



**Agenda**  
**UDO Steering Committee**  
**Thursday, November 19, 2020**  
**12:00 PM**

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<b>Item</b>	<b>Topic</b>
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Join Zoom Meeting

<https://us02web.zoom.us/j/89311224189?pwd=TnBDWWVvUUZkdzJFdDRtRzIxVlkzdz09>

Meeting ID: 893 1122 4189 Passcode: 949738

1. Call to order
2. Review the October 29, 2020, committee meeting minutes
3. Project Website
4. Review meeting schedule
  - a. Third Thursday at Noon
5. Review Sections 6.5 and 6.6
6. Town Center Zoning District amendment update
7. Adjournment

The Town of Rolesville is committed to providing accessible facilities, programs and services for all people in compliance with the American with Disabilities Act. Should you need assistance or a particular accommodation for this meeting please contact the ADA Coordinator.



## Steering Committee Meeting Minutes

Date: Thursday, October 29, 2020

Time: 12:01 p.m.

### In Attendance

Mayor Ronnie Currin

Town Commissioner Jackie Wilson

Planning Board Vice-Chair Mike Moss

Econ. Dev. Mgr. Mical McFarland

Kelly Klepper Kimley Horn Consultant

Parks & Rec Advisory Board Derek Versteegen

Jeff Wollhueter

Planner II Julie Spriggs

Mayor Pro Tem Michelle Medley

Town Manager Kelly Arnold

Planning Board Member Davion Cross

Planning Director Danny Johnson

Rolesville Chamber Member Brad Walker

Timothy Nau

Andy Ammons

Planning Dev. Spec. Shelly Raby

### Introduction of Members

Town Manager Kelly Arnold welcomed everyone in attendance and thanked them for their participation. A brief roundtable of introductions ensued. Mr. Arnold noted the UDO information will be updated regularly on the town's website under the What's New? Plans in Progress tab on the Planning page: <https://www.rolesvillenc.gov/planning/whats-new-plans-progress>

### Committee Expectations

- Meet once a month (if not more)
- Agenda should be delivered up to a week prior
- Written comments will be shared in absence of participation
- Staff is always available to assist as needed

### Proposed Schedule

- Julie will email everyone a Doodle Poll to get an idea of what day of the week/week of the month works best for all, i.e. the 3<sup>rd</sup> Wednesday of the month, etc. If responses are received quickly, we may schedule a meeting in early November.

### Meeting Flow

- Each meeting will start with a brief review of the old section(s) before moving on to review the next section. Side reviews may also occur to gain a different perspective and address items as needed by others such as the HBA and Triangle J Council of Government, etc. to name a few.

### Review of Sections 6.5 and 6.6

- Mr. Johnson and Mr. Klepper noted the Table of Contents in the front of the packet. It was then pointed out we will not follow along in order, but rather jump to specific sections for review.

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- Fencing- the town does not currently permit fencing however, we do have standards set in our UDO to review aesthetics, uses, and placement such as dealing with property lines.
  - Mr. Wilson raised the question of subdivisions with covenants, and does the UDO override the covenants? A) Mr. Arnold- the ordinance is a minimum standard, the HOA is usually more stringent and it is up to them to enforce. Mr. Ammons agreed, the more restrictive one applies.
  - Mr. Walker mentioned if we want a certain type like a chain link fence restricted it needs to be spelled out. Mr. Moss agreed this needs section needs clarity.
  - Mr. Walker pointed out that we need to take into account those not in a development, and not being too restrictive for them. A) Mr. Johnson- Yes, those in the county, ETJ, commercial and industrial fencing are all called in to question.
  - Mr. Moss questioned underground fencing i.e. for dogs.
- Lighting- How much lighting should be allowed to maintain safety and security?
  - Mr. Versteegen asked if the light color had been considered i.e. amber, white, blue? A) Mr. Klepper- we don't typically get into color, we usually let the staff decide and refer to the foot-candle chart. Mr. Arnold questioned why not? A) Mr. Klepper- technology changes too quickly. Mr. Arnold asked how the foot-candle chart would be enforced? A) Mr. Klepper- with a measuring device. Mr. Versteegen noted the use of watts as a measurement should be pulled from the UDO, it's an example of how technology is changing.
  - Mr. Cross questioned if energy-efficient lighting can be referenced to solar renewable energy. A) Mr. Johnson- the town does not restrict solar equipment on rooftops. Mr. Walker questioned if street lights with solar on top are permitted? A) Mr. Klepper- not identified either way.
  - Commissioner Medley- has been contacted twice about potential solar farms in Rolesville. A) Mr. Johnson- that would require a text amendment, and it would need a site plan review for zoning. We prefer to wait for the UDO rewrite completion first.
  - Mr. Walker suggested a solar farm be added to and considered industrial.

### **Important items**

- Above ground vs Below ground fencing distinction
- Iron vs Aluminum and types of fencing needs clarification
- ROW's and property lines will be displayed on diagrams
- Mr. Arnold requested that it be easier to see what the current code is. Commissioner Medley was invited to stop by town hall to align her UDO.
- Mr. Versteegen would like to make the greenway a subsection of the street section and make it a primary feature of the UDO.
- Mr. Johnson will look into Solar Lighting on street lights.
- Mayor Currin would like it clear in the UDO what needs to be in new developments and make it a standard that a greenway path has to go along a creek, not around houses.
- Julie will look into a way to track and address the questions and concerns raised during the meetings.

### **Next Meeting**

Date and Time | To be determined when results are collected from the Doodle Poll.

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## Memorandum

**TO:** UDO Steering Committee  
**FROM:** Julie Spriggs, GISP, CFM, CZO, Planner II  
**DATE:** November 16, 2020  
**RE:** Item 3 Project Website

The Town of Rolesville website has a page dedicated to the Unified Development Ordinance and Community Transportation Plan projects. Please feel free to visit <https://www.rolesvillenc.gov/planning/whats-new-plans-progress> to stay informed.

You will find newsletters, maps, drafts, reports, meeting minutes, and meeting videos on the site. Our goal is to remain transparent throughout this process and ensure we are posting helpful and accurate information.

[Return to Agenda](#)

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Town of Rolesville

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## Memorandum

**TO:** UDO Steering Committee  
**FROM:** Julie Spriggs, GISP, CFM, CZO, Planner II  
**DATE:** November 16, 2020  
**RE:** Item 4 Meeting Schedule

Included in your packet is the Table of Contents for the draft Unified Development Ordinance. This is to help guide you as we review different sections. We will not be reviewing the sections in order, rather, we are reviewing sections by topic. We will start with fences and lighting. These sections are smaller and will give you a general idea of what to expect as we begin to gain momentum on our reviews.

Also included in your packet is the overall schedule for the Unified Development Ordinance. This chart will be a helpful reference for the committee as we move through our timeline to adoption of the ordinance.

You have received calendar reminders for the upcoming meetings. The schedule for the committee is as follows:

- November 19, 2020, Noon-1:30 PM
- December 17, 2020, Noon-1:30 PM
- January 21, 2021, Noon-1:30 PM
- February 18, 2021, Noon-1:30 PM
- March 18, 2021, Noon-1:30 PM
- April 22, 2021, Noon-1:30 PM
- May 20, 2021, Noon-1:30 PM

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# Rolesville Unified Development Ordinance Annotated Table of Contents

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## 1. INTRODUCTION

**Description:** This section includes introductory provisions for the UDO. Examples of subheadings and language to be utilized below.

### 1.1. TITLE

**Previously:** 1.2 (Title)

**Example Language:** This ordinance shall be known and cited as the Unified Development Ordinance of the Town of Rolesville, North Carolina, and will be referred to as “the Unified Development Ordinance”, “this Ordinance”, “UDO” or abbreviated references (“the UDO” or “this UDO”). This UDO is adopted pursuant to the authority contained in §160D-913 G.S., and as amended, and for the purpose or promoting the health, safety, morals, or general welfare of the citizens of the Town of Rolesville.

### 1.2. INTENT

**Previously:** 1.3 (Purpose)

**Example Language:** This UDO is adopted to protect and promote the public health, safety and general welfare of residents and businesses in the Town of Rolesville and implement the goals and recommendations within the adopted 2017 Comprehensive Plan. Specifically, this UDO intends to accomplish the following items:

- A. Provide regulations to support compatible, orderly growth and development within the Town;
- B. Support and encourage economic development;
- C. Promote the safety and well-being of the citizens of Rolesville;
- D. Ensure there exists the adequate provisions of open space;
- E. Improve the built environment and pedestrian considerations, including a policy of complete streets and emphasis on development which retains a walkable scale;
- F. Encourage development patterns that support a variety of housing stock and community forms;
- G. Allow for a mixture of uses in certain areas of the Town and promote compact urban form and walkability;
- H. Ensure sufficient land availability for public rights-of-way and utilities;
- I. Encourage increased densities in areas which can support an increase in dwelling units;
- J. Require for safe, compatible development through the use of development regulations.



### 1.3. AUTHORITY

Previously: 1.8 (Relationship to Existing Ordinances)

Example Language: Pursuant to the authority contained in §160D-913 G.S., and as amended, this UDO contains the Town's zoning, subdivision, flood damage prevention, and supplemental regulations, as authorized by the North Carolina General Statutes. This UDO is adopted in accordance with:

- A. North Carolina General Statutes;
- B. Town of Rolesville Charter;
- C. All other relevant laws including the laws of the State of North Carolina and any special legislation enacted by the General Assembly.

### 1.4 APPLICABILITY

Previously: 1.5 (Legal Status), Section 1.7 (Statute of Limitations), Section 3.10 (Vested Rights), Section 5.7 (Application of Regulations), Section 5.8 (Interpretation of Regulations)

### 1.5. JURISDICTION

Previously: 1.4 (Jurisdiction)

### 1.6. CONFLICT BETWEEN LAWS

### 1.7. MEANING OF TERMS

### 1.8. GRAPHIC IMAGES

### 1.9. CONFLICTING PROVISIONS

### 1.10 TRANSITIONAL REQUIREMENTS

Description: This section may discuss standards addressing existing applications in process at the time the new UDO is adopted.

### 1.11. ZONING DISTRICTS AND ZONING MAP ESTABLISHED

Previously: Article 4 (Zoning Districts)

### 1.12. SEVERABILITY

### 1.13. EFFECTIVE AND ADOPTION DATE



## 2. ADMINISTRATION

Previously: Article 2 (General Administration) and Article 3 (Development Review and Approval Procedures).

Description: This section includes all development review provisions and will utilize a review authority table charting out all applicable review and decision-making bodies. Recommendation and decision-making powers for each review and decision-making body will be included in each subsection. Review procedures for all UDO processes will be included in this section.

### 2.1. REVIEW AUTHORITY TABLE

Description: Table which charts out all review and decision-making bodies, and the processes in which they either review or make a final decision on.

### 2.2. REVIEW AND DECISION-MAKING BODIES

Previously: Article 2 and Section 7.5.3 (Stormwater Administrator). Any other references to a titled decision maker may also be added into this section.

- 2.2.1. Board of Commissioners
- 2.2.2. Planning Board
- 2.2.3. Board of Adjustment
- 2.2.4. Technical Review Committee
- 2.2.5. Town Manager (2.5)
- 2.2.6. Planning Director
- 2.2.7. Zoning Administrator
- 2.2.8. Subdivision Administrator
- 2.2.9. Stormwater Administrator

### 2.3. REVIEW PROCEDURES

- 2.3.1 Common Review Procedures

Description: Similar to Section 3.6.1 (Procedures), create a new section which condenses any common review procedures for specific procedures.

- 2.3.2. Specific Procedures

Previously: 3.1 (Zoning Permit), Section 3.2 (Certificate of Occupancy), Section 3.6 (Special Uses and Quasi-Judicial Evidentiary Hearings), Section 3.7 (Application to and Hearing by the Board of Adjustment), and any additional processes to be pulled into this section.

### 2.4. ENFORCEMENT



### 3. ZONING DISTRICTS

Description: This section will provide all zoning districts within the Town. The section will establish and define the purpose and intent of each district, and include all applicable development standards for each district. Each district may utilize its own chart/table for development standards to increase readability of the document. Districts will be organized into residential, commercial, industrial, conditional, special, and mixed-use groups for ease of reference and review. Each subsection will borrow from Section 5.2 (Table of Dimensional Requirements).

#### 3.1. GENERAL USE DISTRICTS

Description: All development standards (i.e. height, setbacks, building placement, lots, coverage, frontage, etc.) will be defined in this subheading; including representative graphics defining such terms.

#### 3.2. CONDITIONAL ZONING DISTRICTS

Description: All conditional zoning districts currently approved (and their required development standards?) will be included in this subheading. Define conditional zoning districts and their respective standards, but reference to the procedure of a conditional zoning district to Section 2 (Administration).

#### 3.3. SPECIAL DISTRICTS

Previous Sections: Section 6.1 (Watershed Districts), Section 6.2 (R& PUD District), Section 6.3 (Conservation Subdivision Option).

Description: All special districts such as planned districts, watershed districts, conservation districts and their required development standards will be included in this subheading.

#### 3.4. MIXED-USE DISTRICTS

Description: All mixed-use districts and their required development standards will be included in this subheading.

- Staff has desired the ability to have a downtown mixed-use district that combines the Downtown Commercial Zoning District and Town Center Overlay District into one district with use and design standards.
- To better align with the Comprehensive Plan's Land Use classifications, staff recommends three mixed-use districts. A rural, suburban, and urban mixed-use district.



## 4. OVERLAYS

**Description:** Early recommendations may explore removing duplicative overlays (if no longer serving a warranted purpose), but remaining overlays still in UDO will be placed in this section. For example, Town Center will be relocated to 3.6 above “Mixed Use Districts”. Each subheading will each district overlay district with their specific permitted uses and standards.

### 4.1 NEIGHBORHOOD CONSERVATION OVERLAY DISTRICT

**Previously:** Section 7.1.

Section 4.1.1. District Defined

Section 4.1.2. District Regulating Map

Section 4.1.3. District Development Standards

### 4.2. FLOOD DAMAGE PREVENTION OVERLAY DISTRICT

**Previously:** Section 7.2.

**Description:** Define authorization, finding of fact, purpose, objectives, definitions and general provisions for any property subject to flood damage prevention.

### 4.3. SPECIAL HIGHWAY OVERLAY DISTRICT

**Previously:** Section 7.6

Section 4.4.1. District Defined

Section 4.4.2. District Regulating Map

Section 4.4.3. District Development Standards



## 5. USES

Description: This section will contain the master allowable use table for all zoning districts. The master use table will have defined terms below, defining each use via characteristics, permitted accessory uses, examples, exceptions, and use standards.

Previously: Include Sections 8.3.1, 8.3.2, 8.3.3, 8.3.4, 8.3.5, 8.3.6, 8.3.8, 8.3.9, 8.3.10 (?), 8.3.11 (?) 9.2, 9.3, 9.4, 9.5, 9.9, 9.13 (?), 9.15, 9.16.

### 5.1. PRINCIPAL USES

### 5.2. ACCESSORY USES, STRUCTURES AND HOME OCCUPATIONS

Section 5.2.1. Introduction to Allowable Uses

Section 5.2.2. Use Determination

### 5.3. MISCELLANEOUS USES AND STRUCTURES

### 5.4. TEMPORARY USES AND STRUCTURES

### 5.5. USE TABLE

## 6. DESIGN AND DEVELOPMENT STANDARDS

### 6.1. MEASUREMENT STANDARDS

### 6.2. SIGNS

Description: All applicable sign regulations will be placed here.

Previously: Article 11

### 6.3. LANDSCAPING AND BUFFERING

Description: All applicable landscaping and buffering regulations will be placed here, including stream protection buffers.

Previously: Article 14

### 6.4. PARKING AND LOADING

Description: All parking and loading regulations will be placed here.

Previously: Article 10

### 6.5. FENCES AND WALLS

Description: All fence and wall related regulations will be placed here.

Previously: Section 14.6.9.



## 6.6. LIGHTING

Description: All lighting related regulations (footcandles, height, arrangement, special uses, etc.) will be placed here.

Previously: 14.8

## 6.7. ACCESS AND CIRCULATION

Description: All access management and circulation related items (access to lots, driveways, sight distance triangles, etc.) will be placed here.

## 6.8. COMPLETE STREETS

Description: New proposed complete street section and all required components will be placed here.

# 7. SPECIAL STANDARDS AND SPECIFIC CONDITIONS

## 7.1. TELECOMMUNICATION

Description: Telecommunication towers and small cell wireless facility standards will be placed here.

Previously: 8.3.11.

## 7.2. ELECTRONIC GAMING OPERATIONS

Description: Current ordinance language on electronic gaming operations will be contained here.

Previously: 8.3.10

## 7.3. DESIGN STANDARDS

Description: A new proposed design standard section which may remove the need for duplicative standards throughout the code will be placed here. Requirements for active use areas, limitations on blank walls, requirements for transparency and building articles, and more will be defined here.

Previously: Any previous design standards for particular uses, 14.2.2.

## 7.4. WATER TOWERS

Description: Existing standards will be placed here.

Previously: 9.8



## 8. STORMWATER MANAGEMENT STANDARDS

Previously: Section 7.5. and any desired changes will be placed here in the format below.

### 8.1. General Provisions

### 8.2. Definitions

### 8.3. Administration and Procedures

### 8.4. Standards

## 9. UTILITIES

Previously: Sections 9.6 and 9.7 and requested changes will be placed here.

## 10. TRAFFIC IMPACT

Previously: Section 9.11 and requested changes will be placed here. May explore connecting in some way to Complete Streets section.

## 11. SUBDIVISION STANDARDS

Previously: Article 15 will be placed here.

### 11.1 Introductory Provisions

### 11.2 legal Provisions

### 11.3. Subdivision Plats

### 11.4. Required Improvements and Standards of Design

## 12. NONCONFORMITIES

Previously: 5.10

## 13. GENERAL DEFINITIONS

Description: All general definitions and shortened abbreviations will be placed here.

Previously: Article 16



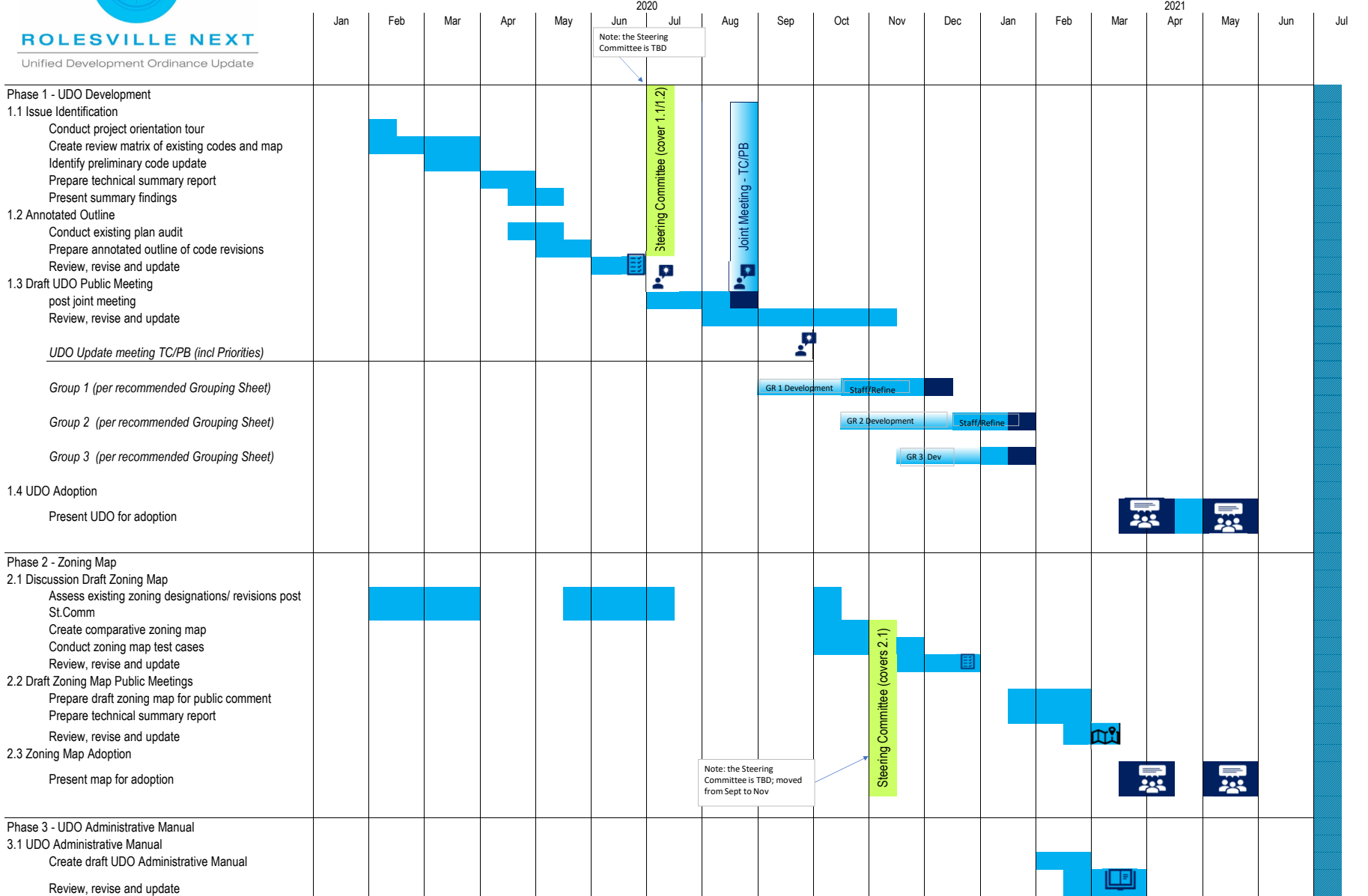




**ROLESVILLE NEXT**  
Unified Development Ordinance Update

**TENTATIVE SCHEDULE - Updated September 10, 2020**  
Original Schedule w/minimal shifting of meetings/initial review periods  
Virtual Meeting(s) Options including Steering Committee  
Public Hearings

Note: per information available, potential extension of 1600 implementation til July 1, 2021





## Memorandum

**TO:** UDO Steering Committee  
**FROM:** Julie Spriggs, GISP, CFM, CZO, Planner II  
**DATE:** November 16, 2020  
**RE:** Item 5 Review of Sections 6.5 and 6.6

Included in your packet are the revised sections for Fences and Lighting. These sections were revised based upon comments made during our meeting on October 29, 2020.

Section 6.5 Fences and Walls is the proposed new regulations for fences and walls. This short section includes the purpose and intent for the section, and general standards such as materials, placement, and prohibited items.

Section 6.6 Lighting is a section on the lighting specifications that will be required for all development in the town. There are provisions for non-conformities, prohibited lighting, details required on a lighting plan, intensity standards, and lighting standards for certain areas such as building exteriors and parking areas.

Please review both sections and be ready to discuss if you were able to understand the sections easily, if there are standards you disagree with or are missing, if there are conflicts or errors, and if there other standards that may need to be proposed.

## 6.5. FENCES, WALLS, AND BERMS

\* Updated Section after comments from staff and committee.

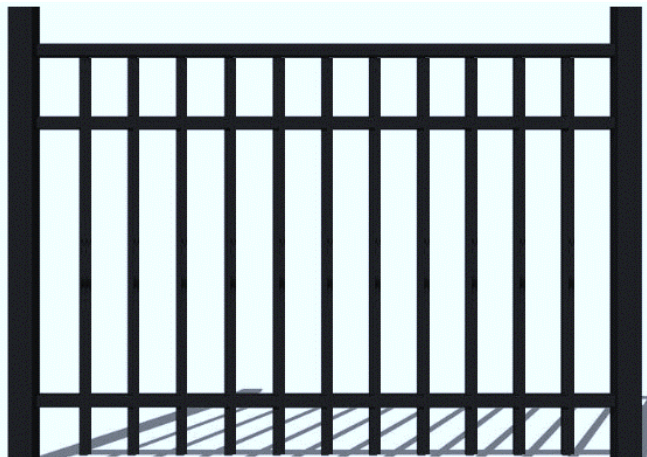
- A. **Purpose and Intent.** The purpose of this Section is to establish standards for construction or replacement of all fences, walls, and berms within the Town on individual lots or developments. The standards of this Section protect public safety while promoting aesthetic quality. The intent of this Section is to:
1. Ensure the safe and aesthetically pleasing construction of fences, walls, and berms.
  2. Provide for public safety, security, and privacy; and
  3. Allow for high quality designs for fences, walls, and berms used as transitions between public and private spaces.
- B. **Applicability.** The standards of this Section shall apply to all construction or replacement of fences, walls, and berms. Reviews of fences, walls, and berms are required per 6.5.D: Review.
- C. **Exemptions.** The following are exempt from the standards of this Section:
1. Internal garden areas in residential districts;
  2. Bona fide farm purposes and agriculture activities, as set forth in G.S. 160D-903 and where permitted by the UDO;
  3. Fences for active construction sites, where a permit has been issued by the Town;
  4. Silt fencing used during construction;
  5. Fencing used for tree protection; and
  6. Fences required around swimming pools by the North Carolina Building Code.
- D. **Review.**
1. Review of all fences, walls, and berms applicable under this Section shall be reviewed during the site plan process for any new development or building.

2. Review is not required for individual single-family or two-family dwellings for fences, walls, and berms. Review for fences, walls and berms for subdivisions however shall be required.

#### E. General Standards.

1. **Materials.** Fences and walls shall be constructed of high-quality materials including brick and stone, stucco over concrete masonry blocks, treated wood, wrought iron/aluminum, composite fencing, or PVC vinyl. All other materials are prohibited.

Figure 6.5.1. Wrought Iron/Aluminum Material (Illustrative Example)



2. **Design.**
  - a. All fence support structures must be located on the inside of the fence covering material.
  - b. All fences and walls shall be installed with the finished side facing towards the exterior or adjoining properties and rights-of-way.
  - c. All fences and walls shall be constructed in accordance with the North Carolina Building Code.
3. **Maintenance.** Fences, walls, and berms shall be maintained in the state in which they were approved. Any missing or deteriorated portions shall be replaced or

repaired as necessary. No fence, wall, or berm shall pose a threat to people or property due to neglect or lack of repair.

4. **Height.** Height shall be measured from the finished grade for all fences, walls and berms.
  - a. The maximum height of a fence or wall shall be eight (8) feet in nonresidential zoning districts. Exceptions may be granted for unique uses such as sports venues, utilities, or where required for the safety of pedestrians or motorists.
  - b. The maximum height of a fence or wall within required rear and side setbacks shall be six (6) feet in residential zoning districts. Fences and berms are not permitted in front setbacks unless a subdivision fence or wall is permitted in a site plan for a subdivision.
  - c. Subdivision walls along the perimeter of residential development are permitted to be a maximum of eight (8) feet in height and shall have a minimum setback of eight (8) feet.
  - d. Height requirements for berms are defined in Section 6.5.F: Specific Berm Standards.
  - e. An additional maximum one (1) foot of height may be permitted for decorative details including posts, columns, light fixtures and the like.
5. **Colors.** Bright colors, including orange, yellow, and red, are not permitted for permanent fences or walls.
6. **Location.**
  - a. No fence, wall, or berm may encroach into a public right-of-way or inhibit motorist visibility or site triangle.
  - b. Fences, walls, and berms shall not block any required ingress or egress point.
  - c. Fences, walls, and berms shall not inhibit access to fire hydrants.

- d. Fences, walls, and berms may encroach into required setbacks.
  - e. Fences, walls, and berms may encroach into town owned easements. Encroachments shall be parallel to the easement. The landowner shall remain liable for any repair or replacement to the fence, wall or berm if damage occurs while performing activities in the easement.
7. **Setbacks.** Fences, walls (excluding a subdivision wall), and berms, are exempt from setback requirements. However, a berm may not be constructed so that any portion of berms slopes extends over the property line.
8. **Drainage.** Fences, walls, and berms shall not alter, impede, or affect the natural flow of water in any stream, drainage swale, or easement.
9. **Landscaping.**
- a. For any fence or wall above four feet in height, the property owner (or HOA or similar group) shall landscape the area between the street side of the wall or fence and the right-of-way line if within five (5) feet of the right-of-way line. Landscaping shall comply with Section 6.3.4: Landscaping Standards.
  - b. For any subdivision wall, required landscaping shall include sufficient quantities, types, heights and densities of materials to provide at least 50 percent opacity within five years of planting, and shall be maintained at 50 percent or greater opacity thereafter. All other fences and walls shall utilize evergreen shrub plantings, plant material and ornamental grasses to be planted and maintained.
  - c. Required landscape buffers shall be planted within sixty days of the completion of the wall.
  - d. Maintenance of the landscaping shall be the responsibility of the owner, HOA, or similar group.

**F. Prohibited Fence and Wall Items.**

1. **Electric Fences.** Electric fences are only permitted in conjunction with bona fide agricultural activities as set forth in G.S. 160D-903 and where permitted by the UDO, unless stated otherwise in this UDO.
  - a. Warning signs shall be required on all-electric fences and meet all safety and emergency services requirements.
  - b. Underground electric fences that are used in conjunction with electric transponder collars for pets may be permitted in all districts.
2. **Barbed Wire Fences.** Barbed wire fences are only permitted in conjunction with bona fide agricultural activities as set forth in G.S. 160D-903 and where permitted by the UDO or may be approved as part of a site plan permit if deemed necessary to protect the public health and safety in association with utility structures, landfills, airports, law enforcement, or similar civil uses.
3. **Tarps and Silt Fencing.** Tarps and silt fencing utilized during construction shall not be permitted (i.e. shall be removed) after completion of construction.
4. **Smooth-Face Concrete.** Smooth-face concrete, which has not been stucco treated, shall not be permitted for any fence or wall.

**G. Specific Berm Standards.** Berms shall conform to the following standards:

1. **Berms In Required Setbacks.** Berms may be located in required setbacks or easements; however, the landowner shall remain liable for any repair or replacement to the berm if damage occurs while performing activities in the easement.
2. **Grading of Berms.** Berms shall not exceed a grade of one (1) foot of rise in three (3) feet of length.

3. **Landscaping.** Berms, which may also feature walls as permitted in Section 6.3.4: Landscaping Standards, of this UDO, shall be landscaped and meet all landscape requirements.
4. **Height.** Berms shall not exceed a total of eight (8) feet above the toe of the berm.
5. **Flat Top.** Berms shall have a minimum two (2) foot flat top width at the top of the berm height.
6. **Drainage.** Berms shall not drain onto neighboring yards and cause undue pooling of water. Runoff shall be directed into appropriate drainage easements or facilities.
7. **Fences and Walls On Berms.** Fences and walls that comply with the standards of this Section may be permitted on top of a berm and comply with the following standards:
  - a. In designs where a fence or wall is located on top of a berm, the maximum fence or wall height permitted shall include the height of the berm, as measured from the toe of the slope of the berm.

#### 6.5.2. Berm (Illustrative Example)





## 6.6. LIGHTING

\* Updated Section after comments from staff and committee.

- A. **Purpose and Intent.** The purpose of this Section is to regulate the intensity of exterior lighting for all types of buildings, individual lots and developments. This Section intends to provide standards to prevent light from excessively illuminating other properties and street rights-of-way, minimize glare, reduce light pollution, protect the night skies, and to minimize other adverse impacts from light intensity.
- B. **Applicability.** All new development shall comply with the standards of this Section. The following shall also apply in instances of repairs, renovations or additions:
1. **Minor.** When a site area is improved by 10% or less, lighting subject to the standards of this Section is required only for the additional improved site area.
  2. **Major.** When a site area is improved by greater than 10%, both the additional area and existing area must conform to the lighting standards in this UDO.
- C. **Nonconforming Lighting.** Lighting that does not comply with the standards of this Section that was permitted before the adoption date of this UDO shall be considered nonconforming. Any modifications or replacement of such lighting shall conform to this UDO, subject to 6.6.B.
- D. **Exemptions.** The following are exempt from the standards of this Section:
1. Residential lighting that is not part of a site plan or subdivision plan, for single-family and two-family dwellings;
  2. Security lighting required for public spaces consistent with *Crime Prevention Through Environmental Design* (CPTED) or similar safety requirements;
  3. Lighting for permitted temporary uses;
  4. Special events and holiday displays;
  5. FAA-required lighting on buildings and telecommunication towers;
  6. Public street lighting;
  7. Temporary lighting for construction work and/or emergency personnel;

8. Lighting for flags; and
9. Underwater lighting used for swimming pools and/or fountains.

**E. Prohibited Lighting.**

1. **Awning/Canopy Lighting.** Awnings and canopies used for building accents, such as over doors and windows, shall not be internally lit, i.e., from underneath or behind the awnings and canopies. Gas stations are exempt from this standard (see Section 6.6.M: Gas Station Lighting).
2. **Flashing Lights.** Lights that flash, move, rotate, blink, flicker, vary in intensity, or color, or use intermittent electrical pulses are prohibited.
3. **Floodlights.** Floodlights, spotlights, or any other similar lighting shall not be used to illuminate buildings or other site features unless approved as an integral architectural element on the site plan.
4. **Tube Lighting.** Tube lighting in the form of neon or rope lighting is prohibited on building exteriors and along façade trims where it defines a window, door, or elevation.
5. **Traffic Control.** Lighting that is similar or can be confused as being a traffic control device.

**F. Review and Lighting Plan.** All development subject to the standards of this Section shall require a lighting plan. Plans shall be reviewed for compliance during the site plan and/or subdivision process. Before a certificate of occupancy is issued, the applicant shall supply the Town with a final letter of certification from the lighting engineer and/or manufacturer verifying that all site lighting is installed according to Town standards, the approved plans, and any applicable conditions. Lighting plans, at minimum, shall comply with the following:

1. **Licensed Engineer.**
  - a. The plan must be prepared by a licensed engineer;
  - b. Shall be signed and sealed; and

- c. Shall be of an engineered scale that is easily legible.
2. **Plan Requirements.** To facilitate dark-sky provisions, appropriate source light shielding is required in order to minimize glare and protect dark skies, while facilitating better vision at night. A lighting plan must show:
- a. All proposed and existing buildings on the site;
  - b. Pedestrian and vehicular areas;
  - c. Other above-ground improvements;
  - d. The horizontal location of all proposed and existing outdoor lighting fixtures, including pole and wall-mounted fixtures;
  - e. Mounting heights of each fixture;
  - f. Overall height of each pole above grade;
  - g. Fixture details;
  - h. Location of externally illuminated signs and associated fixtures; and
  - i. The location of all architectural and landscape lighting fixtures.
3. **Illumination Values.**
- a. Lighting plans shall be specified and calculated in maintained footcandles (FC), unless specified otherwise in this Section. Measurements of light levels shall be taken at finished grade with an accurate and calibrated light meter.
  - b. The plan must include a footcandle plan that provides typical footcandle contours and a point photometric grid that indicates footcandle levels measured at grade across the site. Maximum, average and minimum site foot-candles, uniformity ratio (average and minimum), and depreciation factors also are required. The plan must show initial horizontal illuminance values in foot-candles for the area to be illuminated.

- c. These values must be calculated at grade and include contributions from all onsite fixtures.
  - d. The plan must plot foot-candles of illumination at ground level to the nearest tenth of a foot-candle, and at horizontal grid intervals of no more than ten feet.
  - e. The plan shall show illumination level at the lot line (or perimeter of a development, if applicable) to ensure maximum illumination levels are not exceeded.
4. The manufacturer's cut sheets (specifications) for each proposed fixture must be submitted.
  5. A lighting fixture schedule that presents the following information:
    - a. Fixture type, including the manufacturer's product identification catalog number.
    - b. Fixture mounting height.

#### **G. General Design Standards.**

1. All lighting fixtures shall be constructed and designed to prevent light from emitting upwards toward the dark night sky.
2. All fixtures, except for streetlighting fixtures, including security lighting, must be cutoff fixtures. Cutoff fixtures shall project all its light in a downward motion.
3. Canopy lighting fixtures shall be designed to be completely recessed within the canopy.
4. All fixtures must be incorporated into the building or site as an integrated design element through the use of common or complementary style, material, and color.
5. Interior fixtures used to light the interior of parking garages must be shielded to prevent light spilling from the garage.
6. Light fixtures on the top deck of a parking garage may not exceed 15 feet in

height and must be shielded to prevent light spilling from the boundary of the garage deck. Rooftop lighting of parking garages must be setback a minimum 15 feet from the perimeter of the rooftop parking structure.

7. Lighting for permitted rooftop uses (such as a restaurant or lounge) shall be pedestrian in scale and not exceed 12 feet in height (this does not include any FAA mandated lighting). Rooftop lighting fixtures used for permitted rooftop uses shall be located toward the center of the rooftop, away from its edges and not face outward. Safety lighting may be utilized along walls or rails. All lighting shall be designed to effectively eliminate glare, shielded to prevent light spilling over the side of the building, and shall be turned off when the rooftop area is not in use.
8. Walkways, bikeways, parks and trail lighting, and pedestrian facilities such as building connections shall be lit at a maximum 0.2 FC.
9. Wall packs on buildings may be used at entrances to a building or to light potentially unsafe areas. They should not be intended to draw attention to the building or provide general building or site lighting. Wall packs shall be fully shielded, cutoff type fixtures with concealed light sources. The lighting must be directed downward.
10. Loading/unloading docks shall only be illuminated by fixtures which feature full cutoff design and shall be affixed to an outside building wall or pole.
11. All outdoor lighting fixtures not mounted on buildings (i.e. ground based) shall be located a minimum of 10 feet from a property line or right-of-way line and should be no closer than 2 feet from any required perimeter or streetscape buffer. Undergrounding service is encouraged.
12. Light fixtures shall not exceed 30 feet in height in vehicle use areas (such as rights-of-way and parking areas). Additional standards for parking areas are defined in Section 6.6.J.
13. Light fixtures shall be 12-15 feet in height in nonvehicular pedestrian areas (such as sidewalks).

14. An illustrative example of permitted light fixture heights is provided in Figure 6.6.1

Figure 6.6.1. Lighting Fixture Height Illustrative Example



#### H. Lighting Intensity Standards.

1. Table 6.6: Specific Lighting Standards, defines specific standards for lighting intensity based upon the use involved.
2. The table is organized by uses and permitted maximum values are presented in allowable foot-candles (FC). Maximum illumination is required to be maintained (measured horizontally) at grade and is to be averaged throughout the site to avoid hot spots and ensure illumination values at the edge of the development area.
3. Illumination shall not exceed the maximum illumination permitted at the edge of any lot line (i.e. property line), unless permitted elsewhere in this UDO.
4. Where a single development occupies multiple lots, the maximum illumination shall be required around the perimeter of the development.

Table 6.6. Specific Lighting Standards

Use	Maximum Illumination at Property Line
Single-Family/Two-Family Residential	1.0 FC
Multiple Family Residential	1.5 FC
Mixed-Use Developments	2.5 FC
Civic Uses (See Permitted Principal Use Table)	6.0 FC
Commercial Uses (See Permitted Principal Use Table)	5.0 FC
Office Uses (See Permitted Principal Use Table)	5.0 FC
Industrial Uses (See Permitted Principal Use Table)	2.0 FC
Infrastructure Uses (See Permitted Principal Use Table)	2.0 FC
Residential Sidewalks	0.3 FC
Non-Residential Sidewalks	0.8 FC
Vehicle Use Areas	1.0 FC
Primary Entrances	5.0 FC at entrance
Secondary Entrances	1.0 FC at entrance
Loading Docks	15.0 at loading dock
Storage Areas (Active)	5.0 FC
Storage Areas (Inactive)	1.0 FC

- I. **External Building Lighting Standards.** External building lighting shall comply with the following standards:
1. Fixtures that decoratively light a building or wall may not light above the parapet of the building or the top of the wall.
  2. Landscape and decorative lights are hereby made exempt from this subsection.
  3. Floodlights, spotlights, or any other similar lighting shall not be used to illuminate buildings or other site features unless approved as an integral architectural element on the development plan.
  4. On-site lighting may be used to accent architectural elements but not used to illuminate entire portions of building(s) or sign(s).
  5. Where accent lighting is used, the maximum illumination on any vertical surface or angular roof surface shall not exceed 5.0 FC.
  6. Building façade and accent lighting will not be approved unless the light fixtures are carefully selected, located, aimed, and shielded so that light is directed only onto the building façade and spillover light is negligible.
- J. **Parking Area Lighting Standards.** Lighting is required within parking areas. The height of light fixtures within a parking area shall comply with the following standards:
1. Parking area lighting fixtures shall be required to stagger the heights of light fixtures so that the tallest fixtures are in the center of the parking lot, and the lowest heights are at the perimeter of the parking lot.
  2. Light fixtures height shall not exceed 30 feet within the center of a parking area and shall decrease height to 12 to 15 feet at the boundary of the parking area.
  3. To avoid conflict in layout, parking lot lighting must be coordinated with parking area landscaping.
  4. Lighting design shall be coordinated with the landscape plan to ensure that vegetation growth will not substantially impair the intended illumination.



Figure 6.6.2 Parking Area Lighting Standards Illustrative Example



- K. **Sign Lighting Standards.** All external lighting for signs shall be designed and located to assure there is no spillover light. Sign lighting, including ground mounted stop lights, shall not exceed 5.0 FC. Signs shall be in compliance with Section 6.2: Signs.
- L. **Athletic Field Lighting Standards.** Lighting for athletic fields may be in excess of permitted fixture heights and illumination levels. Recreation lighting levels established by *Illuminating Engineering Society of North America (IESNA)* are to be used as the standard for all athletic field lighting. Higher lighting levels for tournament or high league play are sometimes required and must be approved by the Planning Director or their designee. All sports fields, areas, or courts must meet the following minimum standards:
1. Fixtures must be fitted with manufacturer's glare control package.
  2. Lighting shall be turned off no later than one hour after any event ends.
  3. Fixtures must be designed with a sharp cutoff and aimed so that their beams fall within the primary playing area and the immediate surroundings, so that off-site direct illumination is significantly restricted.
  4. Sports fields may have lighting fixtures a maximum 80 feet in height.

5. Spillover levels at the field property lines shall not exceed 0.3 foot-candles.

**M. Gas Station Lighting.**

1. All light fixtures for gas stations that are mounted on the lower surface of canopies must be fully shielded in and of themselves (canopy edges do not qualify as shielding).
2. Light fixtures mounted on canopies shall be recessed so that lens cover is recessed or flush with the bottom surface (ceiling) of the canopy or shielded by the fixture or the edge of the canopy so that light is restrained to seventy degrees (70°) or less from vertical.
3. Lighting levels shall be no greater than 12.0 FC at the edge of the canopy.
4. Areas outside service station pump island canopy shall be illuminated so that the maximum horizontal luminance at grade level is no more than 10.0 FC.

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