600 West Fourth Street Davenport, Iowa 52801-1106

Email: planning@scottcountyiowa.com

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SCOTT COUNTY PLANNING AND ZONING COMMISSION AGENDA

Tuesday, September 7, 2021

Scott County Administrative Center

1st Floor Board Room
600 W Fourth Street
Davenport, Iowa 52801
5:00 P.M.

OTHER PARTICIPATION OPTIONS:

Connect Via Phone:

1-408-418-9388 Event number: **2486 838 9185** Password: **1234**

Connect via Computer, or Webex application:

Host: www.webex.com Event number: 2486 838 9185 Password: 1234

Link to meeting (click): Scott County Planning & Zoning Commission Meeting 09-07-2021

Full link (copy & paste):

 $\underline{https://scottcountyiowa.webex.com/scottcountyiowa/onstage/g.php?MTID=ea9e862f142ed6bde5}\\c28a3e982f7fcfc$

Please find call-in instructions, agenda, and meeting materials here:

https://www.scottcountyiowa.gov/planning/planning-zoning-commission/meetings

- 1. Call to Order
- **2. Minutes:** Approval of the March 16, 2021 meeting minutes.
- 3. Discussion of Utility Scale Renewable Energy Regulations
- 4. Discussion of Lighting Regulations
- **5.** Other business: Additional comments or issues to discuss (Commission members) / Opportunity for public comments

6. Adjournment.

Public Hearing/Meeting Procedure

- a. Chairman reads public notice of hearing.
- b. Director reviews background of request.
- c. Applicant /Representative provide any additional comments on request.
- d. Public may make comments or ask questions.
- e. Director makes staff recommendation.
- f. Applicant may respond or comment.
- g. Commission members may ask questions.
- h. Chairman closes the public portion of the hearing (No more public comments).
- i. Discussion period for the Commission members.
- j. Commission members make motion to approval, deny, or modify request.
- k. Final vote. Recommendation goes to Board of Supervisors.

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SCOTT COUNTY PLANNING AND ZONING COMMISSION MINUTES

Tuesday, March 16, 2021 Virtual Only 5:00 P.M.

Commissioners present: Scheibe, Piatak, Maxwell, Schneckloth, Rochau

All Commissioners participated virtually.

Commissioners absent: Stewart, Armstrong

Public: Mark Judy (12 Tally Ho Road), Joan Petersen (8 Oakwood Drive),

Ellen Baugh (7 Tally Ho Road)

Staff: Tim Huey, Taylor Beswick

Applicants: Justin Wagner

*Meeting was conducted only via Webex/teleconference

1. Call to Order

Chair Scheibe called the meeting to order at 5:05 P.M.

2. Minutes: Approval of the February 2, 2021 meeting minutes.

Maxwell motioned a vote to approve the minutes as presented. Piatak seconded.

Vote: All Ayes (5-0). Minutes approved.

3. Site Plan Review - Creative Outdoors, LLC

Site plan review for a landscaping business, coffee shop, and tree nursery from Justin Wagner DBA Outdoors, LLC. The proposed development is located on Lot 3 and Lot 4 of Terrell's 1st Addition (Parcel # 851803304) and currently addressed 17827 244th Avenue, Bettendorf. Both Lot 3 and Lot 4 combined are 4.1 acres, more or less, and are currently zoned Commercial Light-Industrial (C-2). The proposed development shows separate parking access via 244th Avenue for the landscaping business building and coffee shop. The development area is legally described as on Lot 3 and Lot 4 of Terrell's 1st Addition or part of the E½NW¼ of section 18 Pleasant Valley Township.

Chair Scheibe introduced the item and asked for the Staff's review.

Beswick presented the context and summary of the site plan.

Chair Scheibe asked for any comment from the applicant. Justin Wagner had some questions concerning the pavement and inspection for the parking pavement. Staff responded that the County Engineer gives the final approval, but the plan as submitted is sufficient.

Chair Scheibe asked for the staff's recommendation.

Staff recommends that the Site Plan be approved for the proposed commercial storage, tree nursery, and drive thru coffee shop with the following conditions:

- 1. Septic and wells on the development site be inspected by the Scott County Health Department and/or the Iowa Department of Natural Resources, as required;
- 2. The parking and circulation areas be hard surfaced in accordance with the County Engineer's requirements within one paving season of the occupancy of the building
- 3. That light spillage be minimized for any lighting at the warehouse area and the coffee shop area; and
- 4. That any significant changes or expansion to this proposed use or the construction of additional buildings require additional approval of a site plan review.

Maxwell made a motion to approve the Site Plan with four (4) conditions as recommended by staff. **Schneckloth** seconded.

Vote: Approved (5-0). Site Plan approved with four (4) conditions.

4. Discussion of County Road Name Change: Coonhunter's Road

Huey presented an application from himself to change the name of Coon Hunter's Road to Hunter's Road.

Chair Scheibe asked any members of the public to state their name and address and give public comment for or against the proposal.

Mark Judy (12 Tally Ho Road), Joan Petersen (8 Oakwood Drive), and Ellen Baugh (7 Tally Ho Road) all opposed the change for multiple reasons including sentimental value and disruption of mail delivery. The three members also spoke on behalf of a number of residents who live in Hickory Hills Subdivision. Connection issues to the meeting caused many not able to join.

After hearing opposition and the technical issues from members of the public, **Maxwell** made a motion to table item. Seconded by **Schneckloth**. **Vote: 5-0 in favor of tabling the item.**

5. Other business: Additional comments or issues to discuss (Commission members) / Opportunity for public comments

Members of the Commission congratulated Mr. Huey on his retirement. Members of the Commission also wished Mr. Beswick good luck on his future position with the City of Bettendorf. This was the last meeting for both staff members.

6. Adjournment. Meeting was adjourned with a motion and a second at 5:50 P.M.



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Christopher J. Mathias, Director



To: Planning & Zoning Commission

From: Christopher Mathias, Planning & Development Director

Date: September 3, 2021

Re: Continued Discussion on Utility Scale Renewable Energy Facilities

The Planning & Zoning Commission (P & Z) discussed utility scale renewable energy facilities with previous Scott County staff earlier this year. According to the minutes, that discussion ended with four commissioners (of the 6 present) not in favor of solar farms being considered in Scott County ag zoning districts. One was in favor of considering it and one was undecided. We have continued to get calls from Alliant Energy as they pursue a utility scale solar farm in Scott County. We have also received calls from a few concerned citizens and others in the solar industry. As I haven't had a chance to meet with you on this topic since my hire, I would like to present the idea to you again to get more detailed thoughts from you on how we should move forward.

As Tim Huey told you before, enacting regulations for utility scale wind and solar electric generation facilities would require both Comprehensive Plan amendments and Zoning Ordinance amendments. The Scott County Comprehensive Plan does encourage clean, renewable and efficient energy but it also encourages natural resource and agricultural protection, as well as many other objectives which should all be considered.

Currently the Zoning Ordinance addresses large wind generators (turbines with capacity greater than 100KW) as a Special Permitted Use in both A-P and A-G. Utility scale solar facilities have not been addressed. Individual solar panels that generate electricity for a house or buildings have been determined to be a permitted accessory use or an ag exempt accessory use to a farming operation. Small wind generators (less than 100KW capacity) are a permitted use in A-P and A-G and Special Permitted Use in R-1.

Issues and impacts to be considered and addressed by both Comp Plan & Zoning Ordinance amendments:

• Ag Production and Ag Preservation

How will it affect the productivity of the soil? Will it lead to erosion? How will a large utility scale solar and wind farms fit into the agricultural areas of the County? Is this a use we want in those areas?

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• Visual impacts

While not much can be done to "screen" large wind turbines, the visual impact is still a factor. For solar panels, fencing, landscaping, lighting and other visual impacts of solar facilities can be addressed.

• Layout and siting of facilities

The separation distances and property line setbacks for both wind turbines and solar panels would need to be considered. Each type of generator likely would call for different standards, where the minimum separation of wind turbines may be established so that they are dispersed across the landscape, the maximum separation distance for solar panel be established to ensure the maximum utilization of ag land within the minimal area required.

• Construction, maintenance

The impacts on County roads would need to be addressed at all three stages of the development and operation of both wind and solar facilities. The staging of construction and temporary storage of materials should be addressed. The monitoring of maintenance and methods to keep the facilities operating and appropriately maintained could be included in any regulations. The type of surety and allowance for inflation for the decommissioning of such facilities should be required.

• Decommissioning of facilities

I've heard many representatives of the utility companies talk about decommissioning of facilities. Their argument is that Scott County's ag-preservation policies are not a huge factor because these utility-scale facilities can be removed in 20-30 years and the land can go back to an agricultural use. When will these facilities be decommissioned and how will that affect the long term soil quality?

• Environmental issues

Storm water management, erosion control, turbine noise and flicker, snow drifting caused by solar panels and other impacts of such facilities should be addressed.

Floating Overlay District

If a Utility Scale Renewable Energy floating zone was created it could address both wind and solar facilities. It could be used similar to the Ag Commercial Service floating (ACS-F) zone and a determination of the appropriateness of a particular location could be made and the conditions and requirements for approval could put in place. For example, the ACS-F zone has certain criteria such as, distance from a paved road, or requiring a certain distance of line of sight. If the main concern with solar farms is the preservation of farm land, Scott County could create a renewable energy floating zone with one of the criteria being an average CRS2 rating of 60 or under. A number of criteria and conditions could be added to ensure that these uses only locate in certain areas.



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Christopher J. Mathias, Director



What Have Other Counties Done:

Louisa County

Louisa County is the site of a rural Wapello solar farm. The 100-megawatt utility scale solar facility covers approximately 800 acres and consists of over 350,000 solar panels. Central Iowa Power Cooperative (CIPCO) is the operator and is located two miles south of Wapello next to US-61. Prior to approval, Louisa County approved an amendment to their comp plan, approved a text amendment to their zoning ordinance, and approved a Special Use Permit through their Zoning Board of Adjustment.

Linn County

Linn County currently allows utility scale solar installations and wind farms are permitted with a Conditional Use Permit, on approval by the Board of Adjustment. Recently, a text amendment was proposed to regulate utility scale solar installations through a Renewable Energy overlay zoning district. The basis for the amendment is staff believes the approval authority for these types of projects, which often encompass hundreds of acres and involve multiple interest groups, is more appropriately placed in the purview of the Board of Supervisors who serve as elected representatives of county residents.

Summary

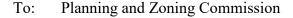
Our plan for Tuesday's meeting is not to advocate for or against utility scale renewable energy in Scott County. We want to discuss these issues with the Commission to get your opinions as we have all new staff that have not had a chance to discuss this with you. If P & Z unanimously and unequivocally thinks that consideration of any regulations to allow solar farms in A-P zoned areas is contrary to our ag-preservation policies we should identify that early on without expending a lot of effort on regulations that would not be adopted.

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Christopher J. Mathias, Director



From: Chris Mathias, Planning Director

Date: September 1, 2021

Re: Lighting Regulations for Scott County

I have been approached by Audrey Claussen regarding Scott County's lack of lighting standards. Audrey is a concerned citizen and I have included a write up from her regarding concerns and desires for a lighting ordinance in Scott County. While we do not see a great deal of commercial development in the County, I was surprised to learn that we do not have any specific lighting standards in place. I do believe that the County needs something to regulate lighting for commercial businesses, and possibly other types of uses. I will address Ms. Claussen's requests in the memo below and propose some minimal standards that I believe the County should consider.

Ms. Claussen's three main requests are:

- 1) "All new businesses with new lighting in Scott County must have an approved lighting plan that limits their light pollution/spillage..." Staff agrees with this point for the most part. When a new development occurs that requires site plan review, a lighting plan should be submitted for review by Planning and Development staff. There should be lighting standards that dictate the cutoff angle and the maximum illumination at the property line (in footcandles).
- 2) "Any new business moving into an existing commercial property and doing renovations to that property would also meet the new lighting ordinance." This could be a little more complicated as 1) this instance would not necessarily trigger a site plan review and 2) without the site plan review, Staff may not be aware of the change.
- 3) "Any existing business properties in Scott County that change their old lighting to new lighting...must also meet the requirements of the Ordinance." Staff have the same concerns as with point number two but obviously there would be even more properties falling into this category where P and Z staff may not know lighting changes are happening until they are installed and the Planning Dept. received a complaint.

Items 2 and 3 are similar in that under those scenarios, Scott County would be requiring all new lights to meet the ordinance, even if no site plan review is required. Enforcement could be difficult as we already have 468 square miles in the County, the requests would come in on a complaint only basis, and many of the enforcement checks would have to happen at night. However, Staff acknowledge that one bright light can ruin someone's enjoyment of their home and private



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property. Staff believe that we should look into passing a lighting ordinance that would apply to all land uses, except for one and two family residential and agricultural uses. This ordinance would include limits to the brightness at the property lines, by requiring a photometric plan (in certain cases) to verify the brightness at the property lines. We would want to give some consideration to when a photometric plan is required due to cost to the applicant. The ordinance would also specify the height limitation of lights and the cut off angles or limits to where the lights can shine.

I have included the ordinances for the City of Davenport as well as for Polk County, Iowa. This will give you a sense of what other communities are doing to regulate lights. They also provide some images. We still have some details to work out on enforcement. How would we enforce at night from a staffing and over time stand point. If levels of brightness are debated, how do we get a scientific and fact based reading on if the light is too bright? These are questions we can continue to research but Staff would like some feedback on if you think lighting regulations would be a good addition to our zoning ordinance.

Attachments:

- 1) Proposal and Background from Audrey Claussen
- 2) City of Davenport Lighting Standards
- 3) Polk County, Iowa Lighting Standards
- 4) Photometric lighting plan example
- 5) Scott County Zoning Map Showing the few commercial areas we have



Proposed Light Pollution/Spillage Ordinance for Scott County, Iowa

I have learned from personal experience in June 2010 and again in December 2020 that Scott County has no light pollution regulations or ordinances to control unwanted light from being directed at or spilling onto residential properties near commercial property sites or lighting up the night sky.

Since LED lighting is the way of the future and it is much brighter than sodium, fluorescent or incandescent lights, I believe we must have a way to regulate the direct and indirect light produced by LEDs for the privacy, security, safety and comfort of all residential and commercial properties, as well as limiting light pollution in the night sky. Commercial properties do not need to light the nearby residential properties, nor do residential property owners need to light their neighbor's properties.

Bottom line: If the light bulb(s) inside the light fixture can be seen by neighbors, that light bulb(s) must be permanently shielded, or the fixture directed downward/inward onto the owner's property only. Common courtesy needs to be extended to all neighbors; residential and commercial alike. No one wants someone else to light up their property, especially in the county where people move to get away from city lights and sounds to enjoy the privacy and quiet of country living. We all know the city is expanding and businesses are moving to new locations in the county, but those businesses must be respectful of their neighbors and consider the effects their business has (lighting, noise, traffic, etc.) on residents already living there.

Proposed Light Pollution/Spillage Ordinance for Scott County Iowa:

- 1. All new businesses with new lighting in Scott County must have an approved lighting plan that limits their light pollution/spillage to no more than 10 feet outside their property line and definitely no up-shining lights that could be a hazard to air traffic. The lighting fixtures must be adjustable and aimed at the business property and light spillage will not exceed 10 feet onto neighboring residential or commercial properties. If new light fixtures are not adjustable, they must have a shield that directs light only onto the business property. After the construction has been completed, an inspection of the lighting must be done during dark hours and if noncompliant, it must be rectified to meet the guidelines of the Ordinance.
- 2. A new business moving into an existing commercial property and doing renovations to that property, which may include outside lighting, should be made aware of the light pollution/spillage ordinance when they are issued a permit for the property renovations. When renovations are completed, an inspection of the lighting must be done during dark hours and if non-compliant, it must be rectified to meet the guidelines of the Ordinance.
- 3. Any existing business properties in Scott County that change their old lighting to new lighting, i.e., sodium, florescent or incandescent light bulbs to LEDs, must also meet the requirements of the Ordinance because it is a change in lighting and must fall under the scope of "new lighting" in Paragraph 1 in the proposed Light Pollution/Spillage Ordinance for Scott County Iowa. If the business is using old fixtures that cannot be adjusted to direct the light onto their own property or shield light from neighboring properties, the fixtures must be changed to comply with the ordinance. Since existing businesses do not have to go to Scott County Planning and Development for a permit to change lighting/light bulbs, if neighbors living near the business complain about the lighting change, that business must be inspected during dark hours for compliance to the Ordinance.

Personal Background Information About Why Scott County Iowa Needs an Ordinance

My husband and I live north of a storage unit facility just outside the Davenport city limits in Scott County. We own an almost 4-acre bare property between our house property and the commercial storage unit facility property. In 2010 new storage units were built south of the existing storage unit facility (equipped with red sodium lights and owned by someone else). We were made aware of it by a letter from Planning & Development. After the units were completed and lights were installed, those LED lights shone onto our property and into our windows that faced those units. I attended a board meeting because the owners were requesting to add more new units and we had received another notification letter to that effect. At that meeting, I objected to the LED lights shining onto our property and it was determined by the board that the owners shield the LED lights. Because they were not movable fixtures and were attached directly to the outside walls of the buildings, the owners painted the lenses of the light fixtures to limit the light spillage onto/into our property. All was good until the paint wore off the lenses and then we had to learn to live with the direct bright lighting.

In December 2020, the lights on the older units (closest to us) were changed from red sodium to LEDs. A new owner had purchased both the older and newer storage facilities located at that site. They had taken out the fencing and security gate between the older units and the newer units and reinstalled fencing and a security gate to service the combined storage facilities, but the gate (which we can see) is never closed at night when no one is there in the facility office. They have been experiencing a lot of break-ins and their idea of preventing break-ins to the units was to install LED lights and "light up the world", rather than use the security gate they had installed. The lights they installed on the older units had fixtures that could be aimed, yet when the LED lights were installed, the fixtures were at about a 45-degree angle and aimed directly at our property to the north and the neighbor's property to the west. We could see the LED bulbs inside the light fixtures and the intensity was blinding! They cast direct bright light onto our house, in our windows, into our back yard and patio area, which was an invasion of our privacy. It was like daylight. Totally unacceptable!

Common sense and common courtesy should have prevailed, but when we visited the folks at the office of the storage facility (3 times) regarding the lights shining into our windows and onto our property and asked them to re-aim the lights downward onto only their property, they said they needed to prevent break-ins and they did not need to change the lights "because they were a business".

That is when I called Planning & Development, remembering the results my speaking at a meeting had with the previous owners of the newer units in 2010. I was hoping a precedence had been set for units located at that site and there had been. The new owner was called by Planning & Development regarding the lighting complaint and was told of the precedence set in 2010. The owner complied and the north- and west-facing lights were aimed down to the ground and onto their property. The east-and south-facing lights are still at about 45-degree angles and cast direct light onto the I-280 off ramp, US Highway 61. In my opinion, all the lights should have been aimed down and only onto the storage facility property, but there is not a specific ordinance in Scott County that requires that. Their lights are still polluting/spilling over onto property that is not theirs.

It is very evident to me that a Light Pollution/Spillage Ordinance is needed soon in Scott County so other residents of the county do not need to go through this with their neighbors, commercial and/or residential.

17.09.020. Exterior lighting.

A. Lighting Plan Required.

- 1. A lighting plan is required for all non-residential uses, multi-family, and townhouse dwellings as part of site plan review. Single-family and two-family dwellings are exempt from a required lighting plan but are subject to applicable lighting requirements.
- 2. A lighting plan must include the following:
 - a. A plan showing all light pole locations, building-mounted lights, bollard lights, and all other lighting.
 - b. Specifications for luminaires and lamp types, and poles, including photographs or drawings of proposed light fixtures.
 - c. Pole, luminaire, and foundation details including pole height, height of building-mounted lights, mounting height, and height of the luminaire.
 - d. Elevations of the site including all structures and luminaires sufficient to determine the total cut off angle of all luminaires and their relationship to abutting parcels may be required.
 - e. Photometric plans that show the footcandle measurement at all lot lines.
 - f. Other information and data reasonably necessary to evaluate the required lighting plan.

B. Maximum Lighting Regulations.

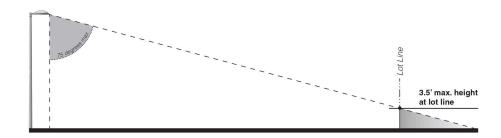
- 1. The maximum allowable footcandle at any lot line is one footcandle.
- 2. When additional security lighting is required for security reasons in excess of the footcandle limit imposed by item 1 above, additional lighting may be allowed based on evidence for the need for additional security through site plan review.
- 3. No glare onto adjacent properties is permitted.

C. Luminaire with Cut Off Standards.

- 1. To be considered a cut off luminaire, the cut off angle must be 75° or less.
- 2. The maximum total height of a cut off luminaire, either freestanding or attached to a structure, is 25 feet.
- 3. A cut off luminaire must be designed to completely shield the light source from an observer 3.5 feet above the ground at any point along an abutting lot line.

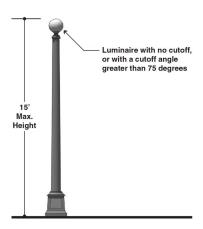
17.09.020

LUMINAIRE WITH CUT OFF



- D. Luminaire with No Cut Off Standards. Non-residential uses, multi-family, and townhouse dwellings are allowed decorative and/or architectural lighting with no cut off if approved as part of site plan review, and subject to the following standards:
 - 1. A luminaire is considered to have no cut off if it is unshielded or has a cut off angle greater than 75°.
 - 2. The maximum permitted total height of a luminaire with no cut off is 15 feet.

LUMINAIRE WITH NO CUT OFF



- E. Exceptions to Lighting Standards.
 - 1. Uplighting of buildings is allowed but all light must be directed onto the facade of the structure and cannot glare onto other properties.
 - 2. Because of their unique requirements for nighttime visibility and limited hours of operation, outdoor recreational facilities (public or private) such as, but not limited to, football fields, soccer fields, baseball fields, softball fields, tennis courts, golf driving ranges, show areas, and other similar uses are exempt from the requirements of this section. Recreational facilities are permitted a total luminaire height of 65 feet in any district. Luminaires greater than 65 feet in total height may only be approved by special use permit.

17.09.020

- 3. Temporary uses.
- 4. Holiday and seasonal lighting is not subject to the requirements of this section.
- 5. Luminaires used for public roadway illumination are not controlled by this ordinance.
- 6. All temporary emergency lighting required by public safety agencies, other emergency services, or construction are exempt from the requirements of this ordinance.

F. Prohibited Lighting.

- 1. Flickering or flashing lights are prohibited.
- 2. Searchlights, laser source lights, or any similar high intensity lights are prohibited.
- 3. Neon or LED lighting to outline doors, windows, architectural features, and building facades is prohibited except for the following:
 - a. In the C-D Downtown Zoning District, subject to Design Review Board approval.

Article 12. Exterior Lighting Division 1. Purpose

Article 12. Exterior Lighting

Division 1. Purpose

The purpose of this Article is to ensure lighting is safe, restricts glare, and limits light encroachment onto adjacent properties by regulating the spill-over of light and glare on persons operating motor vehicles, pedestrians, and land uses in the proximity of the light source. Exterior lighting shall restrict and divert glare and keep light from encroaching into the road right-of- way and beyond property lines.

With respect to motor vehicles in particular, safety considerations form the basis of the regulations contained herein. In other cases, both the nuisance and hazard aspects of glare are causes for the regulation.

Section 1. Exemptions

Public Street lighting shall be exempt from the standards of this ordinance. Public Street Lighting shall conform to the standards set forth by the Iowa Department of Transportation and the Polk County Secondary Roads.

Section 2. Restrictions

- (A) No flickering or flashing lights shall be permitted.
- (B) Light sources or luminaries for nonresidential uses when adjacent to residential zoned property shall not be located within bufferyard areas except on pedestrian walkways.

Section 3. Exterior Lighting Plan Required

Lighting plans shall be required for all non-residential development. The lighting plan shall be submitted at the time of site plan submittal or at the time of electrical and/or building permit if a site plan is not required. Lighting Plans will be reviewed to determine whether the requirements of this Section have been met and that adjoining property will not be adversely impacted by the proposed lighting.

- (A) The lighting plan shall be prepared by a certified architect, landscape architect or lighting designer.
- (B) The lighting plan shall show the proposed location of exterior light, proposed foot candles on a minimum 10' x 10' grid, elevation drawings showing the light pole height, type of fixture, cut-off and projected angle.

Section 4. Exterior lighting options

Exterior lighting shall be a No cutoff, Total cutoff up to ninety (90) degrees, or total cutoff of light at an angle less than ninety (90) degrees. The lighting shall meet the standards set for each type of fixture.



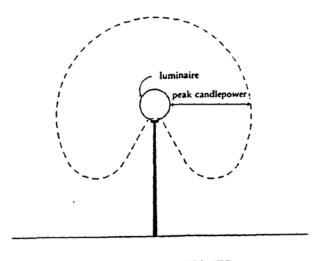
(A) No Cutoff light fixture

When a light source or luminary has no cutoff (see illustration below), the maximum permitted illumination and the maximum permitted luminary height shall be:

Table 12.1 No Cutoff fixture

Use and District	Max. Permitted Illumination (in footcandles)	Maximum Permitted Height
All residential in		
all districts All non residential in	.20	10 ft.
AG, AT, ER, MU, GC, NB, MH	.20	15 ft.
All nonresidential		
in LI and HI	.30	20 ft.

- (1) Exterior lighting fixtures frequently produce unsightly glare. At times, the glare may even result in a safety hazard. The standards imposed by this Section are designed to reduce the hazard and nuisance of these fixtures.
- (2) Lighting on uses adjacent to residential zoning districts shall not exceed .2 footcandles at the property line. This requirement shall also apply to residential properties adjacent to residential properties.



NO CUTOFF LUMINAIRE



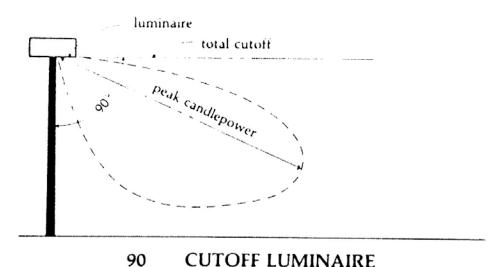
(B) Total cutoff of an angle up to ninety (90) degrees light fixture

When a luminary has total cutoff up to ninety (90) degrees (see illustration below), the maximum illumination and the maximum permitted luminary height shall be:

Table 12.2 Total cutoff of an angle up to ninety (90) degrees fixture

Use and District	Max. Permitted Illumination (in footcandles)	Maximum Permitted Height
All residential in all districts	.30	15 ft.
All non residential in AG, AT,ER,RR	.50	20 ft.
All nonresidential in LDR, MDR, HDR, MU, NB,GC, MH	.75	25 ft.
All nonresidential in LI and HI	1.50	35 ft.

- (1) This standard is designed to ensure that no light is emitted above a horizontal line parallel to the ground. In order to achieve total cutoff at ninety (90) degrees, such a luminary shall emit maximum (peak) candlepower at an angle not exceeding seventy-five (75) degrees. This angle is formed by the line at which maximum candlepower is emitted from the light source and a line perpendicular to the ground from the light source.
- (2) Lighting on uses adjacent to residential zoning districts shall not exceed .2 footcandles at the property line. This requirement shall also apply to residential properties adjacent to residential properties.





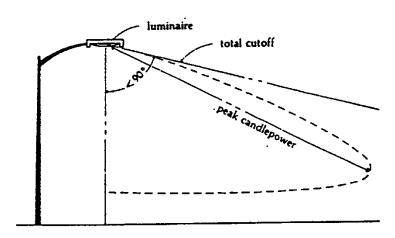
(C) Total cutoff of light at an angle less than ninety (90) degrees light fixture

When a luminary has total cutoff of light at an angle less than ninety (90) degrees (see illustration below) and is located so that the bare light bulb, lamp, or light source is completely shielded from the direct view of an observer five (5) feet above the ground at the point where the cutoff angle intersects the ground, then the maximum permitted illumination and the maximum permitted height of the luminary shall be:

Table 12.3 Total cutoff of light at an angle less than ninety (90) degrees fixture

Use and District	Max. Permitted Illumination (in footcandles)	Maximum Permitted Height
All residential in all districts	.50	20 ft.
All nonresidential in AG, AT,ER,RR	1.00	25 ft.
All nonresidential in LDR, MDR, HDR, MU, NB, GC, MH	2.00	30 ft.
All nonresidential in LI and HI	4.00	50 ft.

- (1) This type of light fixture may be taller and provide greater illumination than the other two (2) types specified previously, because the design of this fixture ensures that its light source will not be directly visible off-site.
- (2) Lighting on uses adjacent to residential zoning districts shall not exceed .2 footcandles at the property line. This requirement shall also apply to residential properties adjacent to residential properties.



LUMINAIRE WITH LESS THAN 90 CUTOFF



Division 2. Outdoor Recreational Uses

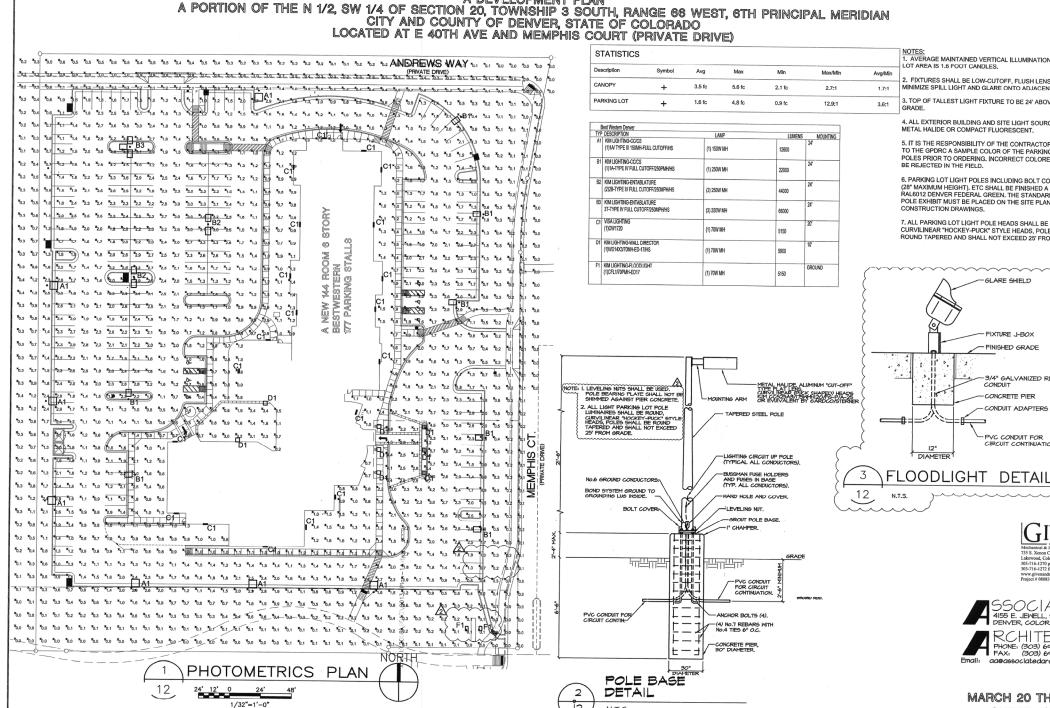
Ball diamonds, playing fields, and tennis courts have unique requirements for nighttime visibility and generally have limited hours of operation. These uses may be exempted from the exterior lighting standards of Section 4 if the applicant can satisfy the Board of Adjustment, upon site plan review, that the following requirements are met:

- (A) The site plan must meet all other requirements of the Exterior Lighting Standards and of this Ordinance; and
- (B) Any exterior light sources shall not exceed the maximum permitted post height of eighty (80) feet; and
- (C) If the luminary is shielded in either its orientation or by a landscaped bufferyard to prevent light and glare spill-over to adjacent residential property, then the luminaries may exceed a total cutoff angle of ninety (90) degrees. The maximum permitted illumination at the interior bufferyard line shall not exceed .2 footcandles.

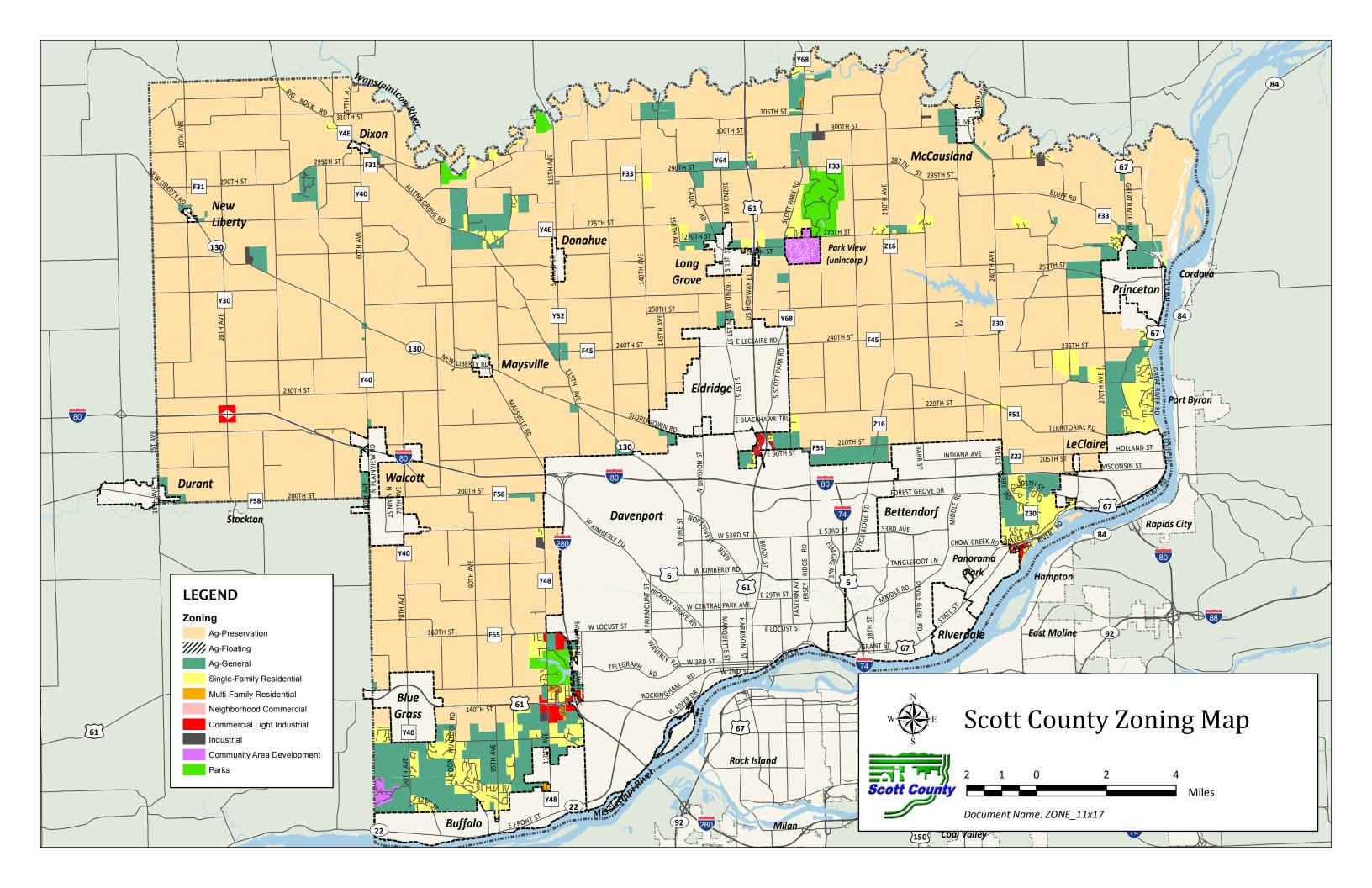


BESTWESTERN- GATEWAY PARK

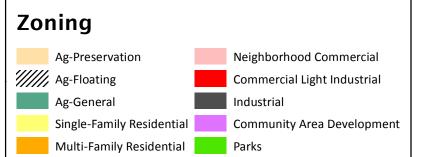
A DEVELOPMENT PLAN



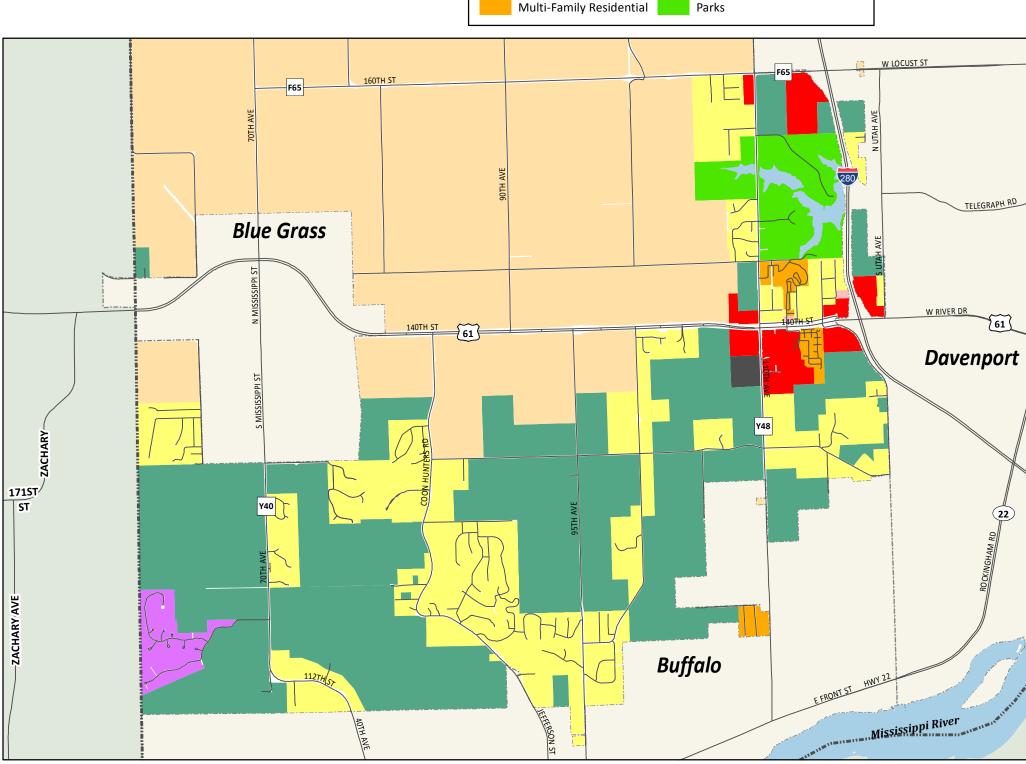
N.T.S.

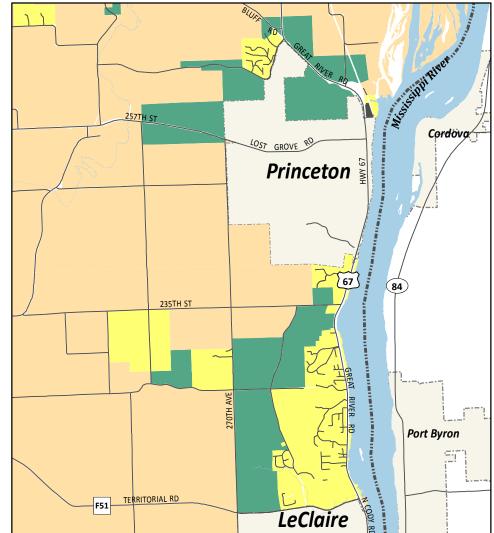




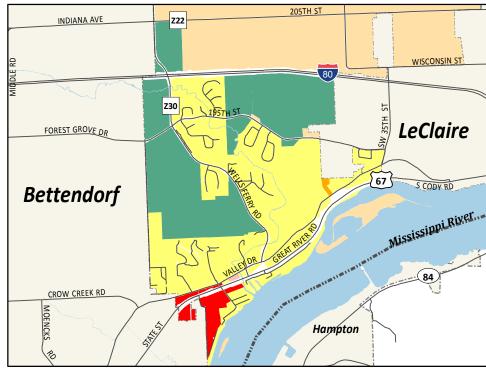








LeClaire/Princeton Inset



Pleasant Valley Inset

Buffalo/Blue Grass Inset