where connections should have been made.
 Include typical block dimensions as part of the intent of future land use categories.
 Identify a general palette of building types within Chapel Hill. For Example: single family, duplex, townhouse, apartment, commercial, mixed-use, general, civic, industrial, open lot, and others.
• Identify conflicting adjacent land uses, building types and zoning districts.
• Discuss the various intensities of mixed use districts and come up with a general palette of options during the planning process.
 Identify potential growth centers or neighborhood centers where a form-based code or toolkit could benefit the desired outcome.

Post Comprehensive Plan Revisions	Planning Policy Notes
Chapter 2. Districts & Uses (continued)	
Incorporate select form standards into commercial and mixed use zoning districts.	
Evaluate the potential location of future industrial and materials handling districts and ensure that adequate standards are in place to address transitional and compatibility concerns.	
Evaluate the community's tolerance for non-residential uses in residential districts and other changes to the use matrix.	 Discuss possible non-residential uses that are acceptable within select residential districts. For example: art gallery, corner store without gas, coffee shop, post office, dry cleaning drop off, or other uses.
Develop a form-based toolkit for Chapel Hill and incorporate form-based elements into existing zoning districts.	
Chapter 3. Development Standards	
Enhance the site lighting requirements.	
Update and modernize the sign ordinance to account for changes in law and changes in technology.	Identify areas in need of special sign regulations.
Improve connectivity through the implementation of improved connectivity controls such as block standards.	 Survey the Town to identify typical block dimensions for various areas and identify where connections should have been made. Include typical block dimensions as part of the intent of future land use categories.
Develop Illustrated and contextually appropriate streetscape and street cross-section standards that promote the Town's complete streets policy.	• During the planning process, discuss linking street cross-sections to various contextual or character areas.
Develop neighborhood street cross-sections with on-street parking.	
Create a residential parking district plan.	
Update vehicle and bicycle parking ratios and the readability of the parking ratio table; implement a parking credit system.	
Modernize parking lot design standards.	
Improve and provide urban options for natural resources including stormwater, tree protection, and steep slopes.	
Chapter 4. Process & Administration	
Streamline the approval process by shifting from the current case-by-case approvals to more by-right approvals.	
Institute a system where certain adjustments to the standards and alternatives can be approved administratively.	
Re-think the site plan review process and consider a clear distinction between major and minor site plans.	
Eliminate the concept plan review process for most projects in favor of clearer standards.	
Minimize reliance on conditional use zoning districts and special use permits in favor of improved districts and development standards.	
Update nonconformities language to reflect the Town's tolerance for their continued existence.	

Post Comprehensive Plan Revisions	Planning Policy Notes
Chapter 5. The Big Ideas	
Modernize development standards to better reflect the community vision in hopes of reducing reliance on case-by-case development approval.	Identify and map a detailed palette of future land use categories.
Allow a more diverse array of housing types.	• During the planning process, discuss how to incorporate more diversity of housing types into single-family areas.
Amend landscaping requirements to allow for non-ornamental landscaping options.	
Incorporate standards that will improve connectivity and walkability within and between developments.	
Update development standards to allow for truly sustainable places by promoting the development of compact, walkable, mixed use and diverse places.	
Craft standards that allow for hidden density in existing residential areas and promote a diversity of housing types in new residential areas.	
Improve selection of urban streetscape and street cross-sections.	
Modify site dimensional standards, including setbacks, lot sizes, and FAR to allow for more compact development.	 During the planning process, discuss tolerances for compact development and new zoning districts that promote compact growth
Introduce urban form standards.	• During the planning process, discuss tolerances for urban form.

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